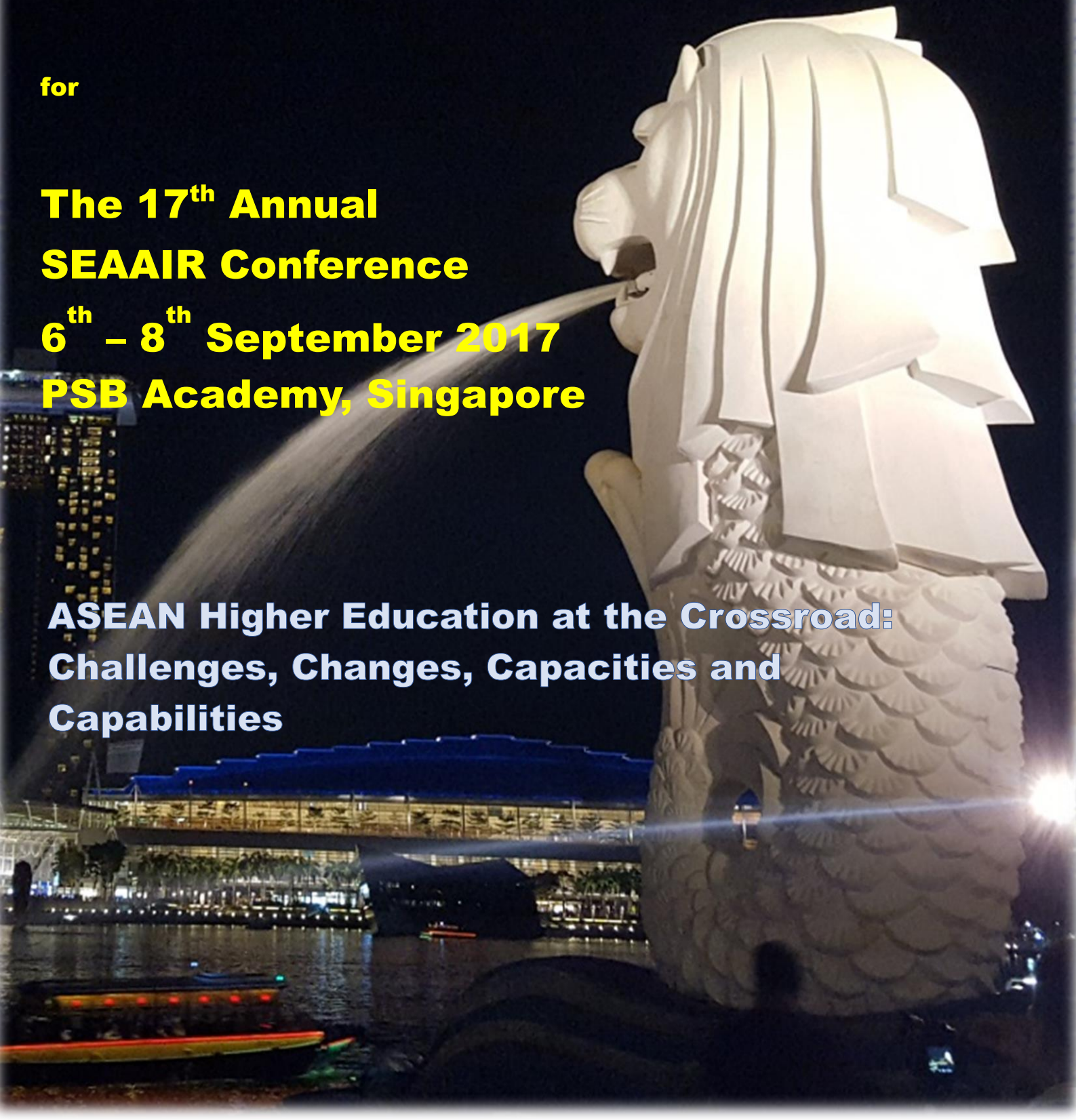


Proceedings of The Annual SEAIR Conference

for

**The 17th Annual
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PSB Academy, Singapore**

**ASEAN Higher Education at the Crossroad:
Challenges, Changes, Capacities and
Capabilities**



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MESSAGE FROM PRESIDENT OF SEAAIR



Dear delegates of SEAAIR 2017 Conference,

On behalf of SEAAIR, I would like to extend a very warm welcome to all participants of the 17th Annual SEAAIR 2017 Conference in Singapore, and in welcoming our 6th member country joining the ranks of SEAAIR when ASEAN reached 50.

For SEAAIR 2017, 149 Researchers from 14 countries submitted a total of 95 papers that underwent rigorous reviews leading to a final acceptance of 54 full papers for 2017. The 2017 Conference theme, "*ASEAN Higher Education at the Crossroad: Challenges, Changes, Capacities, and Capabilities*" highlights key challenges of higher education institutions to be more attuned to multifaceted challenges facing the institutions in developing the students' capacity and capabilities. A review and renewal of educational values need to be instilled and embedded in our education systems and equipping students to be self-sufficient while helping the national economies towards a better world in the future.

SEAAIR conferences have always aimed to bring together policy-makers, academics, researchers, practitioners and managers in higher education institutions. It continues to aim to expand academic and networking relationships, provide and share new academic, cultural and learning experiences through collaborative efforts via Institutional Research. SEAAIR has grown from strength to strength over the past 17 years to provide a balance of quality academic papers and the rich culture as offered and shared by each host institution anchored in Malaysia, Thailand, Indonesia, the Philippines, Vietnam and now Singapore. We fully believe that SEAAIR will continue to benefit and build on the academic and cultural learning and sharing in ASEAN@50.

It is hoped that everyone will enjoy the conference's learning and sharing, the local favorite hot spots, cuisine and cultural spots and the hospitality of the rich traditions and cultures of Lion City State. To add to your experience at SEAAIR 2017, the local organizing committee has worked hard to create not only academic but also enjoyable and memorable cultural reckonings of Singapore.

We sincerely thank the LOC members and team for taking up the challenge in hosting SEAAIR and all participants in making the 2017 SEAAIR Conference in Singapore a resounding success. Happy sharing and learning throughout.

Thank you and I remain,



Assoc. Prof. Teay Shawyun, Ph.D
President, SEAAIR

**MESSAGE FROM DEAN AND HEAD
SCHOOL OF BUSINESS & MANAGEMENT
PSB ACADEMY**



A warm welcome to our conference delegates from across the region. For the past 17 years, we have sought to rally and confront some of the most ambitious issues and challenges in higher education in ASEAN. I urge you to continue to keep an open mind as we delve into the topics presented by our colleagues, as we engage in some of the most compelling changes affecting our industry today. It is perhaps a timely reminder that ASEAN celebrates its golden jubilee this year. Our cultural and political differences notwithstanding, we've evolved so much as an economic and financial community. Events like these celebrate our diversity and capture the indomitable spirit and vision for growth in this alliance. We hope that in a sense, during your time here, you will be impassioned by this notion and belief in the future of innovation-driven education in our region, as digitization signals our biggest wave of change yet. While uncertainty and volatility will test a new generation of learners, I'm certain that our work in transforming the teaching and learning sciences, will equip the workforce of the future with the resilience and agility required to face new challenges.



Dr. Sam Choon Yin
Dean and Head Sch of Business & Management
PSB Academy

Contents

Investigating the Revolution of Educational Models, Policies, and Practices:

New Magnitudes

Compliance with the Child Protection Policy: A Case of an Augustinian Academic Institution of Higher Education in the Philippines <i>Karen L. Zamora, Dennis V. Madrigal, and Araceli C. Doromal</i>	2
Participatory Knowledge Sharing of Local Challenges to Develop Research Problems Regarding Rice Production in Chainat Province <i>Pattaraporn Kitchainukoon, Staporn Tavornativat, Woranart Duangudom and TuanTongkeo</i>	10
Lived Experiences of Higher Education Instructors in Senior High School: Challenges and Impact on Professional Development <i>Mark Airon P. Creus, Mary Ann B. Gatpandan, Janet Jay N. Amboy and Gina B. Dulce</i>	18
Challenges: What Challenges in HEIs? <i>Teay Shawyun and Somkiat Wattanasap</i>	30
Improving internationalization through English-medium Instruction at Vietnamese Universities: The case of Foreign Trade University <i>Nguyen Thu Hang</i>	41
Developing a Theory of Motivation Scale: An Exploratory Factor Analysis <i>Ma. Florecilla C. Cinches, Ruth Love V. Russell, Judith C. Chavez</i>	51
A Training Scheme for College Communicative Teaching <i>Charito Ong and Cipriana Flores</i>	61
Toward Reconciling Challenges and Capabilities of Higher Education in Indonesia <i>Dyah Kusumastuti and Nirwan Idrus</i>	70
Counselors' Attitudes toward Online Counseling: The Implications to Students' Attitudes on Online Counseling <i>Mateo R. Borbon, Jr and Maria Loida Faye C. Borbon</i>	78
School Based Feeding Program: It's Impact on the Academic Performance of Severely Wasted Pupils S. Y. 2015 – 2016 <i>Joefel S. Horca and Arcely M. Lucero</i>	89
Measuring Implementation of a Pedagogy: Scale Development and Validation <i>Judith C. Chavez, Miguela B. Napiere</i>	95
EduSMART Model for Nurturing Talent of Sustainable Smart Cities <i>Deepak L. Waikar</i>	104

Applying the Innovative Teaching, Learning, Assessment Techniques, and Technologies: New Scales

The AUL Millennials' Verbal Hygiene Practices: Indicators of Their English Language Proficiency <i>Susana C. Cabredo and Dominic Bryan S. San Jose</i>	112
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Curriculum Review based on the Outcome-Based Education (OBE) Philosophy: A Case Study of Teaching Mechanical Engineering at University of Newcastle, Singapore <i>Koh Yit Yan, Chong Perk Lin</i>	122
Aligning Course Assessments with Expected Learning Outcomes: A Content Analysis of the Course Assessment Practices in Business Courses <i>Violeta C. Valladolid</i>	130
The Relationship Of Knowledge And The Use Of Information Technology Towards Blended Learning Among Teacher Trainees <i>Tajularipin Sulaiman, Siti Nadiatul Akma Mahadzir, and Suzieleez Syrene Abdul Rahim</i>	140
PROJECT JOY - Joyful Learning that develops Outmost Literacy in Yearning eradicated non-readers: An intervention program to improve the reading level of selected Grade1 pupils of Silang West Elementary School <i>Jocelyn M. Contreras</i>	147
Does different Inventories tell the similar stories? A comparison of Different Learning Style Inventories on students in the higher education <i>Chua Yaw Long, Koh Yit Yan</i>	157
Analysis of the Licensure Examination Ratings of the Education Graduates of De La Salle University-Dasmariñas <i>Olivia M. Legaspi and Necitas F. Sayoto</i>	163
Digital Divide in Thai Academic Community: A Case Study of Thailand's Large Public University <i>Narintip Chalardpodjanaporn and Maedhawi Anywat-Napong</i>	172
Teaching Children's Literature: The Write and Draw Practice <i>Ma. Cecilia D. Alimen</i>	181
Project Refun: a School-to-School Partnership on Reading Comprehension <i>Joie E. Buendia1 and Maria Bernadette C. Peji</i>	188
Student Competencies on the Utilization of DLSU-D Library's Online Resources: A Basis for Enhancement of the Information Literacy Program <i>Sonia M. Gementiza, Sharon M. Samaniego, Mary Ann J. Salvador, Mae Lyn Q. Baron, Jerome Buhay, Joebert A. De Paz, Ethel M. Torres</i>	196
Digital Readiness for Thailand 4.0 Model: A Study of Accounting Students from a Large Public University in Thailand <i>Maedhawi Anywat-Napong and Wonpen Anywat-Napong</i>	207
Factors Affecting Early Childhood Education Students' Learning Achievement at Ramkhamhaeng University <i>Thitinun Teravecharoenchai</i>	217
Implementing the Rigorous Academic Curricula: New Perspectives Effect of Inquiry-Based and Content-Focused Approaches on the Oral Communicative Competence among Senior High School Students <i>Karen Rose A. Serrania</i>	225

Autonomy in Teaching Curriculum Development at Vietnam National University, Hanoi: Current Situation and Solutions <i>Hoai Tran Thi</i>	234
Autonomy and Internationalization of Higher Education A Case Study at Vietnam National University, Hanoi <i>Pham Thi Thanh Hai</i>	243
Enhancing the Institutional Effectiveness and Academic Quality: New Dimensions	
A Revolution in the Science of Learning: Higher Education at the Crossroads <i>Jay Somasundaram</i>	252
Overeducation in Singapore: A Demand-Supply Analysis <i>Rosan Basha and Choon-Yin Sam</i>	263
Effect of Education on Donors' Perception of Governance in the Non-profit Sector <i>Tamilchelvi d/o S V Chokkalingam</i>	274
Vector-based Models for Educational Institution Shape Analysis <i>Amir H. Rouhi, Angel Calderon</i>	286
How can IR Support the Management of Japanese National Universities on the Mid-Term Plan Related to Globalization? <i>Tetsuya Oishi, Eiichi Takata, Noriko Kuwano, Takahiro Seki, Masao Mori, and Masashi Sekiguchi</i>	297
The effects of teachers' shared leadership and Self-Efficacy on the students' Mathematics achievement: A Longitudinal Study <i>Ong-art Naiyapatana and Puttisak Neawtong</i>	304
Development Of Vietnamese Skilled Labor Respond To Job Requirements In Period 2010-2015 <i>Nguyen, Thi Linh Huong, Phan, Thi Minh Hien</i>	312
Determining Employment Barriers of Deaf Graduates for Joining the Workforce: A Graduate Tracer Study <i>Jordianne P. Gomez</i>	320
A School-to-School Partnership: Contributing Factors and Synergistic Impact on the Reading Ability of Pupils <i>Ivan Brian L. Inductivo, Ma. Theresa E. Obrero, Basilisa R. Digma, Ed. D. and Ma. Morena R. Nalunat</i>	328
Factors that Impact the Quality Assurance Implementation Process: A Case Study of a Private University in Vietnam <i>Ha T. Ngo</i>	337
Where Does Passion Best Thrive? Fostering the Synergy Syndrome in Educational Leadership <i>Yosep Undung and Allan B. de Guzman</i>	349
An Investigation of the Problems and Obstructions in the Administration of Quality Assurance System in Thailand <i>Krisda Tanchasiak, Narat Wattanapanit</i>	362

Research on Financial Resources For The Higher Education In Vietnam <i>Tran Thi Thu Trang and Le Thanh Huyen</i>	368
Re-focusing the Student Experience and Engagement: New Enrichments	
Student Community Engagement as Immersive Learning Experience <i>Dennis V. Madrigal, Enrique G. Oracion, and Glene May Lusares</i>	379
The Student Services in De La Salle University-Dasmariñas As Perceived by Its Students <i>Don S. Malabanan and Olivia M. Legaspi</i>	389
Making Literature Happen: Transforming the Literature Classroom <i>Cynia P. Mirasol</i>	397
The Study on Application of Big Data Analysis to Improve Student Employability: Teaching Modes as Antecedent Variables <i>Michael Yao-Ping Peng, Sheng-Hwa Tuan and Feng-Chi Liu</i>	405
The Model of Organization and Personnel Management Autonomy at Vietnam National University Hanoi – Situation and Challenges <i>Nguyen Kieu Oanh</i>	427



Sub-theme 1:

Investigating the Revolution of Educational Models, Policies, and Practices: New Magnitudes

Compliance with the Child Protection Policy: A Case of an Augustinian Academic Institution of Higher Education in the Philippines

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Abstract

Child protection policy is a statement of commitment of schools to safeguard children from harm and foster their holistic development and welfare. Using a sequential explanatory mixed method design, the paper examines the extent of compliance of an Augustinian academic institution in the Philippines with the Department of Education (DepEd) Order No.40 on Child Protection Policy. The participants of the study are school personnel and parents of the Basic Education Department who assessed the extent of the school's compliance with the Child Protection Policy in the areas of the school environment and admission policy, school personnel, information and procedures, safety measures for children, prevention and intervention programs, and personnel training and development. The investigation further seeks to determine the insights of the participants into the child protection practices of the school. The data are gathered using a validated researcher-made questionnaire and a semi-structured interview. The findings generally show that the Augustinian educational institution fully complied the provisions of the child protection policy. In terms of areas, the personnel training and development were partially complied. A significant difference was found in the extent of compliance of the Augustinian academic institution with the child protection policy when the assessors are grouped according to their classification. It is recommended that child protection should be integrated into the quality management system of the school in order to establish quality assurance measure in dealing with child protection related matters.

Keywords

Augustinian Academic Institution, Child Protection, Health and Safety, Policies, Quality Assurance

Introduction

Child Protection Policy is a statement of commitment of schools to safeguard children from harm which, if effectively implemented, can foster their holistic development and welfare. The policy further serves as the basis for the quality of protection that academic institution can provide for the children in school (Broadley & Goddard, 2015). Accordingly, child protection policy advocates the right of children to be safe and secured of their needs for their complete development and success in life (The Inter-Parliamentary Union and UNICEF, 2004).

Moreover, studies on the international legal system and child developmental pointed out that child protection has evolved to upholding children's dignity and welfare as human beings by educating individuals, teaching skills, monitoring progress, and delivering effective support services (Fiorvanti et al., 2014). Correspondingly, all school personnel needs to enrich themselves with the appropriate knowledge, training, and skills on child protection (Appleton, 2012). In Asia and the Pacific regions, child protection policies are in place but their implementation is weak and not thoroughly systematic. Similarly, the personnel in the academic community are uncertain as to what constitutes child protection in terms of its extent, interpretation, preventions, and responses (UNICEF East Asia and Pacific Regional Office, 2012).

In the Philippines, the 1987 Constitution provides that “the State shall defend the right of children to assistance, including proper care and nutrition, and special protection from all forms of neglect, abuse, cruelty, exploitation and other conditions prejudicial to their development” (Article XV section 3 item B). However, the nationwide policies on child protection are inadequate due to narrow understanding and the presence of gaps in its application in schools (Office of the High Commissioner for Human Rights, 2012). In response, DepEd 40 s. 2012 also known as the Child Protection Policy was designed and implemented to provide the framework and guidelines for the protection of children in school from violence, exploitation, discrimination, and other forms of abuse.

Evidently, a safe and healthy environment is an essential element of school’s health. Jones et al. (2007) stressed the importance for schools to attend to the pressing environment safety concerns in order for children to completely develop and maximize their full potentials. For children, the school environment serves as the platform for interaction within the socio-psychological framework of the school (Kaur & Kumar 2012). In the same way, the schools must guarantee the best interest of children (Adam, 2008) when it comes to their safety and security. Thus, it is imperative that the school environment must be safe for children to achieve fruitful learning. The children who are exposed to stress are believed to be those who are not physically secure in their surroundings, thus they cannot attain holistic learning. Thus, a safe and healthy school environment for children serves as a foundation for their outstanding performance and achievements (Robers et. al., 2012).

In this context, the school personnel acting as second parents of children in school must perform their functions for the welfare of the students (Fiorvanti & Brassard, 2014). The duty and the responsibility to prevent and mitigate untoward incidents and to take care of children during emergencies are compulsory to all school personnel. The continuous evaluation of the existing safety measures of the school must be performed faithfully to ensure children’s safety and to anticipate possible challenges in its implementation. Also, proper and close coordination among school personnel together with the parents is critical to the safety and protection of children (Ewton, 2014).

Consistent with its vision-mission to provide a well-rounded formation of the human person, the Augustinian academic institution of higher education under study formulated and implemented policies and guidelines on Child Protection in consonance with DepEd 40 to ensure the safety and security of all students in school. Hence, this study was conceived to determine the extent of its compliance with the Child Protection Policy. The findings of the study were utilized for designing a Capacity Building Program for school personnel that will fill in the gaps on the school’s child protection policy through the enhancement of effective personnel recruitment, continuous information dissemination, personnel training, and collaboration among concerned parties.

Statement of the Problem

This study aimed to assess the extent of compliance with the Child Protection Policy of an Augustinian academic institution of higher education in accordance with DepEd Order No.40 s. 2012. Specifically, the study sought to answer the following questions:

What is the extent of compliance of the Augustinian academic institution of higher education with the Child Protection Policy as assessed by the assessors in the areas of (a) the school environment and admission policy, (b) school personnel, (c) information and procedures, (d) safety measures for children, (e) prevention and intervention programs, and (f) personnel training and development?

Is there a significant difference in the extent of compliance of the Augustinian institution of higher education with the Child Protection Policy as assessed by the following assessors when they are grouped according to (a) administrators, (b) teaching personnel, (c) academic non-teaching personnel, (d) other non-teaching personnel, and (e) parents?

What are insights on compliance with Child Protection Policy revealed in the experiences of the participants?

Framework of the Study

This study is anchored on Abraham Maslow's Theory on Hierarchy of Needs which asserts that "the human need for safety must be met before growth and development occur" (Maslow, 1943 cited in Wahba & Bridwell, 1976). From Maslow's viewpoint, individuals are driven to fulfill basic needs before they can satisfy or meet higher needs. When the physiological needs are satisfied, another layer of needs appears to be fulfilled. Consequently, it motivates individuals to increase their interests in finding safe conditions, stability, and protection. Thus, the need develops a necessity for structure, order, and parameters (Maslow, 1943) relevant to the implementation of policies on child protection.

Moreover, the study is also linked to the Theory of Complexity (Morin 2007 cited in Steven & Cox, 2007). The theory states that some systems exhibit behavioral phenomena that are fully incomprehensible by any conventional analysis of the systems' basic parts. Applying the Theory of Complexity to child protection, Steven & Cox (2007) pointed out that recent studies in the area of complexity theory are producing development of concepts and applications which are useful and influential tools in understanding the issues of child protection. The concern on child protection is complex due to the various factors that put children at risk. They further contend that the theory provides a framework for understanding the processes involved in child protection but without setting aside the problem. Similarly, the application of the Theory of Complexity in the assessment of child protection practices will pave the way for the development of a new understanding and approach to child protection which can appropriately address issues and concerns related to it (Steven & Hassett (2009).

The aforementioned theories affirm the critical contribution of the safe school environment to children's learning and development. "A safe and healthy school environment does not only promote the good health of children but surely helps them to achieve excellent academic performance and supportively boost their morale" (Jones, Axelrad, & Wattigney, 2007). Accordingly, the school personnel must perform their functions for the welfare of the students. Likewise, school heads of educational institutions can supervise and monitor the implementation of policies related to child protection. They ensure administrative governance, provide support to personnel and other concerned parties, and guarantee its effective implementation. In the exercise of child protection, administrators are responsible for good supervision of their organizations (White, 2008).

Similarly, teachers who have knowledge, training, and experience on child protection can also contribute information to other interested parties who must also be trained on handling children who are sufferers of abuses, violence, and exploitation (Orelove et al., 2000). In matters related to health and safety, teachers are fit to educate parents and guardians on positive behavior management as they practice the aforesaid system in classrooms and in the entire school (Eber et al., 2002). Also, the other school personnel as the forefront of the organization are expected to identify children who are in need of help or assistance due to their day-to-day interaction with them (Beck & Corbishley, 1994).

Methods

This study utilized the sequential explanatory mixed-method design. The method involved two phases: the quantitative followed by the qualitative. The quantitative data were first gathered and analyzed. After which, the qualitative data collection and analysis followed to further expound the quantitative in the first phase (Creswell, 2013).

For quantitative phase, the participants were the whole 157 school personnel and 9 parents of the Basic Education Department of the Augustinian academic institution of higher education (Table 1). As per school manual, they were further classified as administrators, teaching personnel, academic non-teaching personnel, non-teaching personnel, and parents. For the qualitative phase of the study, the purposive sampling procedure was utilized to select participants from each group based on typical response and maximal variation principle (Ivankova, Creswell & Sheldon, 2006).

Table 1. Distribution of Participants

Assessors' Classification	Participants	%
Administrators	27	16.26
Teaching Personnel	54	32.53
Academic Non-Teaching Personnel (ANTP)	9	5.42
Other Non-Teaching Personnel (NTP)	67	40.36
Parents	9	5.42
Total Number of Participants	166	100

A validated researcher-made survey questionnaire developed from the existing school policies on child protection based on the pertinent provisions of Dep Ed 40 s. 2012 was used to collect the qualitative data. The items were categorized into six areas, namely, the school environment and admission policy, school personnel, information and procedures, safety measures for children, prevention and intervention programs, and personnel training and development. Likewise, the Likert scale was used to indicate their assessment on the school's compliance with the Child Protection Policy. To interpret the responses of the participants the following scale was used:

Rating Scale	Responses	Verbal Description	Interpretation
3	In place	Full Compliance	There is extensive awareness of and conformity to child protection. There are no gaps on its application in school which may be attributable to personnel recruitment, information dissemination system, and collaborative efforts.
2	Partially in place	Partial Compliance	There is awareness of and conformity to child protection but gaps are evident in its application in school which may be attributable to personnel recruitment, information dissemination system, and collaborative efforts.
1	Not in place	Non-Compliance	There is limited awareness of and conformity to child protection and gaps are very evident its application in school which may be attributable to personnel recruitment, information dissemination system, and collaborative efforts.

On the other hand, the qualitative data were gathered using an in-depth semi-structured interview.

Descriptive and inferential statistics were used to analyze quantitative data. Mean was used to describe the extent of compliance of the Catholic school with the Child Protection Policy as assessed in the six areas by the assessors as a whole and when they are grouped according to their classification. Because the data were not normally distributed based on Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality, the Kruskal-Wallis H Test was used to determine the significant difference in the extent of compliance with the Child Protection Policy when the assessors are grouped according to their groupings.

For the qualitative data, the recursive textual data analysis was utilized to cull out insights from the narratives of the interviews of the participants using Lichtman's 3 Cs: coding, categorizing, and contextualizing (Lichtman, 2010). The iterative process was employed until the saturation point was reached when there were no new insights can be developed from the themes (Ivankova, Creswell & Sheldon, 2006).

Results and Discussions

Table 2. The Extent of Compliance with the Child Protection Policy in Six Areas

Areas	n	Mean	Verbal Interpretation
School Environment and Admission Policy	166	2.56	Full Compliance
School Personnel	166	2.71	Full Compliance
Information and Procedures	166	2.55	Full Compliance
Safety Measures for Children	166	2.72	Full Compliance
Prevention and Intervention Program	166	2.66	Full Compliance
Personnel Training and Development	166	2.44	Partial Compliance
As a Whole	166	2.61	Full Compliance

Compliance of Augustinian academic institution to Child Protection Policy. The findings revealed that the extent of compliance of the Augustinian academic institution in all areas of the Child Protection Policy (Table 2), when taken as a whole, is in place ($M=2.61$). Generally, the result revealed that the Augustinian academic institution is in full compliance with the Child Protection Policy. In terms of the particular areas, the safety measures for children got the highest mean ($M=2.72$), while the personnel training and development obtained the lowest mean ($M=2.44$). The result of the study showed that the security and safety of the child are the top priority of the school and all concerned individuals. The child protection compliance of the school demonstrated a highly positive interest and effort in finding and establishing safe conditions, stability, and protection for children so that their desired growth and development envisioned by the academic institution achieved (Maslow, 1943).

Moreover, the extent of compliance of the Augustinian academic institution with the Child Protection Policy as assessed by the assessors and when taken as a whole (Table 3) showed full compliance as evidenced by the mean result ($M=2.61$). With regard to the different groups of assessors, assessment of the administrators and parents obtained the highest mean ($M=2.65$), while the assessment of the academic non-teaching personnel got the lowest mean ($M=2.23$). The result of the study showed that both administrators and parents assessed that the academic institution demonstrated full compliance with the child protection policy.

Table 3. The Extent of Compliance with the Child Protection Policy as Assessed by Assessors

Respondents	n	Mean	Verbal Interpretation
School Administrators	27	2.65	Full Compliance
Teaching Personnel	54	2.61	Full Compliance
Academic Non-Teaching Personnel	9	2.23	Partial Compliance
Other Non-Teaching Personnel	67	2.63	Full Compliance
Parents	9	2.65	Full Compliance
As a Whole	166	2.61	Full Compliance

This signified that the parents have faith to entrust their children to the Augustinian academic institution and the administrators are aware of their responsibility and accountability as second parents to school children. Indeed, good leadership and support of school heads with the collaboration of all school personnel and parents contribute to effective implementation of the child protection policy of the academic institution (White, 2008). Also, the findings affirmed that the school can fittingly educate parents and guardians on positive behavior management in the practice of child protection in the classrooms and in the entire school (Eber et al., 2002).

Table 4. Significant Difference in the Extent of Compliance with the Six Areas of the Child Protection Policy and when Assessed by the Assessors

Respondents	Mean	df	H	p-value	Interpretation
School Administrators	2.65	4	10.646	0.031	Significant at 0.05 α
Teaching Personnel	2.61				
Academic Non-Teaching Personnel	2.23				
Other Non-Teaching Personnel	2.63				
Parents	2.65				

Furthermore, a significant difference was found in the assessors' assessment of school compliance with the child protection policy in six areas when they are grouped according to their classification (Table 4). It signified that the academic non-teaching personnel believed there is full compliance with the child protection policy but there are gaps in implementation which may be attributed to personnel recruitment, information dissemination system, and collaborative efforts. As front-liners of the school, the academic non-teaching personnel have a better understanding of the child protection policy in terms of dealing with the children and parents and more experienced in handling related cases. Also, they possessed the appropriate knowledge and skills on how to properly assist and handle child protection concerns thus they can reasonably assess the compliance of the school of the child protection policy. Consequently, they saw the need for constant updating and training in the area of child protection for them to be more equipped in fulfilling their functions. Fiorvanti & Brassard (2014) states that all school personnel must be trained in recognizing and reporting alleged ill-treatment of children by parents, guardians, and even by school personnel themselves. Thus, school personnel should adopt the right based system approach which can protect children in school, in their families and their community.

Facilitating Factors of Child Protection. From the interview transcripts of the participants, there were five themes that emerged, namely: (a) welcoming school environment as requisite for child protection; (b) engagement of school personnel in protecting school children; (c) continuous improvement in coping the challenges and gaps of the child protection policy; (d) child protection policy as quality assurance measure for the safety of school children; and (e) involvement of parents and other stakeholders in the child protection practices.

The insights of the participants showed that there is full compliance of the school with the child protection policy as evidenced by a wide awareness and conformity and absence of gaps with regard to the implementation of child protection measures. It only signifies that the Augustinian academic institution has significantly contributed to the development and well-being of children in various ways. The quality of the Child Protection Policy of the educative community is a reflection of what transpires inside the School. The findings also suggest that the Child Protection Policy must be properly monitored and evaluated so as to make the necessary enhancement to maintain its effective delivery. This strengthened and validated the UNICEF observation that in Asia and the Pacific regions, countries have policies on child protection but the implementation is weak and not thoroughly systematic (UNICEF East Asia and Pacific, 2012). Fiorvanti's et al. (2014) stated that child protection has evolved from protecting children as victims to upholding their dignity and welfare as human beings by educating individuals, teaching skills, monitoring progress, and delivering effective support services. Thus, the school personnel needs to continuously update themselves with appropriate knowledge, training, and skills required for child protection (Appleton, 2012).

In addition, the insights of the participants also revealed that the school must be friendly to the child in its entirety for them to feel safe and secured. This adhered to the basic principles of rights-based child-friendly school which state that the school must be accepting in the context of allowing all students to participate in various activities regardless of their sex, ethnicity, culture, linguistics, socio-economic status, and disabilities; become academically relevant that could provide knowledge, attitude, life skills and livelihood; create an environment which develops knowledge and skills on gender equality; foster healthy and protective school climate for the holistic well-being of children; and build a community

which encourages family and community participation in all matters related to children's welfare (Child-Friendly Schools, cited in UNICEF, 2012). Similarly, the quality of child protection is a shared responsibility of the members of the academic community. The accounts of the participants revealed how the education of school personnel, shared responsibility, wholehearted service, and concern for children's well-being can contribute to the effective practice or implementation of the school's child protection policy. Along with this line, the Augustinian academic institution under study is committed to continuous improvement of the child protection policy in collaboration with all the stakeholders.

Overall, the findings implied that the child protection is vital to a good practice which can ensure the safety of children in a school setting. As front-liners of the school in child protection, school personnel must be properly selected and trained to effectively implement the relevant policies to this effect. The success of the implementation of the child protection policy necessitates consciousness and commitment of the members of the academic community. Only then, the children will feel safe and secured in school and achieve their holistic development.

Conclusions

The general assessment of the compliance of the Augustinian institution of higher education with the Child Protection Policy exhibits full compliance when taken as a whole. This implies that there is wide awareness of and conformity with the provisions of DepEd40 s. 2012 Child Protection Policy. Moreover, the successful implementation of the child protection policy calls for the commitment of all stakeholders of the educational institution. Furthermore, the need to integrate the child protection concerns into the scope of Human Resource Management and Development is vital in order to establish a quality management system in the selection, hiring, training, and deployment of competent school personnel to engage in the child protection related programs and activities to foster the safety and well-being of children in school.

Recommendations

For the enhancement of the implementation of the Child Protection Policy, the researchers recommend that an institutional manual on child protection in accordance with DepEd 40 s. 2012 directives shall be formulated and published; mentoring and supervision of school personnel in the performance of their child protection-related functions shall be strengthened; capacity building program shall be established to foster better understanding of and commitment to child protection practices in an educational setting; and parents and other stakeholders shall be involved in the child protection programs and activities of the school.

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Participatory Knowledge Sharing of Local Challenges to Develop Research Problems Regarding Rice Production in Chainat Province

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Abstract

This research aims to share participatory knowledge regarding challenges faced during local rice production in Chainat, and create research frameworks for the further study of challenges to rice production in Chainat. The population was comprised of individual agriculturalists and collectives typically growing rice, a group of rice processors, private sector participants, rice mill entrepreneurs, academicians, food products entrepreneurs and community leaders, totaling 58 people. Purposive sampling was implemented, and the research instruments employed were focus groups and the card technique. Data analysis was performed using content analysis. The results of this research were: 1) pertaining to the sharing of participatory knowledge regarding challenges faced during local rice production in Chainat, three main development areas were discovered during the research. Development targets expected to be reached in three years were in methods of production, processing, and merchandising. Existing problems discovered included agriculturalists' knowledge, production resources, marketing management, rice quality control, and production cost management. Regarding areas of further potential, a clear policy, increasing agriculturalists' body of knowledge, and increasing resources were included. The problems requiring solutions, in order of priority, were a) marketing management/ pricing, b) knowledge and collective-building among agriculturalists. 2) pertaining to the creation of research frameworks for further study of the challenges to rice production in Chainat, three frameworks could be created: 1) development of agriculturalists' body of knowledge, including an agricultural network for knowledge management and sustainable knowledge sharing, 2) development of rice production technologies, and 3) development of self-management of rice markets by rice agriculturalists in Chainat

Keywords

Participatory Knowledge, Local Challenges, Research Problems, Research Framework, Card Technique

Introduction

Rajabhat Universities in Thailand were founded from existing Teachers' Colleges, which were educational and research institutes aimed at academic education and the production of teachers with Bachelor's degrees, doing research, promotion of the profession and accreditation of teachers, as well as educators, conservation of culture, and providing academic services to the public (Teachers' College Act, 1975). Later, they were changed to Rajabhat Institutes, then Rajabhat Universities, respectively. However, Rajabhat Universities still have their missions devoted to the local community, and university lecturers also still have four missions: teaching, doing research, providing academic services, and the conservation of arts and culture. Chandrasakem Rajabhat University is an educational institute which is responsible for the campus area of Chatuchak and Latprao Districts. It has another campus in Chainat Province, which has plenty of land area utilized for growing rice. There are many rice varieties in Chainat, with the most popular ones being Pathum Rice, White Rice, and Jasmine Rice (Office of Agricultural Economics, 2016). According to the investigation of the rice crisis in Chainat, interviews of the farmers in Praeksiracha Sub-district, and Sub-District Agricultural officers found that the farmers faced low rice prices, local rice mill entrepreneurs did not buy their products, and the cost of production was high due to problems in the cash flow system and delays in the clearing policy of the government.

These problems affected the rice storage of farmers, as combines were used for harvesting, and farmers had high moisture paddies, so their rice needed to be sold at a rice mill immediately to undergo the further industrial process of drying and milling. In addition, due to the government's policy that farmers grow their rice for selling directly to a mill, farmers had no space for rice storage and no knowledge of the conventions of growing rice for merchandising or the behaviours of buyers of rice for consumption. Chandrakasem Rajabhat University has developed the concept of local development through research to solve these local problems over a long period, and the university lecturers have also been given the opportunity to practice doing research in the community, which in turn also truly serves the needs of the community (Research and Development Institute, Chandrakasem Rajabhat University, 2016).

This research focuses on participation by university lecturers, along with local communities related to rice production and distribution, to discover problems, find their solutions, as well as expected targets, and to summarize the issues needed to be developed into research frameworks and main points. This will be used to prepare a research proposal leading to participation by the local community, development of the university's research management system, and to research integrated with teaching and the provision of academic services, in accordance with the statement that a "Rajabhat is King's people" and to achieve the philosophy of "Good Knowledge, Have Morality, and Lead the Community."

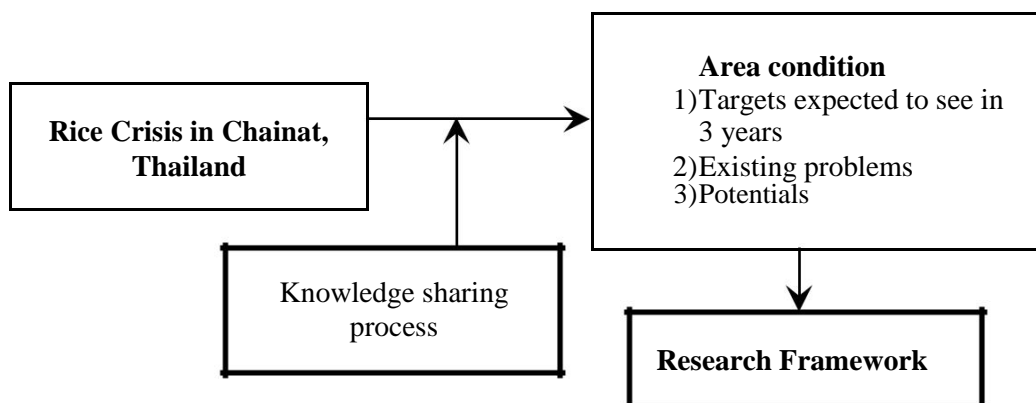


Figure 1 Concept of the Research

Purposes of the Research

To share knowledge of local challenges regarding rice production in Chainat through participation in the process.

To create research frameworks for the further study of challenges to rice production in Chainat.

Research Methodology

1. Methodology/Research Methodology

The Qualitative Research was conducted by employing focus groups within the local community related to rice production and sales in Chainat, using the "card technique" process.

2. Target Population

The population in this research consisted of 30 individual rice farmers and rice farmers from collectives, 10 people in a group of rice processors, five people from the private sector, one rice mill entrepreneur, two entrepreneurs of food products made from rice, five academicians, and five community leaders, a total of 58 people. The purposive sampling was implemented under the advice of Provincial Agricultural Officers and Sub-District Agricultural Officers, who provided key information.

3. Research Instruments

There were two types of research instruments, as follows:

Focus Groups consisted of 1) targets expected to be seen in three years, 2) existing problems, and 3) potentials. The issues for the interviews included procedures for production, sales, processing, and governmental policy.

Card Technique Different colors and shapes were used to allow people in the local community to record various issues. First, the people in the local community were allowed to write the targets expected to be seen on the blue oval card, then identified the local community's potentials on the yellow card, and wrote the existing problems on the pink card. After that, they put all the cards on a board to show associations among the targets expected to be seen, the existing problems, and the potentials. Using this card technique was an effective way to encourage people in the local community to express their opinions thoroughly without feeling embarrassed and to encourage maximum participation. The details of the cards were as follows:



Figure 2: Card Technique

4. Data Collection Method

For data collection, the researchers implemented the following steps:

- 4.1 Identify purposes of the research and search for theories and documents related, and create focus group patterns as defined issues.
- 4.2 Schedule appointments with the local community.
- 4.3 Collect data from the target population.
- 4.4 Summarize the focus groups' results and the local challenges faced in Chainat.
- 4.5 Invite researchers to critique the research questions.
- 4.6 Prepare the results of research.

5. Data Analysis

The researchers summarized the data from interviews, as well as the documents. Content analysis was conducted, data grouping and interpretation was done to see the linking of data. The correctness of data for each person was checked.

Results and Discussion

1. To exchange participatory learning in rice local problems in Chai Nat Province

To exchange the participatory learning in rice local problems in Chai Nat Province, the researchers have divided the local community into four groups. The first group consists of fifteen ordinary farmers. The second group includes fifteen union farmers who work together. In the third group, there are fifteen participants including the local leaders, the academics and the government officers. Thirteen people from the rice processing partners, the entrepreneurs and the rice mill owners are in the fourth group. There are fifty eight participants in total. Each group is supervised by five lecturers on how to exchange the participatory learning in rice local problems. They explain the participants how the method works and give them color cards with their definitions before starting the group discussion. The results of the participatory learning exchange in rice local problems are as follow:



Figure 3 color cards on learning exchange board

1.1 The Three-year Goals The local community expects the prospect of rice in Chai Nat Province in three aspects.

The Production The production of qualified rice can develop the native rice to be more popular and nutritive. The production should decrease the chemical usage with the natural process. It should cut down the cost and support the manufacturing technology to gain the farmers more income. There should be the production resource development in soil, water, as well as rice disease and pests management that is appropriate with fields in Chai Nat Province.

The Rice Processing There should be the rice processing to increase the rice value. The manufacturing costs of milled rice and processed rice should be reduced.

Sale Agricultural products sale should be promoted by reducing the cost of fertilizers and chemicals as well as setting the quality matching price. For the sake of the better living, the farmers should be encouraged to farm the alternative crops in non-cultivated seasons. There should be the direct sale from farmers to consumers without the rice mill owners or the middlemen. More distribution channels must be developed for farmers.

1.2 Problem Conditions The local community has provided the information related to problems from rice production to sale. The information can be summarized into five aspects.

The Learning of the Farmers The farmers have unsustainable integration and lack knowledge.

The Production Resources The soil is deteriorated and the agricultural water is inadequate. The farmers lack fund as they can't access to financial sources while the fertilizers and chemicals are expensive. There are agricultural epidemics and natural disasters (drought, cold and flood). There are problems in rice seed propagation and lack of high qualified rice that can resist diseases such as fungi, bacteria and viruses. There is no rice seed developing source. Other problems include severity of the epidemic, low rice price and high capital (expensive fertilizers and pesticides).

The Marketing Management There are unstable marketing mechanisms. The farmers cannot specify the prices and they also lack marketing knowledge. The quality of the rice has been forced down if the farmers don't have barn or rice grain drying field. There is no government agency to support. The rice price is low and the farmers lack selling channels both in the country and abroad.

The Rice Quality Control The rice seeds do not meet the standard. They are too thin, green and damp. There are too many insects and insect spreading. The harvest price is expensive. The rice kernels do not produce panicle. There are no barns and rice grain drying fields. Therefore, when the rice is damp, its price is low.

The Management of Production Cost The production cost is high. Rice seeds, fertilizers, chemicals, pesticides are expensive. The labor costs are costly such as manpower, machine and the rent of paddy fields. The farmers need technology to help them in rice farming.

1.3 The Potential in the area The potential of farmers in Chai Nat Province can be summarized into 3 areas.

The Potential of Government Policy The government has a clear vision of the province and the agencies are available to support the farmers.

The Knowledge in the area There are agricultural sages who can transfer knowledge in the area. The farmers have experience in farming. There are farmer schools. There is a household accounting lesson providing for the farmers. The farmers are encouraged to make compost, bio extract and pyroligneous acid. They are experienced in farming and they are ready to learn more knowledge. They can use technology, make fungus and pesticide.

Local resource costs The area has potential in farming. The farmers have their own paddy fields, manpower, and producing equipments. They also have rice mills, rice grain drying fields and rice seeds for planting. There are natural water resources and irrigations in the area. They learn how to reduce the production cost from the farmer schools. After the groups have finished the discussion, the researchers conclude the information and classify it into different issues. The researchers allow the participants to choose which problem is the most important and needs to be solved first. Each participant has one sticker to select one problem. The results show that the most chosen problem is about marketing management/price and the second one is about the farmer's learning and assembling. This is consistent with Pataraphorn Kitchainukool (2014) who studied the local problems in Chai Nat Province to develop the research problems for the One University One Province Policy. The results found that the problems in increasing the production process as well as rice seed and agricultural products marketing were to have high quality and meet standard criteria. The manufacturing cost was still high. The farmers lacked knowledge and understanding in rice seed management and chemicals use in the production process because they did not know how to use them correctly. They also lacked good rice seeds and had to face the pest problems.



Figure 4 The selection of problems that need to be solved

2. The results from the research framework based on local problems to develop rice research problems in Chai Nat Province.

According to the result of the study of local problems to develop rice research in Chai Nat Province, the researchers have developed research framework, goals and research topic as follows.

The First Research Framework The development of knowledge and agricultural network aims at sustainable knowledge management and learning exchange.

Objectives are to collect the knowledge of rice production and to develop the agricultural network systematically.

The Research Issues

The network management models to manage the knowledge about rice in Chai Nat Province

The development of rice management curriculum

The potential enhancement of rice management learning source (e.g., reducing the cost of rice production through the large farmland project, learning how to reduce the rice production costs through farmer schools, and etc.)

The development of a model to manage the rice production costs.

The Second Research Framework The development of production technology and the standard of rice production

Objectives are to develop the entire rice production technologies including rice seed propagating, planting, harvesting, post-harvesting and rice processing in order to reduce production costs and to increase the production potential.

The Research Issues

The development of rice seeds for pests and epidemics resistance

The development of rice diseases and pests management with natural methods

The development of technology in rice production process

The development of technology and the products for rice processing

The Third Research Framework The development of self marketing management of farmers assembles in Chai Nat Province

Objective is to enable farmers to effectively and completely manage their marketing in terms of rice products, price, distribution channels, promotions and brand.

The Research Issues

a) The development of products to add more value to rice products in Chai Nat Province

b) The development of rice distribution channels of farmers in Chai Nat Province

c) The development of brand for rice or rice products in Chai Nat Province

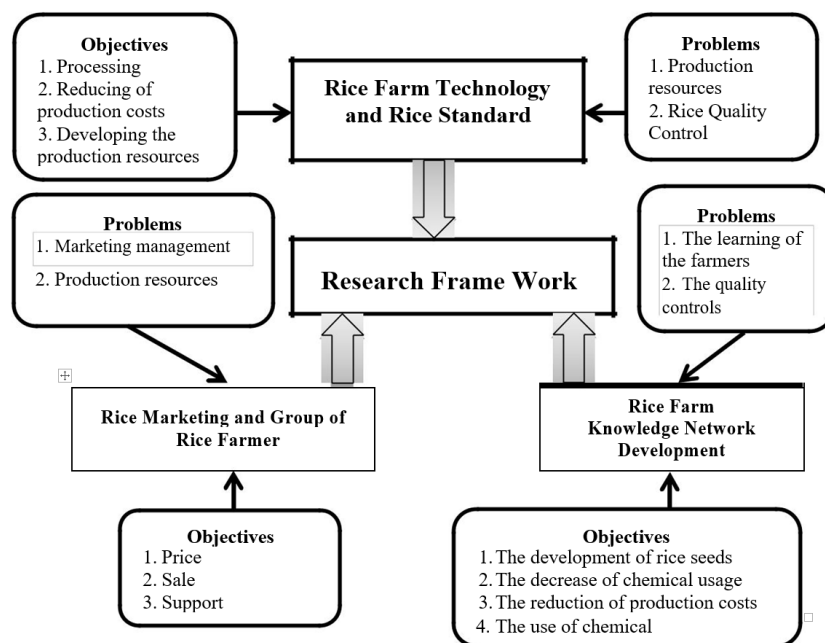


Figure 5 The results from the participatory learning of local problems to develop the research problem of rice

The three research frameworks focus on the knowledge management process, the development of production technology and the marketing management. According to research framework, the university will be able to determine the process that responds the requirement of the community in accordance with the requirement of country as well as obtain the research based on the requirement of the community. Moreover, the researchers are able to develop the research problems from the local community, know the problem as well as the potentiality and the expectation of the local community in order to create the research proposal that is compatible with their needs. These are consistent with the strategic issues of Chai Nat Province (Chainat Provincial Office, 2013). The first strategic issues are to increase the effectiveness of production process and to standardize rice seed and agricultural products marketing. The objectives are 1) to increase the high standard rice seeds, 2) to have qualified and standard agricultural products and 3) to raise the farmers' income. The strategies are

1) to promote and develop the production process and the markets of rice and other important agricultural products of the province to meet high standard, 2) to promote the research and to develop the agricultural products, 3) to develop the basic structure in production, and 4) to promote the reduction of production costs.

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Lived Experiences of Higher Education Instructors in Senior High School: Challenges and Impact on Professional Development

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Abstract

School Year 2016-2017 ushered the beginning of the full implementation of Senior High School under K to 12 program of the Department of Education (DepEd). The said educational breakthrough and advancement has threatened the security of tenure of university teachers both from the public and private schools. DepEd opened the avenue for the displaced HEI college instructors by creating the demand for additional teaching personnel who will be deployed in the Senior High School. This study aims to have an in-depth understanding on different experiences of instructors from HEI teaching in senior high school, their challenges and impact on their professional development. The main sources of data were from the interviews and focus group discussion participated in by the teachers who came from both public and private higher education institutions. Thematic analysis was done to analyze and interpret the results of the study. Findings from the study showed themes based from the experiences of former college and university instructors who are currently teaching in senior high school. Teachers encountered different challenges like a shift in school culture, school climate and work habits. Support system from the school administrators and the entire government agency was perceived having a great impact on the professional development of the teachers currently deployed in the senior high school.

Keywords

Higher Education Instructors, Professional Development, Senior High School, Lived Experiences

Introduction

The 2030 Agenda for Sustainable Development for Education in Goal 4 aims to “*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*”. It encompasses the 10 targets of the different aspects of education wherein seven (7) targets are for expected outcomes and three (3) targets are the means of achieving the expected outcomes.

In achieving the goal of giving quality education in the Philippines, the Department of Education through R.A. 10533 known as Enhanced Basic Education Act of 2013 started the implementation of senior high school in the country under the K-12 Basic Education Program by offering the first batch of Grade 11 students during School Year (SY) 2016-2017. This act conforms to the global standard that adds two (2) years in the former 10 year basic education curriculum framework of the country.

Because of the additional two (2) years in the basic education program, different higher education institutions encountered a problem of non-enrollees during S.Y. 2016-2017 and S.Y. 2017-2018. Different instructors from the higher education institutions were faced with the problems of taking a leave of absence because of the implementation of the senior high school program. The Commission of Higher Education or CHED gave different scholarship grants to those instructors who were affected but the number of grants will not fit to the total number of instructors affected. This situation resulted in a

scenario where different instructors were forced to transfer to senior high school since the Department of Education opened doors for them by giving them good remuneration specifically graduates of Master's or Doctorate degree or giving them provisional five (5) years from the time they were accepted in order to be a LET (Licensure Examination for Teachers) passer.

It is in this light that the researchers who are the pioneer teachers in the implementation of Senior High School in the Philippines, are motivated to conduct this study in relation to their task as a Master Teacher to foster the culture of research that will be beneficial not only to the students but also to the teachers. They believe that this study will provide the Division of Cavite with data and information on how to develop different professional training programs to the different higher education instructors who are teaching in senior high school. The researchers are also motivated to conduct this study to be able to share their knowledge and skills that they believe will help the Division of Cavite in formulating teachers development program for all the teachers currently teaching in senior high school who came from higher education institutions.

Statement of the roblem

The major purpose of the study is to know the different experiences of different higher education instructors teaching in senior high school and the different challenges and impact on their professional development .

Specifically, the study sought to answer the following questions:

What are the experiences of higher education instructors in teaching senior high school?

What are the different challenges that the teachers encountered in teaching?

What is the impact of teaching in senior high school on their professional development?

Paradigm of the Study

The assessment of the different experiences of the higher education instructors teaching in senior high school, the challenges and impact on their professional development helped the researchers to be able to come up with recommendations to help the teachers on their professional development as they continue their work as a senior high school teacher. The researchers determined their experiences and make it as a basis for different recommendations for their professional development.

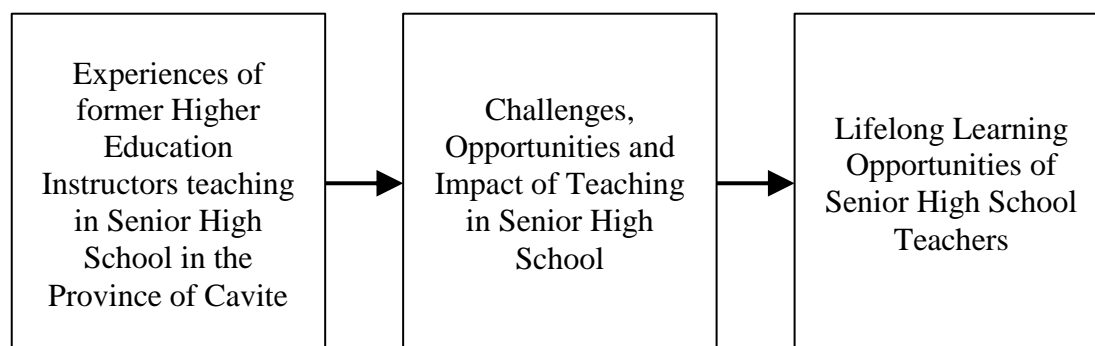


Figure 1: Research Paradigm

Methodology and Research Design

This study utilized the qualitative phenomenological method of research to determine the lived out experiences of higher education instructors who migrated from higher education institution to teaching in senior high school, the challenges and impact to their professional development. Respondents were selected based on their previous teaching experience. The respondents of this study were the former higher education instructors who are teaching Grade 11 senior high school students in the province of

Cavite. Among 8 respondents, four of them were from private colleges and universities and the remaining were from state colleges.

Interview and focus group discussion were the main data gathering instrument. Thematic analysis was applied in getting the emerging themes with regard to their experiences in teaching senior high school and the challenges and impact to their professional development.

Result and Discussion

In this study, qualitative means of investigation was also employed. Through an interview and focus group discussion, an examination of the current state of Senior High School teachers who came from different higher education institutions have been conducted. Shared teachers' perspective, insights and experiences showed the need for teacher professional development program that will promote the role of senior high school teachers as lifelong learners.

The perspective of the teachers regarding some questions such as "What are your experiences in teaching in senior high school being a former higher education instructors?", "What are the challenges that you encountered as pioneer teachers of Senior High School?", and "What is the impact of teaching in senior high school to your professional development" served as basis for the thematic analysis of data.

Research Question #1. What are the experiences of higher education instructors in teaching senior high school?

The Compass: Senior High School Teachers' as Lifelong Learner

For professionals, particularly teachers, it is not common to hear the phrases "lifelong learning" or "lifelong learner". It is essential for them to recognize the importance of this and do something about it or else their knowledge can be obsolete and they may be left behind by proactive teachers.

Lifelong learning has never been an endangered concept in education. Pioneer teachers of Senior High School are not new to this. From the discussions conducted, participants shared their perspective on lifelong learning. Their views and insights serve as values that guide them towards realization of roles as teachers and set direction for change and self-enrichment. Lieberman (1995) captures this mind-set about professional development when she suggests that the traditional approach to teacher development may cause teachers to think of themselves as targets of change rather than agents of change.

Some of the participants' perspectives advocate that the worth of lifelong learning to a teacher should start from within, back to the basic, as they say. A thorough re-examination of teachers' value system is the very first and the most important thing to consider. One should know the ultimate purpose why one is teaching in Senior High. Ms. Jane said, "Mind and heart are both important, right? (*Mahalaga 'yung mind and heart di ba*), not only the intellectual but it is more on the value system why we are here? Why we are here and that at the end of the day, the teachers have one thing to share in terms of when they are asked the question 'Why am I here?' and then everything follows."

The statement is furthered by Ms. Mayumi, "When the teacher possesses the basic values, not only intellect because if you have only the intelligence what might happen is you just compete with your colleague wherein if you possesses the core values na pagiging maka-Diyos, makabayan, makakalikasan at makabansa you will value on what you are doing being a teacher and you will let yourself grow on your craft." ("*Kapag taglay ng guro ang basic values, hindi lang puro utak dahil kung katalinuhan lamang ay maaaring kayo ay magsapawan samantalang kung taglay ang core values na pagiging maka-Diyos makabayan, makakalikasan at makabansa ay magkakaroon ka ng pagpapahalaga sa ginagawa mo bilang guro at pagyayamanin mo ang iyong sarili.*")

Teachers who clearly know their values can easily pass it on to students. Besides being a source of knowledge and truth and facilitator of learning, a good teacher works endlessly to foster the desirable characteristics of students (Kuehn, 2016).

Ms. Teresa, a participant said, “Pursue post graduate studies. It can deepen teachers’ commitment on teaching.” which was then agreed by all participants. They believe that it is very essential to finish a post graduate course. Based on their experiences and observation to other teachers, the higher the educational attainment of a teacher, the more a teacher displays humility and easily understands and reaches out to learners. According to Tucker (2013), it has shown that teachers pursue graduate studies for different reasons, some to become better teachers. We have learned that undertaking a Master of Education degree has a positive impact on teachers and how they view themselves as educators.

Ms. Joann suggests that DepEd should level up teachers’ qualification for Senior High School. Grade 11 is likely an equivalent to first year college in the previous curriculum. A Senior High School teacher must possess professorial skills and only teachers with master’s degree or high National Certificate on skills can give the best for learners and ensure that they can receive knowledge and skills that will increase their employability.

Research Question #2. What are the different challenges that the teachers encountered in teaching?

The Wind and the Waves: Teachers’ Challenges as a Lifelong Learner

To build a new learning culture in a new setting composed of group of teachers from various backgrounds, it is essential to identify challenges that these teachers are facing.

This part would like to present category of major challenges of senior high school teachers who came from higher education institution as a lifelong learner, challenges that are to be found in many spheres of their life. Aside from financial, there are also demographic, technological, social and environmental challenges (Hursen, 2012).

Back to Basic: The Classroom Management

Although this is not a new problem, this is a challenge that has received less attention but is nevertheless a huge concern for teachers: classroom management. Duck (2007) as Al-Zubi (2013) says that research over the past few decades has consistently indicated that new teachers feel unprepared when it comes to classroom management skills.

Some senior high school teachers, according to DepEd-Cavite Province, about **25.78%** or **156** of the total population of **605** senior high school teachers came from higher education institutions and do not have any teaching experience in teaching high school. In result, they have encountered problems regarding classroom management. Ms. Len, one of the interviewees said, “I think what is lacking to me is in classroom management, I worked in industry for 13 years.” (“*Ang nakukulangan ako sa sarili ko ay sa classroom management, 13 years ako sa industry.*”) Aside from the 18 units of Certificate in Professional Education, it is her first time to teach. She has problems on how to get learners’ attention and it can somehow make her feel so ineffective. Effective classroom management decides the effectiveness of teachers teaching quality and students learning. Their role is crucial in influencing the behaviors of students (Riaz, 2009).

Classroom management problem is not only a problem of SHS teachers from industries and higher education institutions but of other newly hired teachers too. According to Unal (2012), “years of experience” plays a significant role on teachers’ beliefs on choosing their classroom management style.

It is needed therefore to provide a teacher education program which includes classroom management courses to inexperienced teachers.

The Misassignment

This challenge happened when a teacher is asked to handle a subject which is not his area of specialization. “Just like in my case who is a Marketing graduate, maybe I can teach well on ABM subjects but then I am teaching Politics, Personal Development, which is under HUMSS or Humanities and Social Sciences strand.” (“*Katulad in my case na isang Marketing graduate, siguro I can teach well on ABM subjects but then I am teaching Politics, Personal Development, pang HUMSS s’ya.*”) This is a statement of Ms. Jonna regarding the assigning of teaching loads and this is a serious concern for senior high school teachers considering that they were ranked according to specialization. But what happened in the actual teaching is a different thing. In addition, some teachers say that are not sure if they are effective teachers in handling a non-specialized subject. Teachers behave differently when they are teaching outside the content area familiar to them and a lack of subject-content teaching knowledge leads to stress (Ingersoll, 2004).

The misassignment of teachers was thought to be a serious obstacle to professional development (Ingersoll, 2002). This can bring confusion to teachers. For instance, Ms. Len wants to enroll in a post graduate course but not sure on what program to enroll. “I am not sure if I will take Master’s in Social Science or Masters or MBA (Master in Business Administration).” (“*Hindi ko alam kung Social Science ba ang i-take ko sa Masters or MBA (Master in Business Administration).*”) This is the area of concern. The misassignment should be addressed and should not be overlooked to help teachers see a clearer direction for their teaching career in senior high school.

Furthermore, in terms of instructional supervision, Ms. Jane, a Master Teacher I who has specialization in Social Science said that she is assigned to supervise TVL teachers. She said, “I’m handling TVL teachers and of course content-based I don’t know how to do it... So I guess this is where support system of agency or even of industry enters when it comes to TVL.” (“*I’m handling TVL teachers and of course content-based hindi ko alam how to do it... So siguro doon papasok ‘yung support system ng agency or even ng industry when it comes to TVL.*”)

Deepening of the Content and Contradicting Pedagogy

About **25.78%** or **165** of senior high school teachers are former college and university instructors and about **46.12%** or **279** are former teachers from junior high school. These are just numbers but this may bring critical concerns to teachers.

In today’s implementation of senior high school, another challenge for teachers is the in-depth delivery of the subject matter content and the best way to execute it. Of course, the two are indispensable to each other. An obvious but silent issue between teachers from higher education institutions and from junior high school is their differences in delivering instructions. Ms. Joann said, “Since they came from higher education institution, they brought what they are usually doing not in congruent to the CG or Curriculum Guide.” (“*Since galing sila sa higher education, dala nila ‘yung nakasanayan nila, ‘yung hindi sila nag angkla dun sa CG.*”) Ms. Teresa furthered, “They have acquired and accomplished many things, they ways they are doing in HEI and then we, from junior high school it is just an easy thing but for them, it is a big deal that they need to adjust on that matter.” (“*Marami silang bagay na nakuha na nila, nakasanayan na sa HEI tapos ngayong dito sa senior high parang kami naman na nanggaling sa junior high maliliit na bagay ‘yun sa amin pero parang sa kanila napakalaking bagay na kailangan nilang mag adjust talaga sa bagay na yun.*”) She is referring to the teaching strategies being implemented in the basic education. The usual scenario in a basic education class since 2012 is that it is learner-centered and the teacher is only a facilitator of learning. Former Secretary Armin Luistro (2012) said “In the K to 12 program which will be implemented in June, it will be enjoyable, less burdensome and learner-centered.

However, in a higher education institution, the learning atmosphere is very different. They are very much familiar with the teaching strategy that they did when they were in colleges or universities.

Mostly, teacher uses lecture and discussion method. Ms. Mayumi said, “There are really things to correct because this is their last foundation years, the two years, so there is a need to remove what should be removed. And then in college, with high standards, they can lower their standards so that teachers and students can meet halfway but definitely not all things being done in junior high school should be done in senior high.” (*“May kailangan talagang i-correct, dahil ito na ‘yung last foundation years nila, ‘yung dalawang taon, so kailangan nang tangalin ‘yung kailangan tangalin and then ‘yung sa college na mataas naman pwedeng ibaba para magmemeet talaga sila halfway pero hindi talaga pwede na halos lahat ng ginagawa sa junior high ay gagawin din sa senior high.”*)

In terms of deepening the content, it is necessary for teachers to have Masteral or Doctoral degree to have a wider range of knowledge on the subject of their specialization.

Mr. Germin added that senior high schools teachers should have deeper expertise within the area of specialization. He said, “The MA o PhD should not be only in general subject like in English but with specialization like Literature, Linguistics so that the teacher will have deeper understanding and acquiring deeper knowledge and skills about the subject he/she is teaching in senior high school if he/she will take that kind of specialization in graduate studies so that he will be able to perform to teach the subject with proficiency and competency.” (*“Ang MA o PhD ay hindi lang sana halimbawa sa English na general kung hindi specialization pa within the specialization kasi ang problema ang dami naming English major pero general lang e may tinatawag pa na halimbawa Linguistic, meron pa ‘yang iba’t ibang klase, sa tingin ko para mas maging malalim, mahusay ang isang guro ‘wag na siya mag mamajor ng general para ‘yung talagang lalim makuha niya at maibabahagi sa iba.”*)

Based on the observation of some teachers, teachers from HEI cannot be questioned in their skill on deepening the subject content. Like what Ms. Teresa said, “When it comes to the content, we cannot contest them”. (*“Pagdating sa content, we cannot contest them”.*) But Ms. Joan said “But they must be aware or having a sort of reminder that they should not fill in too much information if it is not included in the curriculum guide.” (*“Dapat magkaroon sila ng pinaka reminder na ‘wag magsuot ng kumbaga napakarami parang mainit ang daming gustong ipasok kasi na wala na sa curriculum guide.”*) In this challenge, participants agreed that it is necessary that teachers should give more focus on content written in the Curriculum Guide and lower down strategies based on students’ ability.

On Papers and Tasks

Accomplishing required paper works and being assigned for ancillary services may affect teachers’ professional development. This significant challenge of senior high school teachers can sometimes overpower and overshadow their primary role as classroom teachers.

The participants said that they want to concentrate on teaching and giving the best effort to deliver quality education but sometimes doing ancillary services get in the way. Ms. Jane said, “I hope there is a proper distribution of ancillary tasks so that the teacher can really concentrate to their primary role that is being a teacher.” (*“Sana magkaroon ng wastong distribution ng mga pag-aassign ng mga ancillary para naman nabibigyan din ng mga pagkakataon ang mga guro na makapagconcentrate talaga doon sa kanyang role as a teacher.”*)

Ms. Mayumi added, “As a teacher instead of focusing yourself on your mastery which is teaching the subject, you have many paper works and tasks that disturb you that is not really important.” (*“As a teacher na instead na nakafocus ka doon sa mastery mo, andaming mo pang paper works and tasks na nakakaabala na hindi naman masyadong importante.”*) A study of Flook, et.al (2013) suggests that some teachers showed psychological symptoms and burnout due to improvements in observer-rated classroom and performance on a computer task works.”

On Senior High School Culture and Teachers' Identity

The purpose of this part of the study is to describe one of the identified challenges of senior high school teachers in their new working and learning environment.

Junior high school teachers have ways of doing things for years: they use a prescribed syllabus, a prescribed textbook, a prescribed grading system and a prescribed teaching method. But SHS teachers have their own sentiment on this. Ms. Jane mentioned that establishment of own culture of Senior High School and identity of SHS teachers are two things that have to be constructed in order for SHS to be separated from junior high school.

Participating SHS teachers also said that it is acceptable if they will embrace some parts of what have been implemented in the junior high school, the lesson plans, the strategies and all those paper works. However, bringing up of all ways and culture of junior high to senior high is a big no. Senior high school is equivalent to first year in college in the previous curriculum and schools should increase the employability of each student. Ms. Jane said, "Let us try to reinvent the system in senior high so that we can really reach the main objective of the program, I do hope DepEd is open for that." (*"Let us try to reinvent the system in senior high para ma-reach ang pinaka-objective ng program, so sana bukas din ang DepEd doon."*)

Ms. Mayumi added that senior high school teachers should be given academic freedom. However, it is written in Article 14, Section 5, of the Constitution that academic freedom shall be enjoyed in all institutions of higher learning and this freedom is not enjoyed in high schools. "I hope academic freedom should be given to SHS teachers just like in college because in junior high school, they are only contained in the box." (*"Sana bigyan ng academic freedom ang SHS teachers gaya sa college kasi sa junior high school nakakahon ka lang."*) All participants agreed that SHS teachers, especially those who finished postgraduate studies are more mature to handle issues on politics, religion and the like and can manage the mind of learners who are in few years will be college students.

Research Question #3. What is the impact of teaching in senior high school on their professional development?

Ride the Waves: Opening Opportunities to Pioneer Senior High School Teachers

Professional development is vital for teachers. They are expected to plan and provide direction to their careers. They are encouraged and permitted to undergo formal, informal, non-formal and self-directed learning. Through these modes of learning, teachers are able to accumulate knowledge, skills and values necessary to be an effective teacher. Aside from learning, salary schedules also encourage teacher learning by offering higher salaries to individuals with more training, degrees or credits (Keller, 2002). These are passports to get high salary because of promotion.

It is crucial that schools and communities recognize the importance of developing teachers as lifelong learners. As the Department of Education aims to develop lifelong learners with the help of stakeholders as mentioned in DepEd Order No. 9, series of 2016, "Family, community, and other stakeholders are actively engaged and share responsibility for developing lifelong learners." it is equally important that teachers should also be given opportunities to be lifelong learners too.

Lifelong learning is viewed as involving all strategies that are put in place to create opportunities for people to learn throughout life. It is about learning of what, how, when and where one wants to learn (Hursen, 2013). From participants' responses, Lifelong Learning Opportunities (L3O) for SHS teachers is categorized into five areas: Improving the Teaching Craft Opportunities, Collaboration Opportunities, Leadership Opportunities, Idea Sharing Opportunities and DepEd and School Opportunities. Below are tables that present different opportunities that can be provided to senior high school teachers that can have an impact to their professional development. Brief discussions are given with support from literature.

Table 1. L3O: Improving the Teaching Craft

L3O: Improving the Teaching Craft
Creation of Personal Development Plan Seminar on Classroom Management
<p>Creation of Personal Development Plan (PDP). Teachers, especially those who are new in the service can be given a seminar to improve their teaching craft related to different areas of lifelong learning skills and the expected output is the creation of PDP. This PDP includes the needs and interests of teachers and identify criteria for the success in their career. Each teacher's plan should include criteria which measure the impact of their learning on their teaching practice and on the impact of learning to their students (Archer et.al, 2001).</p> <p>Seminar on Classroom Management. This is not limited to newly hired teachers. To develop teachers as lifelong learners, it is important that they are equipped with the right classroom management skills. Teachers should be encouraged to explore their beliefs, attitudes and mindsets about teaching as part of the change process (Senge et al., 2000). Teachers have to reflect and think about their classrooms, their teaching skills, their strengths as well as their weaknesses to gain more understanding on themselves as teachers (Hammond, 1998).</p>

Table 2. L3O: Collaboration Opportunities

L3O: Collaboration Opportunities
Collaborative Research of Teachers with Community Participation Collaborative Module Standardization
<p>Collaborative Research of Teachers with Community Participation. Senior High School had its birth a year ago; more researches are needed to study its impact to the society. SHS teachers should take this chance to strengthen the culture of research. Ms. Jane said that SHS teachers should make collaborative researches not for the sake of compliance but to encourage community participation to address different issues that revolve around senior high.</p> <p>Research collaboration can take on many forms: teacher and teacher, academic and teacher, whole school practitioner teams and community practitioner collaboration (Christianakis, 2010). Collaboration between different practitioners can offer opportunities for interdependence, diverse thought and blurred boundaries (Fox, 2003).</p> <p>Collaborative Module Standardization. SHS teachers, especially those who have masteral or doctoral degree with the subject can collaborate for the creation of modules per subject that can be implemented within the Division or even Regional or National levels. SHS teachers can reinvent the system by creating standardized modules that will address the needs of the learners. Collaboration amongst teachers can help build and strengthen solidarity (Keffer et.al., 1998).</p>

Table 3. L3O: Leadership Opportunities

L3O: Leadership Opportunities
The Master Teachers' Role Coaching Sessions

The Master Teachers' Role. There should be separate orientation and training for Master Teachers (MTs). MTs from HEI are not too familiar with their duties and responsibilities aside from teaching the subject. Ms. Mayumi said that MTs from HEI like her wants to be clearly oriented with the role of MTs especially in terms of instructional supervision because as of now they are just taking instructions and advises from MTs at junior high school.

Coaching Sessions. Coaching session is another opportunity for MTs to novice teachers in terms of content and even collaborative work of teachers in terms of strategies. Coaching is an essential component of an effective professional development program. Coaching can build will, skill, knowledge, and capacity because it can go where no other professional development has gone before: into the intellect, behaviors, practices, beliefs, values, and feelings of an educator (Aguilar, 2013).

Table 4. L3O: Idea Sharing Opportunities

L3O: Idea Sharing Opportunities
Merging of Teaching Strategies: HEI and Junior High
Teachers as Curriculum Developers
Policy Recommendations
On SHS teachers' qualification
On teaching loads
On support from industries

Merging of Teaching Strategies: HEI and Junior High. There can be selection of master teachers from HEI and from JHS who will share ideas and then collaborate in designing of strategies that will eventually meet the teaching practices done in HEI and in JHS. Daily Lesson Plan can be the final output for this.

Teachers as Curriculum Developers. Master teachers can be given a chance to be involved in the development or enhancement of the Curriculum Guide. After all, teachers are the bridge between students and curriculum. According to Pakantar (2013), the process of curriculum framing and preparation of textbooks be decentralized so as to increase teachers' involvement in these tasks.

Policy Recommendations. Pioneer SHS teachers can recommend future policy on SHS implementation in terms of teachers' qualification, distribution of teaching loads and support from industries especially on TVL track based on their personal experiences during the first year of SHS implementation.

(1) On SHS teachers' qualification. Participants of FGD agreed that a senior high school should have a professorial skill and a wide-range and in-depth content knowledge of the subject that he is teaching. SHS teachers can have an involvement on the modification or levelling up of teachers' qualification,

(2) On teaching loads. School leaders can have a benchmarking of the expertise of teachers and alignment of these to school needs so that proper teaching load can be given and misassignment can be avoided. Ms. Germin said, "The skills can be developed, nurtured and fruitful if the teacher can be able to know where and how it can be improved. *("Ang kahusayan ay magiging maunlad, mayabong, mabunga kung ang isang guro ay matutukoy kung para saan ba at paano ba siya papaunlarin.")* Referring to misassignment, Du Plessis (2016) said that teaching practices potential to be transformed into positive challenges and professional learning opportunities depending on leaders support (Du Plessis, 2016).

(3) On support from industries. TVL is a very special track. For skill enhancement of teachers and increase of employability of senior high school graduates, SHS teachers can recommend that support

from private industries can be considered. Ms. Jane suggested that skilled individual from the industry are deprived in teaching at SHS due to lack of qualification prescribed by DepEd but they are really the ones who are skilled in some areas of TVL. SHS teachers suggest that skilled individual from industry can teach at SHS with several conditions.

Table 5. L3O: DepEd and School Support Opportunities

L3O: DepEd and School Support Opportunities

Scholarships on Post Graduate Studies

SHS teachers, particularly the financially-challenged but deserving teachers can be given opportunities for scholarship in pursuing post graduate studies.

Leithwood et al. (2002) identified teachers' perception of the congruence between their personal and school goals and also their perception of the presence of support (structural, human resource, financial and positive climate) that will help with the accomplishment of the goals.

Conclusion and Recommendation

Based on the results of the study, it was shown that the newly hired senior high school teachers who came from different higher education institutions through their experiences can be called lifelong learner educators. This can be seen as they perform their duties and responsibilities as senior high school teacher and develop themselves through different professional development programs they are attending to.

As they entered the public school teaching as a senior high school teacher, they encountered different challenges like the classroom management, the misassignment of teachers wherein they were given teaching loads which are not along their line of specialization and the deepening of the content and contradicting pedagogical approaches in teaching. In addition, they faced problems in accomplishing different paper works and ancillary works and adapting to a new environment where there is a senior high school culture and teacher's identity.

Different opportunities have opened to former higher education instructions teaching in senior high school being the pioneer teachers in the implementation of senior high school in the Philippines. The lifelong learning opportunities are improving the Teaching Craft Opportunities, Collaboration Opportunities, Leadership Opportunities, Idea Sharing Opportunities and DepEd and School Opportunities.

The Department of Education in the Province of Cavite can use the results of the study to come up with different Professional Development program to all senior high school teachers not only teachers from higher education institutions but also those from industry or transferred from elementary and junior high school. Special attention also should be given to newly hired teachers without teaching experience or with a teaching experience of 1 to 3 years. The professional development program may include the different activities in every learning opportunities as presented in the result and discussions.

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Challenges: What Challenges in HEIs?

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Abstract

The world is facing a plethora of onslaughts of geo-political disruptions with populism, isolationism, terrorism, inter & intra conflicts; technology disruptions of artificial intelligence and digitization affecting work-social-personal life balance & behaviors and values & ideals; and corruptive and competitive disruptions bringing about disengagement, disbeliefs and discords. This paper attempts to put into perspectives of the current states of such disruptions and how they challenge the fundamentals of a HEI and its implications on the: (1) Competition & Competitiveness; (2) Constitution of the DNA of the HEI; (3) Context and Content of the external factors; (4) Capacity Vs. Capabilities; (5) Connect & Click Engagement; (6) Credible Vs. Corruptive Practices; (7) Comprehensive and Constructive Creation and Practices of Educational and Societal Value Addition; (8) Change Management and (9) Community Building. These challenges affects and influence the conscience of the faculty and institution as a living entity. It will also discuss a potential set of scenarios where the HEI can decide, select and establish as its future business model based on such challenges.

Introduction

The pace of changes in our world is fast coupled by disruptive tumultuous happenings at times. The march of the 17 years of the 21st century has shown a rise in world and national risks and instabilities and uncertainties from the East to the West which do not bode well for the future. It is a time of global geo-political discord and dysfunctions with a rise in protectionism or so-called patriotism brought about by dogmatic or dictatorial leadership, internal national strife to growing self-vested interests and power, terrorisms that hit at countries affecting all types and levels of humanities, increase in migrants and displaced people, increase in “social rape of humanity”, infections and hunger crisis, all of which seems far-fetched but are very real and is at the very door step of each nation.

At the national level, society and social dysfunctions and discords, socio cultural and socio economical breakdowns abound or are fragile. These are compounded by the disruptions caused by technologies and changes in the very fabric of the establishment and its socio order, creeping into and changing the way people relate to and engage with each other. These are compounded by the corruptive practices that are pervasive and “accepted” as a way of life legally or illegally but with minimal challenges to these entrenched evils that undermine a prosperous and happy society. These do not include the “disruptions” brought on by disruptive technologies that gnaw into the very fabrics of the social norms and ways of life, social and family engagements, behavioral changes in ways people used to live as a tight knitted family unit of the past.

In the backdrop of these changing landscapes and its uncertainties brought about by social discords and dysfunctions borne about by the “wantons” of global and national geo-politics and different types of disruptions, these seemingly far-fetched changes are at the very doorsteps of the HEI. While this paper do not claim to “know all” or “analyze all”, it attempts to discern key internal and external factors challenges that any HEI can potentially be faced with. These need to be addressed, its implications affecting its strategic direction and intent based on a “simplified model of its standing within these plethora of challenges” as proposed in this paper.

Current World and HEI Status

“In too many countries, people are deprived of their most basic needs and go to bed hungry every night because of corruption, while the powerful and corrupt enjoy lavish lifestyles with impunity.” – José Ugaz, Chair of Transparency International (2017). In most cases of the post AEC 2015 and most Asia-Pacific or African countries, this observation rings true with the harsh reality that they are in the **lower-ranked countries** of the Transparency International Corruption Perception Index in 2016. Globally, over two-thirds of the 176 countries and territories surveyed fall below the midpoint with a global average score of a paltry 43. Endemic corruptions in a country’s public sector are plagued by untrustworthy and badly functioning public institutions like the police, army, civil services and judiciary. While anti-corruption laws or agencies exists and are on the books, in practice they are mostly abutted or disregarded, unheeded by the rich, powerful, connected established elite few. Situations of bribery and extortion persist and pervade with basic services being undermined by misappropriation of funds, favoring the connected with official indifference when seeking redress from authorities that are on the take, unaccountable governments, lack of oversight, insecurity and shrinking space for civil society, pushing anti-corruption action to the margins in those countries or as noted by Transparency International (2016) “Grand corruption thrives in such settings”. Also noted by *Heinrich (2017)*, “..... traditional politicians fail to tackle corruption, people grow cynical. Increasingly, people are turning to populist leaders who promise to break the cycle of corruption and privilege”.

The interplay of corruption and inequality also feeds populism, and it has been left largely unattended and continues to grow, seeping into the educational systems through non-transparencies, corrupted practices and non-accountability. Thus “Populism” and “Protectionist” became the two key movements and idiosyncrasies of 2017, with political parties moving towards and favoring anti- establishments’ tendencies, practices and protectionist of own benefits rather than communal or global interests. While this might seem a political rhetoric that seems far-fetched and unilateral in a specific country, they do have indirect impacts and pose great challenges to the public or private educational establishments. These challenges are interwoven through the socio-cultural and socio-economic livelihood of the people that uses education as a means to an ends for better life in many developing countries and for that matter lower income groups of developed countries and not forgetting the forgotten third world countries ravaged by wars and raped by dictatorial regimes and their cohorts. This basically undercuts access to and undermines the quality of education that hits hardest at the most vulnerable and marginalized sectors of society unable to and with limited recourse and resources to defend themselves.

While these immediate issues challenge most HEI (Higher Education Institutions), this paper will explore the greater plethora of challenges that goes beyond the choice of what the HEI wants to be as envisioned and what it can be based on its mission. The changes in the geo-political scenario, social–economical & cultural issues, competitiveness and corruptive practices, the capacities and capabilities requirements, the connect and click in engaging stakeholders, the context & content and the comprehensiveness & constructiveness of educational and societal values and offers, all of which requires changes and community building and management to move the education agenda forward for the betterment of all. The world socio-economic, socio-cultural issues caused by geo-political concerns cannot be understated and underestimated. Bearing on these views of changes, what are in stores for the educational establishments? Based on these challenges, a set of operating scenario or its business model is proposed here to identify these challenges’ implications and where the HEI can choose to position its future.

Challenging disruptions and their implications

Competition Vs. Competitiveness of HEI

According to the College Board’s Annual Survey of Colleges based on NCES, IPEDS data between 2011-12 and 2016-17 (College Board, 2017), published tuition and fee prices rose by 9% in the public four-year sector, by 11% at public two-year colleges, and by 13% at private nonprofit four-year institutions, after adjusting for inflation. This showed that the past, present and future elements are the

rapidly rising tuitions, increased cost of living and lower purchasing power that have converted the country's elite universities and colleges into domains for the children of the wealthy, for only they can afford the cost of an education which should be the basic rights for all children to be educated.

Though education is claimed to being an entitlement in most countries as a basic right (UNESCO, 2015), education has become an extraordinarily expensive commodity, a fact that reinforces their exclusivity because there are relatively fewer students who can afford the experience of a prestigious university or for that matter, a normal education to be educated. Attending and graduating from a highly ranked university entails embracing a system of commoditized prestige, in which one's diploma is valued more or less highly depending on a university's ranking. A person's social and professional self-worth becomes inextricably linked to the university from which one earns one's degree. In those countries ravaged by wars, this basic and minimum education is not even available nor available in a very minimalist and austere way representing impediments and barricades that are instrumental in promoting development, social justice and other human rights. In developing countries, education, unless provided and protected by law, are still out of the daily meager means of the ordinary people, and the very marginalized in the higher education arena.

Education should be the educational passport documenting each student's educational certifications at one or several schools, the credentials directly relevant to his or her future occupation which is to serve the bigger and larger segment of the workforce. This should be the standard post-secondary educational vehicle for the more occupation oriented workforce. State or public HEIs should aim to prepare students for future employment in practical occupations. Indeed, all HEIs with their Holy Grail missions of teaching & learning, research and societal contributions were originally chartered to do exactly that. Yet they have consistently proven that they cannot deliver occupation-oriented training effectively or efficiently. This leaves all education institutions torn between two models of operation and well-suited for neither. If they fail to clarify their mission in the next generation, they will become obsolete.

The present state and situation of HEI educational offers abound with ranking universities to run-of-mill operatives just to rake in the most profits while still undetected, not detected or will not be detected due to shady patronage. These scenarios have been a malicious malady in most countries that continue to undermine competition and competitiveness across the spectrum of HEI educational value and offers. This in itself is an inherent and imminent risk that shows the interplays of socio-economics and socio-cultural factors with the education providers that competes or capitalize on the social failures of "high educational value for all based on the competitiveness of the education provider" where society is at great risk of exploitation by unscrupulous education providers that exist in all nations.

Constitutions of DNA a HEI and Stakeholders

"An education System is only as good as its teachers. Teachers are essential to universal and quality education for all: they are central to shaping minds and attitudes of the coming generations to deal with new global challenges and opportunities", Joint Message on the occasion of the World Teachers' Day (5th October 2014) (UNESCO, 2015). The degree of competitiveness of a HEI is very dependent in its real actionable strategic intent as opposed to paying lip services outlined in its teaching-learning, research and societal responsibility mission in its most fundamental forms. The degree of conviction represents the governance instruments to manage and deliver on its educational value beliefs, values and ethical actions to combat corruption in higher education within its own corps and cadres. This underlies the DNA of the HEI and its personnel to commit to a high level of honesty and integrity as a valued and respected education provider professional. The DNA of the HEI is reflected by and delivered by its human component, with each human factor completely committed to the traditional values of a "great teacher who is respected for the highest value of commitment to ethics of honesty and integrity based on his or her real knowledge and expertise and who is willing to work towards the common good in the face of impoverished and deprived challenges" in meeting the past, present and potentially future challenges that undermines the academic risks (Teay, 2017).

The culture of educational value provisions in a honest way that ponders on the reflections of *heart and brain* coming together in education is a high priority as it seems that most faculty are more self-centered and self-serving as this has become the norm to join the pack. This culture is the very conscience that

each HEI and its internal human factors must consider and re-position or re-engineer if one is to conscientiously deliver on what one should do within one's conscience or sub-conscience freely as opposed to being required or expected to do and deliver without compulsion or coercion as it is a conscientious obligation that one must do or die with it. It is the choice each individual HEI and its personnel must reflect on as noted by Teay (2017) in "Post AEC 2015: An Agenda and Framework for Conscientious HEIs and Faculty", to re-consider and re-envision a transformed HEI into an entity of conscience that has become a risk. They hold society hostage as the present students who they "educate" are in their hand, head and heart to develop into future upright morally strong knowledgeable and skillful citizens who love and deliver the best for themselves, the nation and the world. It is the very responsibility and accountability that the HEI and a faculty must hold true in their professional performance in all aspects of their committed accountability to create and deliver on educational and societal value (Teay, 2015).

Context and Content of external factors

As noted earlier, there is great changes in the global geo-political stage which is becoming more "protectionism" leading to the more localized "populism" to make one's own country great at the expense of other countries ignoring the fundamentals of cooperation and collaborations towards shared growth and stability and sustenance of a common good for all. Mark Malloch-Brown in a disclaimer comment in The Telegraph of his 70 years career in the UN "I was never blind to the heavy bureaucracy, the risk aversion and too often, the apparent abandonment of the exciting founding principles of peace, justice and human development that were intended to animate the UN's activities. In the cynical, inter-state politics of UN decision-making, the ambitions of Roosevelt, Truman and others could often seem hollow hopes". The oft criticized United Nations are undermined by the "power play of – you propose I veto, I propose, you veto" of the 5 permanent members that are supposed to protect the world from controversial regimes, corrupted practices and arrive at common good actions. Time and again, these vetoing only benefits their own agenda or motives, resulting in very loud dramatic shows of discussions, as a famous Chinese proverb says, "chicken talking to ducks" with minimal real actions (Gardiner, 2007). These represent the global geo-political risks that spills onto the national politics and the degree these national risks are imminent are dependent on how well the national governance is susceptible to, its self-sufficiency and reliance and its own sustainability that can deflect or shield the greater impacts to the nation.

This is the present situation of the world where global geo-politics spill into national politics, affecting the key socio-cultural, socio-economics and social fabric of a nation. This has allowed for many countries internal catastrophic discord and dissonance that run wild bringing upon destructions of its populace, scattering the families which are the very fabric of what a nation is and stands for, allowing for or promoting terrorism in the name of protecting the people on ideologies differences. These local strifes in many warring nations have spilled into other sovereigns' territories through its migrations and migrant issues who become destitute of a nation and a future, thus becoming political pawns in the world power struggle.

While not all countries are in a state of civil war, many are faced with despotic or tyrannical political systems that are more dictatorial than democratic. There are reflected in the countries' ranking in the *World Happiness Report 2017* (Helliwell et. al., 2017) on the six key variables used to explain happiness differences among countries on income, healthy life expectancy, having someone to count on in times of trouble, generosity, freedom and trust, with the latter measured by the absence of corruption in business and government. People in China are no happier than 25 years ago, USA is less happy and Africa is struggling. On the overall, 13 countries have means of 7.0 to 7.5, 31 (6 to 6.99), 52 (5.0 to 5.99), 36 (4.0 to 4.99) and 19 (2.7 to 3.97) which means that only 28% of 155 countries surveyed are in the high to medium high with 33.5% in medium range and 35% in low range of happiness. These inherently reflect the national geo-political risks that affect directly the socio-cultural, socio-economics and societal well beings and betterments risks.

Another key factor is the disruptive technologies, especially digital disruptions that caused a "Big Bang Disruption" (Downes and Nunes, 2013) that has changed the way people live, communicate, socialize

and work, which makes the old established socio-cultural, socio-economic and work-life systems move too fast for the old generation to accept and adapt, and the new generation who have adopted and rebelled. More importantly, it has brought about a key decision for organizations to review and revise their business models to adapt to these disruptive technologies challenges as raised by Bower and Christensen's (1995) "Disruptive Technologies: Riding the Waves" (Gilbert and Bower, 2002; Slywartzky, et.al. 2000), and that changes their competitive advantage (Christensen and Overdorf, 2000). In addition, due to automation, 3 main areas of high degree of automation, based on time spent on activities, are data collection (17%), data processing (16%) and predictable physical activities (18%) while those that are less susceptible are managerial (7%), expertise (14%), interfacing with stakeholders (16%) and unpredictable physical activities (12%) (McKinsey Global Institute, 2017). These technologies disruption represents the technological risk that the HEI must prepare its cohorts for.

These comprehensively relates to their perceived engagement with people amid life socio-economic and socio-cultural issues that is also compounded by the technology disruptions challenging and undermining the family and social fabrics and work life and commutations and social interactions. People are pushed much more and cornered into empty shells as opposed to open carefree engaged and happy environment where life and work can be lived to the fullest with minimal discord and disruptions.

Capacity Vs. Capabilities

While the number HEIs in all nations have proliferated and grown, and as there is money in education, it has become an easy and lucrative business as expressed by Chaudhuri (2013) "serious concern of a university as a means of the job market and a money-making mechanism". Recognizing that they are supposedly to be contributing to the success of the nation, one tends to forget that it is the theoretical and pragmatic competencies of the faculty that develops the competencies of the students. Unfortunately as noted above and as noted by Teay (2017), this underscores the conviction, commitment, and conscience that one has "real competencies" that one is equipped with per se rather than as claimed. One needs be open to learning to continuously develop and use these to strengthen and sustain the learning of the student which is what a "true teacher" is.

Due to the competitiveness situation and the challenges facing a truly qualified committed and conscientious faculty, faculty are succumbing to short cuts and find easy ways and means to cover up their shortcomings and are easy prey to "power and money" rather than "capacity and capabilities" to advance themselves and ultimately advancing their students and society. Degrees vary across the whole spectrum of the faculty, but apparently the rule of thumb is 30:30:40, where 30% are strongly committed conscientiously, 30% are the mediocre performing as required and expected, and the last 40% can be written off as "disgrace" to the "true heart and brains of committed and conscientious teachers"

Connect & Click Engagement

As noted earlier, in real engagement, one must be able to "connect and click". It is not a façade of communicating through social media or face to face communications. One must talk and reach out with not only the brain but also the heart. It is based on trust, and many global unions, organizations and collaborations fail or are underperforming due to the lack of or the heart to trust and to really connect with the other party or parties.

As also by Teay and Wattanasap, (2016), these "connecting and clicking" by faculty-student, faculty-faculty, faculty-HEI, HEI-HEI, HEI-society, students-students are fundamental behavioral, psychotic and psychological issues. Unions are broken, marriages fail with an increasing rate of divorce in most countries, all of which gnaws into and undermine the social fabric of the nation. The geo-politics or the national politics are not helping much to convince the people to "connect and click" as the people are supposed to put their trust into the elected leaders to represent them, with most of them, once attaining power becoming self-serving rather than serving the people who put them in power. As such, the real "connect to click" with people and stakeholders are becoming a huge burden to the HEI and the faculty, and making them more pretentious to "connect and engage" and "to commit and deliver" on educational or societal value owing to the short time span that they have as "connecting and clicking" built on trust takes time to build and nurture. This is a social risk open to all nations, HEIs and their faculty.

Credible Vs. Corruptive Practices

Transparency and Integrity have been claimed to be core values of any institution and its faculty, but it appears that they are drifting from these integrity values to academic misconducts and misdemeanors with emerging corruption risks in higher education and lack of transparency through “cliques and power groups” education management. These challenge the legitimacy of these institutions in the measure of how they deliver on the promise of human rights, in terms of results, processes and the values and principles they represent through education and accountability to society.

The *Global Corruption Report: Education (2013)* identified a non-exhaustive list of the many shapes and forms that corruption in education can take in the forms of illegal or falsified procurement in construction, ‘shadow schools’ that parallels day schools where real teaching and learning are abandoned, ‘ghost teachers’ and the diversion of resources intended for textbooks and supplies or school infrastructures and facilities, bribery in access to education and the buying of grades, nepotism in teacher appointments and fake diplomas, the misuse of school grants for private gain, absenteeism, and private tutoring in place of formal teaching, sexual exploitation in the classroom as abuses of entrusted power and, therefore, as acts of corruption, illicit payments or “tea money” commonly paid in Asia in recruitment and admissions, nepotism in tenured postings, bribery in on-campus accommodation and grading, political and corporate undue influence in research, with research becoming a tradable commodity or business exchange, plagiarism, ‘ghost authorship’ and editorial misconduct in academic journals, online diploma and accreditation mills, the manipulation of job placement data, and corruption in degree recognition in cross-border education. In most of these cases of corruption in education, they act as dangerous barriers to high-quality education affecting social and economic development. The roots of these corrupt practices lie in a lack of transparency and accountability with inability to access information preventing monitoring and management of academic and social performance, use of budgets with those in power answerable and accountable to their actions always evading the truth of the actions, as they talk from positions of power and influence.

Community Building – Post AEC 2015

Community Building at the global arena is becoming a big joke, with the Brexit in 2016 and a “reflection of what EU should be and will be”, with US isolating itself when it retracted into itself through “America first” and withdrawing from the TTP and 2015 Paris Climate Accord that were agreed upon. The community within and external of ASEAN, as is, mirrors a politicized and polarized “old boys club” with some but not substantial real “community building towards the benefits of all”. But with post AEC 2015, the barriers to entry into the HEI will be more competitive and it will be the survival of the fittest as there is a lack of demand for education with the low and decreasing birth rates in most ASEAN or Asian more developed economies.

This competitive issue compounds the HEI internal and external community building through engagements. Internally, it has not fully discerned the full potential and challenges of faculty and student engagement which academics claim to underscore student success, but the scale and scope of its determinant factors are overlooked (Teay and Wattanasap, 2016) or are ill-prepared for. While true engagement is beneficial, HEI or faculty overwhelmed with their basic teaching-learning and research are ill prepared as these lofty ideals are behavioral in nature that are compounded by the psychotic and psychological factors that “engages or disengages” faculty-student, faculty-faculty, HEI-faculty, HEI-faculty-society and society-society which are complex complication engagement equations that know no depth or breath no matter how much one scientifically research into to find the holy grail of engagement of which community is built on. This engagement risk towards community building to reach out to and help others is a set of free for all multifaceted multifarious obstacles that builds on better relationships and engagement for the good of oneself, one’s community and society that can make the HEI dysfunctional.

Comprehensive and Constructive Creation and Practices in Educational and Societal Value Addition

While most HEI and faculty claim that they are delivering on their mission through their commitment to educational value, often, most HEI have beautifully worded missions, goals and objectives, a fundamental question arising from this is the “real value addition to education that students get over the passage of 4 years, 2 years or 6 years”. Most HEIs’ planning are usually not well executed or are just gathering dust on the shelves. Most HEIs’ performance are determined in short-term gains as opposed to the longer term values that the students are able to deliver in their work, life and social environment when the students join the mainstream real life. How responsible and accountable are the HEIs towards these end values for the graduates to deliver in their future in morally acceptable ways with measurable outcomes still elusive and evasive.

IQA (Internal Quality Assurance) systems are established, but there are the issues of the whole “value chain of the integrated process” in the HEI to create and deliver on educational and societal values. Most of the IQA are not holistic in nature nor integrated systemically or systematically as a “whole value chain”. It should be a summation of the whole rather than the summation of the pieces that underscores a true and highly functioning quality management system. On the other hand the EQA (External Quality Assurance) accreditation are trying their best to certify and assure that the HEIs are comprehensively and creatively delivering the quality of their educational offers and the degree of educational value that the HEIs have created and delivered. As such, while the IQA = EQA equation is to create and deliver educational values, the lack of measures of these value addition undermine the real value performance of the HEIs and their faculty. The world of education is still struggling to come up with the holy grail of educational value measures and management. This represents another very susceptible education risk that is being addressed through approximate proxy measures of performance.

Change Management addressing the challenges

Facing such challenges and risk mean that the HEIs and their faculty them willing to meet them face on and take up the challenges and move beyond them to perform well. This would call for imminent and potentially drastic changes, which entails change management to the core education systems systematically and pragmatically. The two main challenges here are (1) in terms of educational technology and educational context and content facing the faculty and the HEI to make appropriate choices to address such changes; (2) before educators try to change students, the plea is for the educators to change themselves first, behaviorally and psychologically, assuming that they are competent.

Unfortunately, due to the complexity and complicated multifaceted and multifarious challenges that are interdependently intertwined together, the HEI and faculty are not well equipped to address these challenges well and thus their choices are at best based on their understanding and commitment to the challenges and choices. While delimited by their best scenario choices, they go into the domain of the faculty constituting the HEI on their commitment to change conscientiously. These inadvertently goes into the domain of the human psychotic and psychological behaviors that at best can collectively and at worse individually bring about some constructive changes favoring the progress and performance of education and societal value. This inadvertently also represent another great behavioral risk in the intentions to change and the capacity and capability by the HEIs and their faculty to change to meet these challenges.

Whither are we going? A HEI Strategic Intent Model amidst these Challenges

While there are many challenges that represent many different and diverse types of educational risks facing a typical HEI in this era, these 9 challenges have been selected the basis of their more comprehensive scopes of importance to and impacts to the HEIs. It is assumed that most other issues, problems or challenges fall within these 9 overarching challenges. Six of these are construed to be the internal factors as they represent the strengths and weakness of the HEI establishment itself and its human assets. These represent the core foundations of the HEI’s competencies, capabilities and capacities to “practice what it preaches” and to create educational values to the society. Three of the

other challenges, though externalized, critically affect and play the HEI's plans and mechanisms to address and mitigate these external risks. Using these two sets of factors, the HEI would need to determine its own standing of these factors on a measure of 1 to 10, and determine where it stands on one of the four quadrants of the proposed model, based on the intersecting set of "X" and "Y" variables (Figure 1). Knowing where it stands, the HEI is in a better position to plot its own strategic intent into the future, with alignment of not only its resources but its "head and heart" approaches to create and realize its strategic intent on its educational values and offers to society.

In reality, within the complexity of a surreal model with lots of uncertainty, there exist multiple interactions of these factors that would create multifarious and multifaceted scenarios which would be good basis for scenario planning. A case scenario is that the global geo-political factors can affect the national political arena directly or indirectly with various degrees of importance and impacts. This would then affect the more broad based socio-economic and socio-cultural environments that would then affect each of the individual internal factors individually or collectively, resulting in a more complex and complicated scenario planning model of which a HEI is not ready for nor is it equipped for nor a necessity for its strategic planning.

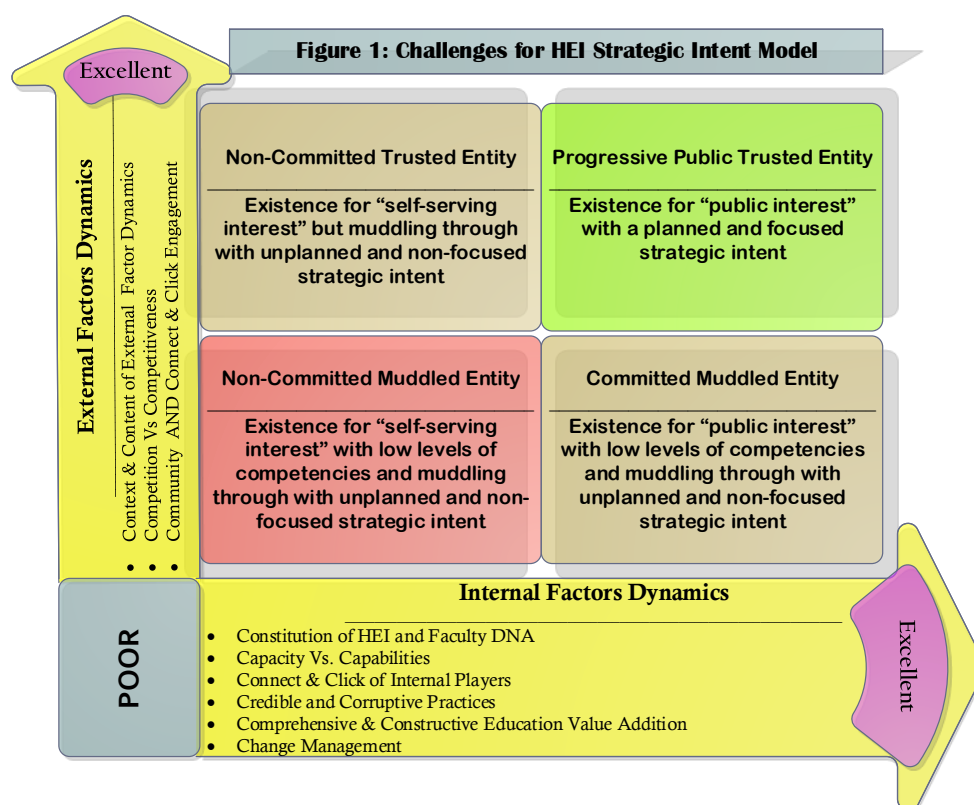


Figure 1: Challenges for HEI Strategic Intent Model

As such, based on these 9 constructs, a simplified broad based model of which a 1:1 factor relationship is assumed as proposed in this paper to address these challenges. This simplified model is based on two broad based sets of internal and external factors resulting in a 4 quadrants model where the HEI can position into, maneuver and plot its future strategic direction as discussed below.

North East Quadrant 1 "Savior" Strategic Intent – In this quadrant, the key internal and external factors challenging the HEI are highly defined, understood and committed to being addressed and resolved. The main intent is ruled by both the "head and heart" where issues and challenges are rationalized with a conscientious passion towards the public interest, based on high degree of competencies, capacities and capabilities. While HEIs in most developed countries are supposedly in this quadrant, there exists the "bad apples" that surrounds and abounds. These countries are void of global geo-political strife but are susceptible to local internalized strife, which can destabilize but not derail progress. The HEI, in itself is the core of the leadership packs that re-construes the educational

and societal values, re-image the future of education and preparing the future with progressive forward looking programs to enable the progress of society and its stakeholders. They are normally in the forefront of highly competent people, with supposedly positive conscientious committed competent public interest DNA, who can engage society and work for society and come across as “credible” people who work and live for the public interest. These are rare breeds of highly conscientious people who work conscientiously towards creating more educational values that are needed by society to live and thrive in a more complex, complicated wired society.

South East Quadrant 2 “Saintly” Strategic Intent – In this quadrant, the key internal factors challenging the HEI are well established, understood and defined with an intent to use their own internal resolves, resources, resolutions and resiliencies to minimize and mitigate the external forces which are key destabilizers of their strives towards their commitment towards the public interest. This is a situation “ruled by the heart but undermined by the head”, as rational actions are undermined by key external challenges beyond their control and command. They can only pray to use their perseverance to strengthen and sustain their public intent which they are committed in a “against all odds” of external strife and issues. Most HEIs in developing and third world countries would fall into this quadrant but they can only survive with like-minded people who are the hero trying to go “against all odds” to re-establish the fundamentals of educational values for future sustenance of a better society. Even in a developing country where global and national strife are not eminently imminent, but for lack of a strong external national agenda, each HEI has to establish its own code of conduct, ethics and “saintly agenda” to go against mainstream disengagement and discorded disinterest of public educational values as prime priority. This is the model where most of the developing countries are mired in, and it is a race to establish one’s HEI as the elite of the pack as opposed to being part of the pack that limply follows the mainstream flows of disinterest and “come what may”. There are still good people who are willing to use their competencies, their DNA focused on public interest for the future of its society, the betterment of a future society that is self-sufficient and sustainable. These elites will pave the foundation of a stronger future that are self-reliant and can withstand external unsavory forces of the future.

North West Quadrant 3 “Self-Destructive” Strategic Intent – In this quadrant, the external elements of global geo-political issues are farfetched with national domesticated issues well managed and addressed by the “power of the time”. The HEI itself is the problem as it is impoverished by its own internal challenges of low competencies, with self-serving interest, the agenda of the day and a field for exploitation of the society to offer low educational values in exchange for a so called certificate of “ease towards education as a means for future livelihoods”. This is the instance where education has become a money making machinery in many developed, developing and under developed countries, albeit being more prevalent in developing and under developing countries where the national governance machinery failed terribly in reining these money-vested interests as they are part and parcel of these vicious intents. Money and power is the name of the game. Money and power rules and dictate the educational plans that are a façade of pretensions and pretentious educational offers, as even the strongest succumb to the “smell of money and power”. The thirsts are to exercise these powers in the short time span when they are “enthroned and entrusted” with positions through connections, power bargaining and bartering, political maneuverings, or plain “killing”. These vicious cycles of living the trappings of the elite with entrusted cohorts are the bane of self-destructive evils though they can be short or long lived, but ultimately crippling or destroying the education and societal values they are entrusted with.

South West Quadrant 4 “Sum-of-all-evils” Strategic Intent – In this quadrant, the HEI is faring badly or failing in both the external and internal challenges. The national domesticated governance is compounded by the global geo-political issues that completely compromise the provision of “education for all”. This is the situation where the countries are in the theatres of internal conflicts or external inflicted engagements brought on by “two warring sides on the pretention of saving the local populace and minimizing national strife but ultimately maiming the country for their hidden agenda and future exploitations”. While facing such impossible challenges on the doorsteps, the HEIs have no will to rise up to the moment of challenges as they lack the resolves to retaliate, the resources to re-build their internal competencies strongholds. With the nonexistence of the human assets to address the issues but on the contrary compounding the issues are the “human needs to survive by hook or by crook, and with a short life span, the dark intents overpower the goods” leaving the HEIs as the open field of contentions,

contagious infightings for scarce resources used for their own self-serving interests and intents. These complete the jig-saw of destruction of not only the present but future generations.

Implications and Conclusion

The 21st Century global geo-politics and national political arena have become more complex and complicated resembling wild political jungles of discords and dissonance and potentially dysfunctional socio-economic, socio-cultural and social norms that are highly corruptible and competitive brought on by the “power and money disorder” and “disruptive technologies”. These have changed the way people work, live and socialize and represent key challenges as identified in this paper to the HEIs and their faculty that are complicated by conscientious commitment of the HEIs to create and deliver on educational and societal values for the betterment of the future society and stakeholders.

While these assumed 9 sets of key higher order internal and external challenges exist, they make the HEIs either stand up to the challenges to review, re-position or re-engineer their strategic intents in their educational and societal responsibilities and accountabilities to society or falter and fade away with the pack. In reality, these 9 challenges are inter-related and operate interdependently which are more appropriate for scenario planning to deal with the multifaceted and multifarious uncertainties. But most HEIs can resort to a more simplistic modular approach presented here. This model has 4 main quadrants of different operating scenarios that the HEIs should consider realistically to guide them on their development of where they stand within these complex challenges.

Using this framework, they can possibly develop their business models to counter and mitigate these areas for improvements based on their commitment and competencies to be more responsible and accountable to society and their stakeholders. It is presumed that this model can help the HEIs and their faculty to identify who they are, what they are and what and how they are doing to be responsible and accountable for their educational and societal values for the greater benefits of society. Used wisely and realistically, this model can potentially help HEIs to better understand their own internal strengths and weaknesses and map them to the external challenges to help them better position themselves realistically and wisely in their strategic intent towards progressive and positive responsible and accountable contributions to society.

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Improving internationalization through English-medium Instruction at Vietnamese Universities: The case of Foreign Trade University

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Abstract

Since the Doi Moi policy in 1986, changes and development have been seen in all aspects of life, including education. At that time, education in the country seemed a quite close sector because there were few activities of exchanging, not to mention internationalizing. Recently, when internationalization becomes a hot trend all over the world, Vietnam cannot stay away from it. Education in Vietnam is affected and changing to keep pace with education in other countries, especially the developed ones. As a result, Vietnam stepped into the process of internationalization of higher education. During the process, universities in Vietnam transform themselves by applying new policies and implementing new activities and programs among which is innovating curriculum. This paper examines how curriculum changes (specifically in this paper applying English-medium curricula) affects internationalization process at universities in Vietnam by studying Foreign Trade University in Hanoi as a case. It is found out that English-medium instructed programs help smooth students mobility, especially the incoming flow. It also has influences on the other 2 aspects of internationalization of higher education as suggested by Rudzki (1995), which are organizational changes and staff development. However, there are still room for a faster and better process.

Keywords

Internationalization of higher education, curriculum innovation, English-medium instructed

Introduction

Higher education in Vietnam has experienced impressive growth since 1986 Doi Moi policy and especially after 1993 with the new framework of national education. The last ten years has witnessed obvious changes in higher education in Vietnam in term of the expansion of existing institutions and the mushrooming establishment of new universities. Along with the rapid expansion of higher education institutions is the increasing role of internationalization process of higher education.

In Vietnam internationalization of higher education seems a new concept even though its activities have been implemented for a long time. In the past, however, the dominating activity (or even the only focus) of internationalization of higher education is sending students or staffs abroad to study. Nowadays, internationalization is upgraded to a multi-dimensional concept as suggested by Rudzki (1995) that internationalization of higher education consists of 4 dimensions: Organizational Change, Curriculum Innovation, Staff Development and Student Mobility.

As suggested by Reid and Loxton (2004), curriculum should be used as the main vehicle of internationalization of higher education and that changes in curriculum can lead to the higher quality of the entire system. Luciano (2014) finds out that curriculum customization supports better integration of instructional practices and strategies to handle the needs of the student at the best condition. And in her research in 2011, Istileulova recommends looking at curriculum from two sides, that are *Practical skill and knowledge* and *knowledge of English*. Therefore, when curriculum development is implemented, it can be done through one of these two channels or make changes in both sides. At universities in many countries all around the world, programs and courses taught in foreign languages are set up and

implemented as one aspect of internationalization of higher education. Universities in Vietnam are not an exception. Most of those programs are instructed in English.

English-medium instructions courses are introduced with the aim of attracting both students and staffs from other countries and opening the research and transnational network (Dafouz and Camacho-Minano, 2016). And in Vietnam, the teaching in English also targets improving students' capability of English and enhancing their intercultural knowledge as well as working skills in the future when they work in an international environment.

This research examines how English-medium instructed programs are carried out in Vietnam and how it helps the process of internationalization of higher education at universities by focusing on the case of Foreign Trade University in Hanoi. Secondary data will be studied. Surveys sent to international students of one type of the English-medium instructed programs will be analyzed.

Internationalization of higher education in Vietnam

As mentioned above, internationalization of higher education is a quite new concept in Vietnam though some of its activities have been there for a long time. In the past, internationalization was implemented unintendedly through student mobility but mostly the outgoing side. Recently, universities, under the support and facilitation by the Ministry of Education and Training (MoET), have been paying more attention to other aspects of internationalization of higher education. Accordingly, changes are made in the field of curriculum, both on the side of knowledge and skill and language of instruction.

If in the English-speaking countries, changes are made in universities' curriculum as a form of adjusting to the differences in students from other countries. In Vietnam, the changes are made firstly for domestic students to be familiar to international environment and secondly to call for participants from more students overseas. To do so, along with the changes in the content of education, the changes in language of instruction is needed. Programs and courses taught in foreign languages (mostly in English), therefore, are becoming more and more popular.

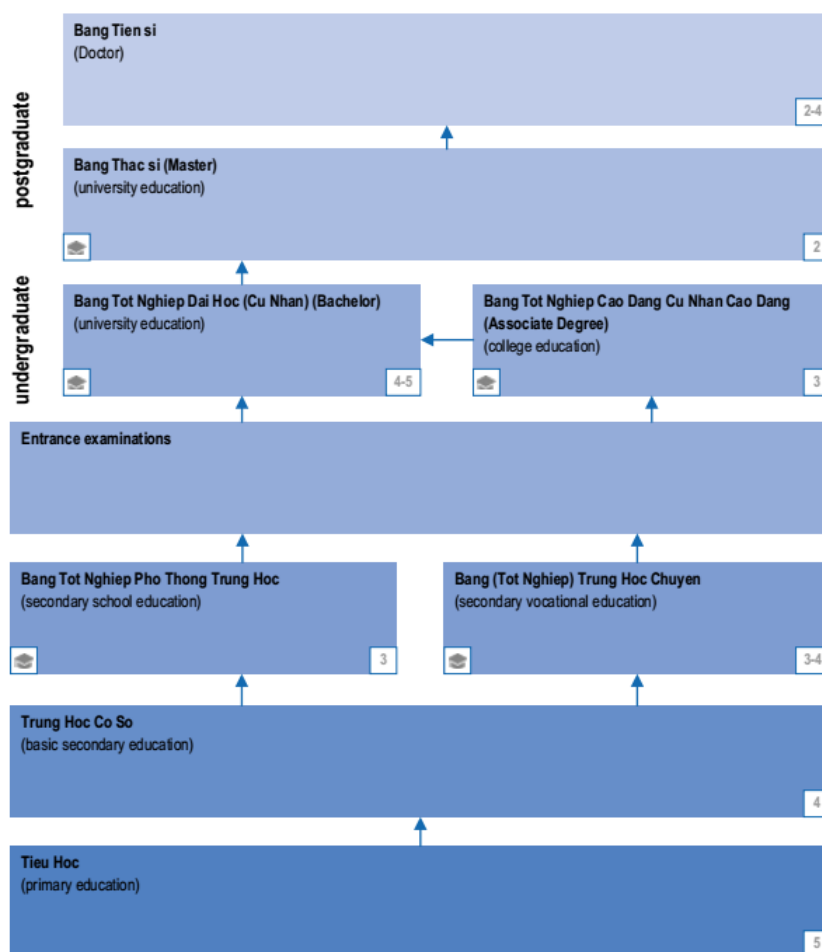


Figure 1: Education System in Vietnam from Primary to Higher Education *Source: Nuffic, 2015*
(Note: Figures in the square show the duration (years) of education)

Figure 1 demonstrates the education system of Vietnam from primary school until higher education. Aspects of internationalization of education in general are seen at all levels but curriculum innovation in term of English-medium instructed programs seems to be found at university education only (Bachelor and Master). The innovation in curriculum regarding language skills can take some forms such as changing the language of instruction of existing programs and courses into a foreign language; importing the whole curriculum from one university overseas and teaching it in Vietnam using foreign languages; and forming either new curriculums or programs instructed in foreign languages. Those changes have been applied in some universities successfully. There are universities that established new schools or faculties to especially manage such programs professionally. Among those so-called successful universities, Foreign Trade University (FTU) has been applying all three forms of English-medium instructed education as mentioned in the previous part.

Internationalization of higher education through English-medium instruction at Foreign Trade University

Established in 1969, after more than 50 years, FTU is considered one of the most prestigious universities in Vietnam. There is no official ranking in the country, however, FTU is referred to as the hub to the best students in the field of economics, business, and foreign languages.

Internationalization at FTU has been existing for a long time since its students were sent overseas far in the past. It was, nevertheless, done without any intension of internationalizing. Recently, when the notion of internationalization becomes more and more popular and clear, FTU itself is dynamic and active in the process.

It is obvious that attracting international students is no doubt difficult because Vietnam is not a native English-speaking country. There have been the incoming flows of international students to FTU for a long time, most of them, nevertheless, were from Laos and Cambodia who came to FTU as government agreement scholarship holders. The number of non-government scholarship students came to Vietnam was extremely modest because they did not have much choices as they had to study totally in Vietnamese. They came to Vietnam to study Vietnamese language, Vietnamese culture, or Vietnamese traditional arts and they studied in Vietnamese language. In the research by Roga, Lapina, and Muursepp (2015), it is revealed that among the factors influencing international students' choice of higher education institutions, international students and staff is ranked the third most important factor, following Academic Quality and Academic Reputation. As a result, the very limited number of international students made it an obstacle to internationalization through student mobility. Understanding the situation, FTU takes the chances in policy by the government to create and develop internationalization process through English-medium programs and courses.

Types of English-medium Programs at FTU

At FTU, there are types of programs for international students to attend, most of which are all in foreign languages (there are programs for international students studying Vietnamese language and culture in Vietnamese and one program in Japanese for Japanese students studying Vietnamese culture and economy). It should be clear that most of these programs are established for Vietnamese students first but then the managers find out that they are one of the most basic factors to call for international students. Accordingly, new programs have been outlined and implemented. Under this study's scope, review on program taught in English will be provided.

High-quality program

High quality program is the first program to be run at FTU using English as language of instruction since 2005. Accordingly, students will study mostly in English (some typical Vietnamese courses are delivered in Vietnamese). There are several majors that students can choose among, which are Economics and International Business (the most established high-quality major), International Business Management, Banking and International Finance, and International Economics. The high-quality programs apply the same curriculum content with the standard programs. The only difference is the language of instruction (standard programs are instructed totally in Vietnamese while high quality programs are delivered mostly in English).

In order to be eligible to these programs, students must firstly be accepted in to FTU after the national entrance examination; secondly have appropriate English proficiency (IELTS, TOEFL, or TOEIC) or pass the English examination by the university. Recently, each program accepts at most 90 students every schoolyear. International students can apply fulltime for these programs without taking the national entrance examination (there are some courses in Vietnamese so in addition to English proficiency certificate, they need Vietnamese language proficiency certificate). Otherwise, they can apply as exchange students or free movers for some of the courses that they are interested in. The criteria for exchange students seem looser.

Joint-training program

In 2007, FTU started its first joint-training program, which is cooperated with La Trobe University in Australia. That first joint-training program is at graduate level (Master). Since then, such programs have been established for both undergraduate students and master students. Up to now, there are now 10 such joint-training programs under operation, managed by two managerial bodies for students to participate (table 1). Under these programs, curricula are all imported from partner universities and taught in English totally. There are some courses delivered by professors of the partner universities but most of the courses are instructed by Vietnamese lecturers. International students can also apply for those programs as exchange or fulltime students or free movers given that they can meet the requirements. Studying in the joint training programs, students will receive degree from partners universities.

Table 1: Joint-training programs at FTU

No.	Majors	Degree	Partner
1	Finance	Bachelor	Neil Brock Copenhagen University, Denmark
2	Business Studies	Bachelor	Bedfordshire University, UK
3	Tourism and Hospitality Management	Bachelor	Nanhua University and Meiho Univeristy, Taiwan
4	International Business	Master	La Trobe University, Australia
5	Finance and Business Management	Master	Bedfordshire University, UK
6	Business Management	Master	Meiho University, Taiwan
7	Bachelor of Financial Service	Bachelor	London Metropolitan University, UK
8	Business Management	Bachelor	SolBridge International Business School, Woosong University, Korea
9	Treasury Management	Master	University of Rennes 1, France
10	Executive Business Management	Master	University of Hawaii at Manoa

Source: Created by author based on information on FTU's website (2017)

American -Accredited undergraduate program

At FTU, there are two American Accredited undergraduate programs managed by two faculties. The program implemented since 2008 is majored in Economics and International Business managed by Faculty of Economics and International Business, in cooperation with Colorado State University. The other program is Business Administration managed by faculty of Business Administration in cooperation with California State University Fullerton. These programs are called advanced programs for short. These programs were funded and supported by the MoET for several first years and now FTU is under full financial autonomy for the programs. Like joint-training programs, advanced programs import curricula from partner universities, instructed totally in English by Vietnamese lecturers and professors from partners. The difference to the joint-training programs lays in the way students are recruited, which is similar to the way they recruit students to the high-quality programs. If the joint-training programs are open to all students with minimum-accepted scores set by the MoET, advanced programs are for successfully accepted students to FTU only. And after their admission, students will undergo similar process to the students applying for high-quality programs. They have to prove their English proficiency and based on their results in the national examination, they will then once again be scored. After the screening step, short-listed students are interviewed to get final result. Students of these programs have two options after they finish 3 years at FTU. One option is to go to the partner universities to finish 4th year and get bachelor degree issued by partner universities. Option 2 is to stay at FTU, complete the required courses and fulfil all the requirements and get FTU's degree. Every schoolyear, each program recruit about 90 students.

Short-term programs

In addition to the fulltime English-medium programs, FTU has been offering summer camps in English for international students since 2013. The first programs in 2013 were for Japanese students only, ordered by Tohoku University and Nara Women University, Japan. After its first trials in 2013, FTU widen its market of these programs to all students from partner universities and attracts students from Japan, Switzerland, Germany, UK and so on. These programs focus mostly on cultural and economic aspects as well as enhance interaction between FTU students and students from the universities. After attending such programs, there are students coming to FTU to study as exchange students. Being a newly-implemented program, summer camps have improved themselves as a stable source of international student to the university (chart 3).

English-medium instructed programs and student mobility

As discussed, before opening English-medium programs, FTU hosted students mostly from Laos and Cambodia to study fulltime as government agreement scholarship holders. In addition, there was a number of Chinese students coming for a short time (3 months, 6 months, or 1 year at most) to study Vietnamese language and business environment and culture. After the first English-medium program (high-quality program) was launched, FTU welcomed its first non-Vietnamese speaking student, who was from Germany, as an exchange student. Since then, the number of international students studying at the universities started to grow (chart 2) and the nationalities of the students are diversified. Before 2008, students are all from China, Laos and Cambodia. In 2008, there was only 1 student from Germany. Recently, every semester, FTU hosts around 30 international students as fulltime and exchange students. Every year, it hosts 40 to 50 students coming for short-term programs in English. Those students come from different countries such as UK, France, US, Germany, Belgium, Sweden, Switzerland, Norway, Italia, Finland, Russia, Japan, Korea, and Malaysia.

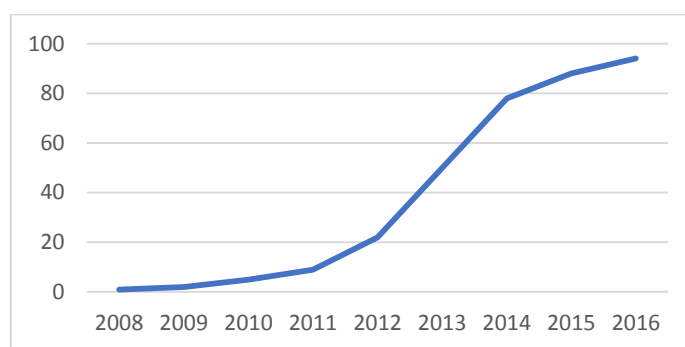


Figure 2: Number of international students studying at English-medium programs at FTU. *Source: Author, based on data from Department of International Affairs (DIA), FTU (2017)*

Most of the students coming to FTU as exchange students so they stay for 1 or 2 semesters and then come back to their home institutions or they come to FTU for short-term programs. There are, however, students applied for and accepted to high-quality programs and advance programs. Those students coming to FTU to study in both high-quality program, advanced programs and short-term programs. On the other hand, there has been no students coming to study in joint-training programs (Figure 3).

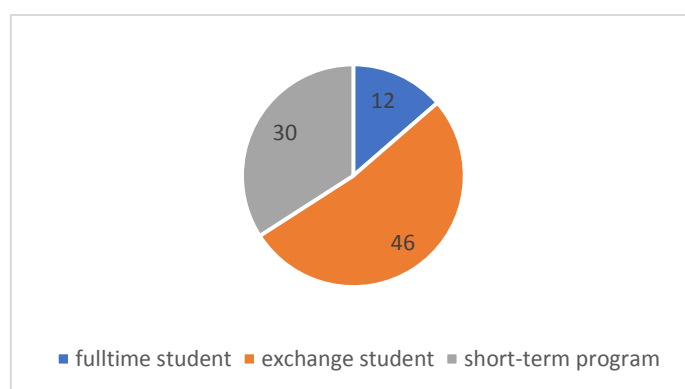


Figure 3: Distribution of international English-medium instructed students *Source: Created by author, based on data from DIA, FTU (2017)*

Along with the increase in the number of incoming international students is the growth in the number of outgoing students to international institutions. However, it is hard to say that the increase is thanks to the launch of those programs as Vietnamese students are willing to go abroad when they have opportunities. Nevertheless, it seems obvious that, thanks to such English-medium instructed programs, students have more opportunities to be transferred and accepted their credits when they start studying

at other institutions outside Vietnam. In 2014, FTU and Niagara University (NU), USA signed the agreement of student exchange and after that the agreement of transferred programs. Accordingly, students, who study at high-quality programs, joint-training programs, and advanced programs can be transferred to NU after 2 or 3 years at FTU to receive bachelor or/and master degree granted by NU at discount tuition fees. This form of student transfer is not new but NU gives students of those programs an exclusive offer. All transfer students from those programs are exempted from English proficiency requirements and those with GPA from 3.0 are excepted from GMAT certificate. Similar policy is then applied to those transfer to Hull University in UK.

English-medium instructed programs and organization changes

The first change to be mentioned is the establishment of new managerial bodies in the university responsible for English-medium instructed programs. Right before recruiting the first batch of students, advanced programs have their offices established to support the teaching and studying activities. Also under these programs, many FTU's lecturers have been sent to partner institutions to study and do research to enhance their capability and improve their teaching quality.

Along with the opening of program office under the management of the faculties, there are new faculty and center created to specifically run joint-training programs. Faculty of International Education (FIE) was established in late 2008 while the Center for International Development (CID) was launch in 2010. These 2 units manage their own programs, from marketing to recruiting students and during the teaching and studying period.

DIA, who is in charge of student exchange program and summer camps, requires for more English capable staffs. As a result, more fluent English-speaking staffs are recruited. They are those who studied overseas in English or studied in Vietnam but in English. Under the higher requirements from work, staffs of DIA have been applying and studying overseas so that when they come back they can work better and give more to the office.

In addition, with the show-up of international students, administration offices are asked to cooperate with each other closely because they need to support students who are strangers to the environment both at life and school. Therefore, DIA and Department of Undergraduate Studies and Department of Finance and Planning are working together to offer better services to the students. However, there are still obstacles to the better services as not all staffs of the other departments can communicate in English with the students (or they can but they are reluctant to because they are not confident with their English level). The consequence is that sometimes international students find it uncomfortable.

English-medium instructed programs and staff development

The very first thing that these programs ask for is English-speaking lecturers. At FTU, there are many lecturers studying overseas and they are eligible to teach at those programs. And those programs are also the engine for them to study and cultivate their English. Moreover, they encourage lectures to study abroad to update their knowledge and teaching skills. Also, as mentioned above, advance programs provide lectures with opportunities to enhance their knowledge and skill by offering them fieldtrips and short study trips at partner universities. Administration staff also find it important to improve their English capability and knowledge. They try to provide professional services to the students. Surveys on international students participating summer programs at FTU reveal students' assessment on the program quality as well as the development in the staff capability (table 2). Even though the number of respondents is low, it somehow shows the trend of service quality for those programs. And when asked for their comments, most of them stated that they are satisfied with the program and services provided. They will introduce the programs to their friends when they come back. Some of the students even contact DIA to have the updated information of the coming programs to disseminate among their friends. And FTU students, who participated in summer programs at partner institution also show their great satisfaction for the services by FTU and partners. Some students applied for the programs several times.

Table 2: Survey on summer programs (score on the scale of 10)

Year	Pre-program services	On-program services	Lectures	Lecturers' English	Activities	Overall
2013	7.5	8.2	8.3	8.5	9.1	8.4
2014	8.2	8.9	8.6	8.7	9.4	8.9
2015	8.3	8.7	8.7	8.8	9.2	8.7
2016	8.5	8.9	8.8	8.7	9.3	8.8

Source: Author, based on data from DIA, FTU (2017)

Despite the fact that the staffs (both academic and non-academic) of FTU have been striving for better services, there are still cases that are not satisfactory to the students. Some international students missed their exchange semester at FTU because of their late visa issuance. Some Vietnamese students lose the opportunities to study at partner universities as exchange students, due to some mistakes by FTU but they are given another chance the next semester. Even though the case is rare, it suggests that there are still things to fulfil. It could be because of the attitude of the staff who is in charge of the program or it could be because of the lack of human capital. And as a staff of DIA, the author sees it as a consequence of the fact that one staff has to covers quite a hug load of work.

Discussion

Since the Doi Moi policy in 1986, education system in Vietnam has been changing, developing, and becoming more open. In the flow of internationalization of higher education all over world, Vietnam cannot keep itself out of the trend. Having advantages of students' capability of foreign languages, FTU is one of the leading universities in participating in the process. Even though there is lack of policy or guide from the government on internationalization of higher education, while universities are still unclear of what and how to do, FTU manages to operate some activities, which are considered successful. For the success to be generated, it must be highlighted the role of English-medium instructed programs.

At FTU, programs using English as the medium of instruction such as high-quality programs, advanced programs or short-term programs have become the main source of international students. The number of students from other countries is still low, nevertheless, it is seen increasing every year and FTU is welcoming students from more countries rather than Laos, Cambodia or China as before 2008. In addition, FTU students also enjoy more opportunities to study abroad more easily, during and after their 4 years at FTU though a couple of exchange and transfer programs signed with partner universities in other continents.

To facilitate internationalization activities, organizational changes were actively formed and staff development was witnessed. It could be named the establishment of new units or strengthened cooperation among units to smooth activities, study tours to both academic and managerial staffs to partners overseas to learn from them. However, it is seen that due to the lack of adequate level of English or lack of confidence, there are staffs who are reluctant to communicate with international students making their students life at FTU less comfortable. On the one hand, this increase the workload of staffs of DIA leading to the unexpected mistakes. The indication is that FTU needs solution to this minor disadvantage by some options such as (1) requiring all staffs to enhance their English skills so that they can communicate with international students, (2) enrolling more staffs for DIA, the man department working with international students and work allocation and supervision should be done more closely, (3) establishing new office (international student office) taking care of international students which has been applied in many universities.

Conclusion and Recommendation

It is no doubt that internationalization is occurring in all aspect of life, including education. And higher education in Vietnam does not stay out of the trend. Government support internationalization through policies; universities themselves drive for internationalization based on their own potential. Among the

so-called successful universities in Vietnam, FTU is the name that often referred to a leading internationalized institution.

During the process, changes in curriculum do foster internationalization through itself and the other 3 aspects: organizational changes, staff development, and especially, student mobility. It could be said that student mobility is the dimension affected the most by curriculum changes (new curricula using English as language of instruction). Without the innovation in the language of instruction, it is extremely difficult for FTU to diversify their international students' nationalities and attract students from overseas. Students seem to be rather satisfied with the service and studying at the institution.

There are, nonetheless, disadvantages that FTU can overcome to provide higher quality of education and services to students, both domestic and international to support its process internationalization. Among them, it can be listed that improving English capability of its lectures and staff is important and close cooperation among the managerial bodies is vital.

To be more internationalized, FTU can think of creating more international environment for the institution such as having international staffs in the departments dealing with international students. FTU have signed faculty and staff exchange agreements with several universities but the agreements are just on the paper. If FTU can enforce them, it can really help in creating international environment both in academic and managerial aspects. And this will be one of the appealing factors to international students when they are considering studying at FTU, hence internationalization process is promoted. This will benefit not only the institution but also the students.

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Developing a Theory of Motivation Scale: An Exploratory Factor Analysis

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Abstract

What works best to motivate employee and engage them toward commitment have been an unending inquiry in the workplace. The interest in the quest for ‘appropriate’ motivation models is strengthened by widespread assumptions that a motivated workforce is a critical antecedent to the organization’s productivity. This study verified Haefner’s Fourth Theory of Motivation further after having used it as a program theory in redesigning the faculty evaluation scheme project of the University five years back where it saw that engaging team members contributed to the substantial outcome of the project. The first stage of this current study was completed after having classified the qualitative responses of 100 professionals in the academe. Using the guidelines of Heppner and Heppner (2004) the responses were analyzed into core ideas and were categorized as general, typical, and variant. Core ideas were fitted into the constructs within each of the three-motivation queue: *leadership, work environment and individual psychology*. Results of the qualitative responses confirmed most of the constructs in the motivational queues. The second stage of this study developed scales for each motivational queue. The scales were floated to 300 academics of five HEIs to test the validity and reliability of the constructs in the subsystems using exploratory factor analysis (EFA). Factors were clustered and established most of the constructs in Haefner’s motivational queues. The study strongly recommends the use of the scale in a pilot study to further validate the hypothetical assumptions of Haefner’s Fourth Theory of Motivation using confirmatory factor analysis.

Keywords:

motivation, leadership, work environment, individual psychology.

Introduction

The search for ‘what works’ in employee motivation has been an unending inquiry in the workplace. Perhaps the interest in the quest for ‘appropriate’ motivation models is strengthened by widespread assumptions that a motivated and engaged workforce is a critical antecedent to the organization’s productivity. Oftentimes when not properly directed the complexities of organization element combined with the unpredictable nature of human psychology can seriously inhibit a motivated workforce to sustain engagement in the workplace.

Haefner’s Fourth Theory of Motivation (2008) was generated from a case of production team in an industry trying to recover production shortfall (Haefner, 2011). This study started when a planned change intervention on redesigning faculty evaluation scheme project relied heavily on the Haefner’s Theory for its program theory support. Though Haefner’s Theory was tested in an industrial scenario, it was used in an academic workplace seeing the benefit of the various motivation factors interact to form systemic motivation. Substantial outcomes were reported not only of producing the new faculty evaluation scheme as planned but also created a favorable organizational culture characterized by trust, wholesome social interaction, autonomy and self-efficacy (Cinches and Borbon, 2012). The fruitful progress and completion of the project may not have been possible had it not for highly motivated and engaged members of the study and consultative teams. The study supported Haefner’s statement that motivation systems involve human psychological states that are diverse, complex social mechanisms, and are less mechanistic than a functional organization process (Haefner, 2008). The positive result of

the planned change intervention encouraged these authors to delve deeper into the theory with the aim of supporting Haefner's model as reference point for motivating academics where team result is highly desired. This study is convinced that motivation has not been efficiently studied as a subsystem from the perspective of open systems theory. Exploring further into the theory in this study means identifying more distinct indicators of the variables that operate within the motivational queues which can validate and operationalize the fourth theory of motivation. This study formulated and validated a scale to verify Haefner's Fourth Theory of Motivation in the academe using factor analysis.

Framework

The Fourth Theory of Motivation (2008) was a result of Joseph Haefner's study. Methodically analyzing motivation models, he saw that many of the motivation models stressed more on inputs, others on process (human behavior), and on the human performance outcome. While these are recognized by many practitioners, Haefner viewed these as disintegrated believing that motivation should be treated in the context of open systems. theory. Haefner (2008) built his view on general systems theories of Bertalanffy, Laszlo, Skyttner, and Gladwell and posited that motivation is a systemic phenomenon that has four interacting subsystems of leadership, work environment, personal psychology, and deterrence orientation. He considers motivation as a critical subsystem and stresses that unless motivation is considered part of the bigger system, attempts to increase productivity may be pointless. Being an engineer, he tested his model in a production case which offered deeper insights into the strengthening his position on motivation. Thus, the Fourth Theory of Motivation. The inputs influence the process of task autonomy that affects the human motivation, which, in turn, produces a performance output effect, which is a motivation effect. The environment subsystem fits into the motivation subsystem and the motivation subsystem fits within the organization system (Haefner, 2008).

This current study hinged on the Haefner's Fourth Theory of Motivation and recognized the presence of subsystems in systemic motivation. The subsystems are *leadership*, *environment* and *personalities*-linked by core values in maintaining quality systems. The most recent researches have shown that the contemporary leader is characterized by the supportive leadership style that shows leader's concern for subordinates' well-being and their personal needs. Leadership behavior is open, friendly, and approachable, and the leader creates a team climate and treats subordinates as equals (Blanchard, 2009). Such leadership ensures highest possible employees engagement in striving to achieve the company's goals, vis-à-vis productivity, employment, and better standard of life (Buble, Juras, and Matić, 2014). Leadership has been studied to be one of the most influential factors that determine organizational learning and creativity (Hm Tse and Mitchell, 2010).

In the leadership subsystem, Haefner claimed that when launching into a project, leadership could introduce motivation queues such as intellectual stimulation, enabling formulation, goal setting, and clarifying task significance participative decision-making atmosphere to enable the employees as decision-makers. By intellectual stimulation means the capability of a leader to exercise the appropriate skills and knowledge for the situation. In their study, Sadeghi and Pihie, (2012) discussed intellectual stimulation as one of the dimensions of transformational leadership together with idealized influence, inspirational motivation and individualized consideration. Other researchers considered intellectual stimulation to explain the degree in which the leaders stimulate their followers' endeavors to be innovative and creative (Limsila & Ogunlana, 2008), and consider old organizational problems with new perspectives (Moss & Ritossa, 2007).

In Haefner's case study, intellectual stimulation was the first motivational queue introduced by leadership. It is important that management ensures projects are headed by leaders who can "exercise extensively the appropriate skills and knowledge for the situation. A Global Workforce Study in 2008 defined *leadership* as the driving force that engages employees to commit and be productive (Towers-Perrin, 2008). With the intellectual stimulation, enabling formulation follows which means that team are participants in solving the problem and enable them as decision makers. This further means that the leader is one of the team and considered co equal participant (Haefner, 2011).

The above direction set by the leadership prepares the ground in shaping the second source of motivation, called work environment. Motivating environments encourage an organization to propel members to give their best effort to their jobs. According to Copozzoli (1997), a motivating

environment exists with these conditions, namely, high standards, clear objectives, adequate training, adequate management contact, adequate feedback, rewards that employees value, adequate working conditions, and effective leadership. Leadership is always viewed as a persistent element to initiate a motivating environment. This is established when the leadership can impress team members that they are trusted and empowered to make decisions for the achievement of project goals.

Haefner, however, said that, “merely trusting and empowering workers” may not be sufficient. Cinches and Borbon, (2012) also cited in a previous study, participative decision-making, trust and interest alignment was generated in social interaction done through sustained brainstorming and consensus building that established the groundwork for strong intrinsic motivation. Developing trust is instrumental in arousing healthy social interaction and shared norms among group members; when there are shared norms and high task interdependence, the team works to solve the problem (Haefner, 2011). This process provides an ambiance of equals in the team where each opinion could be allowed to express and listened to. Brainstorming if managed well could reinforce trust as group members have the autonomy to decide on the project outcomes (Poitras and Bowen, 2002).

Healthy work atmosphere can be more enriched with the collective efficacy of a work team. Bandura (1986 as cited by Kurt et. al, 2012) defined collective efficacy as a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required for producing given levels of attainment. The root of this collective efficacy is self-efficacy. Bandura further identifies four sources of efficacy expectations: mastery of experiences, physiological and emotional states, vicarious experiences and social persuasion.

It is not difficult to assume that from this second environment queue, according to Haefner, emerges the third motivation queue: the individual psychology. It is also dubbed as the “wild card in any social and organizational group.” Given this leadership and environment motivation queues in the system could lead to a ground work of positive mood, pro-social personality and agreeableness. Being self-determined and self-efficacious, motivation of group members emanates within themselves thus goal regulation becomes natural function (Haefner, 2011). Bandura maintains that self-efficacy is the belief in one’s capabilities to organize and execute the courses of action required to produce given attainments.” Collective efficacy was positively associated with self-efficacy (Lev and Kolowsky, 2009). A group can have collective efficacy by sharing the belief that together they can organize and execute courses of action required to attain a common goal (Milner, 2012). This is also in support of Haefner’s systematic motivation that linked the three motivation queues with shared core values.

A fundamental rule in the fourth theory of motivation is that leadership has the responsibility to institute behaviors that become positive core values from which positive motivation may emerge. Leadership is the first, and most important, subsystem in systematic motivation. The other motivation subsystems are environment and individual psychology.

Method

The first phase of the study was qualitative in nature and a prelude to the second phase. It gathered qualitative information through open-ended questions on the various aspects of the motivational subsystems such as *situations that one looks forward to from leadership as sources of encouragement and motivation, to commit and be part of the successful productivity program; specific work environment that best stimulate an individual to work with the team and go extra mile without counting the cost; and qualities an individual person bring to best contribute to the completion of a team project.* These were floated to 100 graduate students of an HEI. All the participants’ responses were encoded verbatim; the diverse answers were content analyzed and coded individually. Experts and practitioners in psychology and management validated the content analysis prior to determining the final thematic categories for the responses to each of the research questions. These were categorized into themes and core ideas after data coding. Frequency counts of the responses under each thematic category were done. The categories and core ideas were also verified by a professional colleague and the researchers. Using the guidelines of Heppner and Heppner (2004) the responses were analyzed into core ideas and were categorized as general, typical, and variant. In ‘general’ responses, almost all the participants indicated the response. ‘Typical’ responses if stated at least by a fourth to half of the participants. While

responses labeled as ‘variant’ were mentioned by only one or two participants. There were no ‘general’ responses, only typical and variant. Since the themes were already pre-identified using the constructs of each motivational queue, core ideas were fitted into the constructs within each subsystem/queue: *leadership, work environment and individual psychology*. The *deterrence orientation* was purposely excluded because there were only variant core ideas or constructs that emerged from the first phase of the study.

The second stage of this study developed scales for each subsystem termed as motivational queues. The item indicators were based from the typical responses coded as core ideas from the first phase of this study. The scales were floated to 300 academics of five HEIs to test the validity and reliability of the constructs in the subsystems using exploratory factor analysis (EFA). For factor analysis, the study used the Principal Axis Factor (PAF) with a Varimax (orthogonal) rotation of the Likert scale questions from survey questionnaires. The analysis was suppressed at 0.45. The Kaiser-Meyer Olkin (KMO) measure was used to test sampling adequacy and the reliability was established using Cronbach’s Alpha.

Results and Discussion

First Phase: The first open-ended question revolved around leadership traits which were the sources of *encouragement and motivation*. The responses were categorized into major themes under *leadership* which were as follows: intellectual stimulation, enabling formulation, goal setting, participative decision making, extrinsic motivation, regulatory foci, and job design and task characteristics. From the themes, core ideas were generated. Included under leadership are core ideas that refer to each of the major themes. Under this theme were consultative and participative leadership, collaborative, committed, leadership by example, team building, and open minded. High standard of integrity were the respondents’ most recurrent responses. Next to this were goal oriented, stability and confidence, technically knowledgeable, creative, assertive and productive as an integral part of the leadership. The thematic category of extrinsic motivation included core ideas on members given recognition through reward system, proper delegation of task, proper monitoring and ideal working condition, and compliments on the work done.

Responses were also categorized for work environment which generated eight thematic categories namely: interest alignment, shared norms, natural work units, organization values and dynamics, high task interdependence, intrinsic normative, autonomy and group rewards, low formalization and trust. Open-ended question about *stimulating work environment* was asked. Describing the work environment that affects the worker is interest alignment. This core ideas revolved along the following: members believing in the cause of their work and greater good, being passionate of their work and concern of their members, and manifesting teamwork/output orientation. Nonetheless, there was consistency in the respondents’ notion of an ideal work environment. The respondents highlighted respect, friendliness, encouragement, and approachable leaders/managers. These concepts are interrelated with the other elements in the theory of motivation. Among the factors in the environment subsystem was trust which was equated to safe and secure environment, delegation among members, peaceful/open environment, non-competitive, full support by administration. For High Task Interdependence, teams that are supportive and participative, willing to work and handle pressure coupled with their expertise, and interest in the completion of the project were the recurring ideas.

Under the subsystem of individual psychology, the frequency of the responses of the respondents was almost typical except for self-monitoring and goal regulation which were classified as variant. This section collates the responses of the respondents on the question, *what qualities should individual person bring with him/her to best contribute to the completion of the project?* The finding in this dimension is closely interrelated to the responses on leadership and environment. Responses in this area mostly focused on the abilities, skills and achievement of an individual as member and team player. For the theme, prosocial disposition, the following were some of the salient responses: qualities manifesting self-respect and respect for others, discipline, patience and hard work, compassion, enthusiasm, resourceful and research oriented, cooperation, teamwork, commitment and interpersonal relations. On self-efficacy, the respondents highlighted the values of resourcefulness, cooperation, competence responsibility as well as sensitivity to other’s needs. Attributable qualities such as being assertive, open-

mindful, confident, motivated, optimistic, hardworking, self-directed, positive thinking and optimistic also came to the fore. For Agreeable Disposition, the sterling qualities believed to be of prime importance in effecting best contributions to the completion of the project were: being cooperative, considerate, determined to help others, innovative, goal-oriented, flexible, organized, hardworking, confident, and open-minded. Furthermore, the responses given on the theme of Intrinsic Motivation included team members' qualities such as striving for excellent completion of the project, being team players, thinkers and participative. Being knowledgeable and passionate to do the work and having helping attitude were also categorized as typical in their responses.

Second Phase. For the *Leadership queue*, Table 1 shows the PAF with a Varimax (orthogonal) rotation of the 19 Likert scale questions from the *Leadership* scale items, further examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO=.894). Seven factors with eigenvalues higher than 1 were found that explained the following percentages of the total variance: 39.13% (first factor), 8.5 % (second factor), and more than 6 % in the remaining factors; that is, a total of more than 59% of the variance was explained by this set of factors, which suggests the specificity of each item, and the multidimensional character of the construct, even when there is a common part shared by all of the items. These percentages of variance also revealed the greater importance of the first factor, as the first necessary characteristic of leadership called *Intellectual Stimulation*.

Nine items loaded into Factor 1 called *Intellectual Stimulation*. *Leadership* traits such as being *consultative and participative, open minded, delegate well defined tasks, share resources and opportunity for learning, compliment members for work done, committed to accomplishing the vision-mission-goals, show respect and professionalism* and technically knowledgeable. Other researchers considered intellectual stimulation to explain the degree in which the leaders stimulate their followers' endeavors to be innovative and creative (Limsila & Ogunlana, 2008), and consider old organizational problems with new perspectives (Moss & Ritossa, 2007). The items under this factor validated the characteristics of a contemporary leader exhibiting support, open, friendly and approachable behaviors (Blanchard, 2014) that ensures highest possible employee engagement in achieving company's goals (Buble, Juras, and Matic, 2014). Further, intellectual stimulation is the first motivational queue introduced by leadership.

Five items loaded into the Factor 2 related into empowering members of the team as decision makers-the leader is part of the group and not a boss exemplifying that a modern leader also creates a team climate and treats subordinates as equals (Haefner, 2008; Blanchard, 2009). *Factor Two* included *leading by example, is a good listener and listens with the heart, is creative, exhibits high standard of integrity and monitors accomplishment of tasks*. *Factor two* is regarded as "Enabling Formulation." Enabling formulation means that team members participative in problem solving and decision making.

Factor 3 was categorized as "Extrinsic Motivation" having three items loaded into this cluster. It included *recognizes members' contribution for work done, compensates/incentivize members for work done and initiates team building*. Copozzoli (1997) emphasized that a motivating environment exists when rewards that employees value are present in the workplace.

Factor 4 included two items and were grouped as "Goal Setting." These were: *shows stability and excellence and aims for excellence*. Under the leadership subsystem, 19 factors under five major themes were initially examined. The five major themes were reduced into four to include: *intellectual stimulation, enabling formulation, extrinsic motivation and goal setting*. The theme participative decision making is presumed to be subsumed under intellectual stimulation. Likewise, regulatory foci, was subsumed to participative decision making. The results of an orthogonal rotation of the solution are shown in Table 2.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.894
Bartlett's Test of Sphericity	Approx. Chi-Square	2504.166
	df	171
	Sig.	.000

Table 2. Factor Loadings for Rotated Component of 19 Survey Items (Leadership)

COMPONENT	1	2	3	4
LT12 shares a common purpose/goal among team mates	.655	.113	.188	.168
LT3 is open minded	.629	.403	.111	.109
LT6 shares resources and opportunity for learning	.599	.323	.181	.163
LT16 monitors accomplishment of tasks	.588		.490	.158
LT1 uses consultative and participative leadership	.580	.186		
LT13 delegates well defined tasks to each member of the team	.571	.192	.163	.109
LT2 is committed to accomplishing the vision-mission-goals	.464	.257		.224
LT14 shows respect and professionalism	.428	.267	.104	.170
LT8 is technically knowledgeable	.420	.211	.223	.157
LT4 is a good listener and listens with the heart	.326	.698	.220	
LT7 leads by example	.239	.697		
LT5 is creative	.251	.667	.268	.123
LT11 exhibits high standard of integrity	.138	.591	.247	.316
LT15 monitors accomplishment of tasks	.259	.499	.351	.143
LT18 compensates /incentivize members for work done	.169	.244	.748	
LT17 compliments members for work done	.136	.354	.693	
LT19 recognizes members' contribution through rewards	.390	.142	.438	.146
LT10 exudes stability and excellence	.269	.178	.112	.883
LT9 aims for excellence	.373		.177	.459
Eigenvalues	7.434	1.616	1.259	1.041
Percent of Total Variance	39.128	8.505	6.625	5.481
Number of Test Measure	9	5	3	2

Extraction Method: Principal Axis Factoring; Rotation Method: Varimax with Kaiser Normalization: Rotation converged in 6 iterations.

Leadership is one of the most influential factors that determine organizational learning and creativity; it directly controls the motivation subsystems and has a profound responsibility in systemic motivation (HmTse and Mitchell, 2010; Haefner and Makrigeorgis, 2008). This theory in review also conceived that from *Leadership*, the subsystem of *Work Environment emerges*. Table 3 shows the PAF with a Varimax (orthogonal) rotation of the 20 Survey items from the *Work Environment* scale and of sampling adequacy suggested that the sample was factorable (KMO=.920).

Work Environment. Four factors with eigenvalues higher than 1 were likewise found that explained the following percentages of the total variance: 42.70% (first factor), and almost 6 % in the remaining factors; that is, a total of more than 59.9% of the variance was explained by this set of factors, which suggests the specificity of each item, and the multidimensional character of the construct, even when there is a common part shared by all the items.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	3242.058
	Df	210
	Sig.	.000

Table 4. Factor Loadings for Rotated Component of 21 Survey Items

COMPONENT	1	2	3	4
WE17 are willing to work and handle pressure	.808	.261	.235	.151
WE18 show interest in the completion of the project	.751	.224	.217	.299
WE20 are happy to be in the team	.638	.374	.130	.261
WE19 have the courage to strive harder to complete the task	.629	.339	.243	.146
WE16 are friendly and approachable	.603	.329	.182	.261
WE11 has clear direction and goals	.505	.154	.468	
WE2 shows concern among members in the workplace	.413	.651		.132
WE6 creates an atmosphere of encouragement and cooperation	.246	.610	.362	
WE5 brings out the best of the individual	.128	.539	.287	.133
WE4 values teamwork	.104	.525	.246	.115
WE7 promotes safety and secured environment	.337	.500	.159	.248
WE14 have the same goal	.398	.485	.245	.330
WE1 believes in the cause for greater good	.293	.471		.387
WE3 focuses on outputs or results	.255	.395		.168
WE15 are friendly and approachable	.276	.293	.211	.244
WE12 provides professional development	.178	.243	.714	.132
WE13 provides continuing formation to team members	.352	.284	.503	.207
WE10 addresses cultural diversity in the workplace	.256		.417	.626
WE21 inspire each other	.339	.222	.217	.527
WE8 is non-competitive		.133		.520
WE9 is open an peaceful	.333	.307	.241	.354
Eigenvalues	8.966	1.256	1.222	1.154
Percent of Total Variance	42.696	5.982	5.819	5.493
Number of Test Measure	6	8	2	4

Extraction Method: Principal Axis Factoring; Rotation Method: Varimax with Kaiser Normalization: Rotation converged in 9 iterations.

Six (6) items loaded to Factor 1 labeled as *High Task Interdependence*. This characterized the environment as having people *showing interest in the completion of project; having the courage to strive harder to complete the task; are happy to be in the team; working in harmony for task attainment; willing to work and handle pressure; and have clear direction and goals*. This finding is upheld by Copozzoli (1997) who postulated that a motivating environment exists when certain conditions such as high standards, clear objectives, adequate training and feedback, and other factors including effective leadership permeate in the workplace. Meanwhile, seven (7) items loaded for Factor 2 related to *Interest Alignment*; described as an environment where people *show concern among members in the workplace; creates an atmosphere of encouragement and cooperation; values teamwork; brings out the best in the individual; promotes safety and secured environment; have the same goal; and believes in the cause for greater good*. In this context, effective leadership is also viewed as a persistent element to initiate a

motivating environment. Cinches and Borbon, (2012) in a previous study also pointed out that participative decision-making which is encouraged by the leadership, generated trust and interest alignment emanating during the social interactions, sustained brainstorming and consensus building.

The two items loading for Factor 3 identified organizational values and dynamics categorized as an environment that *provides professional development and continuing formation of team members*. Indicators for Factor 4 highlighted *Trust* as depicted in an environment which *addresses cultural diversity in the workplace; and where members are non-competitive and members inspire each other*. Trust is related to the climate of openness, collegiality, professionalism and authenticity (Tschannen-Moran and Hoy, 1998). This is believed to have established the groundwork for strong intrinsic motivation. The researchers further assumed that developing trust is instrumental in arousing healthy social interaction and shared norms among group members when there are shared norms and high task interdependence and work as a team to solve the problem (Haefner, 2011). A motivating environment as a subsystem is generally expected to sustain the ambiance that would encourage each team player to engage on the task on hand in a natural work setting where everyone's interest to work are collectively aligned in shared norms and high task interdependence.

Individual Psychology. Table 5 shows the adequacy of the sample given KMO = .931. Table 6 presents the five factors with eigenvalues higher than 1 were also found that explained the following percentages of the total variance: 44% (first factor), and 6.6 % (second factor) and almost 6% in the remaining factors; that is, a total of more than 65% of the variance was explained by this set of factors, which further implies specificity of each item, and the multidimensional character of the construct, even when there is a common part shared by all the items.

Table 5. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.931
Bartlett's Test of Sphericity	Approx. Chi-Square	4447.197
	Df	300
	Sig.	.000

Haefner believes that the “intertwine of various personality traits with other elements in the organization affect motivation and productivity of individuals.” Factor 1 involves understanding *individual differences, being generous, considerate of others, helpful, participative and willing to innovate ideas for the completion of the project*. Six items loaded into factor one termed as *Prosocial Disposition*. The said disposition composed of significant personality factors that involve the capacity to want to help others beyond normal working scope (Haefner, 2011).

Five items were loaded into the Factor 2. These relate to members being *resourceful, open-minded, positive thinker, versatile, and humble and sincere*. This factor is labeled as “*Self Efficacy*.” Items for Factor 3 is “*Commitment*” and identified team members as having dedication to the completion of task as reflective in *manifests self-respect and respect for others, exhibits good interpersonal relations, communicates openly with the team, shows discipline and challenging work, and knowledgeable of one's responsibility*.

The three items that loaded into Factor 4 pertains to the members' disposition or approach toward work described as having team members who are *familiar with the project's timeline, less complaining and finger pointing and delivering without hesitation, once best capacities for the accomplishment of the group's objectives*. Factor 4 is identified as “*Positive Mood and Attitude*.”

Additionally, Factor 5 had two items illustrating team members' as optimistic, motivated and assertive. This factor is referred to as “*Self Determination*.” Haefner (2011) describes individual psychology as the “wild card in any social and organizational group.” The adequate leadership and environment, motivation queues in the system is believed to have led the appropriate groundwork for *pro-social personality, self-efficacy, commitment, positive mood and attitude and self-determination*.

Table 6. Factor Loadings for Rotated Component of 25 Survey Items (Individual Psychology)

COMPONENT	1	2	3	4	5
IP17 understand individual differences in diversified workplace	.675	.222	.199	.170	.213
IP12 be generous	.675	.322	.233	.131	.257
IP18 be considerate with others	.614	.157	.290	.305	
IP13 be helpful	.608	.278	.250	.209	.298
IP20 be a participative team player	.570	.225	.173	.373	.134
IP19 be willing to share innovative ideas for the completion of the project	.565	.290	.206	.337	
IP16 be organized	.423	.283	.274	.300	.165
IP22 exude passion for work	.385	.218	.278	.381	.300
IP9 be resourceful		.765	.248	.106	.339
IP10 be open-minded	.298	.723		.149	.115
IP14 be a positive thinker	.232	.636	.201		.151
IP21 be humble and sincere	.422	.572	.250	.207	
IP7 be versatile	.227	.566	.321	.152	
IP5 manifest self- respect and respect for others	.189	.228	.726	.127	.114
IP4 exhibit good interpersonal relations	.290	.168	.643	.225	
IP3 be able to communicate with the team	.346	.267	.582	.151	.212
IP6 shows discipline and hard work	.318	.238	.548	.202	.171
IP2 be knowledgeable of one's responsibility		.159	.527	.345	.321
IP11 be innovative	.147	.283	.418	.110	.350
IP24 be familiar with the project's timeline	.319	.179	.107	.687	
IP23 render the extra mile for task completion	.213	.103	.108	.593	.581
IP25 be less complaining and finger pointing	.167		.186	.547	
IP1 deliver accomplishment, without hesitation	.200	.166	.349	.495	.253
IP8 be optimistic and motivated	.260	.310	.307		.589
IP15 be assertive	.328	.135	.284	.147	.389
Eigenvalues	11.072	1.640	1.440	1.078	1.047
Percent of Total Variance	44.288	6.560	5.761	4.313	4.188
Number of Test Measure	8	5	6	4	2

Extraction Method: Principal Axis Factoring; Rotation Method: Varimax with Kaiser Normalization: Rotation converged in 8 iterations.

Conclusion

This study outlined a wide range of indicators that described the numerous factors in the motivational queues in the subsystem. The exploratory factor analysis conducted for each scale of the queue culled some items and have defined various item statement that maybe used to develop the scale. Most of the assumptions of Haefner's Fourth Theory of Motivation were verified given the results of the study. The scale for this theory can already be formulated based on the results of the study. However, there is still a need to further pilot the scale in studies and conduct confirmatory factor analysis to further strengthen the position of the theory on motivation. Consequently, this scale development study is of significance for filling the gap in motivation literature.

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A Training Scheme for College Communicative Teaching

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Abstract

This study generated a training design for college teachers on communicative teaching. Through needs assessment, the English teachers were reoriented and equipped with the rationale, strategies and assessment techniques of communicative language teaching through the six learning segments which were revised and finalized after a three-day try out. Five stages in the modified Needs Analysis Plan Try out Create Assess (NAPTCA) model was utilized to undertake the study. Specifically, the study determined: (1) the stages in the development of the training design and (2) the contents of the learning segments as a research output. Furthermore, the needs analysis results showed that teachers needed to develop competencies in communicative teaching. Hence, the produced training design included areas for various opportunities of student-talk to be provided among English classes thus calling for teachers' creativity in designing meaningful and communicative tasks. Other topics were inclusive of teachers' exposure to communicative teaching.

Keywords

Training, Scheme, Communicative Language Teaching

Introduction

Song Seng (1997) states that teacher competence is an essential factor for achieving educational excellence. To ensure that teachers are accountable and knowledgeable about the subject they teach, emphasis has been placed on professional training of new educational systems' designs. Teachers, as the key component of an educational system, need professional training to assure efficiency of students' learning. Thus, educational systems should be driven by the need to achieve efficiency, effectiveness and equity. This highlights the importance of training on-the-job teachers.

For a teacher to develop his competence, the primacy of the classroom is indeed high. It is in that learning environment where she/he becomes the principal agent of change. It is where her/his experience is based and where growth will take effect (Wajnryb, 1992). Considering the importance of the classroom in a teaching-learning process, this research focused on looking at students in their English classes to see how their teachers develop their communicative competence. Developing students' communication skills is vital for them to become professionals, Danao (2002) says. She explains in her book, *Confluence: Journeys* that students need to learn the body of material for the profession they are preparing for. This body of material in the different disciplines is in English. Most importantly, students need to know how to communicate in English since it is an international language, and one of the official languages of the Philippines and of Philippine education. Thus, the English subjects in college must equip students to become the professionals they want to be.

English teachers then must try to hold on against the rapid wearing down of the position of English in the Philippines. Eugenio (1999) suggests that the line can best be defended at the level of the teaching of English in college. Many strategies come and go but these are not appreciated because teachers have not redirected their traditional teaching style. For this reason, the researchers developed the training design. This is composed of segments that are designed for English teachers to maximize learners' communicative potentials. Bartlett (1990) supports this idea for he believes that the process of learning

is active, not a passive one. Active learning, one that involve students in classroom communicative tasks, allows learning to be both more personal and more memorable and for these reasons, is more effective. Learners who are engaged by the lesson – by the teacher, the materials, the tasks, and the activities – are more likely to have that learning make an impact on them.

Generally, this research aimed to reorient teachers' perspectives in teaching English in which a training design for College English teachers was designed so that in their English classes, they will develop students' communication skills. This is supported by Krum (1993) as he strongly points out that *'If the teaching goal of modern language teaching is the students' ability to communicate, then it holds especially true that the teacher should hold himself back in favor of the student.* Hence, this study determined: (1.) What stages compose the development of the training design for college communicative teaching and (2.) What the contents of the learning segments for communicative teaching are.

Theoretical Framework

Recent data confirm the significant role of teacher training providing differentiated instruction for various types of learners (Hansen, 1994). Students have varied competencies so the teaching strategies that will be used in class must match their potentials. Thus there is every reason to place students with teachers who have received training. The benefits that learners get from these trained teachers become greater.

Pica and Long (1996) revealed in a classroom observation research that teachers tend to do most of the talking. They also found that teachers tend to talk for about two-thirds of the available class time, leaving just a third for learners. Also, in some language classrooms, it has been shown that teachers talk for up to eighty nine percent of the available time. These cases leave very little room for students to communicate which defeats the purpose of language teaching. Hence, a training scheme to reorient English teachers' perspectives towards communicative teaching was designed.

Various theories and concepts aided the researchers in the production of the training design. The said training situated a scheme composed of learning segments so planned as to result in communicative teaching. Moreover, the paper utilized concepts from the theory of Johns (1997), which is the Eight Steps to Planning an Effective Training Event similarly used as Needs Analysis, Plan, Try Out, Create and Assess (NAPTCA) in this paper. The first step in Johns' model is the design of a training which defines the purpose of the training and target audience. This is followed by determining participants' needs intended to create a meaningful training event for the participants, as the second step. After assessing the needs and expectations of the participants, John goes on to say that defining training goals and objectives will help clarify expected outcomes. This is the third step. With the goals and objectives set, training content can be outlined. This serves as the fourth step in the model which the researchers divided into three key segments: an introduction, a learning component and a wrap up and evaluation component. The introduction serves to reduce anxiety of participants while the learning component as body of the program serves to accomplish the training objectives. The wrap up and evaluation will help bridge the gap between training and implementation to summarize central concepts and themes.

Step five of Johns' model offers detailed information about designing and organizing learning activities so that outcomes identified by the objectives will be achieved. The next step involves creating a written document that provides a detailed plan of the training session including training goals and objectives. This is to prepare a written training design. Step seven is described as preparing participant evaluation forms to determine the extent to which the training achieved its objectives and to identify adjustments to be made in the training design. Without follow up activities which is step eight of the model, the benefits of training may quickly be forgotten or never used. This step provides the continued support and feedback necessary for the successful implementation of new ideas and practices.

The researchers also based the key concepts of the research framework on the Systematic Approach to Training (SAT) which is similar to Seels and Glasgow's Instructional System Design Model (ISD). These models begin with Analysis. As the first phase, it rationalizes the necessity for the training. This phase can be likened to steps 1 and 2 of John's model. Next is the Design phase referred to as the decision-making phase. Also similar to steps 3 and 4 of John's model, this phase will complete three important activities: (1) deciding what participants will learn, (2) what will be taught and (3) the instructional methods to be used and what competency will be required from the participants. In the Development phase, the training concept is made into a material in the form of the training design with different parts. This is step 5 of John's model, of developing instructional activities. Both models refer the Implementation phase as the "actual training". This is where the developed training design will be put into a realistic context. Step 6 of John's model also refers to this as the training scheme preparation and implementation. Evaluation is listed last in these models. It ensures that processes work well and improvements are identified right away. Step 8 of John's model, preparing evaluation forms and determining follow-up activities discusses this also.

By combining the different concepts of the three theorists cited above, the researchers came up with the research theoretical framework shown below. Figure 1 illustrates in schematic form the theoretical components of this research.

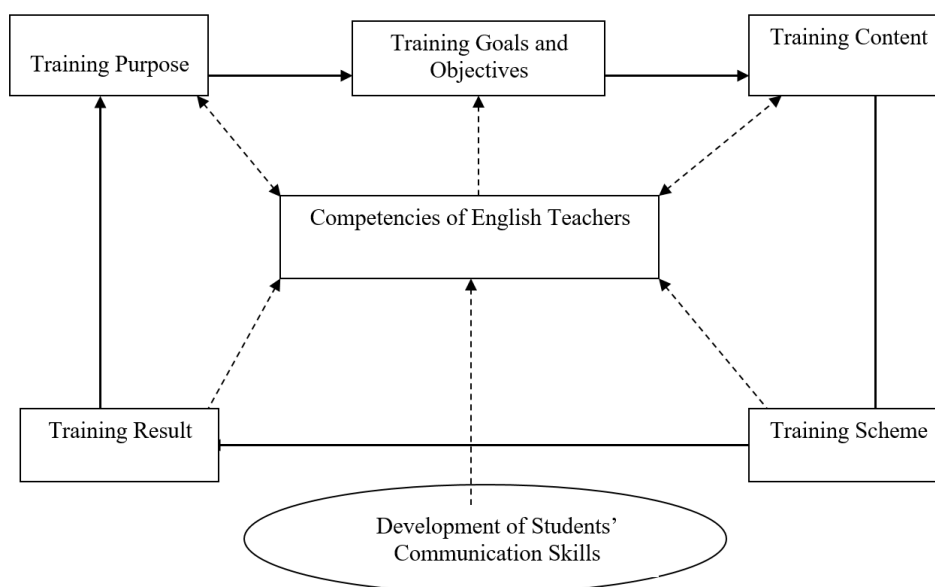


Figure 1: The theoretical framework of the research

The concept of communicative competence to reorient teachers' perspectives in language teaching was an important basis in the design of the training plan. The arrows show the direction in the theoretical framework, with the development of communication skills of students situated outside of the framework. The last concept has an indirect relationship since the main concerns of the scheme are the teachers.

Communicative teaching was the main concept of the training content produced by this paper. Gonzales (2000) claims that the reason why Filipino speakers of English have not mastered the English tense system with the article system is that these systems have not been really understood and taught properly by teachers in the Philippines. This then is the need to reevaluate syllabi and teaching materials. If there is better programming of language materials and better training, then this can improve very well on the poor oral and written communication of college students.

This need is given more importance by Arroyo (2003) in a newspaper column who mandated that teachers' competence in English be measured through a competency test. She further stressed that

teaching competence be given importance so that quality graduates will be produced in the new millennium.

The teachers' continued learning is indeed fundamental to the health of the profession and thereby to the quality of education experienced by students in schools. If policy aims to effect permanent, meaningful change in the practice of education, this implies understanding of and commitment to that change by individual teachers. Otherwise, it will run the risk of critical superficiality, subtle resistance and misrepresentation. If real change is the aim, then teachers' engagement with their own learning is essential (Venville, 1998). Teaching competence as the target of the design cannot therefore be overemphasized.

Methodology

This research was conducted in Cagayan de Oro City with the 55 College of Arts and Sciences faculty members of Capitol University (CU) and Mindanao Polytechnic State College (MPSC) during school year 2003-2004. Non-random Selective sampling was employed in choosing the research populace of the study with total enumeration for the data collection.

Basically, the modified Analysis, Design, Develop, Implementation and Evaluation (ADDIE) ladder which was named Needs Analysis, Plan, Create, Try-out and Assess was adopted in the creation of the design. Through this, the format was then designed. Trainers were invited to conduct the tryout of the developed scheme to the respondents of this research. As to the assessment of the scheme, a set of evaluative procedures was modified based on Scott and Parry's evaluation scheme (1997).

In the needs analysis stage, baseline data were obtained from the respondents through the use of Focus Group Discussion (FGD) to gather the type of teaching strategies used in college English classes; the questionnaire for identifying the lesson objectives; the classroom observation which looked into the three parts of the lesson; and the analysis of the content of English tests.

Making use of the four extensive needs analysis procedures, the data were then analyzed. These were analyzed individually and entered in a matrix in the form of focus, rating and description. Final evaluation was derived through these three categories. The matrix showed commonality of results through simple frequency counts. Results served as basis for the production of the training scheme's learning segments.

To illustrate, the data gathered appeared in a matrix form as shown below.

Instrument	Variables Measured	Evaluative Description
FGD	Teaching Strategy	<i>Communicative</i>
Questionnaire	Lesson Objectives	<i>Non-Communicative</i>
Class Observation	Strategy, Content, Evaluation	<i>Non-Communicative</i>
Test Analysis	Tests, Textbooks, Work texts	<i>Non-Communicative</i>

As shown in the matrix, there is a need to reorient English teachers' perspectives towards communicative teaching. The training scheme was designed to cater to this need. Its content outline appears as shown on the next page. Three experts then evaluated the designed training scheme composed of six learning segments. The table on the next page is a summary of the checklist for assessing the learning segments. The three respective trainers on a scale of 1-5 rated these. The scale is as follows: Very much – 5, Much – 4, Just enough – 3, Not much – 2, Not at all -1.

Table 6 : Summary of the Trainers' Assessment of the Learning Segments

Item	T 1	T2	T3
A. FORMAT			
1. General Appearance			
Is the material likely to appeal to the user's aesthetic sense?	5	5	3
2. Component			
Does the material contain many components that the trainees will have Difficulty keeping track of them?	3	2	3
3. Quality			
Did the researcher use high quality materials in the production process?	5	5	4
4. Appropriateness of Illustrations			
Are the illustrations of the materials appropriate to the activities?	4	4	3
5. Readability of the Material			
Is the material readable?	4	5	4
B. ORGANIZATION AND CONTENT			
6. Approach			
Does the researcher use an approach consistent with the prescribed topic?	4	5	3
7. Instructional Objectives			
Are the objectives compatible with the ones prescribed in the segment title?	5	4	3
8. Scope and Sequence			
Is the scope and sequence of the material compatible with the time frame of the training?	4	4	3
9. Assessment Device			
Does the material contain tests and other assessment devices that will help the trainees?	4	4	4
10. Comprehensibility			
Will the material be clearly understood by the trainees and the trainer who will use it?	4	5	2
11. Coordination with the Segment Topics			
Is the learning segment compatible with the other materials used in the Training?	4	4	2
12. Individualization			
Does the design of the material allow trainers to use them differently according to trainees' needs?	3	4	2
13. Length			
Is the material's length appropriate?	3	5	4
14. Instructional Pattern			
Is the instructional pattern likely to excite the interest of the trainees?	4	4	2
15. Management System			
Does the trainer easily manage the use of the materials?	4	5	2
16. Role of the Trainees			
Does the material include interesting & rewarding activities?	4	4	3
Does the material include activities that the trainees are capable of doing?	4	4	2
Do they enjoy working with the material?	4	4	2

Hence, the training design was refined on context of the stated results.

Findings

After the results of the study were gathered, the following relevant points were seen.

Stages in the Development of the Training Design

To develop a training design for communicative teaching, the following stages were followed: Needs Analysis, Plan, Create, Try Out, and Assessment (NAPTCA) model. The analysis stage which made use of Focus Group Discussion, classroom observation, questionnaire and documentary evaluation of tests gave the researchers sufficient information on what competencies are needed by college English

teachers to develop communication skills of students. The training design was fashioned based on the needed competencies of English teachers.

The results of the needs analysis showed that teachers needed to develop competencies in communicative teaching. Through this assessment stage, the needed competencies of teachers were discovered. Firstly, teachers are required to value the affective side of language learning. These teachers believed that students perceive language learning negatively since they observed that students either felt uneasy or tensed when asked to speak English. Also, teachers believed that they could not be blamed for these students who use un-English utterances. “When they come to college they are already made”, a teacher commented. Moreover, teachers need an update on the essence of communicative teaching. The lecture method, one that is teacher-oriented was predominantly done in English classes. Very limited chances allowed for student talk. More importantly, teachers have to be exposed to the different strategies of communicative teaching. The Question and Answer technique was overused. If only they had observed strategies that really work, they would have used it in class. Another avenue that teachers obviously needed to acquire was to examine their course titles. By then, they would have seen what topics fit in the descriptive title of the course. There were several topics seen in the syllabus which twisted the idea given in the course title. English 1A for instance, a study and thinking skills course, focused solely on the parts of speech for its topics. Moreover, very common evaluative measure used to test students’ skills was the paper and pencil test. Teachers should be more creative than adopting just one mind-numbing strategy. Therefore, they need exposure in communicative testing and assessment. By then, not only quizzes and tests will occur in English classes.

The development stage of the training design had for its baseline data the needs analysis. The design, in the form of segments, was then produced. Each segment contained a topic virtual to communicative teaching. The content of the training design was composed of topics, content, mode of delivery, strategy and evaluative procedure. Then, the implementation stage followed, actualized in the training of the college English teachers of Capitol University. The trainers who implemented the scheme were experts in the field of communicative teaching. Before the try out the trainers did a close examination of the segments. They took part in the development of the scheme since they brought materials for sample activities and valuable input. After the try out, the refinement of the scheme was done. This was based on the evaluation made by the trainers and trainees. During the training, the trainees evaluated the segments in the huddle sessions. The segment content and trainers’ presentation of the learning segments were assessed. After the training, evaluation sheets were given to the participants of the training. They rated the totality of the scheme using the modified evaluation scheme of Scott and Parry (1997). Trainers were invited to conduct the try out of the scheme on the respondents of this research. As to the assessment of the scheme, a set of evaluative procedures was modified based on Scott and Parry’s evaluation scheme (1997). The comments served as basis for the revision of the learning segments. The content presentation of each learning segment contain strategies that promote active learning. This includes: brainstorming, cooperative group work, simulation and mini-lectures. A detailed plan of the training sessions was used to stay on track during the training event. Mid-course corrections were also made and training details likewise documented through snapshots and the use of video tape recorder.

2. Contents of the Developed Learning Segments

The training design was composed of six segments. The researchers chose the term segment to refer to the packet of materials that the trainers used. These were arranged in a sequence. The first learning segment had to be finished before they moved on to the next segment. The segments are discussed as follows.

Knowledge on the affective side of language teaching and learning was the first topic set. FGD showed that students perceived negatively the use of English. The English teachers were unmindful of this. This was clearly manifested during the classroom observation as well. They were not keen in developing the verbal potential of students. They allowed the use of first language in class. They even sometimes switch to the first language in explaining relevant points. Therefore, there was a great need to develop teachers’ competence in guiding students to reorient them in developing their communicative abilities.

Knowledge of communicative teaching followed. Needs analysis showed insufficient student interaction in English classes. There was maximum teacher talk and minimum learner talk. Those teachers may have been aware of the goal of language instruction as the result of the FDG and questionnaire showed yet, another thing happened in their classes. They certainly needed to update their teaching strategy to pave the way towards communicative teaching.

Awareness of the needed communication skills of college students was next. Teachers focused only on developing one area of students' skills, the linguistic side. The other skill areas were taken for granted. It is not enough for the learner to develop his linguistic competence as observed in the English classes. He must develop his skills in manipulating this linguistic system to the point where he can use it spontaneously and flexibly in order to express his intended message. Since what occurred in the classes observed were very few instances for learners to communicate, the latter was not realized.

Then, *How to revise syllabus for the designated course title* subsequently came. Since work texts and lesson objectives did not necessarily promote communication skills of college students plus course descriptions do not fit the course syllabus, a topic on *a look at current course titles and meanings* need to be introduced. Hence, an application of communicative teaching strategies is needed to spotlight more on developing students' speaking potentials.

The *Need for communicative testing and assessment* was also included in the segment title. Tests made by English teachers disclosed minute opportunities for students to use the language spontaneously. Test tasks should reflect the attributes of the activity in real life that it was meant to replicate. Unlike the tests made, they talked about the tenses and other parts of speech. In the cloze test samples, the nth word deletion was not followed. They really needed training on this.

Lastly, a *packet of instruction* was prepared for the trainer. The trainer in conducting the training design will use this, as this will direct him/her on what to do in every training session. However, the design was designed for flexibility in that any trainer may add a technique, strategy, or input that will fit into the prepared design.

The training design produced was interactive. Any trainer who uses it may add to what had already been designed in the form of additional input or extra samples among others. The said training scheme was thus designed to meet the needs of college English teachers for them to develop students' communicative competence.

The planning of the scheme was made possible with the constant assistance of a languages expert, the researchers' mentor. The learning segments' topics came out after her thorough examination. With the topics already identified, the researchers went on to plan out the learning objectives for every learning segment and noted the competency measures for every training session.

Conclusions

Taking the findings as strong points for evaluating this research, the following conclusions were drawn.

1. Various opportunities for student-talk should be provided in English classes. This calls for teachers' creativity in designing meaningful and communicative tasks. After all, communication is but the goal of language instruction. Hence, the usual Q and A technique may not be overused, as there are other strategies to choose from. The needs analysis showed that English teachers lack competencies. The activities provided in class did not encourage class interaction. They were the correct usage type if not rote memorizing of the rules of grammar. This therefore, made students more conscious to speak, as they had to think of the correct usage of verbs all the time.

2. Instruments such as FGD and questionnaire cannot be solely relied upon as baseline data in research. Some noted information did not actually happen in the classes observed. This shows that teachers were aware of the idea of communicative teaching but did not apply this in class.

Recommendations

The following concepts are recommended as a result of the study.

1. An experimental research may be conducted to test the effectiveness of the developed training design. This may be compared to other designs, with focus on the grammar approach to teaching English. Similarly, for the training content; too long content of segments may bore the readers/trainees. As such the presentations of concepts have to be capsulated in various formats.

2. Teachers need to attend trainings with the design showing the apportioning of the topics per day, with the assessment and activities built into topics. Hence, a designer should detail a training design so that a trainee who uses it will just follow. Moreover, trainings should be conducted on days other than Monday. Blue Mondays may hinder the participants to attend such important sessions. They may also be late, still unprepared because of the weekend's activities.

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Toward Reconciling Challenges and Capabilities of Higher Education in Indonesia

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Abstract

This paper is an evaluation and exploratory analysis of the recently introduced National Higher Education Institutions Ranking System (NHEIRS) in Indonesia. At the time of writing this paper, two annual national ranking evaluations using this system had been conducted. It is therefore a good time to assess its efficacy in order to commend it or provide suggestions to make it an even better means to improve higher education (HE) in the country. Recent literature on Indonesian education and HE revealed serious underperformance in their many aspects. The important research question is therefore how NHEIRS could help to improve the quality of HEIs. A total of 4 research questions are explored in this paper. Eight randomly chosen universities are used to illustrate how their rankings represent their quality and that rankings over two consecutive years for each HEI reflect the success or otherwise of efforts to improve their qualities. The analysis found that the NHEIRS is potentially an effective novel approach to persuade universities to develop their abilities and capabilities in meeting the challenges to produce quality human capital for the country. Such potentials will be realized when the HEIs understand that they have to change their mindsets on everything to do with an HEI. The four important measures to use in improving their HEIs are given in the NHEIRS. This analysis promises profound research and investigation that will further show how HEIs in Indonesia could sustain the improvements they have initiated. This NHEIRS model may later be used by other developing countries for the same purpose.

Keywords

Exploratory analysis, Higher Education, Indonesian education, National Ranking, empowerment, democratic

Introduction

With the biggest population in the region Indonesia's challenges are enormous including in higher education. Its capacities in this case are limited; capabilities are equally challenged while changes are inexorable. Generally, education including Higher Education is a politically sensitive portfolio for its obviously pervasive influences. It is inevitable therefore that succeeding governments felt the need for it to be closely controlled. With democratization which ostensibly started in 1998, higher education in Indonesia was slowly liberated (Idrus, 2003). Despite initial policy vacillations, empowerment of higher education institutions (HEIs) manifested in the introduction of the BHMN (*Badan Hukum Milik Negara ~ State Owned Legal Entities*) in the year 2000 though temporarily thwarted by a subsequent Minister of Education, appears to continue and is even accelerated under the new government of President Joko Widodo. A landmark decision made by new President almost immediately after his inauguration in 2014 was moving the Directorate General of Higher Education (DGHE) to the Ministry of Research and Technology. Clearly, this move laid down the government's resolve in reforming higher education (HE) in the country rather than just tweaking it, particularly its role from teaching and producing graduates to meet industry needs for professionals, to research and produce new knowledge that will ensure the country's future survival and even existence.

Recognizing the enormity of this reform and its accompanying changes, the government through the DGHE effected a considered plan of changes (Pemenristekdikti, 2015). One of the early ones included in this plan was the creation of the *National Higher Education Institutions Ranking System* (NHEIRS) in which all of the over than 3000 HEIs were ranked.

This paper reviews and explores the NHEIRS, its criteria, initial and subsequent results of their applications and impacts now and into the future. It does not pretend to be a statistical study of any or all of the Indonesia's over 3000 HEIs, as it focuses on the system that DGHE had created. The authors' combined extensive experiences in and with the DGHE as well as several Indonesian HEIs and the second author's experiences as Qualifications Agency's Auditor in five different countries and in the Asian Development Bank and The World Bank higher education projects provide confidence of the analysis' reliability.

The Research Questions

There are several questions to be explored and aspects of the NHEIRS to be analysed in order to establish the NHEIRS' viability as follows:

Are the criteria used acceptable?

Are the rankings obtained through the NHEIRS resemble general community perceptions, noting that there had not been official national rankings before?

How could NHEIRS help HEIs to improve their quality?

What sort of graduates will Indonesia see as a result of the reforms brought about by these changes and how would these new types of graduates contribute to the country's future survival?

Methodology

Data are obtained from the DGHE's Database. For the 2015 rankings a list of universities, their scores in the four quality measures, total scores and ranks are given. The list therefore shows how each HEI obtained their Total Scores and thus ranks. For the 2016 rankings DGHE modified the display associated with the rankings by adding several other data such as the clusters the HEIs fall into and the averages for each of the quality measures which require additional lines in the list. As a result DGHE no longer provides the list of HEIs as for 2015 but issues code numbers for the HEIs and interested parties could type these codes into a pop-up window online to see those details of the HEIs of interest.

Examination of each quality measures, the total scores for each HEI and their ranks are then carried out. Simple arithmetic was used to calculate and observe improvements or otherwise. Indication of what had happened during the year between the ranking exercises may be speculated. However, further data would be needed from each HEI in order to determine accurately what changes were done in each of the quality measures. A discussion on these is provided in the *Suggestions for further research*.

Results

As the research reported here is a preliminary investigation into the efficacy of the NHEIRS, a small sample suffices. A total of 8 HEIs are randomly selected. Names of the HEIs are disguised in order to allow an objective analysis.

Table 1 shows the HEIs with their ranks and scores of their elemental quality measures. In the Table they have been re-arranged to group those that have lost their ranks and those that have improved over the two years, in order of increasing changes.

Table 1 – Sample of 8 HEIs with data from DGHE Database

HEI	Year	HRM Qual Score	Stu-dents Qual Score	Mgmt/ Accreditn Qual Score	Re-search Qual Score	Total Score	Rank	Δ Total Score/ Rank
HEI (A)	2015	2.46	0.10	3.40	1.70	2.262	40	-0.219
	2016	1.86	0.00	3.27	1.68	2.043	59	-19
HEI (B)	2015	2.85	0.00	2.40	0.50	1.718	102	-0.051
	2016	1.96	0.02	3.12	0.47	1.667	128-9	-26
HEI (C)	2015	1.51	0.20	3.10	0.90	1.660	122	-0.138
	2016	0.78	0.71	3.00	1.12	1.477	192-3	-70
HEI (D)	2015	3.03	0.00	3.10	0.20	1.892	85	-0.575
	2016	1.33	0.00	3.00	0.61	1.317	228	-143
HEI (W)	2015	2.29	0.00	3.10	1.10	1.935	75	+0.257
	2016	2.82	0.00	3.13	1.39	2.192	43	+32
HEI (X)	2015	2.72	0.00	1.70	0.90	1.593	152	+0.257
	2016	1.89	0.16	3.08	1.10	1.850	87	+65
HEI (Y)	2015	2.60	0.00	1.20	0.00	1.140	551	+0.331
	2016	2.55	0.11	1.96	0.69	1.471	176	+375
HEI (Z)	2015	1.16	0.00	0.60	0.20	0.576	1595	+1.230
	2016	2.06	0.00	3.04	0.92	1.806	94	+1501

Note: Δ=Differences between 2015 and 2016; Qual= Quality

Details of the criteria, how the scores are calculated and the weight factors of the quality measures have been discussed in Kusumastuti & Idrus (2017) and summarized as follows:

Quality of academics – measured by the percentage of staff with Professorial status; the percentage with PhD; the sum of these percentages is converted to a number between 0 and 4 using a pre-determined scale

Quality of management – measured by the overall/institutional accreditation level; the percentage of study programs with A and B accreditation; again the achievement is converted to a number between 0 and 4 using a pre-determined scale

Quality of students – measured by the prestige they gained at the National Students' Week (PIMNAS); again the achievement is converted to a figure between 0 and 4 using a pre-determined scale

Quality of research – measured by the number of documents and scientific papers published in Scopus indexed instruments/journals by academics; again the total publication is converted to a number between 0 and 4 using a pre-determined scale

The weighting used in calculating the Total Score for each HEI is 0.3, 0.3, 0.1 and 0.3 respectively. The Total Score is the number used in establishing the rank of the HEIs.

Data analysis

Table 1 shows the following:

For each HEI the differences in Total Scores between 2015 and 2016 do not correlate with differences in ranks. This simply means that Total Scores are not tied to ranks which indicate that many HEIs are taking actions which caused their quality measures to be dynamic and in turn creating a random juggling of ranks. These prove two important things:

lots of improvements are possible which as a corollary indicates the rather weak quality level of Indonesian HEIs at the moment some HEIs are able to decipher accurately what DGHE is trying to do using the NHEIRS and therefore took actions which help improve their quality measures

There are significant changes occurring between the two rankings which vindicates the usefulness of the NHEIRS in improving HE in the country as a whole

HEI(Z) for example improved its rank by 1501 steps while HEI(D) went down 143 steps

Rank improvements and reductions depend on changes in all the four quality measures and not only on one

Rank improvements and reductions depend on the value of the scores in the four quality measures. That is, improvements and reductions on a score that is small will have a small impact on the total score and therefore on the rank change

Using HEI(D) as an example, while its research score improved three times its HRM quality score went down also by 3 times. Since the value of the HRM score is much bigger than that of the research score, the reduction in its Total Score and therefore ranking is significant

Therefore HEIs must attempt score improvements in all of the quality measures simultaneously.

HEI(Z) is again a good example of this even though its Students score is zero in both years.

Practically this means HEIs must be able to improve processes in all their activities. The four quality measures are indeed the most important for an HEI to be on top of in order to attract the right type of students, staff and research grants for its survival.

What actions HEIs must do in order to achieve and then sustain high total scores and thus higher ranks is an area for further research.

Suggestions for further research

As the efficacy of the NHEIR system has been demonstrated, it is left for the HEIs to assume the responsibility of using it in improving themselves for their own as well as the country's benefits. One could only imagine how if over 3000 HEIs in the country were to develop themselves along the lines of the NHEIRS', that is at least in the qualities of their HR, Students, Management/Accreditation and Research, and getting commendable scores in each of them, the quality of higher education in Indonesia could improve.

The following could be an approach for HEIs to pursue improvement themselves:

Identify own strengths and weaknesses by using the elemental quality scores and score changes from one year to another.

Investigate the reasons for the improvements and/or shortfalls. This needs careful analyses involving methods such as *value analysis*, *cost-benefit analysis*, *quality assurance*, *human capital management*, *leadership practices* and the like. It must be noted that both shortfalls **and** improvements must be considered as actions that caused improvements must be understood as well as those that caused shortfalls in the elemental scores.

Plan actions to address the identified problems and opportunities for improvement. Management needs to be well informed of the various effective methods to do this, from basic communication to proven methods such as Deming's PDCA (*Plan, Do, Check, and Act*) cycle (PDCAHome, 2014). The Plan will

need to be supported by everyone involved. Essentially there needs to be a *buy-in* from everyone in the organization. This is not a straightforward thing to do and top management will need to muster all available knowledge and practices to get this Plan to achieve the ends sought.

Using a method similar to that shown in Table 1, identify an HEI that had made an exemplary improvements, either in each of the elemental qualities or overall. Find out how it was able to achieve them. This may be challenging as the said HEI may not wish to share their experiences with other HEIs for fear of competition. Such attitude is only natural, although co-operation could be mutually beneficial. It is therefore up to the former to ‘sell’ the idea to the HEI it wants to learn from.

Knowing that nothing remains constant which is epitomized by the cliché ‘*The only constant is change*’, it is equally important for the HEI to realize that its job is not complete until a continuous improvement program is instituted, planned and executed in a continuous manner.

Discussion

Here the research questions stated earlier are discussed given the analysis of data above.

Are the criteria used for ranking acceptable?

Four ranking criteria were used in the NHEIRS, namely *Quality of Academics*, *Quality of Students*, *Quality of Research* and *Quality of Management* (Kemenristek, 2015). The DGHE as is the case with any world-wide ranking criteria (World University Ranking, 2017) stated that these NHEIRS criteria are subject to expansion, modification, addition and complete changes in order to maintain its currency and applicability.

The preference for ‘quality’ as measures of distinction is indeed appropriate. Other HEI ranking systems also used quality as their measures of excellence. Quality is *fitness for purpose* (ISO 9001, 2015) and if measures are taken to ensure, in this case, that academics, students, research and the management of an HEI are “fitting” the respective requirements then the HEI would be ranked high.

Are the rankings obtained through the NHEIRS resemble general community judgment, noting that there had not been official national ranking before

There are more than 3000 HEIs in Indonesia and it is evidently unreasonable to expect that the general community will have ranks for each of them. However, it is known that Indonesian parents are keen on *ranks*, from the position of their children in class to the school and university their children go to. As a result there is general agreement though not consensus in the community on the ranks of HEIs. One could only guess how they came up with their rankings.

Discussions among Indonesians interested in higher education indicated that their top ten ranked Indonesian HEIs are not dissimilar to DGHE rankings. Both the Institut Teknologi Bandung (ITB) ranked first in both 2015 and 2016 and Universitas Indonesia (UI) ranked 4th and 3rd respectively in 2015 and 2016 are considered best Indonesian universities correspondingly by those who are technically minded and those who are social-science minded.

Thus the NHEIRS ranking is an acceptable assessment of HEIs in Indonesia. The rigour of its processes and implementation should also provide the public with the rationale for its hitherto non-existent basis for their rank order of HEIs in the country.

How could NHEIRS help HEIs to improve their quality

There are several ways to do this as follows:

The competitive edge: in a society like Indonesian, rank is prestige. The higher the rank the higher public opinion is of the HEI and this will translate into increased applications for enrolment. As the NHEIRS rank is evident-based the expectations of new students would differ little from their experience on enrolment. This could only enhance the competitive advantage.

The facilitative impacts: Once an HEI gained a rank, its future intention will inevitably about sustaining and improving that rank. Knowing the criteria used by NHEIRS in establishing that rank and knowing the scores of other HEIs particularly those above it, would drive the HEI to seek ways of removing shortfalls that prevented it from getting higher scores. Cycles of doing so will inescapably hone one's skills in *continuous improvement* (CI). CI is the foundation of sustainable quality and its facilitative power is widely pervasive which leads to holistic *fitness for purpose* and of course greatness for the HEI, its academics, its graduates, its research and its management and thus accreditation.

Empowerment: The nature of NHEIRS and the known and proven though not declared intention of the new government of President Joko Widodo to discourage unnecessary dependence on the government and to build self-confidence in Indonesian people and organizations and thus establishing real democracy in the country, clearly addresses a very important shortfall in nation building. HE that is self-confident will impart self-assurance in everything it does, e.g. teaching, learning, research, community service and beyond.

What sort of graduates will Indonesia see as a result of the reforms

Literature on Indonesian graduates, their schools and HEIs show a serious and urgent requirement to catch-up to the rest of the countries in the region (Idrus, 2003; Suryadarma & Jones, 2013; Widhiarto, 2014; Lim & Wang, 2016; Pellini, 2016; JP, 2016; Kusumastuti & Idrus, 2017). The effort through NHEIRS promises to address this as explained earlier. Importantly it is not by short-cuts and thus reducing standards as some have observed happening in the past, but by increasing and amplifying empowerment and self-management of HEIs while enhancing critical thinking skills and creativity amongst the people.

Thus future graduates of Indonesian HEIs will be at least on par if not better than those from HEIs of its neighbours. Through the formidable challenges that these graduates have to navigate themselves given the revamped vision and mission guided by education reforms brought about by the requirements of the NHEIRS, they will become an astounding new energy endowed with *new* capabilities and capacities their predecessors had never possessed.

Conclusion

In a relatively short paper a more comprehensive analysis is beyond its scope. Nevertheless important questions on the Indonesian NHEIRS had been asked and answered. Given that such ranking system is new to the country and to the HEIs while the processes involved are alien to the people involved, namely the HEI management, the academics and the students, the publication of the ranking lists for the two years since the inception of the NHEIRS clearly shows that the processes involved and the resulting ranking are vindicated.

The challenges facing the DGHE and HEIs as well as higher education in the country in general are enormous not least of which involve the *un-learning* of debilitating attitudes of the people and management who have been used to *conformance* rather than *empowerment*. The learning curve is indeed very steep. The NHEIRS is only a small part in the endeavour to uplift the country's quality of human capital. But it has been shown through the analysis in this paper that it has made an imprint in the HE landscape of the country.

This leads to the conclusion that this NHEIRS initiative is an appropriate first step in reconciling the challenges and the capability and capacity of the country's higher education.

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Counselors' Attitudes toward Online Counseling: The Implications to Students' Attitudes on Online Counseling

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Abstract

This study examined the mechanism by which the openness to experience trait of students' affect their attitude towards online counseling through their technology self-efficacy. The counselors' attitude towards online counseling is included as a mediating and/or moderating factor. A sample of 140 counselor-respondents and their counselee-student equivalent from different college and universities from Manila are utilized in this study to ascertain the implications of personality traits and attitudes in the use of technology artefact using a second stage moderated mediation model or conditional process analysis prescribed in Hayes (2016). The result shows that the counselor's attitude towards online counseling provides a strong indirect effect on the students' attitude towards online counseling ($p=.113$, $SE=.094$, $CI=-0.112$ to 0.270) when examined at different values of technology self-efficacy. This research contributes to the online counseling literature by examining how the counselors' attitude towards online counseling contributes to the students' use of the same. In addition, this research provides a glimpse on openness to experience trait of HEI students enrolled in computing and technology courses. Another significant contribution of this study is thru its potential to provide features for online counseling systems that are geared toward students with positive openness to experience trait.

Keywords

Technology self-efficacy, Online counseling attitude, Openness to experience

Introduction

Compared with the private sector, the shortage of guidance counselors is felt more in the public sector of both basic and higher education (Manual, 2015). To date, there are about 3000+ registered guidance counselors for the entire country (Sheila Hocson, Interview with Philippine Guidance Counseling Association president, May 30, 2017). While the passage of the Guidance and Counseling Act of 2004 or the Republic Act 9258 is a significant development for the guidance and counseling in the Philippines, the lack of qualified counselors and the huge number of case load or counselor-counselee ratio exacerbate the perennial issue that hounds the Philippine educational system (Villar, 2007; Garcia, 2012; CMO09, 2013; CHED, 2008).

Technology has provided the opportunity to continue new and innovative ways to deliver counseling services to its client (Layne & Hohenshil, 2005). With the availability of internet, the counselors can use online counseling as another form of modality in their counseling intervention program (Sekerler, 2008). Researches that advocates the usage of online tools such as simple messaging system (SMS), email, blogs, and social networking sites to supplement counseling especially in situations where distance and availability is a concern are available (e.g. Vinluan, 2011; Martin, 2011; Masagca & Londerio, 2008).

The study of Brandstetter (2014) reports a higher therapeutic bonding for e-therapy as compared with the F2F therapy bonding. In a study of students' impression of the different mode of counseling, results

indicate that students perceived no difference between the virtual and the traditional counseling and that students would request virtual counseling to supplement the traditional counseling (Kostin, 2003). In the study of counseling via instant messaging (IM), the study of Long (2007) shows that the counselors perceive counseling through IM offered less opportunity to create a facilitating counseling environment, less opportunity for interpretation of nonverbal communication, and less opportunity to attend to the psychological needs of their clients as compared to face-to-face counseling.

In a study that explores whether attitudes toward online therapy could be predicted by personality traits, gender, race, and dysfunctional attitudes, the study of Pratt (2010) revealed that openness to experience and self-consciousness traits were positively related to online counseling attitude. The same study also highlights that those who are low in the extraversion, high in the openness and self-consciousness traits would prefer some form of e-therapy. In a similar fashion, the study of Joyce (2012) reports that people with high levels of self-stigma, men with conflicting gender roles, and people with high score in the openness to experience traits may favour online counseling. In the realm of online or networked learning environment, those positive to the openness to experience trait are found to have a tendency to use Internet and video games excessively (Ventura et al., 2012; Ventura et al., 2013; McCrae & John, 1992; van der Aa et al., 2008) and is positively correlated with self-efficacy for creative and intellectual pursuits (Hartman, 2006).

The guidance and counseling professionals are one of the crucial elements of academic services, as such, their influence on the use of online counseling are important. In a correlational study that aimed at finding the relationship between the faculties' level of technology implementation and the variables of age, gender, and personality style; it was found out that the faculties' openness to experience trait and their high level of technology implementation are significantly correlated (Henry, 2008). In a study that investigated the relationship of counselors' attitudes toward online counseling and their self-efficacy with online tools, a significant result indicated that counselors who possessed positive attitude towards online counseling also have high self-efficacy with online tools (Wilkins, 2012).

Theoretical framework and Hypothesis

In the Social Cognitive Career theory (SCCT), self-efficacy beliefs, outcome expectations, and personal goal help the individual to regulate his behavior. Self-efficacy beliefs denote to "people's judgments of their capabilities to organize and execute courses of action required attaining a designated type of performances" (Bandura, 2001). Self-efficacy is dynamic self-beliefs that is linked to particular performance domains and activities such as different academic and work tasks. It also postulates that self-efficacy as being generally the more influential determinant of behavior (Lent & Brown, 2006). Technology self-efficacy (TSE) as a belief in one's ability to successfully perform a technologically sophisticated new task, is a specific application of a more general and encompassing construct of self-efficacy (McDonald & Siegall, 1992). TSE's distal variables (e.g. adequate resources, gender, and age) influence proximal variables which then result in high or low TSE (Compeau & Higgins, 1995; Burkhardt & Brass, 1990; Murphy et al., 1989). In the computing discipline in particular, the studies of Lent et al. (2008) and Lopez et al. (2007) provide evidences on the mediating and/or moderating effect of self-efficacy as it relate to goals and contextual variables of technology students.

The goal of the study is to examine the effect of openness to experience trait of student on the use of online counseling. The proposed model (Figure 1) shows the level of openness to experience (X) trait that leads to a low/high technology self-efficacy (M). This in turn, affects the students' attitudes toward the use of online counseling (Y). However, the counselors' attitudes toward online counseling (V) will be considered, then the students' attitudes toward online counseling will also be affected. That is, the positive effect of openness to experience (OEX) on the attitude of using online counseling (OCASS) via technology self-efficacy (TSE) of students is not contingent on the counselors' attitude on online counseling (OCASC). The hypothesized conceptual diagrams that combined the conditional process

model in which the mediation process ($X \rightarrow M \rightarrow Y$) and moderation process ($M \rightarrow Y$ effect by V) are depicted along with the statistical model in Figure 1 adapted from Hayes (2016).

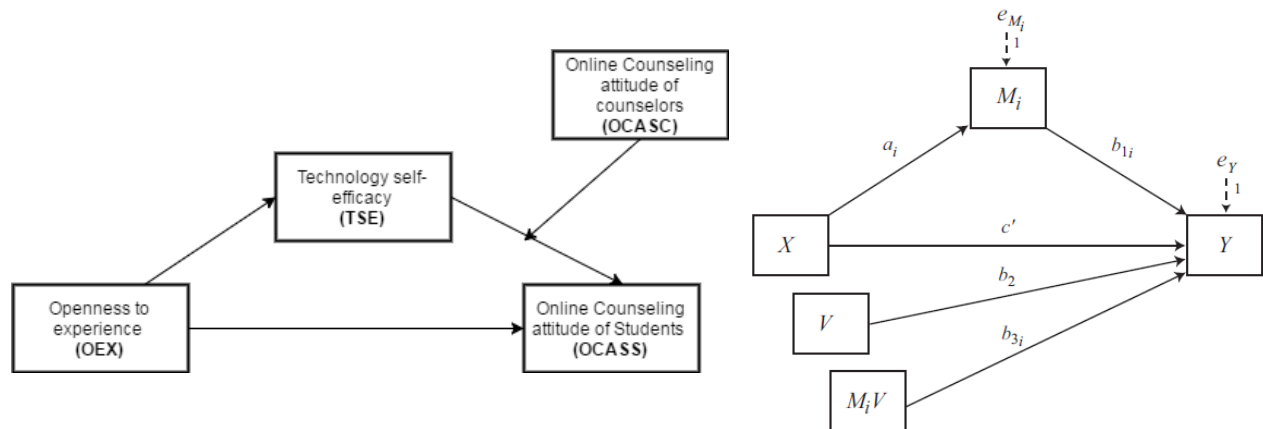


Figure 1: Conceptual and Statistical Diagram

Participants

Counselor-participants were recruited during the counselors' annual conference on May 18 – 20, 2017. A total of 140 counselors from 12 regions participated. About 98 participants returned the questionnaires during the conference break while 42 were sent their answered questionnaire via one of the authors' e-mail. The data from the counselee (students) were derived from a larger set of data collected by one of the author from the computing and information technology students of several colleges and universities in Metro Manila and Mindanao. Data were gathered using questionnaires with the research objective clearly stated and their anonymity assured. Data encoded by a third party were verified at random checking the entries from the actual forms and if discrepancy is noted, a more thorough verification of all data is conducted. Descriptive statistics including frequency distribution, mean and standard deviation were conducted and verified. Respondents who have at least 20% of the items unanswered were removed while those with few missing information were replaced using the maximum likelihood function (Enders & Bandalos, 2001; Downey & King, 1998).

Instruments

The Online Counseling Attitude Scale (OCAS) is a 10-item measure of attitudes toward online counseling developed by Rochlen et al., (2004). Each item is rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Higher scores indicate more favorable attitudes toward online counseling. In Rochlen et al.'s initial study, the internal consistency of the two subscales of OCAS (value and discomfort of online counseling) is reported as 0.89 and 0.83. The adaptation of OCAS by Han in 2007 reports an internal consistency of 0.836 while the examination of Joyce (2012) on the influence of personality, gender role conflict, and self-stigma in an online counseling shows 0.88 internal consistency. The utilization of OCAS by Garcia (2010) in measuring the attitude of lesbians toward online counseling reports of 0.84 and 0.92 internal consistency while the recent study on counselor preparation by Flores (2012) and counselor attitude by Wilkins (2012) reports of a 0.93 and 0.96 overall reliability coefficient for the value of online counseling subscale and 0.88 and 0.84 overall reliability coefficient for the discomfort with the online counseling subscale.

The openness to experience measure used in this study is adapted from the 44-items inventory that measures an individual on the Big Five Factors or dimensions of personality (John & Srivastava, 1999; Goldberg, 1993). The ten-item instrument uses a five-point Likert scale (1 = Disagree Strongly, 2 =

Disagree a little, 3 = Neither agree or disagree, 4 = Agree a little, 5 = Agree strongly) and is patterned after the examples detailed in Chamorro-Premuzic (2012) presentation of the complete super traits and primary facets of the Revised NEO Personality Inventory (p. 58-59). According to Piedmont & Weinstein (1993), the internal consistency of NEO-PI ranges from 0.76 to 0.94 while the study of Garcia et al., (2012) reports that the reliability coefficients for these five factors were higher than 0.80. Further studies examined a coefficient alpha of 0.90 (Bathje et al., 2014) and 0.76 (Finkel, 2009).

The Technology Self-efficacy measure is influenced by the work of Holder (2007) Computer/Internet Self-confidence scale with a coefficient alpha of 0.67 and Smith (2002) research explained the vocational interest in Information Technology with a Cronbach's alpha of 0.85 based on the study's sample.

Methodology and Tools

According to Hayes (2013), the basic principles of linear modelling using regression analysis and the use of regression-based path analysis to estimate the various effects of interest are necessary in the concepts of mediation (how X influences Y) and moderation (when X influence Y) (pp. 21-22). It is important to note that a hypothesized model is called a causal model because it works on the assumption of causation. Hence, it does not mean that it confirms causation. Like most calculations determined by multiple regression, the hypothesized models predict rather than confirm the relationship (Baron and Kenny, 1986).

In mediation analysis, the indirect effect of X (independent variable) on Y (dependent variable) through M (mediator variables) contains two components that, when multiplied together, yield an estimate of how two cases that differ by one unit on X are estimated to differ on Y through the effect of X on M, which in turn affects Y. The first component is the effect of X on M (path a), and the second is the effect of M on Y, holding X constant (path b). All paths are amenable to influence by something and it is proper to include the effect of that something (context, circumstance, or individual differences) in the mechanism of linking X to Y (Hayes, 2013, p. 327). (See Figure 1)

Moderated mediation analysis or conditional process analysis is the analysis of a model that includes both mediation and moderation components (Hayes, 2016). The mechanism of associating X to Y can be said to be conditional if the indirect effect of X on Y through M is dependent on the moderator (Hayes, 2013, p. 329) while the direct effect is the effect of X on Y controlling for M (p. 372). The conditional process model contains a mediation process ($X \rightarrow M \rightarrow Y$) combined with moderation of the $M \rightarrow Y$ effect by V.

All analyses were performed using the Statistical Program for Social Sciences (SPSS) version 21 with the PROCESS macro of Hayes (2013) installed. The bootstrap process macro method designed by Hayes (2013) is used to check whether the relationship between the students' openness to experience and online counseling attitude is mediated by technology self-efficacy and moderated by online counseling attitude of counselors. Openness to experience (X) is assumed to have both direct and indirect effect on the dependent variable online counseling attitude (Y). The online counseling attitude of counselors (W) is hypothesized to also affect the mediator variable technology self-efficacy (M) which also has a unique effect on the students' online counseling attitude (Y). The conditional indirect effect of V on Y through M is quantified as the effect of V on M multiplied by the conditional effect of M on Y as a function of Y.

Openness to experience (OEX) is entered in the X field of the PROCESS macro in SPSS while the students' online counseling attitude (OCASS) is entered in the Y field. The technology self-efficacy (TSE) is entered in the M field while the counselors' online counseling attitudes (OCASC) is entered in the V field following the second stage moderated mediation model (Hayes, 2016; Hayes, 2013, p. 447).

Results

In the mediation model, regression analysis was used to investigate whether TSE mediates the effect of OEX on OCASS. Result summarized in Table 1 indicate that OEX was a significant predictor of TSE ($\beta = .473$, $SE = .042$, $p < .001$) and that TSE was a significant predictor of OCASS ($\beta = .546$, $SE = .045$, $p < .001$). These results support the mediation hypothesis. After controlling for the mediator TSE, OEX is still a significant predictor of OCASS ($\beta = .273$, $SE = .046$, $p < .001$) that is consistent with partial mediation. The indirect effect was tested using a bootstrap estimation approach with 1000 samples. As can be seen in Figure 2, the results indicate that the indirect coefficient was significant ($\beta = .258$, $SE = .035$, 95%, $CI = .192, .328$). A Sobel test was conducted and found full mediation in the model ($Z=8.237$, $p<.001$).

Table 1. Mediation model coefficients

	Path coefficient	P-values	95% Bootstrap Confidence Interval
<i>c</i> : Total effect	.531	.000	[.439,.623]
<i>c'</i> : Direct effect (OEX→OCASS)	.273	.000	[.183,.363]
<i>a</i> : (OEX →TSE)	.473	.000	
<i>b</i> : (TSE→ OCASS)	.546	.000	
<i>a x b</i> : Indirect effect (OEX →TSE→ OCASS)	.258		[.192,.328]

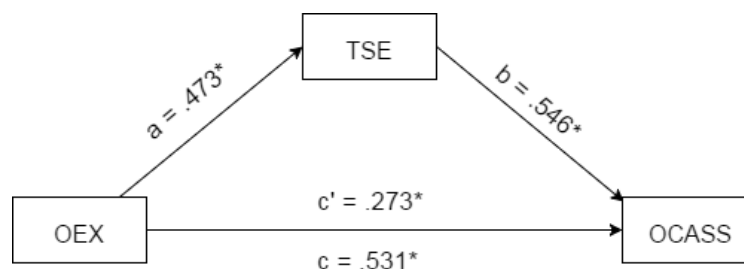


Figure 2: Mediation model

Following the conditional process analysis expounded in Hayes (2013), the resulting coefficients and model summary information are found in Table 2. The mediator model was significant ($R^2 = .343$, $df = 1,138$, $F = 72.132$, $p < .001$). The model also shows that OEX is significantly associated with the mediator variable TSE ($\beta = 0.646$, $p < .001$). The dependent variable model was also significant ($R^2 = .586$, $df = 4,135$, $F = 47.7212$, $p < .001$). The model also shows that the effect of TSE on OCASS is not significant ($\beta = 0.109$, $p = .728$) and that the effect of OCASC on OCASS is negative but significant ($\beta = -0.604$, $p=.043$). Lastly, the model shows that the effect of OCASC on the relationship between TSE and OCASS is significant ($\beta = 0.174$, $p = .046$).

Discussion

The regression coefficients for M and V are conditional effects with their product in the model in which b_1 is the estimates of the effect of TSE on OCASS in zero OCASC but equal in OEX. The effect is positive and is statistically different from zero albeit not significant ($b_1 = 0.109$, $p = .728$).

The regression coefficient for OCASC estimates the effect of OCASC on OCASS among students measuring zero in TSE. Among students equal in OEX and slightly below the mean in TSE, counselors

who are negative in OCASC does not affect the students' OCASS as evidenced by the effect that is statistically different from zero ($b_2 = -0.604$, $p = .043$).

Table 2: Moderated Mediation Model Coefficients

Antecedent		Consequent						
		M (TSE)			Y (OCASS)			
		Coeff	SE	p	Coeff	SE	p	
X (OEX)	a	0.646	0.076	0.001***	c'	0.206	0.084	.015*
M (TSE)		-	-	-	b ₁	0.109	0.311	.728
V (OCASC)		-	-	-	b ₂	-0.604	0.296	.043*
M x V		-	-	-	b ₃	0.174	0.087	.046*
Constant	i ₁	1.196	0.268	0.001***	i ₂	2.404	1.068	.026*

$R^2 = 0.343$ $R^2 = 0.586$
 $F(1,138) = 72.132$, $p < .001$ $F(4,135) = 47.712$, $p < .001$

CI 95%; number of bootstrap: 1000; n=140; * <.05; ** <.01; *** <.001

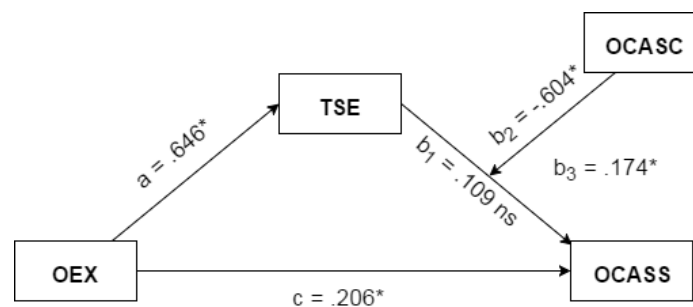


Figure 3: Statistical Diagram with the computed effects

The summary of the moderated mediation model shows that the indirect effect of TSE and OCASC (b_3) on the relation between OEX and OCASS is significant ($b_3 = 0.174$, $p = .046$). The mediation effect of TSE proceeds conditional as expected with values different from zero (Index = .174, SE= .094) while the bootstrap results showed that the lower limit confidence interval and the upper limit confidence interval were significantly different from zero (LLCI = -.112, ULCI =.270) as summarized in Table 4 and visualized in Figure 4.

Table 3: Summary of direct and indirect effects

	Path coefficient	P-values	95% Bootstrap Confidence Interval
c': Direct effect (OEX→OCASS)	.206	.015*	[.040,.373]
a: (OEX→TSE)	.646	.000***	[.496,.797]
b ₁ : (TSE→OCASS)	.109	.728 ^{ns}	[-.507,.725]
b ₂ : (OCASC→OCASS)	-.604	.043*	[-1.188,-.019]
b ₃ : ((OEX x OCASC)→OCASS)	.174	.046*	[.003,.345]
Index of moderated mediation	Index = .113, SE = .094		[-.112, .270]

*- $p < .05$, ** - $p < .01$, *** - $p < .001$

Table 4 shows the conditional indirect effect at three values of OCASC (V): one standard deviation below the mean (-1 or low), the mean (0 or average), and one standard deviation above the mean (1 or high) of the TSE (M). The conditional indirect effect refers to the indirect (e.g. mediated by TSE) relationship between OEX and OCASS at conditional values of the moderator OCASC.

Table 4: Conditional indirect effects at different values of moderator

	OCASC	$\omega = a(b1 + b3V)$	SE	Boot CI
Low <i>TSE</i> (-1)	3.016	.410	.086	.237, .563
Average <i>TSE</i> (0)	3.591	.474	.083	.312, .629
High <i>TSE</i> (1)	4.167	.539	.110	.332, .770

Summary, Conclusion, and Recommendation

The result of the bootstrap method showed that the total model is significant and it explains 58% of the variance ($R^2 = 0.586$) and that the lower level confidence interval and upper limit interval are significantly different from zero (LLCI = -.112, ULCI = .270) which suggest that the indirect path is significant. The effect of students' technology self-efficacy on online counseling attitude is not contingent on the counselors' attitude on online counseling as evidenced by the statistically significant interaction between the M and V in the model of Y ($b_3 = 0.174$, $p = .046$). However, the negative effect of the counselors' attitude on online counseling has detrimental effect on the students' attitude on online counseling ($b_2 = -0.604$, $p = .043$). Albeit, the effect is not strong enough to affect the students' attitude on online counseling, but it confirms the study's objective that it has negative effects.

Bandura postulates that people are likely to embrace and pursue particular goals for which they view themselves to be efficacious and that they perceive as leading to favourable or desirable outcomes (Lent & Brown, 1996). The decreasing value of the TSE→OCASS path for the mediation model ($\beta = .546$, $SE = .045$, $p < .001$) and moderated mediation model ($b_1 = 0.109$, $SE = .311$, $p = .728$) give credence to the effect of self-efficacy supporting. Therefore, no matter what the counselors' level of online counseling attitudes are, the counselee will still pursue what they think is more effective for them in order to achieve their counseling requirements.

The number of participating counselors is the main limitation of this study. While the sample is sufficient to show the relationship of the given data, it does not represent the attitude of the counselors in general. In the same vein, other factors like availability of the internet in the counselors' institution, support from administrators, their technology self-efficacies, and personality types were not considered. These and other personal factors identified in SCCT as intrinsic and extrinsic variables (e.g. outcome expectation, persistence) are instrumental in one's acceptance of technology tools that are not examined in this study. As such, future research to be conducted and researchers are invited to examine these relationships. They would also benefit from examining groups other than college students as they might provide exciting revelation about their personality traits that leads to their attitude on online counseling.

The result of this study may have some practical implications on the use of online counseling. For instance, this study reveals how openness to experience increases the technology self-efficacy of students. Counselors can use this information to pinpoint students who score high in the openness to experience trait and channel their counseling sessions online, thus freeing them to focus on those who scored low in the openness to experience trait and those who prefer face-to-face counseling. Finally, as the new generation finds the technology almost ubiquitous, facilitators and parents are enjoined to re-examine their readiness to the new modality of cyber counseling.

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School Based Feeding Program: It's Impact on the Academic Performance of Severely Wasted Pupils S. Y. 2015 – 2016

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Abstract

The purpose of this study was to determine the impact of the School Based Feeding Program for the severely wasted pupils of Southville Elementary School (SES) for the 2015-2016 school year. The respondents were all the 155 severely wasted pupils of SES from grade one to six. The researchers utilized the purposive research design since all the respondents were included in this study and at the same time; the t-test was employed to compare the academic performances of the pupils before and after the feeding program to determine if there was a significant impact on their academic performances. It was found that there was an impact on the academic performance of the pupils having the computed t-value of 7.16, which means that there was a significant impact. The mean academic performance of pupils before the feeding program was 78.43 and 79.17 mean after the feeding program with a mean difference of 0.74 this mean increase of pupils performances revealed that School Based Feeding Program help the pupils to leaved am impact on their academic performance and with their nutritional status, and 1.32 standard deviation with .05 degree of significance. The Department of Education feeding program has a significant impact on the eradication of hunger around the country; continued implementation of the Gulayan sa Paaralan Program and serve balanced/ nutritious food at home and encouragement of stakeholders and other private companies to donate in kind or in cash through Adopt-a- School Program to support the sustainability of SBFP.

Keywords

School Based Feeding Program, Academic performance, severely wasted pupils, Gulayan sa Paaralan Program

Introduction

Education is considered as the tool of the country to improved its economy, but how the government can produce quality education if the students are suffering from malnutrition and nutrient deficiency?

Nutrient and Health problems are no longer new in the Philippines especially among children in elementary and secondary schools public and private.

Both government and non-government organizations launched several feeding programs that can help to reduce this malnutrition and nutrient deficiency among students.

DepEd Order No. 33 Series 2015 (July 2015), cited that School feeding programs are considered to be an investment in education. There is evidence that school feeding programs increase school enrollment (2004);Geli, Meir, and Espejo 2007), cognition (Whaley et al. 2003; and Krisjansson et al. 2007; Jukes et al. 2008) and educational achievement (Tan, Lane, and Lassibille 1999; Ahmed 2004; Adelman et al. 2008) particularly it supported by complementary actions such as deworming and micronutrient fortification or supplementation (Simeon, Grantham McGregor, and Wong 1995; van Stuivenberg et al. 1999; and Juke et al. 2002).

The researchers strongly believed that school-based feeding programs have an effect of the nutritional status, school attendance among pupils beneficiaries. But the researchers would like to proved that these feeding programs has also an implication on the academic performance in school.

With regards to the effect of the school-based feeding program on the academic performance among beneficiaries, the researchers became more interested in conducting a study.

According to Gavilan (2014), Senator Grace Poe proposed a Senate Bill 79 also known as Sustansya Para Sa Batang Pilipino Act that promotes the School Based Feeding Program in all public schools. She says that I am hopeful that this initiative, carried out effectively, will pave the way for the institutionalization of national feeding program that will allow our children to attain full development.

The government launched feeding program to selected public schools around the country, they call it School Based Feeding Program also known as SBFP.

Southville Elementary School caters families relocated from a depressed area along the Philippine National Railways of Pandacan, Sampaloc, Taguig, and Sta. Mesa, Metro Manila. It caters 2 315 pupils at present. One of the main problems of the school was the high prevalence of severely wasted pupils. As to Nutritional Status Baseline report for this school year, the result showed that there were 122 severely wasted pupils from Kinder to Grade VI which comprise 5.3% of the total population. Because of this, the researcher as the SBFP coordinator of the school resorted to this action research and would like to prove that School- Based Feeding Program has an impact on the academic performance of the beneficiaries in our school.

Literature Review

The researchers would like to present the following literature that may help to guide him to the conduct of this study.

ABS-CBN (2014) the Department of Education defines “wasted” children as those with fat and tissue deficit in relation to their height. There is a hairline distinction between wasted and severely wasted, and they both need the attention of government anyway of this young lives.

According to a study conducted by Joy Miller Del Rosso (1999) a school feeding -program can alleviate short-term hunger in malnourished or otherwise well- nourished school children, motivate parents to enroll their children in school and have them attend regularly, address specific micronutrient deficiencies in school age children and increase community involvement in school.

Philippine Daily Inquirer (2009) Jollibee Foundation’s Corporation Busog, Lusog Talino (BLT) Feeding program that brings together local education stakeholders and JFC employee volunteers to mitigate hunger and undernourishment, widely attributed causes of school attendance decline and drop-out among lower grade level pupils. Daily lunch was provided to below normal weight for grade 1 and 2 pupils with food prepared by parents group following menus developed by Jollibee Foundation Corporation. The parents attended seminars and training on food safety, health, and nutrition.

Ruel, et.al. (2000) Development of successful interventions to improve child-feeding practices requires appropriate instruments to assess current practices and monitor the impact of programs designed to improve them. Simple, valid, and reliable tools are lacking to measure child feeding in the context of program development, for the purposes of (1) assessment, (2) design and targeting of intervention programs, and (3) monitoring and evaluating their progress. The problem of measurement arises primarily because child-feeding practices encompass a series of age-specific, interrelated behaviors that are difficult to summarize into one or a few variables. The main objectives of this report are to review and discuss possible indicators of adequate or optimal complementary feeding practices as they relate to children ages 6-23 months and to describe steps in validating and assessing the utility of these potential indicators for various purposes.

Lawson (2012) School feeding program as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals. These programs are frequently targeted towards populations that are food insecure and reside in areas with high concentrations of families from low socioeconomic status, or towards schools that face poor attendance and enrollment of students. There are many studies that have evaluated the impacts of school feeding. However, the evidence on the impact of these programs is not always conclusive. This study presents a conceptual

framework of how the Food for Education (FFE) programs work, how they impact children and families, and how they can be linked to agricultural development. The study uses the technique of systematic review of the literature to assess the effectiveness of these programs in achieving educational, nutritional and agricultural development goals. A protocol for finding studies that met the review criteria was established, which resulted in the identification of twenty-six studies from across academic disciplines, including economics, nutrition, and education. Analysis of the information extracted from these studies shows that school feeding programs conclusively impact the micronutrient level of targeted children, but have modest and mixed effects on health outcomes as evaluated by anthropometric measurements. While the impact of these interventions on cognitive skills and abilities of students is still uncertain, there is strong evidence that school feeding programs positively affect school enrollment and attendance rates, especially for girls. The review points to several gaps in the literature, including the lack of a systematic analysis of linkages between FFE, sustainability, and agricultural development. There is also a lack of evidence on the cost-effectiveness of school feeding programs in delivering desirable outcomes. These are identified as topics for further research.

Research Questions

1. What is the academic performance of the severely wasted pupils before the School Based Feeding Program?
2. What is the academic performance of the severely wasted pupils after the School Based Feeding Program?
3. Is there a significant impact on the academic performance of the beneficiaries after the School Based Feeding Program?
4. How effective is the school-based feeding program in improving the academic performance of 155 pupils' beneficiaries?

Scope and Limitation

This study focuses on the Impact of the School Based Feeding Program of Southville Elementary School in the Improvement of the Academic performance of the pupils in all learning areas. The beneficiaries are the 155 severely wasted pupils from Kindergarten to Grade VI. S.Y. 2015-2016.

Definition of Terms

School Based Feeding Program (SBFP). A feeding program intervention given to the severely wasted pupils who are undernutrition.

Severe Wasted Pupils. A thin child whose BMI-for age below -3 z-score line or Standard Deviation (SD). (WHO)

Body Mass Index (BMI). An indicator of nutritional status expressed as body weight in kilograms divided by the square of the height in meters. It provides a measure of body mass, ranging from thinness to obesity. (WHO)

Adopt A School Program. A partnership program of government agencies and private companies and individuals to support the needs of the school.

Methodology

The respondents of this study are the 155 severely wasted pupils of Southville Elementary School. Their academic performance during the second quarter of the school year will be the basis of the researchers since during this period the feeding program was not yet implemented. While the academic performance

of the pupils in the fourth grading period after the feeding program implementation will be utilized as to compare the previous performances of the pupils before and after the feeding program. The school-based feeding program was implemented for 120 calendar days using the 20 day cycle menu made by the feeding teacher.

The respondents of the study are given a noticed of meeting with the school principal and the school feeding coordinator. They are oriented on the process of the feeding program so that they will be aware that they are the subject of the research, any time that they want to withdraw during the duration of the research they are free nor to be forced to joined again. The school head and the school feeding coordinator together with class advisers of the pupils will explain the advantages and the disadvantages of the result of the study.

The researchers utilized paired sample t-test to compare the two performances of the pupils before and after the feeding program as well as to determine the significant impact of the of the school-based feeding program.

Analysis

The following tables showed the data gathered by the researchers for analysis.

Table 1 The Nutritional Status of respondents before and after the SBFP.

Grade Level	Before		After	
	f	%	F	%
I	18	11.62	17	10.97
II	20	12.90	20	12.90
III	49	31.61	48	30.97
IV	12	7.74	12	7.74
V	16	10.32	16	10.32
VI	40	25.81	40	25.81
Total	155	100	153	98.71

The table represents the nutritional status of the respondents before and after the School Based Feeding Program. Before the feeding program, the respondents all belong to severely wasted. There was 18 grade one, 20 grade two, 49 grade three, 12 grade four, 16 grade five and 40 grade six pupils respectively who belong to this group.

After the feeding program, 153 pupils improved their nutritional status. It covered 98.71% of the total respondents. There were only 2 pupils who remain as severely wasted after the feeding program due to hospitalization and sickness before the final weighing.

Table 2 The Academic Performance of respondents per Grade Level Before and After the SBFP

Grade Level	Before	After
	Mean	Mean
I	79.00	79.2
II	80.1	81.4
III	78.92	79.3
IV	78.4	78.5
V	76.06	77.04
VI	78.01	79.6
Total Mean	78.42	79.17

Table 2 shows that grade one had an average of 79 percent before and 79.2 after the program, grade two had 80.1 and 81.4 percent after the feeding program, grade three 78.92 before and 79.3 grade four 78.4 before and 78.5 after, grade five 76.06 before and 77.04 percent after and furthermore grade six 78.01 before and 79.6 percent after. It also showed that before the feeding program the pupils has an average of 78.42 percent and 79.17 percent after the feeding program.

Table 3 The Academic Performance of Pupils Before and After the SBFP

Mean Difference	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)	n
-0.7419355	1.3183949	0.105896	-7.00626	154	0.000*	155

Table 3 shows the academic performance of pupils before and after the feeding program. It has -0.74 mean difference, 1.32 standard deviation, with 0.1 standard error mean with the t-value of -7.01, 154 degree of freedom in 155 number of respondents and it was significant at 0.000 in .05 level of significance.

Findings

The following findings answered the statement of the problem of the study.

1. The academic performance of severely wasted pupils before the feeding program has an average mean of 78.43 percent
2. The academic performance of severely wasted pupils after the school-based feeding program was an average of 79.17 percent.
3. There is a significant impact on the academic performances of pupils before and after the implementation of the School-Based Feeding Program. There was a difference of 0.74 percent between before and after the program was implemented.
4. The study showed that there is an impact on the academic performance of the SBFP beneficiaries and also with their nutritional status after the feeding program.

Conclusion

After the 120 days of implementing of the School-Based Feeding Program, this study proved that the SBFP has an impact on the academic performance of all severely wasted pupils of Southville Elementary School for the school year 2015-2016.

Recommendation

Based on the findings of this study the following recommendation was drawn:

- a. School Based Feeding Program should be continuously implemented every school year with sufficient funding from the government and other stakeholders.
- b. Used the School Based Feeding Program as the springboard of improving the Nutritional Status, Academic performance of pupils and to increase school attendance among pupils.

- c. Maintained the nutritional Status of Pupil Beneficiaries after the feeding program.
- d. Encourage parents to serve a nutritious meal at home.
- e. Connections of Gulayan Sa Paaralan Project (*Vegetable Garden Inside the School*) and School Based Feeding Program (SBFP) should strongly enforce for the continuous implementation of the project.
- f. Encourage stakeholders and other private companies through Adopt A School program to support the sustainability of the School- Based Feeding Program.
- g. Parallel study may be conducted to improve the academic performance of the pupils.

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Measuring Implementation of a Pedagogy: Scale Development and Validation

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Abstract

Teachers' pedagogy is critically important in the educational experience of students. This investigation verified the constructs embedded in the themes that emerged in the students' responses on the implementation of a pedagogy used by private institutions in the Philippines. This pedagogy is anchored on the four components namely: constructivism (Piaget, 1970), elements of understanding by design (Wiggins and McTighe, 2011), differentiated instruction (Tomlinson, 2000) and the 4-pronged approach covering the integration of Ignacian core and related values, contemporary social realities, concepts across subject boundaries and Biblical texts reflection in relation to the concepts taught (Guillano, 2014). The first phase of the study was qualitative in nature. It involved 414 college participants and the responses on the effects of the implementation of the pedagogy were organized into the following themes: collaborative learning; self-regulation; active involvement; deeper understanding of the lesson; formation of character; and participation in social transformation. The second phase of this investigation utilized a quantitative design where the items under the foregoing themes were administered to another set of 465 participants. Using exploratory factor analysis, the items loaded into four factors such as Participation in Social Transformation, Values Formation, Active Engagement and Collaboration, and Deep Understanding of the Concept and its Interrelatedness with Life's Realities. The themes on self-regulation and formation of character were subsumed under Values Formation. Moreover, items on active engagement and collaboration were merged. To further validate the structures of the items in the scale, the researchers endorse the need for confirmatory factor analysis.

Keywords

Participation in Social Transformation, Values Formation, Active Engagement and Collaboration, Deep Understanding

Introduction

The teachers' instructional processes play a crucial role in facilitating the educational experiences of students. As such, Transformative quality education is the thrust of a religious congregation, namely the Religious of the Virgin Mary (RVM), to describe the ministry they share with the Church in its mission of evangelization in contemporary times. The Transformational Learning Theory originally developed by Jack Mezirow is described as being "constructivist, an orientation which holds that the way learners interpret and reinterpret their sense experience is central to making meaning and hence learning" (Mezirow, 1991).

In its effort to contribute to transformative quality education, the education ministry of the Religious of the Virgin Mary conceptualized educational schemes to guide the instructional processes of Catholic schools. One of these schemes is the RVM Pedagogy. This pedagogy comprises four components namely: "1) constructivism (Piaget, 1970); 2) elements of understanding by design (Wiggins and McTighe, 2011); differentiated instruction (Tomlinson, 2000) 4) the 4-pronged approach which covers the integration of: a) Ignacian core and related values, b) contemporary social realities, c) concepts across subject boundaries / other disciplines and d) Biblical texts reflection in relation to the concepts taught" (Guillano, 2014).

Constructivism as a learning theory has been considered as one of the paradigm shifts in the field of education in recent years. Moallem (2001) wrote that constructivism speculates that knowledge does not exist independent of the learner, but constructed by the learner. Fitzgerald (2011) asserted that if learners control their educational process by being more fully embedded in it, they will possess deeper ownership over its mastery. She further suggested that constructivist learning strategies can help students to develop the competence (and empowerment) they need to engage with their own learning communities fully.

The RVM Pedagogy has adopted the principles of constructivism which is exemplified in its approach of activating students' prior knowledge as well as encouraging the students to engage in meaning making out of their learning experiences while connecting the lesson to biblical text, to other disciplines, to social realities and to the core values of the institution. The need to integrate social realities in instruction is upheld by Hahn (2010) who emphasized that "when students perceive that several sides of issues are presented and discussed, and when they feel comfortable expressing their views, they are more likely to develop attitudes that foster later civic participation." Furthermore, Barton (2012) asserted that discussion in the classroom can assist educators in achieving the aims of developing students into rational, autonomous, and open-minded citizens capable of entering into a pluralist society

Considering the dynamism of the learning processes that occur in the classrooms, and the diversity of teachers and learners, the researchers find it imperative that a study be made to gather information about the experiences of the students on the implementation of the pedagogy. Thus, the first phase of the study was conducted. It intended to find out how the various components of the pedagogy helped the students through an open-ended question asking them to cite instances when the pedagogy helped them. From the responses of the students, six themes emerged, namely: collaborative learning; self-regulation; active involvement; deeper understanding of the lesson; formation of character; and participation in social transformation.

Objective of the Study

The second phase of the study intended to validate the structure of the items so that the instrument can be used in the RVM schools implementing the pedagogy. Phase 2 of the study developed a scale on the effects of the implementation of the pedagogy.

Methodology

Design

The instrument development model combined qualitative and quantitative approaches. The first phase consisted in the generation of items on the effect of the implementation of the pedagogy on the students. The second phase involved the examination of factors or dimensions of such items through Exploratory Factor Analysis. This examination is most often applied in the development and validation of measures (Schonrock-Adema, Heijne-Penninga, Van Hell & Cohen-Schotanus, 2009)

Item Generation

Having experienced the implementation of the RVM Pedagogy in their instructional processes, a total of 414 college students responded to an open-ended question, *Cite instances when the pedagogy helped you*. Their responses, in qualitative form, were recorded and were analyzed. From these responses, six themes emerged; namely: 1) collaborative learning; 2) self-regulation; 3) active involvement; 4) deeper understanding of the lesson; 5) formation of character; and 6) participation in social transformation.

To develop a scale that would measure the effects of the implementation of this pedagogy, a questionnaire was prepared containing the items generated from the responses in the first phase of the study. It employed a 5-point Likert scale ranging from 1 ("least true to you") to 5 ("most true to you") to guide their responses to each item.

Content Validation

This questionnaire was subjected to content validation by four (4) administrators in RVM schools who have a working knowledge of the pedagogy. They gave suggestions on the relevance of the items, clarity and conciseness of the wordings, and ensure that the item measured only one idea to prevent multiple - barreled items. After incorporating the revisions, the questionnaire was floated out to a total of 465 participants from three (3) RVM tertiary schools in Northern Mindanao, 61.7 percent of whom were females; 36.8 percent were males and 1.51 percent did not indicate their sex; and the average age is 19.98 years old.

Data Analysis

To explore the structure of the items and to examine its construct validity, exploratory factor analysis was used. This is to reduce the set of observed variables to a smaller, more parsimonious set of variables (Hinkin, Tracey, & Enz, 1997). To determine the factors, a factor loading should be greater than .3 (Costello and Osborne, 1997); and to retain the items, there should be no item cross loadings (Ferguson, 1993 as cited by Kitreerawutiwong, Sriruecha, & Laohasiriwong, 2015).

Results and Discussion

The results of the exploratory factor analysis with varimax rotation revealed a scale which consists of a total of 77 items under four factors as suggested by the scree plot with a minimum of .5 in the factor loading, and a minimum Eigenvalue of 1. Twenty six (26) of these items belonged to Factor 1 which is labelled as *Participation in Social Transformation*; twenty (20) of them loaded under Factor 2 named as *Values Formation*; sixteen (16) items belonged to Factor 3 identified as *Active Engagement*; and fifteen (15) items were categorized under Factor 4 namely *Deep Understanding and Interrelatedness to Life's Realities*.

From the original 82 items before the factor analysis, there were 5 items that were excluded. Item 5,6,34 and 35 did not load in any factor; and item 54 cross loaded in Factors 1 and 2. Costello and Osborne (2005) suggested that the decision to drop crossloading item from the analysis may be a good choice if there are several adequate strong loaders on each factor. In this current study, item 54 suggests that it shares the elements found in Factor 1 as well as Factor 2 and since there were already 26 items in Factor 1 and 20 items in Factor 2, the researchers deemed it appropriate to exclude item 54. Bartlett's test of sphericity was significant ($X^2 = 27485.355$, $p = .000$), and KMO value was 0.974.

Table 1 presents the factor loadings and item statements of the scale on the Effects of the Implementation of the RVM Pedagogy

Table 1. Factor Loading and Item Statements

	Factor 1: PARTICIPATION IN SOCIAL TRANSFORMATION The RVM Pedagogy...	Factor Loadings			
		1	2	3	4
57	develops my sense of respect towards other people's beliefs	.522			
58	makes me practice excellence	.568			
59	enables me to gain holistic formation	.562			
60	guides me in adjusting to diverse situations in life (society, school and workplace)	.631			
61	helps me find new ways of learning	.609			

62	allows me to acquire new knowledge that I could integrate in my life	.617			
63	enables me to think critically and analytically	.627			
64	enables me to use alternative plans to finish our project	.596			
65	motivates me to change	.621			
66	helps me to be disciplined / focused	.618			
67	helps me to have positive outlook in life	.642			
68	enables to develop my study strategy	.696			
69	nurtures my spirituality, inspiring me to become a good steward of God's creation	.600			
70	enables me to serve the needy especially the sick, etc.	.650			
71	trains me to be service oriented toward the less fortunate in the community	.665			
72	makes me reflect on current social issues and do something about them	.741			
73	helps me treat everyone equally without prejudice	.682			
74	reminds me how to become good / responsible members of society	.716			
75	allows me to be aware of what's happening around me	.702			
76	helps me preserve the Earth by doing good thing and reminding others	.707			
77	develops my affection to the needy	.674			
78	makes me volunteer in service-related programs and activities	.704			
79	motivates me to change things that are needed	.687			
80	helps me to contribute to social and economic development	.716			
81	nurtures my consciousness for a better society	.768			
82	keeps me vigilant with social issues	.710			
Factor 2: VALUES FORMATION					
34	helps me integrate the spiritual dimension in the lesson at hand				
35	enlightens my mind to do what is right				
36	enables me to put God first and act accordingly		.561		
37	helps me follow God's will through integration in subjects		.638		
38	opens my mind on how to act well and follow what is right		.659		
39	helps me in becoming a more open minded student		.654		
40	enhances my awareness of what is right and wrong		.678		
41	inspires me to do more for God's greater glory through biblical text reflections		.737		
42	helps me improve my character		.680		
43	teaches me the value of integrity		.676		
44	helps me become good model		.695		
45	helps me to be an upright and God fearing person		.733		
46	enables me to become more compassionate and humble		.640		
47	helps me to be more faithful / to persevere		.683		
48	develops my attitude to be compassionate in helping others		.717		
49	teaches me to be honest always in order for us to have peace		.654		
50	helps me to become a good role model in society		.668		

51	helps me to become more resourceful / flexible		.599		
52	motivates me to be humble servants		.658		
53	helps me to do good and be a good example		.639		
54	helps me to be honest to have peace	.510	.589		
55	encourages me to be better persons as future leaders		.579		
56	teaches me to face challenges and difficult situations bravely and courageously		.518		
Factor 3: ACTIVE ENGAGEMENT & COLLABORATION					
1	makes our class alive / active			.565	
2	encourages us to do our part to learn like doing our projects / assignments			.575	
3	provides learners the opportunity to generate ideas through group sharing			.688	
4	helps me in being creative			.670	
5	makes learners link/relate the learned concepts to life's realities/ experiences				
6	makes me feel bored during classes *				
7	helps me to create concepts for my future job			.523	
8	makes us discuss in class what we observe in the community / news			.504	
9	allows us to participate to learn new things			.619	
10	encourages us to collaborate			.657	
11	allows us to integrate our ideas in group discussions to gain meaningful concepts			.669	
12	helps us find new ways to interact more			.659	
13	makes us do group activities that challenge our knowledge and ability to excel			.622	
14	develops my value for teamwork			.676	
15	enables us to link our personal point of view with others in group discussion			.571	
16	enables me to generate ideas through group sharing			.602	
17	empowers me to construct ideas with my team			.574	
18	enables me to learn from diverse opinions in group sharing			.559	
Factor 4: DEEP UNDERSTANDING & INTERRELATEDNESS TO LIFE'S REALITIES					
19	enables learners to have a new experience of the concept				.548
20	enables me to understand the lessons/ learn even if these were challenging				.581
21	helps me apply new knowledge to daily living /workplace / real situations				.606
22	helps me connect my past experiences to the lesson enabling me to learn more				.578
23	helps students see the bigger picture				.538
24	helps me to understand by relating the lesson with the social realities				.638
25	provides a concrete image of reality by reflecting the social world in class				.663
26	uses relevant concepts that made me become effective in my chosen career				.675
	enhances my learning				

27					.632
28	makes me more updated in my chosen career				.615
29	enables me to discover new things				.635
30	broadens my knowledge through the construction of new concepts				.591
31	helps me see the interrelatedness of the lesson to other disciplines				.570
32	makes me see connection of the lesson to different cultures				.604
33	widens my knowledge with the integration of other subjects in the lesson				.619
Total Variance Explained from the Rotation Sums of Squared Loadings		16.54	13.87	10.62	10.05
Percentage of Variance		20.94	17.55	13.44	12.73
Cumulative Percentage		20.94	38.49	51.93	64.66

Data show that the first factor accounted for 20.94% of the variability of the items, followed by the other factors. Table 2 presents the descriptive indices of the four factors. The Cronbach's alpha in each factor show that the items have high internal consistency (.955 to .979).

Table 2. Descriptive Indices of the Four Factors

Factor	No. of items	Cronbach's α	M	SD
1 Participation in Social Transformation	26	.979	4.13	.70
2 Values Formation	20	.974	4.18	.93
3 Active Engagement and Collaboration	16	.955	3.95	.76
4 Deep Understanding of Concept and Interrelatedness to Life's Realities	Its 15	.957	4.02	.74

There were four factors identified on the extent of implementation of the pedagogy. The themes on self-regulation and formation of character which emerged in the first phase of the study were subsumed under *Values Formation*. Moreover, items on active engagement and collaboration were merged, based on the factor loadings in the second phase of the study.

The twenty-six items that load to Factor 1 pointed to *Participation in Social Transformation*. The items in the said factor characterize the participants' disclosures that pedagogy makes them highly cognizant and reflective of societal realities impelling them to actualize service-related programs and activities contributing to social and economic development.

This finding is in consonance with the postulation of Hahn (2010) citing that when students are given ample opportunities to discuss several sides of issues and "when they feel comfortable expressing their views, they are more likely to develop attitudes that foster later civic participation." Furthermore, Barton (2012) asserted that discussion in the classroom can assist educators in achieving the aims of developing students into rational, autonomous, and open-minded citizens capable of entering into a pluralist society.

It is likewise interesting to note that part of the participation in social transformation as disclosed by the participants is the facilitation of their ability to think critically and analytically which may have enabled them *to adjust to diverse situations in school and in the community where they belong, to have a positive outlook toward life, to be disciplined and focused, to treat everyone without prejudice, to serve the needy, and to help preserve the environment.*

The reported participants' viewpoints are closely linked to the institution's vision-mission which states "*We, the Ignacian Marian Community, witness the loving compassion of Jesus and the Ignacian Marian values, empower and nurture learners to be competent and humble leaders committed to social renewal*

for the common good". Apart from this, students revealed that the integration of social realities in the lesson facilitated their better absorption of the lessons as well as encouraged them to participate in the classroom interaction.

The students' experiences in this study confirmed the findings of Tannebaum and Hughes (2015) who asserted that the aims of education were seen as larger than simply having students remember information for summative assessments. Instead, participants frequently spoke and wrote about the need for the larger educational system to *prepare students to become citizens who participate in society, are open to new ideas, and are capable of voicing their opinion through a variety of mediums*.

The twenty items that loaded under Factor 2 are related to *Values Formation* highlighting their revelations that the said pedagogy helped them in their character and moral formation. Such instructional process enabled them to raise their level of consciousness of God *to guide them on what is right and what is wrong, to follow God's will, to put God first and act accordingly, and to become good models*. This is most likely to happen because part of the component of the pedagogy is the integration of Ignacian core and related values, b) contemporary social realities, c) concepts across subject boundaries / other disciplines and d) Biblical texts reflection in relation to the concepts taught" (Guillano, 2014).

The aforecited finding is also upheld by Corrigan, Dillon & Gunstone (2007); and Kang and Glassman (2010) when they emphasized that values, morality and ethics are part of a person's life and these cannot be separated from society. Emphasizing the crucial importance of character education, Bullough (2011) expounded that teaching is fundamentally a moral enterprise pointing to the imperative that teachers engage in moral activities through their teaching profession.

Items that loaded in Factor 3 identified active engagement and collaboration characterized as *enabling the participants to create concepts essential for their job, discuss community issues, collaborate, link one's personal point of view with others in group in order to gain meaningful concepts, do group activities that challenge one's knowledge and ability to excel and generate ideas through group sharing*. The participants further revealed that the said pedagogy helped them develop the value of teamwork as well as their creativity and not to discount that the instructional process makes their learning experience fun and alive.

The aforecited finding is also upheld by Corrigan, Dillon & Gunstone, (2007); and Kang and Glassman, (2010) when they emphasized that values, morality and ethics are part of a person's life and these cannot be separated from society. Emphasizing the crucial importance of character education, Bullough (2011) expounded that teaching is fundamentally a moral enterprise pointing to the imperative that teachers engage in moral activities through their teaching profession.

The participants' emphasis on meaning making with the help of the group is corroborated by the postulation of Prince (2004) which recognized the adoption of instructional practices that engage students in the learning process. This is a defining feature of active learning. Dooley (2008) also mentioned that through collaboration, students may come to see the importance of taking responsibility for their own learning and feel empowered to do so while learning to respect the opinions and work of their partners.

Moreover, Fitzgerald (2011) asserted that if learners control their educational process by being more fully embedded in it, they will possess deeper ownership over its mastery. She further suggested that constructivist learning strategies can help students to develop the competence (and empowerment) they need to engage with their own learning communities fully.

There were 15 items that loaded in Factor 4 labeled as *Deep Understanding of Concept and its Interrelatedness to Life's Realities*. The items point to the participants responses that the pedagogy enabled them *understand the lesson deeply, apply the new knowledge to life's realities, relate the lesson*

to social phenomena, connect my past experiences to the lesson enabling them to learn more, see the interrelatedness of the lesson to other disciplines.

As defined by Grotzer (1999), deep understanding generally refers to how concepts are “represented” in the students’ minds and most importantly how these concepts are “connected” with each other. The author further espoused that deep thinking involves being able to make further connections between the webs of concepts. The foregoing concepts were upheld in the present study.

Further, worth noting among their responses is their disclosure that the instructional process makes them *discover new things and construct their own learning*. These responses are linked to the other components of the pedagogy namely: constructivism (Piaget, 1970); 2) elements of understanding by design (Wiggins and McTighe, 2011).3) differentiated instruction (Tomlinson, 2000).

Conclusion

It is a widely accepted imperative that success must be measured. The development of a scale to measure the effects of the implementation of the pedagogy is relevant in the educational landscape. Generated from a qualitative study, these constructs which were validated through exploratory factor analysis may be used to determine the effects of the instructional processes used in religious sectarian higher education institutions in the Philippines. Nevertheless, the researchers endorse the need for confirmatory factor analysis to further validate the structures of the items in the scale.

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EduSMART Model for Nurturing Talent of Sustainable Smart Cities

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Abstract

Since the emergence of smart devices and info-communication technologies, educationists, policy makers, researchers and industries have been making efforts to incorporate them in the current education system. Inclusion of e-learning and blended learning through online portals & platforms may merely make curriculum material available almost anytime anywhere. However, doubts have been raised about current education models to adapt to such technological advances due to several constraints like access, academic rigor and assessment. Differing standards, inflexibility and cost issues make it even more challenging for widespread implementation of such pedagogical methodologies. What kind of education model would then be appropriate for “sustainable & smart cities”? Therefore, it was felt that there is a need for rethinking of incremental adoption of changes into the current education system if it were to be incorporated in the framework of rapidly evolving “sustainable smart cities”. A conceptual design of an EduSMART model is proposed in this article. EduSMART features of the proposed model were carefully conceptualised and crafted considering current as well as twenty first century skills requirement for sustainable smart cities. The model builds on foundation and infuses it with artistic artisanship of educational heart-ware. The EduSMART model envisions playing catalytic role in nurturing talent for sustainable development of smart cities.

Keywords

Transforming Education, EduSMART Education Model, Smart Cities

Introduction

A typical current educational model offering undergraduate as well as post graduate courses with specialisations in specific fields is now well established practice worldwide. However over the years new undergraduate and postgraduate courses with attractive titles have been surfacing. Though course counselling have been made available to students for making their choices, due to stiff competition among tertiary institutions such counselling usually becomes conduit for enticing them to join particular course of the institution. Small percent of academically oriented students can adjust comparatively easily with teaching styles and methodologies adopted by tertiary institutions; others may have to tread through difficult & many a time treacherous path (NIE Conf. Proceeding 2013). Some even have to give up their dreams of further studies.

Specialised undergraduate courses in science, engineering and technology fields require considerable laboratory resources and have differing standards & benchmarks. As economy gets restructured at increasingly rapid frequency curricula tend to lag and then perception grows that courses have become almost irrelevant for gaining employment. Such courses then have to be either discontinued or absorbed into other programmes as group of electives or options. Sustainability of such courses continues to be a major concern for stakeholders (ASEE Workshop Report 2013). Advances in science, engineering and technologies have brought in smart devices, smart grid, smart city and smart nations concepts into master plans of many nations & governments. It has been envisaged that knowledge and skill sets required of graduates have to be realigned with these and related developments (Kirschner & Merriënboer 2013 and Patricia A. Alexander 2013). Many progressive and proactive educational institutions have experimented and adopted blended learning, problem/project/case based learning, cooperative-learning and more. However, such partial and incremental changes are perceived to be mere

tinkering with delivery mechanism (Waikar 2014-16). Educationists believe on time tested academic rigor while industries are demanding more skills based education (Stack and Bound 2012, Waikar 2016). An EduSmart approach is proposed in this article with twin objectives of synergising knowledge and skills required for developing & nurturing talent of Smart cities & nations.

Proposed EDUSMART Model

Considering strengths of academic rigor and generic skill sets expected by the industries in potential graduates, it is felt that undergraduate degree courses have to be built on strong foundations and delivery mechanism has to match learning styles. This is not going to be easy as many industry experts sit on governing councils and advisory boards of the education institutes. It has been highlighted that teaching methodologies have to match with learning styles of technically savvy students. The curricula have to be administered through relevant platform considering needs of community, environment, businesses, industries, organisations and society of smart cities & nations.

A conceptual EduSMART Model is proposed in this article. Ethical, Delightful, Unique, Sustainable, Market-Oriented, Accountability, Resilient and Techno-preneurial have been identified as key attributes of the proposed model as depicted in Figure 1.

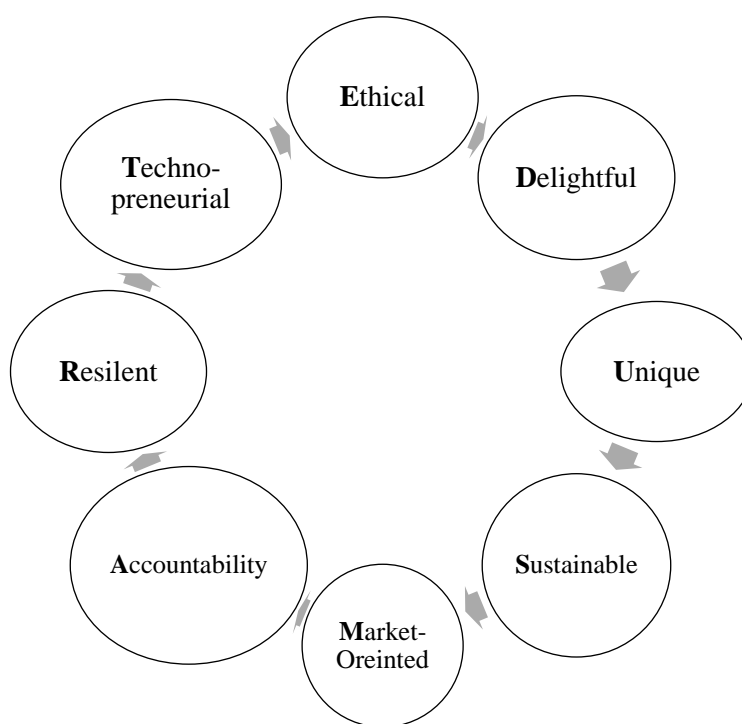


Figure 1: Conceptual Representation of the EduSmart Model

Table 1 provides brief description of these key attributes which can form core values and skills for graduates who are expected to live in smart places in the globalised economy. The proposed EduSMART features can be embedded into the curriculum design, curriculum delivery and curriculum management. A first phase of the proposed EduSmart model is depicted in Figure 2. Foundation of the proposed model is multi-disciplinary broad based degree programme, Bachelor of Practicum (B.Pract.) with EDUSMART Project based Internship in Industries & Communities (ESPBI&C). Regular structured interactions with key personnel from industries, communities and businesses provide students experience to familiarise with developments and potential career prospects. Educational institutions have to establish and strengthen links with industries, businesses and communities and proactively involve them in curriculum design, meaningful projects, assignment and real life case studies to enhance generic transferable skills for B.Pract. course and specific skills for courses indicated in Pillar-I of Figure 2.

Table 1: Description of key attributes of the proposed EduSMART Model.

Acronym	Description
E	“ Ethical ” behaviour is subsumed and reflected in all the aspects of education by all the stakeholders. It is a lifelong commitment. Legally binding provision is made to suspend, recall or terminate certificates awarded by the institutions.
D	Provide such a “ Delightful ” conducive learning environment so that Love for Humanity & Nature, Creativity & Passion can flourish. Curriculum is designed to incorporate these features rather than mere extra-curriculum activities. Delightful Service Principles and Practices become part of the service learning.
U	Learners are inspired to rediscover “ Unique ” talent by providing range of relevant opportunities during the course of study. Institutions take pride in uniqueness in learning spaces, infrastructure, cultural diversity and holistic development.
S	The model has “ Sustainability ” as its central theme. Sustainability in general and environmental sustainability in particular is embedded in curriculum design and project work. Sustainable Leadership is imbibed and internalised by all the stakeholders.
M	“ Market oriented ”. The curriculum design, delivery and management has such an element of flexibility that it is able to adapt to dynamics of market while maintaining learner centric approach and providing learning experiences not only for students but for all the stakeholders.
A	“ Accountability ” is emphasised and inculcated by all the stakeholders of the education system. Key parameters of the system are transparently measured, monitored and independently audited on regular basis and proactive corrective measures are taken.
R	Intense competition in smart cities necessitates incorporation of Resilience as attributes of the learners of the proposed education model. Learning through Recovery from gap in expectation and outcome becomes hallmark of the graduates.
T	The model envisions that the participants be given avenue through Techno -preneurship development programme to prepare them for complex requirements of Smart Cities & Nations.

Practice oriented Post-Graduate Diploma (Pract-PGDip), Advanced (AdPract-PGDip), Professional (ProPGDip) and Expert (XprtPGDip) courses with appropriate level of ESPBII&C form first path of the model as illustrated in Pillar-I of Figure 2. Practice oriented curriculum, work related assignments, substantive industrial, business and community related internship, opportunities to apply for associate & professional level certified programmes and provision for cross over to other paths (indicated by appropriate arrows in the diagram) for further studies depending on the performance are the core features of these courses. Designing, developing and delivering these courses in collaborations with industries, businesses, professional associations and communities are expected to provide an opportunity to combine core educational principles & concepts and generic as well as specific skills relevant to the requirements of smart & sustainable cities. It is highly recommended to allocate about 3 months to 6 months of EduSPBII&C for respective programmes as indicated in Figure 2. It can provide conduit for synergising cooperation among educational institutions, industries, professional associations and communities. There is a scope for forging partnership with them in various stages of the undergraduate and postgraduate diploma courses.

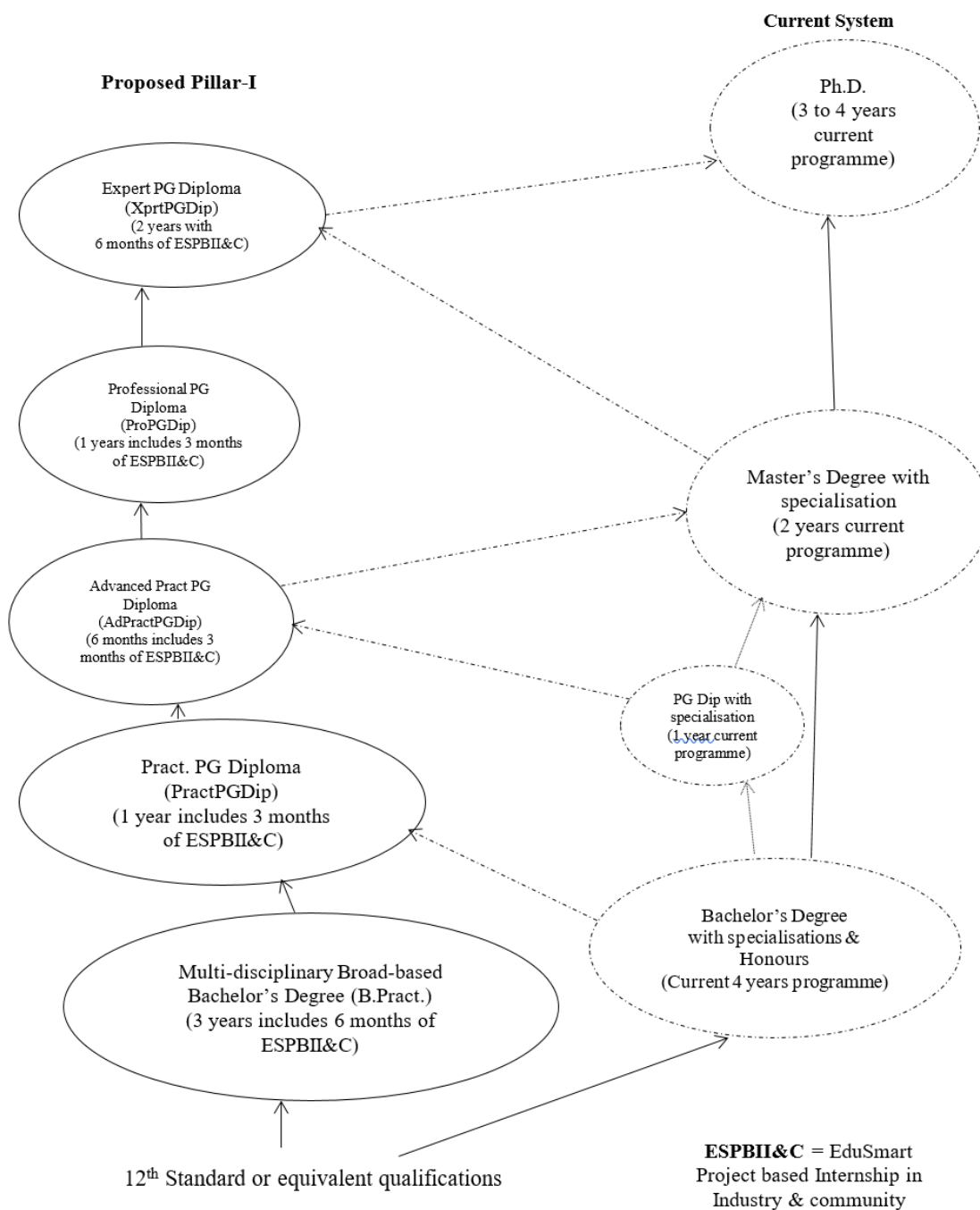


Figure 2: First Pillar of the Proposed EduSMART Model

Suitable modules from appropriate certified professional programmes and training programmes from large industrial corporations can be co-opted in the proposed programmes. Graduates of the various courses can then be given appropriate exemptions for specific modules of the various post graduate diploma courses.

It is proposed that blended learning, project and problem based learning pedagogies be extensively used for delivering curriculum. Realistic case studies can be used for preparing participants for various scenarios they might face in workplace, community and society. E-learning and On-line learning have to be infused in the courses. Modern technologies can be used for customising curriculum delivery for independent learning. Lifelong learning aspect has to be imbibed in various stages of the curriculum.

Sustainability of the proposed Model

If the curriculum is designed, delivered and managed with close cooperation, collaboration and partnership with various stakeholders as mentioned in the previous sections, then acceptance of the proposed model can be articulated. However, as with any change, suitable change management strategies have to be employed to overcome initial resistance and reluctance.

Distinct benefits of the proposed model such as practice oriented curriculum, EDUSMART based attributes, substantial involvement of stakeholders in designing, developing & delivering curriculum and use of combination of pedagogies for customised learning have to be emphasised through piloting them in various stages. Further fine tuning can then be done to customise various subsystems of the proposed pillar illustrated in Figure 2 of the model.

Ideally the courses proposed in Pillar-I should be taught by faculty, instructors and trainers who have strong academic credentials and several years of professional experience and expertise in specific area and field.

As considerable section of the students, graduates and employers perceive that the current post-graduate programmes (Masters and Ph.D.) are geared towards academic and research oriented employment, therefore, second pillar (Pillar-II) consisting of practices oriented Masters of Practicum (M.Pract.) and Doctorate in Practicum (Pract.D.) courses is incorporated in the proposed model as shown in Figure 3. The proposed M.Pract. & Pract.D. courses have substantial relevant ESPBII&C, applied research oriented projects based on problems encountered in industries, businesses and communities. Graduates of Pract.D. programme can then be groomed as regular faculty for courses proposed in Pillar-I and Pillar-II of the EduSmart Model thus infusing heart-ware into sustainability of the programmes.

During transition period, expertise of academic faculty can be used for teaching theory and that of industry experts can be used for emphasising practical components. Thus, synergy between academic institutions and industries for common goals and objectives can be utilised during the interim period.

The two paths (Pillars) of the proposed EduSMART based model provide structured avenue for students and graduates to upgrade their educational qualifications and practical skills. Institutions of higher learning can have two distinct tracks, Academic Track (current system) and Practicum Track (proposed EduSMART) for fulfilling dreams and aspirations of the learners at various stages of their career progression.

Articulation can be made for such graduates to cross over to appropriate paths depending on the performance so that candidates can design their career to develop & nurture their talent to fullest potential using the proposed EduSMART attributes and be ready for taking up challenges unveiled by Smart Cities and Smart Nations.

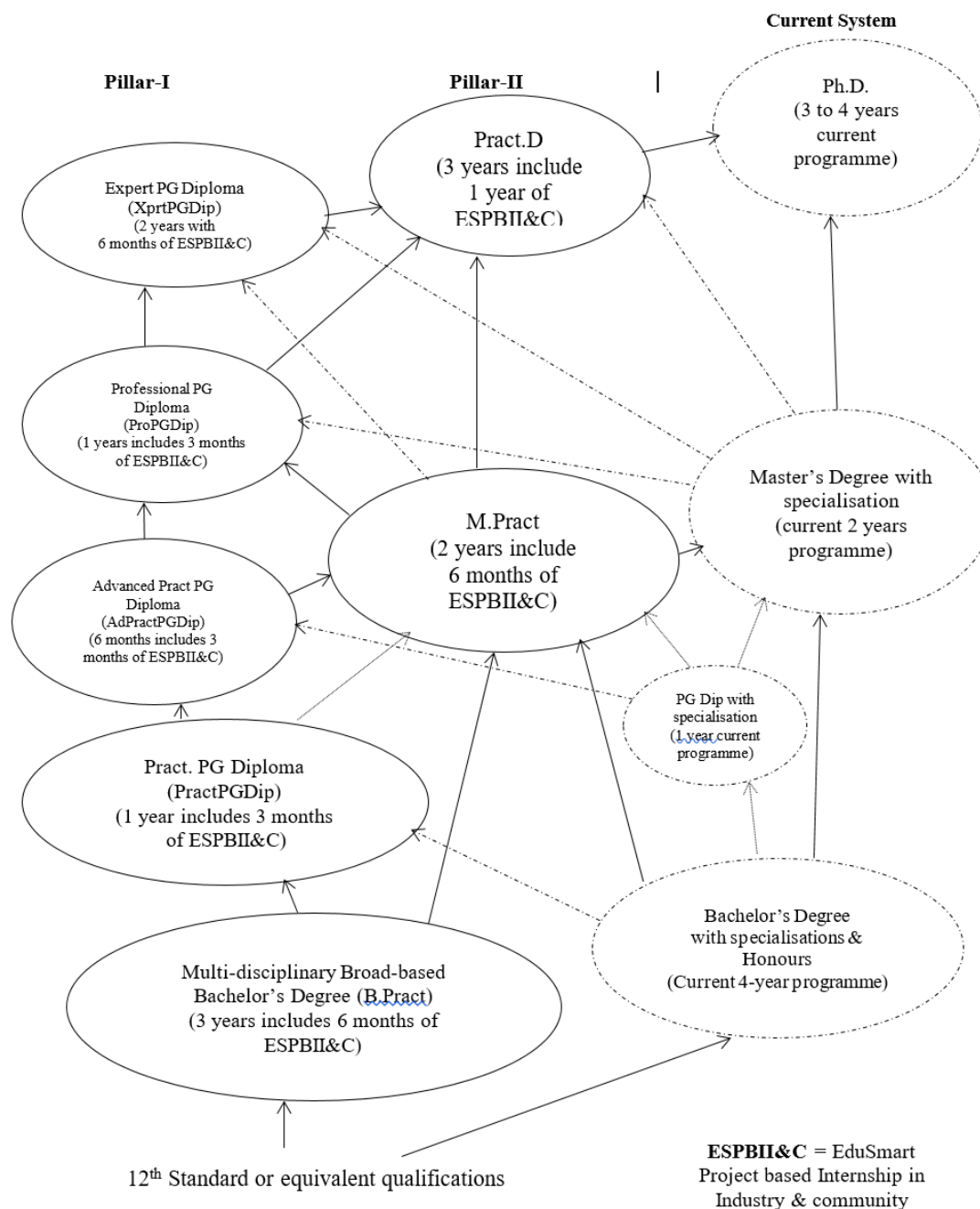


Figure 3: Generic Structure of the Proposed EduSMART Model (partly adopted from Waikar 2014)

Summary and Conclusions

EduSMART key attributes have been identified, conceptualised and briefly described. A conceptual generic structure for value added two track higher education systems has been presented and discussed. The proposed model has flexibility to dynamically adjust to economic restructuring, market forces and external environment. There is a scope for synergising the proposed EduSMART model with current education systems. The proposed model advocates for structured enhanced close collaborations and cooperation with industries, professional associations and communities.

Balancing educational learning and skills required by employers has been a major challenge for curriculum designers, policy makers and education administrators. We can continue our efforts for incremental change and hope that after n number of incremental changes we have outcome as per expectations. Alternatively we have to proactively reform or wait for disruptive innovation to transform.

In that context, it is envisioned that the proposed EduSMART model can provide Alternate Avenue for developing and nurturing talent for sustainable smart cities and nations.

Acknowledgements

The conceptualisation of the proposed model has been possible because of author's interactions with students, graduates, faculty members and members of professional associations, industries & communities in Singapore, India and abroad over past couple of decades. Author wishes to express his sincere appreciations to all of them.

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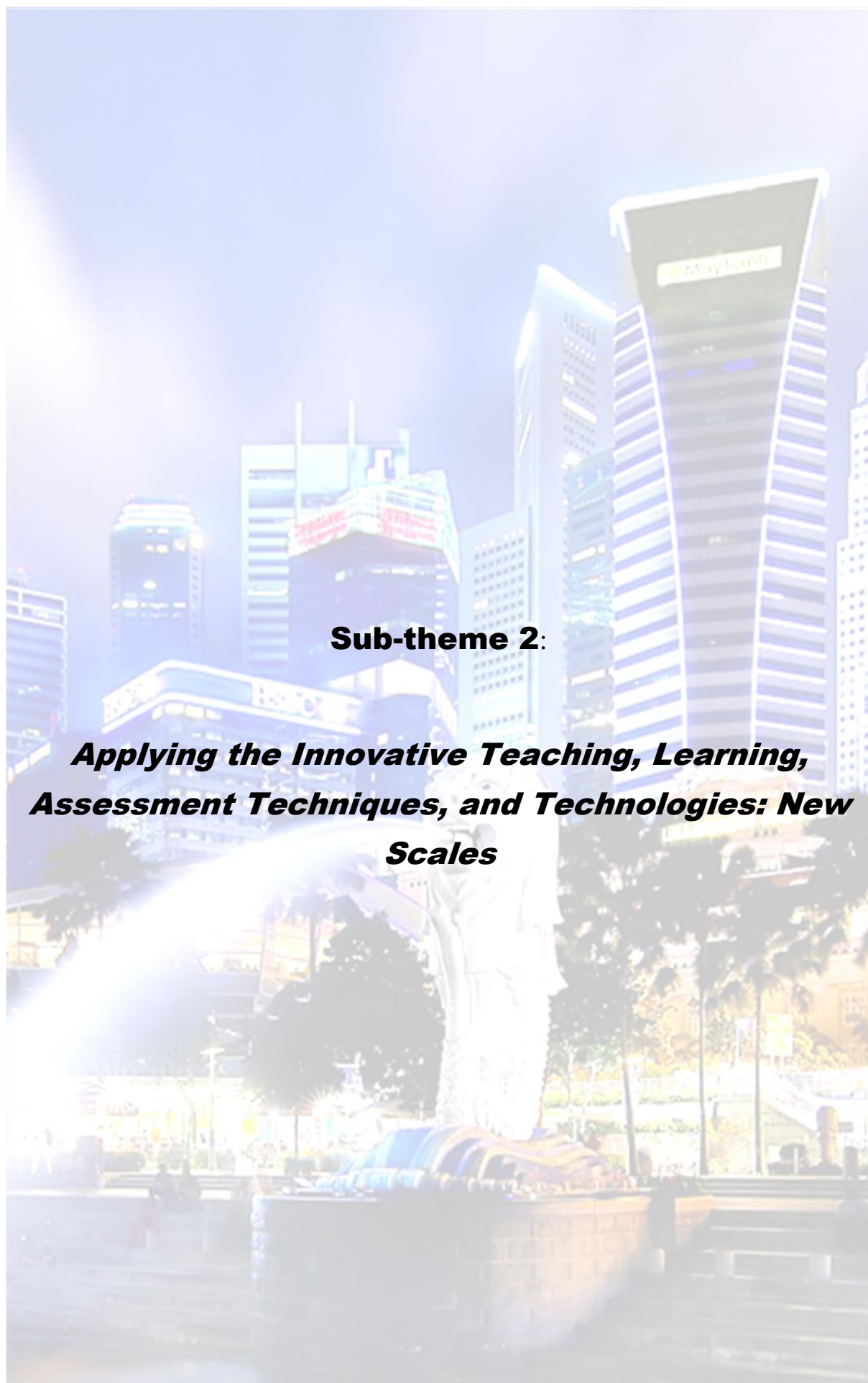
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Sub-theme 2:

***Applying the Innovative Teaching, Learning,
Assessment Techniques, and Technologies: New
Scales***

The AUL Millennials' Verbal Hygiene Practices: Indicators of Their English Language Proficiency

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Abstract

The reshaping of the conventional linguistic norms and policies brought by the technological revolution in the Information Age engenders varying verbal hygiene practices especially among the millennials. Verbal hygiene, according to Deborah Cameron, refers to a “concept that denotes the use of politically, socially, religiously and linguistically correct words to express opinions, ideas and views in a given situation. It is a collection of discourses and practices through which people attempt to ‘clean up’ language and make its structure or its use conform more closely to their ideals and beauty, truth, efficiency, logic, correctness and civility”. Using sequential exploratory design, this study attempts to determine the AUL millennials’ verbal hygiene practices and gauge the millennials’ English language proficiency through those practices. It concludes that, the millennials’ verbal hygiene practices, especially adherence to authority, may be used as indicators to verify their English language proficiency. It also outlines its implications on linguistic norms and policies vis-à-vis millennials’ verbal hygiene practices.

Keywords

Millennials, Verbal hygiene, English language proficiency, Linguistic norms, ICT

Introduction

The global experiences brought by the Information Age highlight not only the knowledge explosion but also the rapid technological changes that greatly affect almost every aspect of human life. Some very obvious effects are explicitly evident in today’s communication processes magnified by the revolution in technology. The systems and innovations in the Information and Communication Technology (ICT), where a language plays a very important role, aim for order and mutual understanding among the linguistic community. However, since language is dynamic and people are creative in their use of language, innovations themselves bring issues that challenge the linguistic norms and conventions. In the mode of communications today, powered by the World Wide Web, the widespread use of mobile phones and engagement in social networking sites for instance, created linguistic systems such as *sms* (short message service), *acronymy*, *emoticonomy* (Bodomo and Lee, 2001) and the like that stirred the concern of the language scholars and experts (Aitchison, 2001; Androutsopoulos, 2011; Berez-Kroeker, Hintz & Jany, 2016). Almost everyone is exposed to those systems but the millennials, the digital natives born between the early 1980s and the early 2000s (Main, 2013), are the most conversant with those systems since they frequently cite technology as part of the defining characteristics of their generation (Nielsen, 2014). The millennial generation accounts for 27% of the global population or about 2 billion people (ATKearney, 2016). In the USA, millennials have already overtaken the Baby Boomers and now the America’s largest generation (Fry, 2016). The Philippines itself is included in the eight “Millennial Majors” (Bangladesh, Egypt, India, Iran, Pakistan, the Philippines, South Africa, and Vietnam) for having a substantial millennial population that makes the 29% of its total population (ATKearney, 2016). This generation has a huge impact in the facilitation of language (Baker, 2016) using the ICT. Their unstructured structure of communication especially in the use of computer mediated communication in some ways contributes according to some researches to the decline of literacy and eventually their English language proficiency (Kelly, 2012; Verheijen, 2013; Merritt, 2013;

Bronowicki, 2014). In the Philippine setting, there is a declining proficiency in English language among the millennials as reported by a global English Proficiency Index released on November 15, 2016 (Business Mirror, 2016). Thus, authorities are quick to assess this scenario and strict in offering solutions (Pamintuan, 2007) to correct those unconventional ways of expressions either in writing or speaking. Their effort to fix the unorthodox way of communication of millennials is a part of the 'ecology of language' (Mesthrie et al, 2009) common to almost every language.

The Philippines, having English language as one of its official languages, maintains this ecology of language through authorized institutions to clean up language. Aside from private and public schools regulated by the Department of Education (DepEd), the country's higher education institutions are also directed and regulated by the Commission on Higher Education (CHED) not only to ensure learning and professionalism, but also the preservation of order in the very medium of learning and the process of professionalism. The CHED Memorandum Order (CMO) No. 59, series of 1996 in accordance with the pertinent provisions of Republic Act (R.A.) No. 7722, updated the General Education Curriculum in the Higher Education Institutions in the Philippines to be more responsive to the demands of the millennial generation. And in the recent CHED Memorandum Order No. 20, series of 2013, an updated curriculum in English was issued. It specifically highlights purposive communication instruction that enables students to "listen, comprehend, critique, and respond to live or recorded conversations, speak in public with confidence, explain extended texts in their own words using examples and other aids to bolster their explanation, write texts ranging from a simple report to a full-length technical or research paper (scientific, social science, or literary, depending on the students' major), and prepare an audio-visual or web-based presentation on an assigned topic." The Aquinas University of Legazpi (AUL), responding to the changing local and global challenges, is one of those Higher Education Institutions that abide with the CHED's desire to bolster the communicative competence of the students and to maintain the order in the very medium used in teaching and learning. One of the professional functions of the AUL faculties in academic management under teaching strategy is the good command of English as medium of instruction (Faculty Manual, 2015). Aware of the global and economic importance of the English language, the AUL does not only abide with CHED's order but also finds ways to contextualize those orders to make sense in the millennial generation.

However, AUL is not immune to the challenges brought by the contemporary unorthodox ways of communication of millennials. Hence, language ecology is one of the hidden curricula in AUL only perceptible through the collective effort of the administration and faculty members to embody the AUL's vision, mission, objectives, and core values. The simplest visible effort of AUL to clean up language is seen in the classroom instructions, especially in the courses and subjects directly related to language sanitation or verbal hygiene.

Verbal Hygiene

This ecology of language or language sanitation is very close to what Deborah Cameron (1995) calls verbal hygiene, which is the "concept that denotes the use of politically, socially, religiously and linguistically correct words to express opinions, ideas and views in a given situation. It is a collection of discourses and practices through which people attempt to 'clean up' language and make its structure or its use conform more closely to their ideals and beauty, truth, efficiency, logic, correctness and civility" (Cameron, 1995). Verbal hygiene practices are very common in different languages but often imperceptible. Three general categories of verbal hygiene practices were explored by Cameron: authority, identity and agency. Under authority, verbal hygiene practices are concerned with respect for and adherence to conventions, customs and traditions, general preference for continuity over change, and attachment to values and practices that were impressed on people in the formative stages of their personal linguistic histories. Language that is used to mark social identity and belongingness to a particular group, community or ethnicity may be classified under identity. Verbal hygiene practices promoted by particular group of people who make rules to alter conventional tradition of usage may be sorted under agency. Some other specific verbal hygiene practices that Cameron explored include: style in writing to clean up printed world; English grammar in school; politically correct words; widespread linguistic training and self-help (Cameron, 1995).

Among those verbal hygiene practices, this study focused on authority especially the elements connected with English language proficiency (ELP). Adherence to authority, according to Cameron, is not only the kind of respect people have for custom and practice and for traditional ways of doing things, but also the uncritical acceptance of custom and practice that seems widespread and more marked in relation to language-using than it does in relation to many other social practices (Cameron, 1995). Cameron may be referring to linguistic rules that are never questioned by a linguistic community. Hence, the ability to stick to those rules and norms becomes the standard for classifying the levels of ELP of a person. It is against this background that the use of linguistic rules becomes the basis for assessing the ELP of the respondents of this study. The elements under authority that are directly related to ELP are utilized for this study. There are elements under authority that do not necessarily affect ELP like adherence to customs, traditions, and other authorities that are external imposition. However, specific elements of authority are directly related with the ELP like the observance of rules in subject-verb agreement, punctuations, singular-plural, proper contraction, filipinization, syntax, and so on. Hence, only the elements of authority that are related to ELP are used in formulating the instrument of the study.

The present study's assumption is that, the absence of those verbal hygiene practices in the millennials' communication processes today may be accounted for the decline of their English language proficiency. If verbal hygiene practices are present, on the other hand, they might indicate a certain proficiency in the English language. Therefore, the higher the verbal hygiene practices in terms of authority, the higher the level of ELP.

English Language Proficiency

The English language proficiency (ELP) is distinguished from English language performance by the American Council on the Teaching of Foreign Languages (ACTFL). Proficiency is derived from mandates issued by the U.S. government, declaring that a limited English proficient student is one who comes from a non-English background and who has sufficient difficulty speaking, reading, writing, or understanding the English language (ACTFL). Proficiency and competency are closely related when it comes to language use. Those words may include linguistics or grammatical competence, discourse competence, sociolinguistics competence or knowledge of a language that enables the meaningful production and language performance. On the other hand, performance denotes the production of actual utterances as a result of certain psychological processes (Manitoba, 2009; Vaclav Hemerka 2009: 15 as cited by Astuti, n.d.). Either competence or performance, the basic contents of ELP are the four macro skills of listening, reading, writing and speaking (Broderick, 2016). Although they are distinct from each other, there is more than ample evidence to suggest that they are highly related. Logically, the four skills are related in complementary ways. Both listening and reading are receptive skills while speaking and writing are productive skills. Thus, the four basic skills are related to each other by virtue of both the mode of communication (oral or written) and the direction of communication either receiving or producing message (Powers, 2010). Although the ELP is measured in terms of those four macro skills (Harmer, 2001; Go & Posecion, 2010), this study focused on grammar, vocabulary, and reading comprehension.

Statement of the Problem

The study aims to answer the following questions: 1) what are the AUL millennials' verbal hygiene practices that can be used to determine their English language proficiency? 2) how can the AUL millennials' English language proficiency be gauged through their verbal hygiene practices? 3) what is the level of AUL millennials' English language proficiency in terms of verbal hygiene adherence to authority?

Framework of the Study

The theoretical framework of the study, as illustrated in figure 1, shows the overview of how the study deductively determined the ELP of the AUL millennials through their verbal hygiene practices. It looks generally on the communication processes of the AUL millennials. It does not only consider the AUL

millennials' common communication processes but also their use of ICT and active communication engagement in social networking sites. Through those communication processes, verbal hygiene practices were identified. Among those verbal hygiene practices, the category 'authority' is singled out since this verbal hygiene practice can be used to determine ELP.



Figure 1: The Framework of the study

Methodology

Research Design

The study employs a mixed method of research which is the sequential exploratory design. It first conducted a qualitative data collection and analysis in order to answer the first problem. A written interview is conducted to determine the AUL millennials' verbal hygiene practices. After the data collection, the researchers analyzed the participants' verbal hygiene practices that can be used to determine their ELP. The result of the analysis became the basis for constructing a survey questionnaire for a quantitative data collection and analysis.

The Research Locale and the Participants/Respondents

The setting where the study was conducted was the Aquinas University of Legazpi, Philippines. The participants/respondents of the study, both in the qualitative and quantitative data collections, were the college students aged between 18 to 37 years old. The ages of the participants and respondents were within the brackets of millennial generation which is 17 to 37 (Main, 2013). In the qualitative data collection, 20% of the total college population was chosen to participate in the written interview. In the quantitative data collection, the same 20% of the total college population (Cristobal & Dela Cruz-Cristobal, 2013) was chosen to become respondents. The stratified random sampling method was used both in qualitative and quantitative data collection to determine the participants/respondents. The table 1 below shows the distribution of the respondents from different colleges of AUL. Besides the distribution of the participants by college as shown in the table below, the participants are chosen from different levels of different courses. For example the participants from the College of Business Management and Accountancy (CBMA) that has 419 total enrollees, 84 respondents from different programs and levels were chosen based on the formula used below. The higher the population of the college, the more number of participants should be.

Table 1: Distribution of the Participants by College

COLLEGES	Number of Students		Number of Respondents
College of Arts Sciences and Education (CASE)	93	93/1,054x211	19
College of Business Management and Accountancy (CBMA)	419	419/1,054x211	84
College of Health Sciences (CHS)	145	145/1,054x211	29
College of Engineering, Architecture and Fine Arts (CEAFA)	280	280/1,054x211	56
College of Law	117	117/1,054x211	23
Total	1,054	1,054x.20	211

The Instruments

The study made use of two different instruments: a questionnaire for the written interview, and the survey questionnaire for qualitative data collection. In the first instrument, the guide questions were aimed at directing the participants to express in their answer through the questionnaire their verbal hygiene preferences. The first instrument was divided into four parts. The first three parts contained the three general categories of verbal hygiene practices explored by Cameron. The first part, which was about authority, contained five questions that elicited answers about respect for and adherence to the conventions, customs and traditions, general preference for continuity over change, and attachment to values and practices that were impressed on people in the formative stages of their personal linguistic histories. The theme of the second part was identity. It contained three questions that elicited answers from the verbal hygiene practices of the AUL millennials in terms of their belongingness to a particular group, community, ethnicity, and generation through their language use. The question in part three, which was about agency, specifically asked if the participants had already experienced creating rules to alter conventional usage of words. They were also asked to give some examples. The last part of the questionnaire contained three simple questions to determine the participants' perception on the importance of the study of English grammar, the use of politically correct words and a simple survey if they have personal or self-help English language training. The questionnaire for written interview has three columns. The first column contains the questions; the second column is where the participants check either yes or no; and the third column is reserved for their comments why they check yes or no.

The analysis of the data from the participants' answers became the basis for the researchers to identify which verbal hygiene practices may be used to determine the English language proficiency of the AUL millennials and which practices are contributing factors to explain the level of their English language proficiency.

The second instrument is a standardized and validated questionnaire for quantitative data gathering. It determined the level of ELP of AUL millennials in terms of grammar, vocabulary, and reading comprehension.

Procedures

Through a letter of request, the researchers sought permission from the Office of the Rector and President of the Aquinas University of Legazpi for the conduct of the study. The Office of the Vice President for Academic Affairs' permission was also sought before the distribution of the questionnaires. After the necessary permission was granted, the program chairs of each college were asked to assist the researchers in distributing, administering, and retrieving the questionnaires.

Data Analysis

Percentage was used to show the distribution of the participants/respondents, to illustrate the result of the verbal hygiene practices of AUL millennials in the first instrument, and to give the equivalent result of the respondents' ELP in the second instrument. Weighted Mean was used to determine the average age of the participants/respondents, and to ascertain the level of ELP of the AUL millennials. The *Pearson r* was used to establish relationship between the AUL millennials' verbal hygiene practices and the overall level of ELP, between grammar, vocabulary, reading comprehension and verbal hygiene practices, and between the age and the verbal hygiene practices.

The items are given verbal and numerical description to quantify the gathered data. The following value scale and verbal description are as follows:

Verbal Hygiene Practices

Scores	Verbal Interpretation
76 – 100	Very High
51 – 75	High
26 – 50	Low
0 – 25	Very Low

Grammar

Scores	Verbal Interpretation
22.6 – 30	Very Competent
15.1 – 22.5	Competent
7.6 – 15	Fairly Competent
1 – 1.7	Incompetent

Vocabulary

Scores	Verbal Interpretation
7.6 – 10	Very Competent
5.1 – 7.5	Competent
2.6 – 5	Fairly Competent
1 – 2.5	Incompetent

Reading Comprehension

Scores	Verbal Interpretation
7.6 – 10	Very Competent
5.1 – 7.5	Competent
2.6 – 5	Fairly Competent
1 – 2.5	Incompetent

Over all English Language Proficiency

Scores	Verbal Interpretation
76 – 100	Very High
51 – 75	High
26 – 50	Low
0 – 25	Very Low

Results

The average age of the participants/respondents is 20.04. The results regarding the verbal hygiene practices of the AUL millennials are generally high. In the first part of the first instrument, 83% of the participants said that they adhere to authority, respect the conventions, customs and traditions, and prefer continuity over change, while the 17% do not. In the second part, almost 77% of the participants use language to be identified with a particular group, community, ethnicity, and modern generation, while the 24% do not. The third part is the type of verbal hygiene that is the least practiced by the participants. Only 17% of the participants have experienced creating rules to alter conventional usage of words, while the other 83% of them have not. In the last part, 89% of the participants answered that the study of English grammar is very important, the other 5% said it is important, while the other 5% said it is moderately important. As regards the use of politically correct words, 37% of the participants said they always use, 42% said they often use, while the other 21% said they occasionally use. Lastly, regarding the personal or self-help English language training, 58% of the participants said they have personal or self-help English language training, while 42% confirmed that they do not have. The figure 2 below illustrates the overall distribution of the verbal hygiene practices of the AUL millennials. It shows that the highest verbal hygiene practices of the AUL millennials is the authority with 35%, followed by identity with 33%, and the 25% that includes the personal study of English grammar and the use of politically correct words. However, the least practiced verbal hygiene is the agency with only 7% in the overall distribution.

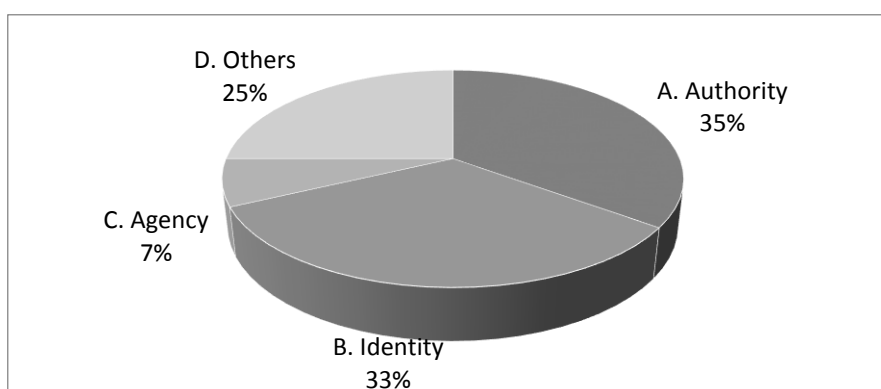


Figure 2: Overall distribution of the verbal hygiene practices of the AUL millennials

Given the results of the AUL millennials' verbal hygiene practices, the researchers ascertained that the category 'authority' may be used to determine the AUL millennials ELP. Specifically, it is in the AUL millennials' adherence to the conventions and general preference for continuity over change that can help gauge the ELP of the AUL millennials. Analyzing the interconnectedness of the different categories of the AUL millennials' verbal hygiene practices, their adherence to authority enables them not only to use language to be associated with a particular group or community, but also allows them to speak conventionally and empowers them to use language creatively.

To measure the ELP of the AUL millennials, the researchers made use of the second instrument that is based on the highest category of AUL millennials' verbal hygiene practices – authority. However, since 'authority' contains several sub-categories, the questions focused on the adherence to authority in terms of the rules and conventions in grammar, vocabulary, and reading comprehension. In this case, the ELP of the participants/respondents concentrated on the proficiency in grammar, vocabulary, and reading comprehension.

In terms of grammar, the respondents got a composite mean of 23.35, which is given a verbal interpretation very competent. In vocabulary, they got 8 with a verbal interpretation very competent. And in reading comprehension, they got 8.41 with a verbal interpretation very competent. The overall ELP of the respondents is 88% with a verbal interpretation very high.

The table 2 below shows the results of the computed Pearson r between the average of participants' verbal hygiene practices and other variables like grammar, vocabulary, reading comprehension, age, and the overall English language proficiency. The computed r between grammar and verbal hygiene practices is 0.430 with slight positive correlation and therefore the relationship is significant. The computed r between vocabulary and verbal hygiene practices is 0.412 with slight positive correlation and therefore the relationship is also significant. However, the computed r between reading comprehension and verbal hygiene practices is 0.061, which means that there is no relationship and not significant. The computed r between age and verbal hygiene practices is 0.148, which reflects that although the relationship is significant, there is only very slight positive correlation. Lastly, the computed r between the overall English language proficiency and verbal hygiene practices is 0.348 that indicates a positive correlation and significant relationship. Therefore, the hypothesis the higher the verbal hygiene practices in terms of authority, the higher the level of English language proficiency is to be accepted.

Table 2: Relationship between verbal hygiene practices (VHP) and other variables

Variables	Pearson r	Interpretation
VHP & Grammar	0.430	Significant
VHP & Vocabulary	0.412	Significant
VHP & Reading Comprehension	0.061	Not Significant
VHP & Age	0.148	Significant
VHP & ELP	0.348	Significant

Conclusions & Recommendations

From the above discussion, although millennial generation is recognized to be conversant with the digital world and their communication processes are highly influenced by technological revolutions, their linguistic development is still governed by the norms and conventions. The AUL millennials, guided by the institution and regulated by the Commission on Higher Education, are still adherent to those norms and conventions in terms of their communication processes. The AUL millennials' verbal hygiene practices, with the highest percentage in adherence to authority, indicate that their communication processes are still managed by language sanitation. The verbal hygiene practices of AUL millennials, especially their adherence to authority, with 35% in the overall distribution of VHP, can be used to determine their English language proficiency. The elements of 'authority' that are directly related to ELP, like rules and conventions in grammar and vocabulary and reading comprehension, may be used to gauge the AUL millennials' ELP. The overall ELP of AUL millennials, in terms of grammar, vocabulary and reading comprehension, is 88% with the verbal interpretation very high. Therefore, the verbal hygiene practices of AUL millennials are indeed indicators of their English language proficiency.

From this study, the researchers recommend the following:

To the AUL administrators, heighten the effort in strengthening the hidden curriculum as regards the observance of Tradition, customs, and practices that generally promote the holistic development not only of the students, but also the entire Aquinian community. Language is one facet of human life, and if the goal is to promote the whole of human life, all parts follow including the verbal hygiene practices;

To the faculty member especially those engaged in the linguistic training of the students, since they directly influence the students, they may guide the students in the process of language sanitation not only through linguistic norms and conventions but also through possible measures coming from the hidden curriculum of the institution;

To the students, as millennials whose communication processes are highly influenced by technological revolutions, be guided by the linguistic conventions but continue to be creative in

linguistic processes. Language is dynamic and it is phenomenal to be an agent of change, in this case, language change. One never knows when one is already in the long-process of evolution or change;

To future researchers, since this study focused only on grammar, vocabulary, and reading comprehension in a written form, they may consider furthering the study by including speaking and listening to cover the four macro skills in English language.

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Curriculum Review based on the Outcome-Based Education (OBE) Philosophy: A Case Study of Teaching Mechanical Engineering at University of Newcastle, Singapore

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Abstract

The conduct of the Engineering Programme in Malaysia and Singapore very much depends on Outcome-Based Education (OBE), which is an education philosophy that focuses on the graduate attributes or outcomes upon the completion of an engineering programme. Under such philosophy, measurements are taken to look into students' attainment of Learning Outcomes following the courses or programmes. In addition, with such analyses, academics are able to look into the necessary improvements of the course content or conduct so as to provide a better achievement of the learning outcome (LO) of the programme. This paper presents a case study conducted for teaching the course of Thermofluids in the University of Newcastle, Singapore. In this case study, assessment results of 4 cohort (from 2013 – 2016) of students are taken into account, where the data is sufficient to give a reliable reflection of overall LO attainment. The first step is to map the result of assessment components to the related LO. Subsequently, the LO attainment can then be calculated based on the specified weightage of the assessment results. The resulting LO attainment is used as an input for revising the course content. At the end of the analyses, the improvement of the course content can be proposed based on the evidences LO attainment rather than personal topic interests. This ensures a well-established process of continual quality improvement (CQI).

Keywords

Outcome-Based Education (OBE), Continual Quality Improvement (CQI), Engineering Education, Learning Outcomes (LO), Curriculum Review

Introduction

The curriculum review process play a vital roles in ensuring that the programmes in the higher education institutions are offered according to the accreditation standards and also address the needs of the professions.

The Engineering programmes, depending on the countries, are accredited by different professional bodies. For example, Engineers Australia (Australia), Institution of Engineers of Singapore (Singapore), Engineering Accreditation Council (Malaysia) and Institution of Mechanical Engineering (United Kingdom).

The Outcome Based Education (OBE) system, from the definition of (Spady, 1994), has been defined as “organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences.” In other words, one would determine on what kind of skills and knowledge that a student should possess after the graduation, and then only the courses and syllabus are build based on such determination.

The practice of OBE system in the Engineering Education in the region started since the beginning of the millennium, (Aziz, et al., 2005), where the idea by (Spady, 1994) has combined with the Bloom's Taxonomy (Bloom, 1984) to provide a clearer guidelines in defining necessary LO in order to attain the stipulated PO. The OBE system that is practiced in Malaysia / Singapore is illustrated in Figure 1, where the PEO are designed based on the vision and missions of the institution. With the defined PEO, the programme outcomes are designed, together with the guidelines of the local accreditation bodies. With the clear definition of the PO, the LO are then designed for each course.

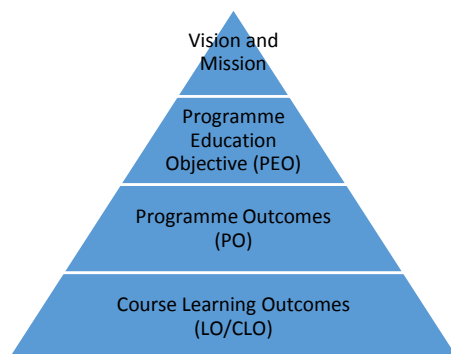


Figure 1: The relationship of Course Learning Outcomes (LO), Programme Outcomes (PO), Programme Education Objectives (PEO) and Vision and Mission of the institution in an OBE model.

Curriculum Review Process

The curriculum review process has been a part of the Continuous Quality Improvement for the programme towards the success of OBE. The review process takes place at the course level and the programme level to ensure that the programme is delivered the up-to-date and relevant subject knowledge to the students.

The curriculum review is not only commonly seen in engineering programmes (Sevim & Honaker, 2012), (Aziz, et al., 2005) but also in other programmes such as medicines and pharmacy, (Hsih, et al., 2015), (Dorval, et al., 2017). For the case of Engineering in the region, the curriculum review process has been embedded as part of the CQI process of OBE. Take Malaysian Engineering Education for example (EAC, 2012), the curriculum review process has been defined as part of the loop of the review processes of LO, PO and PEO, as shown in Figure 2. Assessments of attainment of LO, PO and PEO are conducted, and analysed, and improvement strategies are implemented as part of the CQI process. The relationships of LO, PO and PEO are then analysed to ensure the consistency and relevancy of the process among these OBE components.

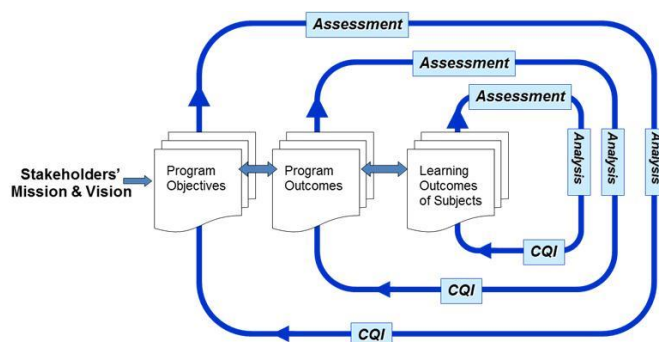


Figure 2: The flowchart of a CQI process of a typical Malaysian Engineering Programme

This paper discuss and analyse the inner most loop of Figure 2, where the assessment and analyses of attainment of LO is discussed and improvements are suggested based on the results of analyses.

OBE Measurement

This paper focuses on the analyses conducted on one of the courses offered in the Bachelor of Engineering (Honours) (Mechanical Engineering) in the University of Newcastle (Singapore Campus). The course that is taken into consideration is Thermofluids, which is offered to the level 2 students. In addition to this, the analyses is done across the observation of 4 offerings of the course, namely Trimester 3 2013 (T3-13), Trimester 2 2014 (T2-14), Trimester 1 2015 (T1-15) and Trimester 1 2016 (T1-16).

The course is divided into two major components, namely Thermodynamics and Fluid Mechanics. This course serves as the first course towards Transport Phenomena and Applied Engineering Thermodynamics at level three. The LO of the course is briefly described as follow

LO1. *Apply thermodynamic principles related to power and refrigeration cycles.*

LO2. *Apply appropriate material models in thermodynamic analysis.*

LO3. *Perform calculations demonstrating their knowledge on the concepts of reversibility and irreversibility.*

LO4. *Apply basic equation of fluid statics to compute the pressure variation in incompressible liquids and gases.*

LO5. *Perform calculations demonstrating their knowledge on fluid forces on immersed objects.*

LO6. *Apply the mass and momentum (linear and angular) conservation laws for the solution a variety of flow problems.*

LO7. *Derive and apply Reynolds transport, Navier-Stokes, Euler's and Bernoulli equations with understanding of the physical meaning of each term as well as constrain/limitations for each equation.*

LO1 – LO3 focus on the Thermodynamics while LO4 – LO7 focus on the fluid mechanics.

The LO of the course is designed based on the Graduate Profile Statements, where the course builds students' capacity with reference to the Engineers Australia Stage 1 Competency Standards for Professional Engineers (Graduate Attributes). At such, each outcome is mapped to the assessment, and also Graduate Profiles Statements.

The assessments of this course are divided into two components: quizzes and written assignments. Two quizzes of 40% each contribute to 80% of the total course marks, while written assignment contributes to another 20% of the course marks. Quiz 1, conducted during the middle of the course, covers all topics in Thermodynamics, while Quiz 2, conducted at the end of the course, covers all topics in Fluid Mechanics. Each quiz consists of four structured-type questions, where students are required to answer all four questions in the 2-hour duration. The written assignment are structured-type questions that requires the show of working steps in the process of obtaining answers. There are six assignments, consisting of three thermodynamics-based assignments and three fluid mechanics-based assignments.

In a nutshell, the implementation of OBE for Thermofluids course is concentrated on the extent to which the students have achieved the stipulated LOs (Md Zain, et al., 2012), (Osman, et al., 2012) as mentioned in previous section. The aim of this section is to present a method of assessing the attainment of LOs. The key step is to map the coursework assessment components with the corresponding LOs as shown in. For simplicity, all mapped LO carry the same weightage.

Table 1: Mapping of LOs and Assessment Components

	Quiz 1 (40 %)	Quiz 2 (40 %)	Assignment 1 (3.33 %)	Assignment 2 (3.33%)	Assignment 3 (3.33 %)	Assignment 4 (3.33 %)	Assignment 5 (3.33 %)	Assignment 6 (3.33 %)
LO1	✓			✓				
LO2	✓	✓	✓					
LO3	✓				✓			
LO4		✓				✓		
LO5		✓				✓		
LO6		✓					✓	
LO7		✓						✓

For each student, a particular LO is said to be achieved if his/her LO mark is equal to or greater than the target set as 50%. As an example, when computing LO2 attainment for Student X, the LO2 is mapped with Quiz 1 – 40 marks, Quiz 2 – 40 marks, Assignment 1 – 3.33 marks as shown in Table 1. Suppose the Student X obtains 24 marks in Quiz 1, 16 marks in Quiz 2 and 1.5 marks in Assignment 1, the procedures to calculate the LO2 attainment for Student X are as follows:

$$LO2\ Marks = 24 + 16 + 1.5 = 41.5\ marks$$

$$Maximum\ Possible\ LO2\ Marks = 40 + 40 + 1.5 = 81.5\ marks$$

$$LO2\ Attainment\ t = \frac{(LO2\ Mark)}{(Maximum\ Possible\ LO2\ Mark)} \times 100\% = \frac{41.5}{81.5} \times 100\% = 50.92\%$$

Therefore, the LO2 of Student X is considered achieve, as it has exceed the target set as 50%.

In this case study, the Key Performance Index (KPI) of LO attainments is set as 70%. The KPI is measured in such a way that the percentage of student number meeting the target of 50%. For instance, suppose there are 9 out of 37 students obtain at least 50% of LO2 attainment, which indicates that only $9/37 = 24.32\%$ of students achieve LO2. In this case, the KPI of 70% has not been met. It is noted that measurement of LO attainments are merely based on the student academic achievement without consideration of student learning experience. In the next section, the feedback mechanism will be described, which allows student learning experience to be captured.

The Analyses of the LO Attainment

Figure 3 illustrates the attainment of Learning Outcome (LO) in different cohorts of students. For each student, a particular LO is said to be achieved if his/her LO mark is equal to or greater than the target set as 50%. For LO1, the students in the cohorts of T3-13 and T2-14 have not met the Key Performance Index (KPI) set as 70%. This reflects that most of the students have difficulty on performing calculations on the thermodynamics cycles. For the students at the cohort T2-14, the LO1 attainment is particularly low, which is just about 48% attainment. This has prompted to slow down the delivery pace in subsequent cohorts (T1-15 and T1-16), and the improvement of LO1 attainment have exceed the KPI of 70%. Similar pattern to LO1 attainment, LO2 attainment has been improved through slowing down the pace of delivering the related topics.

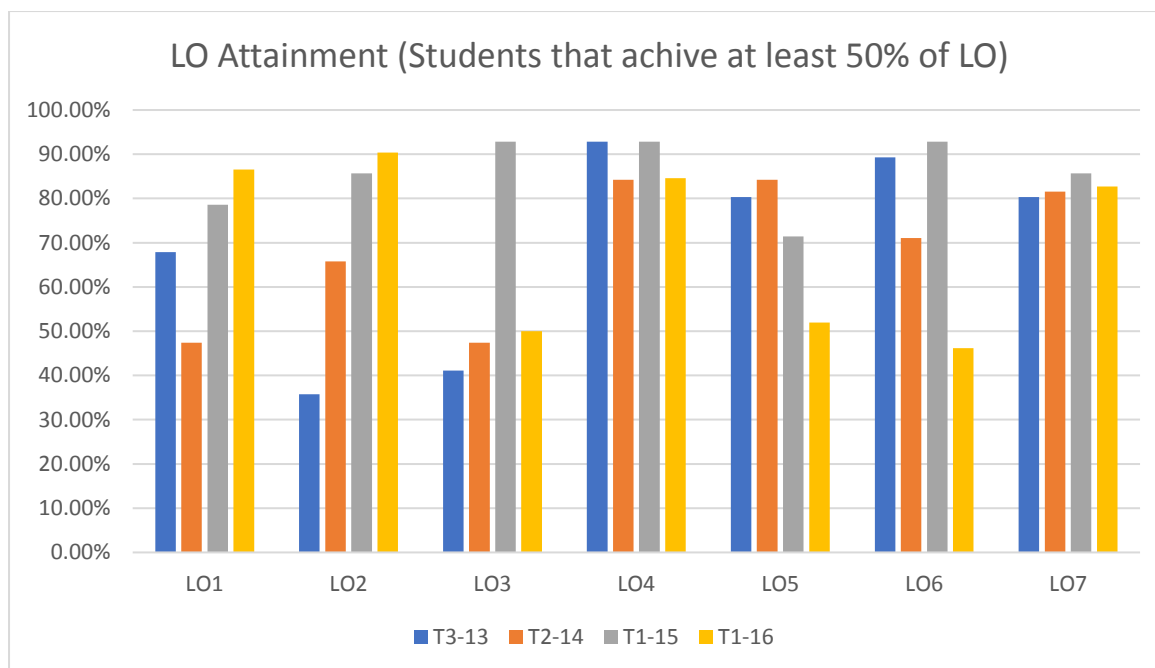


Figure 3: LO Attainment of the students for different cohorts

For LO3 attainment, the achievement is consistently low, except the outlier of T1-15 cohort. This shows that most of the students have difficulty to grasp the difficult concepts of reversibility and irreversibility. Therefore, it is suggested the indicative contents and assessment components that aligned with LO3 need to be reviewed. Some changes might be necessary in order to improve the attainment of LO3.

From LO4 to LO7 attainments, most of the cohorts have met the KPI of 70%, except the T1-16 cohort does not met the KPI on LO5 and LO6 attainments. This could be due to the questions with high taxonomy level have been imposed to the exam, where the students do not have sufficient practice. This can be addressed by adjusting the difficulty level of the tutorials without revising the course syllabus.

Throughout the LO attainments of the 4 cohorts as shown in Figure 1, most of the learning outcomes attained the KPI of 70%, which suggests that most of the indicative contents are well aligned with the LOs and have been helpful for the students. However, most of the cohorts perform poorly in the attainment of LO3, which is less than 50%. Therefore, it is necessary to review the contents that is related to LO3.

Observation on the Performance of students

The relatively lower LO achievements for LO1 – LO3 may be due to the following observations:

Quiz 1, which covers the Thermodynamics, is scheduled during the trimester period, and students have no study break before the quiz. In other words, student may have just learn the topic and in less than a week they are put to test on the taught topic. On the contrary, Quiz 2, which covers Fluid Mechanics, is scheduled during the examination period, and student have a week a study break before the quiz, and hence students was able to perform in the quiz better. The following table shows the distribution of the Quiz 1 and Quiz 2 and the relative performance of students of the two quizzes.

Trimester	Teaching (first half including 1 week term break)	Quiz 1 Week	Teaching (second half)	Study break week	Quiz 2 week	% better performance	% worse performance
T1-13	1 – 6	6	8 – 13	14	15	84.21	15.79
T2-14	1 – 7	7	8 – 13	14	15	73.68	26.32
T1-15	1 – 7	7	8 – 13	14	15	35.71	64.29
T1-16	1 – 7	7	8 – 13	14	13	56.86	43.14

Looking into Quiz 2, when the quiz is scheduled after the study break, it can be seen that the amount of student who would perform better than the earlier quiz is much more than those who perform worse than the Quiz 1. One exception case is on T1-15 batch, where there are only 14 students in the class, and most of them are re-modulating the course, which the performance is said to be just below average. In T1-16 trimester, the quiz is brought forward to the end of teaching weeks, that is, week 13, and it is seen that the number of students who would perform better in Quiz 2 is reduced to 56.86%.

On top of that, the performance of LO3 is generally seem to be lower than LO1 and LO2. The content of reversibility and irreversibility are covered just before the Quiz 1, and students are generally having less than 1 week to digest and familiarise with the content, and then they are tested in the content leading to the relatively low performance.

Looking into performance of LO4 – LO7, which is in the Fluid Mechanics, students are performing relatively better in these area. In addition to the observation mentioned in the previous discussion that students are generally having more time in the preparation for assessment, the lecturer's specialisation in the area would probably one of the contributing factor to the better performance.

Students are generally weak in the derivation of the equations and concepts, however the students still perform well in LO7 (exceed 80%) due to the fact that they have sufficient learning time. Therefore, student learning time is one of the key considerations in curriculum review.

Strategies in Improving the Performance

Throughout the discussions in previous sections, it has been found that improving the LO3 attainment is the key step to improve the overall performance. In doing so, it is suggested to impose more tutorial questions that is related to the LO3 and prolong the time span on delivering the topics. On the other hand, the delivering time span that related to other LOs will be shorten and may lowering down the others LO attainments. Therefore, simply put more effort on an individual LO3 may not address the root cause of the problems.

To provide a long term improvement, the idea of enabling the students to focus on one area (either Thermodynamics or Fluid Mechanics) was proposed to the faculty and it was taken into the consideration in the programme review. From 2018, the course Thermofluids will be discontinued and the course has been replaced by two basic courses, namely Thermodynamics and Fluid Mechanics 1. Such arrangement will be able to help students to focus better on the area. In addition, it will also help to solve the problem where students are going through the assessments without complete understanding and preparation as what students are facing in the Thermodynamics section in the current course.

Conclusions

The curriculum review process based on OBE has been presented throughout the paper. The review process is based on the LO attainments of 4 cohorts of students, which demonstrates that the proposed change of the curriculum is based on profound data rather than intuitions of lecturers and students. With

the data support of LO attainments, the shortfall of the curriculum have been explicitly reflected and necessary improvement have been made. Nevertheless, over obsessing on addressing the low LO attainments would tend to loss the overall expectation of the curriculum, particularly when maintaining both the standard of certain indicative contents and appropriate amount of delivery time. In conclusion, taking consideration into student learning conditions, LO attainments provide good indication on how to make appropriate improvement.

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Aligning Course Assessments with Expected Learning Outcomes: A Content Analysis of the Course Assessment Practices in Business Courses

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Abstract

This study aimed to determine the extent of alignment of expected learning outcomes with assessments and learning activities of 50 randomly selected business courses in one university, based on the Understanding by Design (UbD) framework. It also determined their assessment practices. A content analysis of the course syllabi was conducted using a rubric, consisting of 10 criteria, to evaluate the extent to which assessments (Stage 2) and learning activities (Stage 3) are aligned with identified goals (Stage 1). Data were analyzed using means, frequencies and percentages. Results indicate that assessments and learning activities of majority of the courses are aligned to a great extent with expected learning outcomes. The evidence of effective of backward design is very substantial in one-third of the courses while it is adequate in another 34% of the courses. The rest have somewhat apparent evidence of adherence to UbD framework. In most of the syllabi, alignment of the three components is apparent as learning outcomes and expected graduate attributes are mapped or plotted against the assessment and class activities in a tabular form. Results also indicate that the courses use varied assessments, both traditional and authentic assessments, such as product assessments (case analyses, group projects, and research papers) and performance assessments (paper presentation, panel discussion, action paper and laboratory experiments). To ensure alignment of three course components, it was recommended that HEIs should be clear about their institutional goals, provide teacher training on constructive alignment and developing assessment task/tools, and conduct regular curriculum and syllabus review.

Keywords

Classroom assessment, Authentic assessment, Constructive alignment, Outcome-based education, Understanding by Design

Introduction

Course assessments are an integral part of students learning. They do more than just measure learning. According to the Educational Testing Service (2003), “what we assess, how we assess, and how we communicate the results send a clear message to the students about what is worth learning, how it should be learned, and how well we expect them to perform” (p.2). As such, it is important that course assessments not only fulfill the criteria and principles of good assessment but that they are meaningful and further promote deep learning. There should also be an alignment between assessment and other course components.

Reeves (2006) indicated that the success of any learning environment is determined by the degree to which there is adequate alignment among eight critical factors: (1) goals, (2) content, (3) instructional design, (4) learner tasks, (5) instructor roles, (6) student roles, (7) technological affordances, and (8) assessment. However, he said that “evaluations of traditional, online and blended approaches to higher education teaching indicate that the most commonly misaligned factor is assessment” (p. 302). Citing previous research, he reasoned that this is because, “in most undergraduate courses, assessment and grading are usually based upon multiple-choice sets or academic essays...(and) robust assessment requires the critical analysis of multiple evidence that learning outcomes have been attained” (p.304). He further said that the “weakest component of modest designs is assessment perhaps because both instructors and students are so accustomed to thinking of assessment in traditional ways” (p.305).

The outcome-based education (OBE) framework also stresses the need for the alignment of course assessment methods with the intended learning outcomes. In the outcome-based framework, assessment is used to determine the extent to which learning has taken place. According to Spady and Uy (2014), alignment refers to “ensuring that the teaching and learning activities (TLAs) and assessment tasks (ATs) are directly addressing the intended learning outcomes (ILO) chosen for the course” (p.130). This means that three components (ILO, ATs and TLAs) are clearly and explicitly linked. They said that the key to achieving alignment rests with the action verbs that are chosen which identify what a student can do after completing the teaching learning activity. They identified three stages in the design of constructively aligned teaching and assessment. These include: (1) Describing the intended learning outcomes (ILO), (2) Creating a learning environment using teaching/learning activities (TLA) that address the ILOs, and (3) Using assessment tasks (ATs) to judge how well students’ performance meet the criteria (p.129). Similarly, Briggs (2003) indicated that constructive alignment entails designing in such a way that the components in the teaching system, especially the teaching methods used and the assessment tasks are aligned with the learning activities assumed in the intended outcomes. In addition to the above three stages, he added a fourth step, which is *arriving at a final grade*.

Wiggins and McTighe (2005) also advocated the alignment of the three course components through their Understanding by Design (UBD) framework. UbD framework follows a three-stage backward planning curriculum design process, namely: (1) Stage 1: Identify desired results, which focuses on identifying the enduring concepts and desired student outcomes before coming up with the specifics of the lesson plan, (2) Stage 2: Determine acceptable evidence, which concentrates on identifying a variety and depth of assessment tasks to validate that the student has achieved the desired enduring understanding, and (3) Stage 3: Plan learning experiences and instruction, which involves identifying activities that will equip students with the desired knowledge and skills. The following are the various parts of each of the three stages:

Stage 1: identify designed results

Establish Goals

Construct Understandings

Write Essential Questions

Determine: Students will know _____

Determine: Students will be able to _____

Stage 2: Determine acceptable evidence

Performance Tasks

Other Evidence

Stage 3: Plan learning experiences and instruction,

Learning Plan (Instruction)

Learning Activities (Experiences)

Assessment of Learning Outcomes

There are many ways by which students can demonstrate their knowledge and skills and show evidence of their proficiencies at the end of topic, unit or at end of the course. While authentic/performance-based assessment has been advocated as the better and more appropriate methods in assessing student outcomes, some traditional assessment methods such as multiple-choice exams are still appropriate to assess the learning outcomes expected from the students.

In the outcome-based assessment, the student’s progress is measured against learning outcomes rather than against tests only. Assessment is often described as *ongoing* or *continuous*. It is an integral part of teaching and learning rather than a culmination of the process (Spady & Uy, 2014). In assessing learning outcomes, there is also no single best type of assessment for one course or subject, but the course should include integrated assessment, making use of both formative and summative methods of assessment. Assessment should not also focus much on the assessment of knowledge of course contents, but the

emphasis is more on the application and demonstration of what have been learned as well as on the production of outputs or products that showcase student learning. Assessment should also be mutually beneficially to the teacher and the student, such that the assessment results will provide feedback that will improve students' learning and teacher's teaching.

Formative and Summative Evaluation

Course assessment in higher education should make use of both the formative and summative evaluation. *Formative Evaluation* entails the gathering of information about student learning during the progression of a course or program and usually repeatedly to improve the learning of the students while *Summative Evaluation* is done at the conclusion of the course/topic to determine or judge student skills and knowledge or effectiveness of a plan or activity.

Formative evaluation may be seen as (1) *assessment for learning*, and (2) *assessment as learning*, while Summative evaluation may be viewed as *assessment of learning*. Formative assessment can be used as *assessment for learning* since the assessment data can be used to inform the teachers about how they are teaching, with can lead to their teaching improvement. Formative assessment may be viewed as *assessment as learning* since students can make use of assessment data to reflect on and monitor their own learning. On the other hand, summative evaluation may be seen as *assessment of learning* since assessment data can be used to determine how much students have learned from the course vis-à-vis the intended learning outcomes.

Since assessment should be a *continuous* process, both formative/diagnostic assessment and summative assessment should be used throughout the course. These two types of assessment are not mutually exclusive and should be integrated in the course assessment as a whole.

Authentic/Performance Assessment

There have been increasing calls for the use of authentic assessment, a kind of assessment wherein students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills (Mueller, 2016).

Authentic assessment is a concept promoted by Grant Wiggins (1989) whereby students are engaged in applying skills and knowledge to solve real world problems, giving the sense of authenticity. It is a type of assessment that requires students to demonstrate specific skills and competencies, that realistically represent problems and situations likely to be encountered in daily life (Archbald, 1991).

According to Wiggins (1998), an assessment is *authentic* if it: (1) is realistic, (2) requires judgment and innovation, (3) asks the student to “do” the subject, (4) replicates or simulates the contexts in which adults are “tested” in the workplace or in civic or personal life, (5) assesses the student's ability to efficiently and effectively use various knowledge and skills to perform a complex task, and (6) allows appropriate opportunities to rehearse, practice, consult resources, and get feedback on and refine performances and products. It is also called Performance Assessment, Alternative Assessment, and Direct Assessment.

Objectives of the Study

This study aimed to determine the extent of alignment of expected learning outcomes with course assessment and learning activities of 50 randomly selected college business courses in one higher educational institution (HEI) in the Philippines, based on the UBD framework. It also sought to determine the course assessments employed, use of authentic and traditional assessment, types of authentic assessments employed, and use of rubric in grading the students.

Method

The study made use of descriptive research. It included 50 undergraduate business courses from six departments whose course syllabi were reviewed. A rubric, which was subjected to content validity by the college deans, was used to evaluate the extent to which course assessments (Stage 2) and learning activities (Stage 3) are aligned with identified goals (Stage 1). The rubric was based on the UbD Design Standards developed by Wiggins and McTighe (2005). Framed as questions, these four Design Standards “offer criteria to use during development and for quality of completed unit designs” (p. 23) and they include: (1) Stage 1: To what extent does the design focus on the big ideas of targeted content?, (2) Stage 2: To what extent do the assessments provide fair, valid, reliable and sufficient measures of desired results?, (3) Stage 3: To what extent is the learning plan effective and engaging?, and (4) Overall Design: To what extent is the entire unit coherent, with the elements of all three stages aligned? The rubric included 10 criteria, as follows:

Stage 1: Identifying Learning Outcomes

Identification and inclusion of desired learning outcomes and course outputs

Emphasis on higher-order thinking skills

Integration of expected graduate attributes with the desired learning outcomes

Stage 2: Determining acceptable evidence

Use of valid assessment

Use of authentic assessment

Use of varied assessments

Design and inclusion of rubric for assessment

Stage 3: Planning learning experiences and instruction

Design of appropriate learning experience

Inclusion of learning activities for student engagement

Implementation of activities and lessons to develop students' responsibility for learning

On the other hand, to determine the assessment practices, the types of assessment used, the use of traditional and authentic assessments, and the employment of rubrics in assessments were determined. Data were analyzed quantitatively, using means, frequencies and percentages.

Results

Alignment of the Course Components Based on UbD Framework

According to McTighe and Wiggins (2012), the “key concept in UbD framework is alignment (i.e., all three stages must clearly align not only to standards, but also to one another); in other words, the Stage 1 content and understanding must be what is assessed in Stage 2 and taught in Stage 3” (p. 2).

Content analysis of the syllabi indicate that the evidence of effective of backward design is very substantial in one third (34%) of the 50 business courses while it is adequate in another 34% of the courses. A significant number of the courses (28%), however, were found to have somewhat apparent evidence. Only four percent of the courses have very minimal indication of adherence to UbD framework. This indicates that the assessments and learning activities of majority of the 50 business courses are aligned to a great extent with the expected learning outcomes, based on the UbD framework. [Table 1]

Table 1: Percentage of Courses with Evidence of Alignment Among the Three Course Components

Evidence of Alignment	Department						TOTAL
	1	2	3	4	5	6	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Very substantial	80	33	40	10	12.5	33	34
Adequate	20	67	50	80	12.5	67	34
Somewhat apparent			10	10	62.5		28
Minimal					12.5		4

¹Accountancy; ²Commercial Law; ³Decision Science; ⁴Finance ⁵Marketing; ⁶Mgt & Org'n.

Content analysis of the syllabi further revealed that the courses have met the quality criteria of Stage 1. The desired learning outcomes of the courses at the end of the term as well as the required final course outputs are explicitly identified and described in the syllabus (mean = 3.6, Exemplary). There is also greater emphasis on the development of higher order thinking skills as most of the learning outcomes identified do not only revolve around “knowing” facts but also focus on “understanding” of the meaning of facts, events, situations, and their relations to other things (mean = 3.5, Proficient). It was also revealed that there is a clear connection between the desired course learning outcomes and the college/program/institutional goals, which are the called ELGAs or expected Lasallian graduate attributes (mean = 3.1, Proficient).

As for the course assessments (Stage 2), the 50 business courses made use of valid, authentic and varied assessments. It was revealed that the assessment criteria and formats used by most of the courses can provide adequate and accurate measures of the extent to which the students have achieved the desired learning course outcomes (mean = 3.2, Proficient). Furthermore, while the performance tasks employed may not particularly be authentic or applicable to real world, they nevertheless require some application of understanding of the lesson (mean = 3.1, Proficient). Finally, varied assessment methods/tasks are employed --however, they are quite limited to provide sufficient data about the breath of students' overall understanding of the course (mean = 3.1, Proficient). However, with regards to the design and inclusion of rubrics to measure students' outputs, much has to be desired since some courses, particularly Finance and Marketing courses, only include at most one rubric in the syllabus (mean = 2.5, Needs Improvement). Nevertheless, most courses in four other departments have formulated different rubrics for different types of assessment tasks or student outputs.

As for class activities and experiences (Stage 3), it was revealed from the syllabi that most business courses are proficient in the design of learning activities and experiences, and in the inclusion of activities that will engage and sustain students' class engagement and responsibility for learning. In particular, the designs of lessons/activities are logical, although there is a need for more and clearer connection with the assessment tasks and the achievement of desired learning outcomes (mean = 3.4, Proficient), can catch students' attention and can motivate them to be more engaged in class activities (mean = 2.6, Proficient), and are organized to be able to give students opportunities to consider different points of view and to rethink or revise their understanding and work (mean = 2.6, Proficient). [Table 2]

Table 2: Evaluation of Business Courses Using the UbD Design Format

STAGES OF UbD/ QUALITY CRITERIA	Department						TOTAL
	1	2	3	4	5	6	
Stage 1: Identifying Learning Outcomes							
<i>Identification and inclusion of desired learning outcomes and course outputs</i>	4.0	3.8	3.8	3.5	2.8	3.7	3.6 E
<i>Emphasis on higher-order thinking skills</i>	4.0	3.2	3.7	3.0	2.9	4.0	3.5 P
<i>Integration of expected graduate attributes with desired learning outcomes</i>	3.4	3.7	3.5	3.1	1.9	3.0	3.1 P
Stage 2: Determining acceptable							

evidence

<i>Use of valid assessment</i>	3.2	3.5	3.4	2.1	3.3	3.8	3.2	P
<i>Use of authentic assessment</i>	4.0	3.5	3.1	1.5	2.5	3.7	3.1	P
<i>Use of varied assessments</i>	3.8	3.3	3.3	1.5	2.9	3.7	3.1	P
<i>Design and inclusion of rubric for assessment</i>	3.3	3.0	2.7	1.5	1.9	2.7	2.5	NI

Stage 3: Planning learning experiences and instruction

<i>Design of appropriate learning experience</i>	4.0	3.3	3.6	2.9	2.6	3.7	3.4	P
<i>Inclusion of learning activities for class engagement</i>	4.0	2.5	2.6	1.6	2.4	2.5	2.6	P

<i>Implementation of activities and lessons to develop students' responsibility for learning)</i>	3.0	2.3	2.5	1.5	2.3	3.8	2.6	P
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¹Accountancy; ²Commercial Law; ³Decision Science; ⁴Finance ⁵Marketing; ⁶Mgt & Org'n.

3.6-4.0 = Exemplary (E)

2.5 – 3.5 = Proficient (P)

1.6 – 2.5 = Needs Improvement (NI)

1.5 & below = Unsatisfactory (US)

Types of Assessments Employed

Majority (88%) of the business courses still make use of the traditional assessment, such quizzes (88%), class activities and seat works (84%), and final exams (54%) in grading the students. Final research papers (36%), projects (30%), case studies (22%), and oral activities (16%) are also among the major evidences used to assess students' learning. [Table 3]

Written examinations (quizzes, midterm exams and final exams) are also given the most weight in the computation of the final grades. This is true especially in Accounting and Finance courses (70-90% weight). The rest of departments give only around 25-60% weight in written exams but instead also consider other authentic assessments.

Table 3: Types of Assessment Employed in Business Courses

Types of Assessment Employed	N=50	
	f	%
- Quizzes	44	88.0
- Class Participation/ Activities/Seat works	42	84.0
- Final Exams	27	54.0
- Final Paper/Requirements	18	36.0
- Projects/group project	15	30.0
- Case Studies	11	22.0
- Oral activities/ recitations/oral presentation/class reporting	8	16.0
- Midterm requirements	6	12.0
- Midterm exams	5	10.0
- Reflection/critique/ position paper	3	6.0
- Media /retail plan	3	6.0
- Peer evaluation	2	4.0
- Laboratory exercises	2	4.0
- Problem sets	2	4.0
- Other requirements	1	2.0

- Website building	1	20.0
- Mall audit	1	20.0

Use of Authentic Assessment

While the traditional assessment is the most common method of assessment employed, almost all (96%) of the business courses also make use of authentic/performance assessment. Only two classes do not use authentic/performance assessment. Majority (93.75%) of the courses require product-based performance assessment while almost forty percent of them also require performance-based authentic assessment [Table 4]. Performance-based assessment is one kind of authentic assessment that focuses on the ability of the students to apply the skills and knowledge learned from a unit or units of study. Product-based assessment, on the other hand, focuses on the outputs produced by students that will demonstrate concrete examples or evidences of their application of what they have learned.

Table 4: Use of Authentic Assessments by Business Courses

Use of Authentic Assessments	N=50	
	f	%
- With Authentic/Performance Based Assessment	48	96.0
• Product	45	93.75
• Performance	19	39.58
- Without Authentic/Performance-Based Assessment	2	4.0

The academic departments require varied product-based evidences, but the most common types are case studies/analyses and group projects. Case studies/analyses are required from the students by all departments, except by marketing courses. Group projects are also required by 12 (24%) business courses.

Aside from aforementioned product-based assessment methods, Business law courses also require students to submit income tax returns preparation, analysis of judicial decisions, compilation of certain legal documents, written business and legal documents, sales promotions plan, and product labels. Marketing courses also require laboratory and drawing exercises, reflection papers, visualization essays, media plan, website development, mall audit and retail plan. While most Decision Sciences courses call for case studies/analyses, they also make use of different forms of written outputs for assessing students' learning outcomes, such as reflection papers and business strategic/improvement plans. Accountancy courses require workbook exercises, financial analyses/statements exercises, income tax preparations/plans, and critique papers while the Finance courses include laboratory exercises as a requirement. Finally, the Management and Organization courses listed employ other requirements, such as diagnostic and self-assessment reports, employment development plans, human resource position paper articulation, and HR management report.

On the other hand, performance-based authentic assessments employed by the different business courses include oral/group presentation, class recitation/participation, panel discussion, and action projects.

Use of Rubrics

Rubrics are important tools to guide the teachers and students in assessing students' performance and outputs. Rubrics make assessing the students' work efficient, consistent, objective, and quick and help teachers justify the grades that they assign to students' work (Andrade, 2000). It is imperative that rubrics be used for authentic or performance assessments.

A review of the syllabi of the 50 business courses reveals that majority (80%) of them have at least one rubric for assessing their students' performance or outputs. Only twenty percent of the courses did not include a rubric in their syllabi. [Table 5]

Table 5: Use of Rubrics

Use of Rubrics	N=50	
	f	%
With Rubrics	40	80.0
Without Rubrics	10	20.0

Among the rubrics used by the different departments to assess students' products, projects, or outcomes include the following:

Type of Rubrics	1	2	4	5	6
Overall assessment		✓	✓	✓	x
Project			✓	✓	x
Case analyses	✓	✓	✓		x
Reflection paper	✓		✓	✓	x
Financial statement	✓				
Workbook/problem sets	✓			✓	
Income tax return /tax plans	✓				
Review of literature	✓				
Research proposal	✓				
Research/final paper	✓		✓		✓
Peer evaluation/group participation	✓	✓		✓	
Critique paper	✓	✓			
Written output		✓			
Class activities		✓			
Case digests		✓			
Drafting of legal documents		✓			
Event production				✓	
Classroom event experience				✓	
Culminating event				✓	
Visualization essay				✓	
Drawing exercises				✓	
Website buildings				✓	
Mall audit and retail plans				✓	
Critique papers				✓	
Long exams				✓	

¹Accountancy; ²Commercial Law; ³Decision Science; ⁴Finance ⁵Marketing; ⁶Mgt & Org'n.

On the other hand, business courses mostly include rubrics for oral and group presentations. Other courses use rubric for class recitation, class participation, and social responsibility action projects.

Conclusion and Recommendations

Results indicate that the assessments and learning activities of majority of the 50 business courses are aligned to a great extent with the expected learning outcomes, based on the UbD framework. An analysis of the course syllabi revealed that the evidence of effective of backward design is very substantial in one third (34%) of the 50 business courses while it is adequate in another 34% of the courses. A significant number of the courses (28%) were also found to have somewhat apparent evidence of adherence to UbD framework. In most of the syllabi, alignment of the three course components is evident since the course learning outcomes and expected graduate attributes are mapped or plotted against the course assessment and class activities in a tabular form.

Results also indicate that business courses use varied assessments/criteria to determine students' learning outcomes. They employ traditional assessments, such as quizzes, mid-term and final examinations, comprising the highest weights in the final grades. The use of authentic assessments was also prevalent, particularly of product assessments, such as case studies/analyses, group projects, and research papers as well as performance assessments, such as paper presentation, panel discussion, action paper and laboratory experiments. They also use different kinds of rubrics.

Teacher and students both get benefits from directly aligning assessment with course learning outcomes. Assessment feedback framed around criteria derived from the learning outcomes helps guide teachers and students towards what really counts in the course, what to focus on, and how students should demonstrate their learning during assessment.

Briggs (2104) has recognized that there are challenges in implementing constructive alignment. It requires appropriate institutional support, which in turn may involve an overhaul of the institutional procedures and priorities and its culture itself. Thus, to ensure alignment of course outcomes and assessment, the following are recommended:

Higher education institutions should be clear and specific about their institutional goals as these will serve as guide or basis for identifying program-level learning outcomes, and ultimately in formulating the course outcomes by the teachers.

Teachers should be trained on the concepts, advantages, and techniques of aligning the different components of the teaching learning process, namely the intended learning outcomes, assessment tasks, and instructional activities. All these components should be considered within the context of instruction, rather than as an isolated step in the instruction cycle.

Teacher training should be conducted on constructing or developing assessment methods/tasks. To get the most out of their assessments, teachers need to know how to choose the right one for each situation, and how to make that assessment as effective as possible since a poorly chosen or poorly developed assessment will fail to provide useful evidence about student learning. In particular, assessments that are more focused on assessing application of learning and not merely on knowledge of course contents, that are aligned with learning outcomes and teaching activities, and that are mutually beneficial to students and teachers are preferred.

Curriculum and syllabus review should be done regularly to ensure that the teachers embrace and practise constructive alignment.

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The Relationship Of Knowledge And The Use Of Information Technology Towards Blended Learning Among Teacher Trainees

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Abstract

This study aims to examine the relationship between knowledge and the use of information technology towards blended learning among teacher trainees. This study involved 97 students who are third and fourth year education undergraduates. This study is a descriptive and correlation study. Descriptive and inferential statistics were used to analyze the data and present the findings. The results showed that the mean score for knowledge of information technology is 4.24, mean for use of information technology is 4.30 and for blended learning using *Putrablast* the mean value is 4.14. The findings also showed that there is a positive relationship between knowledge of information technology and blended learning ($r = 0.559$, $p < 0.01$), and also a positive relationship between the use of information technology and blended learning ($r = 0.619$, $p < 0.01$). In conclusion, the level of knowledge, use of information technology and the use of blended learning in *Putrablast* is good. There is a moderate positive relationship between knowledge of information technology and blended learning and also between the use of information technology and blended learning. Based on these findings, teachers need to possess knowledge of information technology as well as use information technology so that blended learning is enhanced in the teaching and learning process.

Keywords

Blended learning, Information technology, Information technology knowledge, Teacher trainees.

Introduction

Globalisation has left an impact on the level of education today moving forward into the use of information technology. To keep up with the pace, it is the basic necessity for educators to master the use of information technology. Information technology is an electronic network to search, collect, store, process and deliver information in an effective, quick and in which it could enhance the teaching and learning processes. Therefore, the advancement in today's information technology could assist and improvise the education pattern as a tool of teaching and learning. The implementation of e-learning in teaching and learning has been outlined in The Malaysia Education Blueprint 2015 - 2025 (Higher Education) (Ministry of Education, 2015). One of the shifts is global online learning. The shift stated that blended learning models will become a staple pedagogical approach in all higher learning institutions.

According to Elenena (2006), blended learning is a new education concern in the technological and globalisation development. Blended learning is an excellent integration of the media and technology (traditional learning, Internet, Web, CD ROM, video/audio and other electronic medium such as emails and online books). It is a method that combines teaching, learning theory and pedagogy dimension. The mixture of e-learning and face-to-face learning is also a component of blended learning.

Moebs & Weibelzahl (2006) defined blended learning as a combination of online and face-to-face meeting in one integrated learning activities. This type of learning process also uses various methods

that delivers face-to-face meetings in the classroom environment as well as an online method to fulfil the courses objectives (Akkoyunlu Soyulu, 2006). This recent development has created a new learning environment that are more flexible in terms of time, place, method and learning tools aside of providing more opportunities for a wider collaboration in the learning process (Jamalludin Harun & Zaidatun Tasir, 2003). Such progress has also expanded the concept of collaborative learning through conventional tools such as listserv, news group, email and “Internet Real-Chat” (IRC) other than the use of audio and video conferencing.

A research from Kellah M. Edens (2008) stated that the advancement of information technology has led to the increase in usage of the web and Internet. Blended learning in higher education plays an important role especially when it involves a broader use of the internet. Past implementations of blended learning in Teaching and Learning (T&L) have been reported to be positive as based on a study conducted by Izudin Syarif (2013) where there were an increased in their motivations and achievements. A study by Gecer and Dag (2012) found that students are attracted to blended learning which supports active learning and the use of online materials. Similar finding from Hubackova, Semradova, and Klimova (2011), discovered that students also enjoyed blended learning.

Moreover, the advantage of e-learning which includes self-learning could fulfill the need and ability of students. The place and time could be adjusted base on the condition and willingness of a student. In terms of preparation and the use of multimedia materials, it is unlimited which then allows the student to revise through e-learning (Goltz-Wasiucionek, 2014). Nur Farahiza Zaihan Azizan (2010) conducted a study in The Open University Malaysia which was among the first university to implement the blended learning method in teaching and learning. Haryani Haron et al. then (2012) carried out a research on the use of blended learning among the academicians in one of the higher education institute in Malaysia. The findings show that among the factors that encourage academicians to carry out blended learning are the assumption of system usefulness, learning goals and inclinations towards education technology. Meanwhile, Wong et al. (2012) found that the main concern in the implementation of blended learning is the accessibility of internet. Therefore, a research is necessary to evaluate the level of knowledge and application of blended learning among teacher trainees in the institute of higher education especially in Malaysia.

Objectives and Hypothesis

This research aims to examine the relationship between the level of knowledge and the use of information technology towards blended learning among teacher trainees. The objectives of this study are:

To identify the level of knowledge and the use of information technology as well as blended learning among the teacher trainees.

To determine the level of knowledge in information technology towards blended learning among the teacher trainees.

To examine the relationship between the uses of information technology towards blended learning among the teacher trainees.

To attain the aim and objectives of this research, two hypothesis null (Ho) were proposed:-

Ho1: There is a significant relationship between the level of knowledge and information technology towards blended learning among the teacher trainees.

Ho2: There is a significant relationship between the uses of information technology towards blended learning among the teacher trainees.

Methodology

The research design used are descriptive and is a correlative study. The population used for this study was from the Faculty of Education pursuing their Programme in Education in their third year and 4-year. Total number of population used for this research are 130 students. The sample size of this study also refers to Cochran's Sample Size Formula (1977) as referred to Bartlett, Kortlik and Higgins (2001). The sample size calculation are as followed:

$$n = \frac{n_o}{1 + \frac{n_o}{N}}$$

With;

n	= Sample size
N	= Population size; 130 students
t	= 1.96
s	= 1.25
d	= 0.15

$$n_o = \frac{t^2 s^2}{d^2} = \frac{(1.96)^2 (1.25)^2}{(0.15)^2} = 267$$

Therefore,

$$n = \frac{267}{1 + \left(\frac{267}{130}\right)}$$

$$n = 87$$

The minimum sample size based on Cohran (1977) is $n=87$. However in this study a total of 97 respondents are involved and answered the questionnaire.

In this research, the respondents are required to select the most suitable answer based on the five Likert scale questionnaires.

The answers are then classified into three mean score marks with three levels; low, average, high as shown in Table 1 below.

Table 1: Classification of Mean Score Level

Mean Score	Level of Classification
1.00 - 2.33	Low
2.34 - 3.67	Average
3.68 - 5.00	High

(Source : Landell, 1977)

Reliability and validity of an instrument is important to ensure that the findings obtained are genuine and indisputable (Kerlinger & Lee, 2001). Based on the pilot study that has been done, the results obtained were reliable which could be proven in Table 2 below.

Table 2: Value of Reliability of Instrument

<i>Dimension</i>	<i>Reliability Value</i>
Knowledge on Information Technology	0.917
The use of Information Technology	0.916
Blended Learning	0.940

Based on this study, the correlation analysis is being used to identify the random variable with independent variable. Interpreting correlation analysis are based on the “*Guildford’s (1973) Rule of Thumb*” as shown in Table 3 below:

Table 3: Interpretation of Coefficients Correlation

<i>Value of r</i>	<i>Interpretation</i>
<0.20	Very low correlation
0.20 – 0.40	Low correlation
0.40 – 0.70	Average correlation
0.70 – 0.90	High correlation
>0.90	Very high correlation

Source: Guildford dan Fruchter (1987)

Findings

Analysis on the Level of Knowledge, Usage and Blended Learning

The descriptive analysis findings in this research answered the first research question, and that is ‘What are the level of knowledge in information technology among the teacher trainees in UPM?’ The finding of level of knowledge in information technology, level of usage in information technology and the use of blended learning among teacher trainees are show in Table 4 below.

Table 4: The Mean and Standard Deviation

No.	Statement	n	Mean	SD
1.	Level of Knowledge in Information Technology	97	4.24	.470
2.	Level of Usage in Information Technology	97	4.30	.456
3.	Level of Use Blended Learning	97	4.14	.500

Overall, the research findings found that the mean value of the level of knowledge in information technology (Mean = 4.24, SD = .470). This indicates that the respondents are knowledgeable in the use of computers and could define the basis terminology of using a computer. For the level usage in information technology, the mean recorded (Mean = 4.30, SD = .456), this shows that they could produce CD-ROM or interactive DVD in teaching. Results of the study identify that the mean value

for the usage of blended learning recorded are (Mean= 4.14, SD= .500). This indicates that the use of blended learning could achieve the objectives and ease their learning process.

For the Pearson Correlation, it was conducted to identify the relationship between the level of knowledge and the use of information technology towards blended learning among teacher trainees in UPM.

The Relationship between the Knowledge in Information Technology towards Blended Learning

The Pearson correlation analysis were conducted to identify the relationship between the knowledge in information technology towards blended learning among the teacher trainees in UPM.

Table 5 : The Relationship between the Knowledge in Information Technology towards Blended Learning

(n=97)

VARIABLE	Blended Learning		
	PEARSON CORRELATION (<i>r</i>)	SIGNIFICANCE	LEVEL
Knowledge	.559**	.000	Average

** Significant on level $p < 0.01$

Based on Table 5 above, the findings indicate that there is a significant positive relationship between knowledge and blended learning ($r = .559$, $p < 0.01$). Based on Guildford and Frutcher (1987), the value of correlation indicates that the relationship between the level of knowledge and blended learning is at an average and significantly positive. This shows that the higher the level of students' knowledge in information technology, the more positive it is towards blended learning.

Table 6: The Relationship between the Use of Information Technology on Blended Learning

(n=97)

VARIABLE	Blended Learning		
	PEARSON CORRELATION (<i>r</i>)	SIGNIFICANCE	LEVEL
Usage	.619**	.000	Average

**Significant on level $p < 0.01$

Based on Table 6 above, the results indicates that there is a positive significant relationship between the usage and blended learning ($r = .619$, $p < 0.01$). Using Guildford and Frutcher (1987), the correlation value shows that the level of usage is at an average and significantly positive. It shows that the higher the use of students' information technology, the more positive it is towards blended learning.

Discussion

The findings of the study shows that the mean value is high in the usage of computer application in their learning process. This is similar to the research conducted by Lim Bee Yeok (2008) where the teachers have a high level of knowledge especially in word processor software because it is often used upon completing their tasks. This matter were further strengthen when How Stuff Works (2005) indicates that Microsoft Powerpoint as extremely beneficial in delivering information. Other than that,

teachers could make notes and distribute it as study materials for the students. A research by Jamaluddin Ahmad, Tajularipin Sulaiman & Sidek Mohd Noah in Zainuddin Abu Bakar et al. (2008) proves that the level of ICT usage skills among trainee teachers were at an average level. This is non-parallel to the proposition made by Robert & Kristi (2004) where it emphasizes the necessity to diversify the teaching materials such as the use of CD ROM, interactive software, other multimedia materials with simulation and animation elements which could assist the students in mastering the knowledge during and after the classroom time. Therefore, with the addition of knowledge in the use of information technology; teachers will be more capable in delivering the knowledge within the subjects taught.

The findings for the level of blended learning found that the respondents could access the study material within the suitable time. Students could access PutraBlast despite of their whereabouts. This shows that students could gain access to the notes from the lecturer whenever they wish to. Other than that, students could also submit their assignments through PutraBlast based on the time assigned by their lecturer. Students also believe that with the use of PutraBlast, it could fulfill the learning objectives and is much more convenient for their learning processes. With the use of PutraBlast, students could also attain additional videos given by lecturers and this could definitely increase the comprehension and understanding of a student indirectly helping them to master their subject matter better. This could be seen on the past research by Izudin Syarif (2013) where he stated that there is an increase in motivation and achievement as a result of blended learning. According to Hubackova, Semradova and Klimova (2011), the students enjoyed the learning process that are based on blended learning. The main upside of blended learning is that it ensures the learning objectives are achieved.

Findings of the study show that there is an average positive relationship between the level of knowledge and the usage of information technology towards blended learning. This shows that the higher the level of knowledge, the more positive the usage of information technology towards blended learning. When the students have knowledge in information technology, indirectly the use of information technology in blended learning is easier. Past research by Wan Mohamad Wan Ibrahim et al. (2002) identified that more than 80% of the school teachers hold a positive perception towards the usage of ICT in their profession. Majority of them are interested to learn ICT and felt that it could assist them in accessing broader and wider information and knowledge. However, three out of four of the respondents admitted that they are still incompetent or incapable of handling the use of ICT in classroom.

Conclusion

Information technology gives a huge impact in the education field and in the teaching profession, therefore as a teacher trainee, one should master the skills required in information technology. The necessity to expand teachers' profession in information technology should be enhanced from time to time. Using PutraBlast as blended learning, students could fulfill their learning objectives. Other than that, there is also a significant positive relationship between the level of knowledge and the usage of information technology in blended learning.

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PROJECT JOY - Joyful Learning that develops Outmost Literacy in Yearning eradicated non-readers: An intervention program to improve the reading level of selected Grade1 pupils of Silang West Elementary School

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Abstract

One of the problems that the Grade I teachers and learners face in the teaching-learning process in SILANG WEST ELEMNTARY SCHOOL(SWES) is the pupil's difficulty in reading resulting to poor academic performance and at risk of dropping out. This action research aimed to improve the reading level of fifty –two (52) selected grade one pupils of the school for a period of four months from December 2016 to March 2017. The respondents of the study were the fifty-two (52) Grade I pupils who had struggles in reading Filipino. The experimental method of research following a case study format was used in this action research. The results of the study showed that the entire fifty-two (52) selected Grade one pupils included in the study could read “Pantig”, “Parirala”, and “Pangungusap” after the fourteen –week intervention program in reading. The number of pupils who could read Pantig, Parirala, Pangungusap and Maikling Kuwento has increased the reading ability of the fifty-two(52) selected Grade one pupils under the project JOY-Joyful learning that develops Outmost literacy in Yearning Non Readers. The respondents' reading ability was improved, thus, the said intervention program was effective and could help learners who have struggles in reading especially to non-readers.

Keywords

Intervention Program, Reading Level, NonReaders

Context and Rationale

Introduction

One of the problems that the Grade I teachers and learners face in the teaching-learning process in Silang West Elementary School (SWES) is the pupil's difficulty in reading resulting to poor academic performance and at risk of dropping out. .

As early as October 2016, there were fifty-two (52) identified Grade I pupils in the school who were non-readers. Root cause analysis was done to determine the reasons of their struggles in reading which directed the researcher to what kind of intervention to be utilized in eradicating the said problem. Concerned teachers were informed and advised to perform necessary action with regard to the planning of appropriate intervention program. Then proper dissemination of information to the concerned parents and pupils was conducted.

It is in this premise that the researcher felt the need to conduct an action research to remedy the existing problem in reading, particularly the Grade I pupils, thus, “Project JOY-Joyful learning that develops Outmost literacy in Yearning eradicated non-readers), an intervention program to improve the reading level of selected Grade I pupils was materialized.

This intervention program was confined only to non-readers in Grade I, wherein these learners were placed in a reading hub of the school for reading improvement. The intervention program lasted for fourteen weeks and was handled by the Grade I teachers.

The project was solely focused in reading Filipino.

Review of Related Literature

The researchers had explored some literature to expand the perspective related in the study.

Based from Grade I Level Standards of the K to 12 Curriculum Guide (2013), the learners should demonstrate basic communication skills in talking about familiar topics using simple words and both verbal and non-verbal cues to understand spoken language, shows understanding of basic vocabulary and language structures, reading process, writing system and appreciates aspects of one's culture.

Research has revealed that oral language is the basis of literacy development associated to this development in phonemic awareness, which is a valid predictor of later reading by the end of kindergarten (MacDonald & Figueredo, 2010). According to Mac Donald and Figueredo (2010), early detection and intervention is extremely critical and the window of opportunity closes quickly.

The effect of delaying reading intervention is loss of progress that might be made with supplementary small group instruction across the full year (Cooke et al, 2010).

At the 2004 International Reading Association (IRA) conference, Dr. Lyon stated that beginning readers should have a balanced approach to reading (Lyon, 2004). Because there is no best way to teach beginning reading professionals who are closest to children must be the ones to make the decisions about what reading methods to use, and they must have the flexibility to modify those methods when they determine the particular children are not learning.

In this research (Pagan, Stephanie; Sénéchal, Monique)(n.d.), parents and children participated in a comprehensive book reading intervention designed to improve children's literacy. Children in the intervention condition were encouraged to read one book weekly and they made significantly greater gains in reading comprehension, reading fluency, and receptive vocabulary.

The study Ates, Seyit, (n.d.) is quite similar to the present research that repeated reading fluency intervention had a positive improvement in the student's reading ability that repeated reading exercises as to "pantig", "parirala", "pangungusap", and "maikling kwento" during the intervention process really make the grade one pupils improve their ability in reading. The results showed that the there was a positive improvement in the student's word recognition accuracy and the student's improvement was toward from frustration level to instruction level.

Research Questions

This study sought the following research questions:

What is the reading status of fifty-two Grade I pupils prior to the intervention program?

What is the reading progress of Grade I pupils as reflected in a number of weeks?

What is the reading status of fifty-two Grade I pupils after the intervention program?

Methodology

The experimental method of research following a case study format which is developmental design was used in this action research. It was utilized in this research because reading progress of grade one pupils under this study was being monitored.

In this study, the reading status was assessed according to the following indicators “PANTIG, PARIRALA, PANGUNGUSAP, MAIKLING KUWENTO” and classified as “Nababasa”, “Bahagyang Nababasa”, or “Hindi Nababasa” and given reading materials in Filipino on a weekly basis from December 2015 until March 2016.

The conduct of this action research involved assessing of the learners; planning of an appropriate intervention program; disseminating of information to the concerned teachers, parents and pupils; continuous monitoring of the program; evaluating of the result or progress; and following up after the dissemination of the program.

Sampling

The study used the purposive sampling. Out of 305 grade one pupils, fifty-two (52) identified non-readers were the participants under this Project “JOY”.

b. Data Collection

Self-made checklist was used in this research including different indicators on how the grade I pupils under the study was monitored and evaluated on their progress in reading. The data gathered was collated, interpreted and recorded weekly during the implementation of the program which started on December 2016 and ended March 2017.

c. Ethical Issues

Consultation meetings with teachers and parents of the respondents were conducted to inform them on the conduct of the program. Likewise, permission was secured from them. The conduct of the program did not affect the delivery of basic education in other sections and grades.

d. Plan for Data Analysis

The data gathered was analyzed and interpreted using qualitative method. The frequency count and percentage were utilized in interpreting data to determine the effectiveness of the program.

Results and Discussion

The following problems were answered in this research.

What is the reading status of fifty-two (52) Grade I pupils prior to the intervention program?

Table 1: Pre – Reading Assessment Data Prior to Intervention Program

Indicators	Nababasa		Bahagyang Nababasa		Hindi Nababasa	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Pantig	0	0	0	0	52	100
Parirala	0	0	0	0	52	100
Pangungusap	0	0	0	0	52	100
Maikling Kuwento	0	0	0	0	52	100

Data reflected that among fifty-two (52) identified respondents, no one or zero percent (0%) could recognize and read the four indicators Pantig, Parirala, Pangungusap, and Maikling Kwento. This implies that they find it difficult to read because most of them could not even recognize the sounds of letters of the alphabet

What is the reading progress of Grade I pupils as reflected in a number of weeks?

Table 2: Weekly Monitoring Progress Report December 2016

MONTH DECEMBER	Week 1		Week 2	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
PANTIG				
Nababasa	17	33	22	42
Bahagyang Nababasa	22	42	19	37
Hindi Nababasa	13	25	11	21
PARARILA				
Nababasa	7	13	7	13
Bahagyang Nababasa	12	23	14	27
Hindi Nababasa	33	64	31	60
PANGUNGUSAP				
Nababasa	5	10	6	12
Bahagyang Nababasa	7	13	9	17
Hindi Nababasa	40	77	37	71
MAIKLING KWENTO				
Nababasa	0	0	0	0
Bahagyang Nababasa	0	0	2	4
Hindi Nababasa	52	100	50	96

Data shows that there was at least nine (9) percent increase in the number of readers who can read syllables or “Nababasa” ang “Pantig” with 33 and 42 percent respectively in two weeks. Moreover, it was also noted that there was significant change in the number pupils who can moderately read “Bahagyang Nababasa” ang Pantig with five (5) percent decrease. The data likewise shows that there is an evident of four (4) percent decrease in the number of readers who cannot read syllables or “Hindi Nababasa ang Pantig with 25 percent in week one and 21 percent in week two respectively.

It is also reflected on the data given that there was no significant change in the number of readers who can read phrases or “Nababasa” ang “Parirala”. Likewise, the number of readers under Bahagyang Nababasa ang Parirala marks four (4) percent increase with 23 percent in week one and twenty-seven (27) percent in week two respectively. The number of readers who cannot read phrases or Hindi Nababasa ang Parirala posts four (4) percent decrease with sixty-four (64) percent in week one and sixty (60) percent in week two respectively.

As noted on the data presented under “PANGUNGUSAP” category, there is two (2) percent increase in the percentage of readers who can read sentences or Nababasa ang “Pangungusap” respectively. Moreover, “Bahagyang Nababasa” item marks four (4) percent increase with thirteen (13) percent in week one and twenty five (17) percent in week two respectively. The number of respondents who cannot read or “Hindi Nababasa” ang Pangungusap posts six (6) percent decrease with seventy-seven (77) and seventy-one (71) percent respectively.

The data also reveals that the most of the respondents or zero (0) percent could not read or “Maikling Kuwento” in week one. In second week, two (2) or four (4) percent were able to read or Bahagyang Nababasa ang Maikling Kwento. However, ninety-six (96) percent of the respondents could not read or Hindi Nababasa ang Maikling Kwento in week two respectively.

Table 3: Weekly Monitoring Progress Report January 2017

MONTH JANUARY	Week 1		Week 2		Week 3		Week 4	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
PANTIG								
Nababasa	25	48	27	52	32	62	37	71
Bahagyang Nababasa	14	27	14	27	15	29	8	15

Hindi Nababasa	13	25	11	21	5	9	7	14
PARARILA								
Nababasa	9	17	10	19	11	21	12	23
Bahagyang Nababasa	15	29	17	33	18	35	19	37
Hindi Nababasa	28	54	25	48	23	44	21	40
PANGUNGUSAP								
Nababasa	6	12	7	13	9	17	10	19
Bahagyang Nababasa	12	23	14	27	16	31	18	35
Hindi Nababasa	34	65	31	60	27	52	24	46
MAIKLING KWENTO								
Nababasa	0	0	1	2	4	8	6	12
Bahagyang Nababasa	8	15	10	19	11	21	13	25
Hindi Nababasa	44	85	41	79	37	71	33	63

The data show that there was nineteen (19) percent increase in the number of readers who can read syllables or “Nababasa” ang Pantig from week one to week four with forty-eight (48) percent, fifty-two (52) percent, fifty-eight (58) percent and sixty-seven (67) percent respectively. The result also reveals that the percentage of readers who can moderately read syllables or “Bahagyang Nababasa” ang Pantig is the same during week one to week two with twenty-seven (27) percent but slightly decreased to six (6) percent during week three and week four. The data likewise shows that there is an evident of fifteen (15) decrease in the number of readers who cannot read syllables or Hindi Nababasa ang Pantig with twenty-five (25) percent at week one, twenty-one (21) percent at week two, thirteen (13) percent at week three and ten (10) percent at week four. This signifies that the number of readers is consistently increasing and are able to read phrases or Pantig properly.

As noted on the data presented under Parirala, the number of readers who can read phrases or Nababasa ang Parirala is increasing every week with twenty seventeen (17) percent, nineteen (19) percent, twenty-one (21) percent, and twenty-three (23) percent respectively. Data also show that the number of readers who can read moderately or Bahagyang Nababasa ang Parirala has eight (8) percent increase with twenty-nine (29) percent, thirty three (33) percent, thirty five (35) percent, thirty seven (37) percent respectively. The number of respondents who cannot read phrases or Hindi Nababasa ang Parirala marks fourteen (14) percent decrease with fifty-four (54) percent, forty-eight (48) percent, and forty-four (44) percent and forty (40) percent respectively. This only proves that the reading ability of the respondents is improving and the readers can read phrases or Parirala well.

In Pangungusap category, there was a gradual increase, specifically seven (7) percent increase in the number of readers who can read sentences or Pangungusap from week one to week four with twelve (12) percent, thirteen (13) percent, seventeen (17) percent, and nineteen (19) percent respectively. The data shows that the number of readers who can moderately read sentences or Bahagyang Nababasa ang Pangungusap has twenty-five (25) percent increase from week one to week four with twenty-three (23) percent, twenty-seven (27) percent, thirty-seven (37) percent, and forty-eight (48) percent respectively. However, the number of respondents who cannot read sentences or Hindi Nababasa ang Pangungusap marks nineteen (19) percent decrease from week one to week four with sixty-five (65) percent, sixty (60) percent, fifty (52) percent, and forty-six (46) percent respectively. The result only shows that the number of readers who can read sentences or Pangungusap is continuously increasing while the number of respondents who cannot read sentences or Hindi Nababasa ang Pangungusap is constantly decreasing.

The data reveal that there is a gradual increase in the number of readers who can read short story or Nababasa ang Maikling Kwento with zero (0) percent, two (2) percent, eight (8) percent, and twelve (12) percent respectively. The table also shows that readers who can moderately read short story or Bahagyang Nababasa ang Maikling Kwento increases at an average of four (4) percent each week. Accordingly, the data shows that within four consecutive weeks, the number of readers who cannot read short a or Hindi Nababasa ang Maikling Kwento posted ten (10) percent decrease with fifteen (15) percent, nineteen (19) percent, twenty-one (21) percent, and twenty-five (25) percent respectively. This only proves that the reading ability of the respondents is continuously improving and the readers can now gradually read short stories through constant follow up reading sessions.

Table 4: Weekly Monitoring Progress Report February 2017

MONTH FEBRUARY	Week 1		Week 2		Week 3		Week 4	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
PANTIG								
Nababasa	39	75	40	77	42	81	45	87
Bahagyang Nababasa	7	13	8	15	9	17	4	8
Hindi Nababasa	6	12	4	8	1	2	3	5
PARARILA								
Nababasa	13	25	15	29	17	33	20	38
Bahagyang Nababasa	20	38	22	42	24	46	26	50
Hindi Nababasa	19	37	15	29	11	21	6	12
PANGUNGUSAP								
Nababasa	12	24	14	27	16	31	18	35
Bahagyang Nababasa	20	38	22	42	24	46	26	50
Hindi Nababasa	20	38	16	31	12	23	8	15
MAIKLING KWENTO								
Nababasa	8	15	10	19	12	23	14	27
Bahagyang Nababasa	15	29	17	33	19	37	21	40
Hindi Nababasa	29	56	25	48	21	40	17	33

The table shows that during the first to fourth week of February there is a twelve (12) percent increase in the number of pupils who can read syllables or “nababasa ang pantig”, Likewise, there is five (5) percent decrease on the number of readers who can moderately read syllables or “Bahagyang Nababasa ang Pantig”. Finally, it is noted that the number of respondents who cannot read syllable or Hindi Nababasa ang Pantig is continuously decreasing.

As to Parirala, data show that there is a thirteen (13) percent increase on the number of pupils who can read phrases or Nababasa ang parirala; twelve (12) percent increase on the number of pupils who can moderately read phrases or Bahagyang Nababasa ang Parirala; and twenty-five (25) percent decrease on the number of pupils who cannot read phrases or “Hindi Nababasa ang parirala”.

Moreover, there is eleven (11) percent increase on the number of pupils who can read sentences or “Nababasa ang Pangungusap” and twelve (12) percent increase on the number of pupils who can moderately read sentences or “Bahagyang Nababasa ang Pangungusap”, while twenty-three (23) percent decrease on the number of pupils who cannot read sentences or “Hindi Nababasa ang Pangungusap” is also noted.

As to Maikling Kwento, there is a twelve (12) percent increase on the number of pupils who can read short selection or story or “Nababasa ang Maikling Kuwento”; eleven (11) percent increase on the number of pupils who can moderately read short story or selection or “Bahagyang Nababasa ang Maikling Kuwento”, and twenty-three (23) percent decrease on the number of pupils who cannot read short sentences or “Hindi Nababasa ang Maikling Kuwento”. This implies that through intensive implementation of reading intervention among fifty-two (52) grade one pupils, the number of non-readers decreases for the past ten weeks of administration of the reading intervention.

Table 5: Weekly Monitoring Progress Report March 2017

MONTH MARCH	Week 1		Week 2		Week 3		Week 4	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
PANTIG								
Nababasa	42	81	41	79	45	87	47	90
Bahagyang Nababasa	10	19	11	21	7	13	5	10
Hindi Nababasa	0	0	0	0	0	0	0	0
PARARILA								
Nababasa	24	46	25	48	27	52	29	56
Bahagyang Nababasa	28	54	27	52	25	48	23	44
Hindi Nababasa	0	0	0	0	0	0	0	0
PANGUNGUSAP								
Nababasa	25	48	27	52	28	54	31	60
Bahagyang Nababasa	27	52	25	48	24	46	21	40
Hindi Nababasa	0	0	0	0	0	0	0	0
MAIKLING KWENTO								
Nababasa	18	35	21	40	28	54	41	79
Bahagyang Nababasa	34	65	31	60	24	46	11	21
Hindi Nababasa	0	0	0	0	0	0	0	0

The table shows the performance of pupils as to reading syllables or “pantig”, phrases or “parirala”, sentences or “pangungusap” and short story or “maikling kuwento” from the first to fourth week of March.

As to “pantig”, a nine (9) percent increase on the number of pupils who can read syllables or “nababasa ang pantig” is very evident during the first to fourth week of implementation of intervention” Project JOY. With regards to “bahagyang nababasa” nine (9) percent decrease is revealed on the number of pupils who can moderately read or “bahagyang nababasa ang pantig”. Likewise, zero (0) percent or no pupils cannot read syllables or “hindi nababasa ang pantig” anymore.

On the “parirala”, a ten (10) percent increase is noted on the number of pupils who can read phrases or “nababasa ang parirala”, ten (10) percent decrease on the number of pupils who can moderately read phrases or “bahagyang nababasa ang parirala” and almost one hundred percent of the respondents can now read phrases or “parirala”.

As to sentences or Pangungusap, the data reveal that there is twelve (12) percent increase on the number of readers who can read pangungusap well; twelve (12) percent decrease is noted on the number of readers who can moderately read or Bahagyang Nababasa ang Pangungusap; while it is also marked that the number of respondents who cannot read or Hindi Nababasa ang Pangungusap has totally decreased.

It is likewise reflected on the data that the number of readers who can read or Nababasa ang Maikling Kwento posts forty-four (44) percent increase; forty-four (44) percent decrease is marked on the number of pupils who can moderately read or Bahagyang Nababasa ang Maikling Kwento; while on the last week of the implementation of the intervention, zero (0) percent or almost all of the respondents can read Maikling Kwento. The data reveal that the Project JOY (Joyful learning that develops Outmost literacy in Yearning eradicated non-readers)) is very effective intervention reading program in ironing out problems in reading among grade one pupils.

What is the reading status of fifty-two Grade I pupils after the intervention program?

Table 6: Post – Reading Assessment Data After The Intervention Program

		Week 4	
MONTH	MARCH	Frequency (f)	Percentage (%)
PANTIG			
	Nababasa	47	90
	Bahagyang Nababasa	5	10
	Hindi Nababasa	0	0
PARARILA			
	Nababasa	29	56
	Bahagyang Nababasa	23	44
	Hindi Nababasa	0	0
PANGUNGUSAP			
	Nababasa	31	60
	Bahagyang Nababasa	21	40
	Hindi Nababasa	0	0
MAIKLING KWENTO			
	Nababasa	41	79
	Bahagyang Nababasa	11	21
	Hindi Nababasa	0	0

The data reveal that out of fifty-two grade one respondents who cannot even read simple “pantig”, “parirala”, “pangungusap” and “maikling kuwento” were able to read as reflected on the table with the aforementioned indicators

Table 7: Status Of Fifty-Two Grade One Pupils In Reading Before And After The Intervention Program

MONTH	DECEMBER	Week 1	
	2016	Frequency (f)	Percentage (%)
PANTIG			
	Nababasa	17	33
	Bahagyang Nababasa	22	42
	Hindi Nababasa	13	25
PARARILA			
	Nababasa	7	13
	Bahagyang Nababasa	12	23
	Hindi Nababasa	33	64
PANGUNGUSAP			
	Nababasa	5	10
	Bahagyang Nababasa	7	13
	Hindi Nababasa	40	77
MAIKLING KWENTO			
	Nababasa	0	0
	Bahagyang Nababasa	0	0
	Hindi Nababasa	52	100

MONTH	MARCH	Week 4	
	2017	Frequency (f)	Percentage (%)
PANTIG			
	Nababasa	47	90
	Bahagyang Nababasa	5	10
	Hindi Nababasa	0	0
PARARILA			
	Nababasa	29	56
	Bahagyang Nababasa	23	44
	Hindi Nababasa	0	0
PANGUNGUSAP			
	Nababasa	31	60
	Bahagyang Nababasa	21	40
	Hindi Nababasa	0	0
MAIKLING KWENTO			
	Nababasa	41	79
	Bahagyang Nababasa	11	21
	Hindi Nababasa	0	0

The table shows the result of the four months of implementation of the Project JOY reading intervention from December 2016 up to March 2017 respectively. It is shown that there is fifty-seven (57) percent increase on the number of readers who can read or Nababasa ang Pantig with thirty-three (33) percent and ninety (90) percent respectively; thirty-two (32) percent decrease on the number of respondents who can moderately read or Bahagyang Nababasa ang Pantig with forty-two (42) percent and ten (10) percent respectively; and twenty-five (25) percent decrease on the number of respondents who cannot read or Hindi Nababasa ang Pantig. This only implies that the respondents are able to read PANTIG.

As to Parirala, there is forty-three (43) percent increase on the number of learners who can read or Nababasa ang Parirala with thirteen (13) percent and fifty-six (56) percent respectively; twenty-one (21) percent increase on the number of respondents who can moderately read or Bahagyang Nababasa ang Parirala with twenty-three (23) percent and forty-four (44) percent correspondingly; and sixty-four (64) percent decrease on the number of pupils who cannot read or Hindi Nababasa ang Parirala. This means that most of the respondents are able to read PARIRALA.

Under Pangungusap category, it marks fifty (50) percent increase on the number of respondents who can read or Nababasa ang Pangungusap with ten (10) percent and sixty (60) percent respectively; twenty-seven (27) percent increase on the number of readers who can moderately read or Bahagyang Nababasa ang Pangungusap with thirteen (13) percent and forty (40) percent respectively; and seventy-seven (77) percent decrease on Hindi Nababasa ang Pangungusap.

In terms of Maikling Kwento, it is noted that there is seventy-nine (79) percent increase on the number of respondents who can read or Nababasa ang Maikling Kwento; twenty-one (21) percent increase on Bahagyang Nababasa ang Maikling Kwento; and one hundred (100) percent decrease on the number of respondents who cannot read or Hindi Nababasa ang Maikling Kwento.

This implies that Project “JOY”, an intervention program to improve the reading level of Grade I pupils was really effective.

Conclusion

Based on the findings, the following conclusions were drawn:

The entire fifty-two (52) selected Grade one pupils included in the study could read “Pantig”, “Parirala”, and “Pangungusap” after the fourteen-week intervention program in reading.

The number of pupils who could read Pantig, Parirala, Pangungusap and Maikling Kuwento has increased the reading ability of the fifty-two (52) selected Grade one pupils in Filipino.

The reading ability of the selected Grade one pupils under the Project-JOY was improved, thus, the said intervention program was effective and could help learners who have struggles in reading especially to nonreaders.

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Does different Inventories tell the similar stories? A comparison of Different Learning Style Inventories on students in the higher education

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Abstract

Over the years, numerous researches have been performed to look into different aspects of learning styles among students in the higher education. In these research publications, various inventories have been adopted to look into the learning styles among students. To name a few, some inventories measures if students are a Visual, Auditory or Kinaesthetic learners; some returns the results that reflecting students as Active-Reflective, Sensual-Intuitive, Visual-Verbal and Sequential-Global students; there are also inventories that inform student as a navigator, a problem solver or an engager. The understanding of these learning styles will help the lecturers in their design of the delivery of lecture to suit students' learning styles to achieve deep learning among students. This research seek to look into similarities and differences among these inventories, that if these inventories are consistent to each other and telling the similar of learning styles of a group of engineering students in an institution in Malaysia, which have been chosen as the pilot study in this area.

Introduction

In order to make the teaching and learning in the classroom more effectively, the lecturer will need to first to have knowledge of their counterpart – students. The learning preferences of a student can be determined by using the learning styles inventories. There are many learning style inventories available to study how students learn. Each of them consists of various questions to test on different types of learning styles. All the students have to do is just answer the questions on those inventories. Few of these learning styles inventories are briefly introduced here.

ATLAS (Assessing The Learning Strategies of AdultS) Learning Strategies developed by (Conti & Fellenz, 1991) consists of questions related to learning in real-life situations which one is able to control the learning situation. The instrument categories the learning styles into types of engagers, navigators and problem solvers. Each of this type is further divided into two subtypes. Despite the confusing questions posted, the concept is interesting and easy to implement.

The *Index of Learning Styles* formulated by Felder and Soloman of North Carolina State University is an on-line instrument used to evaluate preferences on four dimensions namely active/reflective, sensing/intuitive, visual/verbal, and sequential/global. The instrument consists of 44-item questions to evaluate the learning style of a person.

DVC Learning Style Survey for College (Jester, 2000) (DVC) helps the learner to determine the learning style in the categories visual-nonverbal, visual-verbal, auditory-verbal, tactile-kinesthetic from 32-item questions online. Statements such as, "I tend to 'doodle' during lecture by drawing on my notebook pages" are posted and the learner needs to respond by clicking one of a set of three radio buttons labeled "Often, Sometimes, Seldom".

Barsch Learning Style Inventory (Barsch, 1991) (BARSCH) contains 24 questions written in the first person, such as, "I can tell if sounds match when presented with pairs of sounds." The learner is given

three choices – “Often, Sometimes, and Seldom”. Three learning styles are tested, namely Visual, Auditory, and Tactile (Kinesthetic).

VARK® A Guide to Learning Styles (Fleming, n.d.) (VARK) informs the person about his/her learning style which are categorised to be Visual, Aural, Read/Write or Kinaesthetic. The inventory is applicable not only to students but also adults, parents and co-workers. It is a well-received inventory due to its practicability and easily understandable results. The inventory has been assisting people to understand each better and has been helping them to learn more effectively.

Resulting from the researchers conducted based on various inventories, (Reid, 1987) and (Koh & Chua, 2012) mentioned that students in hard sciences or engineering possessed Visual learning style as major learning style, as compared to students in humanities majors. On the non-engineering students, studies by (Lujan & DiCarlo, 2005) and (Anu & Anuradha, 2012) showed that Kinaesthetic learning style is the one preferred by Medical Students. Interestingly, computing students showed a similar trend as engineering students, where from the comparison of results from Koh (2008) and (Amran, et al., 2011) reveals that the sequence of learning style preference for engineering and computing students is the same, that is, Visual learning style is the most preferred and Kinaesthetic learning style is the least preferred.

This paper focuses on the comparison of the learning preference of students in Mechanical Engineering through the use of BARSCH, DVC and VARK and seek if these three inventories are able to return the similar results in predicting students’ learning preference.

Methodology

Three learning preferences inventories, BARSCH, DVC and VARK are used in this research, as they are producing very similar learning preferences which are in the categories of Visual, Auditory and Kinaesthetic. Through these inventories, the learning styles among the students are categorised into 7 categories, namely

- Visual (V), where students’ learning is mainly based on the “looking”. This may be including the use of mind map, notes taking, visualisation of the concept in mind and information gathering through reading.
- Auditory (A), where student’s learning is mainly based on the “hearing”. This may be including the Podcast and information gathering through listening.
- Kinaesthetic (K), where students’ learning is mainly based on the “touching”. This may be including the laboratory works, prototype building, model construction, and information gathering through physical involvement.
- Visual and Auditory (V+A), where students’ learning is achieved through Visual and Auditory equally.
- Visual and Kinaesthetic (V+K), where students’ learning is achieved through Visual and Kinaesthetic equally.
- Auditory and Kinaesthetic (A+K), where students’ learning is achieved through Auditory and Kinaesthetic equally.
- Visual, Auditory and Kinaesthetic (V+A+K), where students’ learning is achieved through All three types of basic learning styles.

The sample of students consists of 32 students from Bachelor of Engineering (Hons) in Mechanical Engineering in University Tenaga Malaysia. Students answered the learning preferences inventories and the results are analysed based on students’ responses.

Consistency of the Inventories

Looking into the three inventories, BARSCH, DVC and VARK, it can be seen that these three inventories are “telling the same story” about the learning preferences of an engineering student. Out

of the 32 students who have taken the same questionnaires, the inventory returned the similar analyses for 28 students, which, in other words, they are agreeing that the student is having specific learning preferences. Of these three results, the VARK returns the most relevant results of a student's learning preference.

Figure 1 shows the learning preference distribution among the sample of students who are involved in the study. The results is obtained from the analyses of the students' score of each of the inventory. Both BARSCH and DVC inventories refers the category with highest score as the dominant learning preference, while VARK looks into the pattern of distribution of the scores before determining the learning preference. The example of determination of these three inventories is shown in Figure 2.

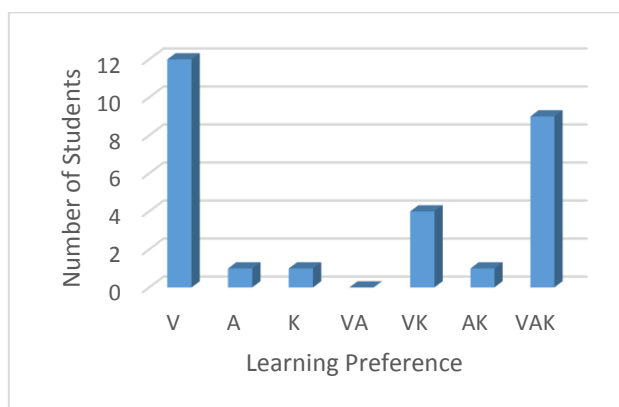


Figure 1: The distribution of learning preference among 28 students who are involved in the study, where V refers to Visual, A is Auditory and K refers to Kinaesthetic.

BARSCH				DVC				
Visual	Auditory	Kinaesthetic		Visual/ Nonverbal	Visual/ Verbal	Tactile/ Kinaesthetic	Auditory/ Verbal	
36	18	32		36	26	38	26	

VRAK			
Visual	Aural	Read/ Write	Kinaesthetic
10	5	6	11

Figure 2: Example of determination of learning preference of a student through BARSCH, DVC and VARK inventories.

Referring to Figure 2 as an example of a student, BARSCH and DVC chooses the category of the highest score as the dominant learning preference, which, in this case, Visual in BARSCH and Kinaesthetic in DVC. If the student is doing the BARSCH inventory, he/she may be feeling that his/her learning style is Visual, but the story would be different if DVC is used, where the dominant learning style is Kinaesthetic. This confusion is made clear when one is taking the VARK inventory, where the result of the inventory suggest that the student possess the multimodal learning style – Visual and Kinaesthetic. This has somehow confirmed the results from BARSCH and DVC individually.

It is, however, one should not come to the conclusion that VARK is a better inventory in comparison to BARSCH and DVC, as there is no evident to proof that VARK is more reliable in measuring the learning preferences in comparison to the other two. Furthermore, closer analyses on BARSCH and DVC reveals

that they are reflecting the similar analyses as VARK, only the fact that the approach of determination of the learning preference is different. In Barsch, although Visual is determined to be the learning preference, but the scores of Visual and Kinaesthetic are close, where both category are showing a scores of 38 and 36, respectively. On the other hand, looking at the DVC inventory, again, although the mentioned learning preference is Kinaesthetic, the scores for Visual and Kinaesthetic is recorded to be as 36 and 38, respectively, which is close.

Another approach of analyses has been taking into consideration to further look into if the predicted learning preference is consistent with each other by summing up the score of each category. For example, in Figure 2, the total score of Visual style is summed up to be 82 ($36 + 36 + 10$). The total of the score is then analysed and a sample is presented in Table 1:

Table 1: The total score of the learning preference of BARSCH, DVC and VARK.

Visual	Auditory	Kinaesthetic
82	49	81

One observation of such analysis is that, the dominant learning preferences will have a total score that have a distinctive differences to the non-preferred learning styles. In this case, the student who is having a dominant learning preference of Visual and Kinaesthetic have a similar score in these two categories, but a very different score in the other categories. This pattern is consistent in the other 28 valid observation of the samples.

Such analysis of the results has given rise to the realisation that when studying the learning preferences of a student, one may consider using more than one inventory to get the better picture of the learning preference of a student. For example, in this case, if one considers using only BARSCH or DVC inventory, the results that shows the learning style of the student is valid, but is limited to one learning style. To explain this in more detail, using the BARSCH inventory reveals that student possess the visual learning preference, and one may be thinking that the student would only be having such learning preference, as in the BARSCH inventory analysis, a person who is possessing multimodal learning preference of Visual and Kinaesthetic would be having the same score in both categories.

Through the use of more than one learning preference inventory, one may see that the learning preference of a student may be of more than just a single modal but a multimodal one. This results also give a better understanding and improvements to the analyses that was presented by (Koh & Chua, 2012), which claimed that dominant learning preferences among engineering student is Visual, which, through the current study, can be a combination of visual and other learning preferences.

It should be highlighted that the Visual/Verbal category in DVC and Read/Write category in VARK is no considered in this study as to make sure that the comparison between the three inventories are made consistent, that only Visual, Auditory and Kinaesthetic are considered. However, the extension of the analysis these two preferences also confirms the consistency of the inventories. For instance, in the DVC inventory, the result also reveals that the student has the low score of Visual/Verbal category, further proving that Auditory learning style is not preferred by the student. The student may not be able to be benefited from the lecture, if the lecturer is purely talking throughout the lecture, rather than drawing on the board and demonstrate the concepts through hands-on examples. Through VARK inventory, which has break the Visual learning preference into smaller categories, Read/Write helps the educator to understand that pictures, graphs or gestures are best helping student to learn in comparison with words. Hence, if the lecturer understands that students in the class are not of the Read/Write learning preferences but other visual learning preferences, then the lecturer may be reorganise the lecture contents to be more graphical and visual based, for which including multimedia into the lecture would be the best to address students with low Read/Write learning preferences.

Inconsistency of the results

It was mentioned in the last section that 28 out of 32 samples showed the consistency in the results, where the three inventories are returning the similar results of a student's learning preference. However, one should also be looking into the inconsistency part of the results, which are shown in Figures 3 for BARSCH, DVC and VARK inventories, respectively.

Sample	BARSCH				DVC			
	Visual	Auditory	Kinaesthetic		Visual/ Nonverbal	Visual/ Verbal	Tactile/ Kinaesthetic	Auditory/ Verbal
1	30	20	22		22	22	34	14
2	32	14	32		38	24	36	26
3	32	26	26		30	26	36	32
4	32	20	30		32	32	36	32

Sample	VARK				TOTAL		
	Visual	Aural	Read/ Write	Kinaesthetic	Visual	Auditory	Kinaesthetic
1	5	10	12	5	57	44	61
2	4	12	7	7	74	52	75
3	6	13	7	13	68	71	75
4	11	13	13	14	75	65	80

Figure 3: The determination of learning preference of four students through BARSCH, DVC and VARK inventories.

Through Figure 3, it can be seen that the three inventories are telling different story about these four students, where one inventory feel that students are of Visual learning preference, while the other feel that the student is possessing the Auditory learning preference. Just when one wishes to look into the third inventory to see if there is any common learning preference, the last inventory returns the results telling that the student is learning through Kinaesthetic learning style. Interestingly and coincidentally, the three inventories are being consistent in telling their views of the students' learning preference. BARSCH inventory feels that students learning through Visual, while DVC inventory has the opinion that students learn best through Kinaesthetic learning style. The plot thickens when VARK inventory insists that the students are learning through Auditory learning style.

The behaviour of the total score of these four students also shows that it is hard for one to observe the learning style through the total scores as there is no distinctive differences between the scores. Such total possess the similar pattern as those who are having the Visual, Auditory and Kinaesthetic learning preference. However, scores from individual inventory is still the basic reference in this study.

With a small number of students having such behaviour, the possible explanation to this scenario would be the lack of understanding among students towards the questions given to them, or the difficulties in following the instruction when answering the questions. One possible way to further analyse the exact learning style of these students would be a face-to-face focus group or individual chatting session to find out their learning preferences. This can be done with strategised questions and answers for the students, or the use of additional learning style inventories.

Conclusion

This paper presented the comparison of the learning preference inventories, namely Barsch Learning Style Inventory, DVC Learning Style Survey for College and VARK® A Guide to Learning Styles to seek if the inventories are producing the similar results about a student's learning preference. The analyses shows that although the inventories produced the similar results, it also provided in an important insight to the researcher that the one may need to seek for more inventories to obtain a better understanding about a student's learning preference, as dependency on one inventory may be giving a partial understanding of the preference but not full understanding.

There are also cases where the inventories are producing different results or showing inconsistency about a student's learning preference. In adjusting this, it is proposed to have the focus group to gain further understanding on student's learning preference, and to seek other learning inventories to assist in getting a clearer picture of the learning preference.

Looking into the development of the research in the future, the analyses of the learning preference is extended to the comparison of the learning preferences including the use of other inventories including ATLAS (Assessing The Learning Strategies of AdultS) Learning Strategies, the Index of Learning Styles and Kolb's Learning Styles. The inclusion of these learning preference inventories help in provide a wider view on students' learning preference, as these inventories are also talking about students' behaviour in the learning, such as Navigator, Engager and Problem Solver in ATLAS, and Active/Reflective, Sensing/Intuiting, and Sequential/Global behaviour in the Index of Learning Styles.

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Analysis of the Licensure Examination Ratings of the Education Graduates of De La Salle University-Dasmariñas

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Abstract

Before Education graduates can practice their profession in the Philippines, they are required to pass the Licensure Examination for Teachers (LET) given by the Professional Regulation Commission (PRC). This study analyzed the performance ratings of the Education graduates of the College of Education (COEd) of De La Salle University-Dasmariñas from 2007 to 2016. It was noted from the official ratings released by the PRC that the college passing rates are generally above the national passing rates both for the elementary and secondary levels, with the first-time takers getting higher ratings than the second-time takers. In terms of the scope of the examination, both the elementary and the secondary level takers got higher ratings in the general education component. The COEd administration should use the results of the study in coming up with creative measures on how to help its graduates further improve their passing rates in the LET so that the college can retain its status as a Center of Excellence in Teacher Education.

Keywords

Licensure examination, Teacher education, Passing rates, Elementary teachers, Secondary teachers

Introduction

The practice of the teaching profession in the Philippines is governed by the provisions of Republic Act (RA) No. 7836, otherwise known as the Philippine Teachers Professionalization Act of 1994. This law aims to promote, develop and professionalize the teachers and the teaching profession. It requires all applicants for registration as professional teachers to undergo a written examination called the Licensure Examination for Teachers (LET) given by the Professional Regulation Commission (PRC).

The act of licensing teachers or certifying them is not only done in the Philippines. It is also required in the United States of America where all certification programs are designed to give future teachers the skills needed to write and implement effective lesson plans that deliver the content of the required curricula, manage classroom behavior, assess student progress, and work within a professional framework (<http://www.teachercertificationdegrees.com/>). Specifically in one state, the purpose of the educator certification is to support the academic achievement of the students by assuring that their educators are professionally qualified for highly effective instruction (<http://www.fl DOE.org/teaching/certification/>).

Likewise, in Canada, the practice of the teaching profession is regulated by Section 198 of the Education Act, 1995 which states that “No person shall be engaged, appointed, employed or retained as a teacher or principal in any school unless that person holds a valid teacher’s certificate” ([http://www.sptrib.ca/web/](http://www.sptrib.ca/web/SPTRB/Certification) SPTRB/Certification and [Registration/Certification/](http://www.sptrib.ca/web/Registration/Certification/)

SPTRB/Certification_and_Registration/Certification.aspx?hkey=6b376901-39b5-42db-8a5f-17ca75158320).

These show how important it is for the teachers to be licensed or certified before they can practice their profession. Both certification tests and licensure tests can be referred to as credentialing examinations since they permit individuals who have demonstrated the required knowledge and/or skills deemed sufficient to practice competently and obtain the status of a credential or some form of recognition (<http://www.testpublishers.org/testing-in-certification-licensure-settings>). Similarly, Hertz and Chinn (2000) stated that the sole purpose of a licensing examination is to identify persons who possess the minimum knowledge and experience necessary to perform tasks on the job safely and competently. To Owens (2015), certification and licensure examination programs aim to evaluate the examinees' minimal competence in a specific field. It means that if the teachers pass the required certification or licensure examination, they are qualified to perform their tasks effectively as facilitators of their students' learning. Allen (2010) added that adequately qualified teachers are those that are fully licensed or certified and have the subject knowledge required by licensure or endorsement in the field to be teaching the class. This relates to the results of a 2001 study from the National Research Council (NRC) on teacher licensure examinations that the current initial licensure examinations may indeed be valid assessments of a teacher's subject knowledge. The study also revealed that a higher score on examinations of subject knowledge is likely to be correlated with greater grasp of the subject (Mitchell, Robinson, Plake, and Knowles, [Eds.], 2001).

In the Philippines, the LET is administered to determine the fullness of applicants for admission to the practice of teaching. This was emphasized by former PRC Commissioner Hermogenes Pobre (as cited in Legaspi, 2000). The results of the LET are also used by the Commission on Higher Education (CHED) to monitor the performance of the teacher education institutions (TEIs) in the country. The TEI may be closed if its LET performance is below the national passing rates for a certain number of years. Because of the importance of the LET, several researches were conducted about this to study the trend in the institution's performance and to make the necessary changes in the school policies and procedures for the improvement of the LET ratings.

One such study was done by Legaspi and Camarse (2009) who determined the predictors in the LET performance of the De La Salle University-Dasmariñas (DLSU-D) Education graduates. They found out that although high school GPA and the grades in the professional education courses can predict the LET performance, the grades in the general education courses and major courses are still the best predictors of success in the LET. With this, they recommended modifications in the admission and retention policies of their college focusing on the said variables. They also suggested the close coordination to be done with the servicing departments teaching the general education and major courses and the type of examination to be given to the students.

Another study was done by Figuerres (2013). Her findings showed negatively skewed distributions of LET scores in general education, professional education and specialization courses. This indicated that, relative to the mean score, there were more examinees who garnered higher scores compared with those who obtained lower scores. The examinees had extreme scores hence, they exhibited platykurtic distributions. The institutional passing rates for the elementary level were consistently higher than the national passing rates. She concluded that specialization is significantly correlated with LET performance.

Antonio, Malvar, Ferrer, and Pambuena (2016) also did a study on the LET performance of their institution. Their findings revealed that the BSE major in English have their lowest academic performance and LET performance in general education subjects, among which were General Statistics and College Algebra. The BSE major in Mathematics, on the other hand, have their lowest academic performance and LET performance in the general education subjects, among which were Study and Thinking Skills in English and Philippine Literature. A very weak linear relationship existed between the academic performance and LET performance of the students with respect to the general education subjects. There were also weak linear relationships between the academic performance and LET performance of the students in terms of professional education and field of specialization subjects. As

a whole, there was a moderate linear relationship between the academic performance and LET performance of the students.

In the study made by Ferrer, Buted, and Ferrer (2015), they found out that gender, high school average grade, college entrance score, attendance to review class and academic performance significantly predict LET performance. They suggested that in the event that male and female applicants are tied along admission requirements, males should be given due consideration. Generally, they recommended that universities need to intensify admission requirements and retention policies. School administrators must provide their graduates with review classes and the faculty members should prepare examinations based on the LET examination format.

Although the study made by Ong, Palompon, and Banico (2012) focused on the nursing licensure examination, their conclusion that the students' academic performance in their baccalaureate program and their performance in the pre-board examination are significant bases in determining their success and failure in the licensure examination is worth noting.

Similarly, Dotado-Maderazo and Ercia (2017) found out in their study of dentist licensure examination that mock board can be a good diagnostic tool to identify the graduates' strength and weakness before taking the board examination.

In order to determine how the DLSU-D Education graduates fared in the LET from 2007 to 2016, this study was done as a continuation of the previous study which made use of the 1997 to 2006 data of the COEd's LET performance.

Specifically, the following questions were answered:

What is the percentage of passing of the Education graduates in the LET from 2007 to 2016 as compared to the national passing rate?

What is the performance of the Education graduates in the subject areas covered in the licensure examination?

What course of action can be taken by the administration of the COEd to improve the LET performance of their graduates?

This study made use of documentary analysis technique in analyzing the 2007 to 2016 ratings of the Education graduates in the LET. The document used was the official results of the LET released by the PRC from 2007 to 2016 which contained the institutional passing rate, national passing rate and the individual ratings of the graduates in the subject areas covered in the examination. The mean of the ratings per subject area was taken. One limitation of the study was the missing record of the April 2010 results for the individual takers, although the institutional passing rates were present.

It can also be noticed in the study that there were differences in the number of subject areas for the elementary takers. Generally, there were only two subject areas covered in the LET for the elementary level: general education courses worth 40% and professional education courses worth 60%. However, there were certain years when three subject areas were included: general education courses (20%), professional education (40%), and specialization courses (40%). For the secondary level, three areas are covered throughout the years: general education courses (20%), professional education (40%), and specialization courses (40%).

Results and Discussion

Problem 1. What is the percentage of passing of the Education graduates in the LET from 2007 to 2016 as compared to the national passing rate?

Table 1. Performance Rating of the Education Graduates in the LET from 2007 to 2016

Schedule of Examination		Secondary	National Passing	Elementary	National Passing
2007, August	First Timers	71.26		60.61	
	Repeaters	25.00		27.27	
	Overall	62.62	29.12	52.27	27.55
2008, April	First Timers	65.22		50.00	
	Repeaters	20.00		0.00	
	Overall	57.14	25.09	25.00	26.52
2008, September	First Timers	70.97		64.00	
	Repeaters	25.93		23.08	
	Overall	62.91	35.34	50.00	30.47
2009, April	First Timers	85.71		75.00	
	Repeaters	35.71		50.00	
	Overall	60.71	24.68	57.14	27.86
2009, October	First Timers	73.44		72.73	
	Repeaters	17.24		0.00	
	Overall	55.91	28.20	45.71	19.93
2010, April	First Timers	83.33		50.00	
	Repeaters	29.17		9.09	
	Overall	52.38	23.32	15.38	15.40
2010, September	First Timers	78.26		52.38	
	Repeaters	8.00		0.00	
	Overall	59.57	25.86	40.74	19.45
2011, April	First Timers	83.33		66.67	
	Repeaters	11.11		20.00	
	Overall	47.22	26.28	30.77	15.75
2011, September	First Timers	73.44		53.33	
	Repeaters	21.43		5.26	
	Overall	57.61	31.45	26.47	22.68
2012, March	First Timers	69.23		100.00	
	Repeaters	31.03		60.00	
	Overall	49.09	24.85	66.67	42.46
2012, September	First Timers	89.58		70.00	
	Repeaters	30.00		27.27	
	Overall	66.67	43.50	47.62	49.29

2013, March	First Timers	96.15		100.00	
	Repeaters	56.67		30.00	
	Overall	75.00	39.61	36.36	27.78
2013, September	First Timers	71.25		75.00	
	Repeaters	26.32		5.56	
	Overall	56.78	39.75	50.00	31.18
2014, January	First Timers	88.00		100.00	
	Repeaters	31.58		43.75	
	Overall	53.97	28.41	47.06	28.98
2014, August	First Timers	72.92		75.86	
	Repeaters	11.11		19.05	
	Overall	56.06	34.41	52.00	35.74
2015, March	First Timers	69.23		80.00	
	Repeaters	46.67		31.25	
	Overall	57.14	31.64	42.86	27.42
2015, September	First Timers	80.49		83.33	
	Repeaters	27.03		13.33	
	Overall	63.87	41.75	56.41	31.36
2016, March	First Timers	78.95		77.78	
	Repeaters	47.83		25.00	
	Overall	67.21	35.43	47.62	28.39
2016, September	First Timers	63.49		61.54	
	Repeaters	23.08		0.00	
	Overall	51.69	33.78	47.06	30.18

Table 1 shows the LET performance of the Education graduates from 2007 to 2016. It can be noted that in the 19 times that the examination was administered, the overall passing rates of the secondary level takers are always above the national passing rates, which consistently remain below the 50% passing during the duration of the study. Likewise, the first-timers maintained passing rates above the national passing rates throughout the years. However, there are 12 times when the passing rates of the repeaters are below the national passing rates (August 2007, April 2008, September 2008, October 2009, September 2010, April 2011, September 2011, September 2012, September 2013, August 2014, September 2015, and September 2016).

Looking at the performance of the elementary level takers, there are two times when their overall passing rates are below the national passing rates (April 2010 and September 2012). The first-timers, on the other hand, maintained passing rates higher than the national passing rates throughout the years, with three records of 100% passing (March 2012, March 2013, and January 2014). However, there are 13 times when the passing rates of the repeaters are below the national passing rates (August 2007, April 2008, September 2008, October 2009, April 2010, September 2010, September 2011, September 2012, September 2013, August 2014, September 2015, March 2016, and September 2016) and four times when they got 0.00% (April 2008, October 2009, September 2010, and September 2016).

It is sad to note that the repeaters generally do not perform well in the examinations which pull down the overall rating of the COEd. Interview with the COEd faculty revealed that these repeaters normally were the students who barely passed their subjects during their stay in the college. Further perusal of the documents show that certain graduates continuously take the LET every year but still fail. This is one area that should be looked into by the COEd administration.

Another matter that should be addressed is the fact that the LET results given by the PRC contained the ratings of all DLSU-D graduates who took the LET, regardless of the bachelor's degree that they finished, since the PRC allowed non-Education graduates to take the LET provided that they completed 18 units of professional education courses. Reports of ratings should be separated for a better intervention program both for those who completed the Education degree from the college and those who just took the 18-unit requirement.

Problem 2. What is the performance of the Education graduates in the subject areas covered in the licensure examination?

Table 2. Performance Ratings of the Education Graduates in the Subject Areas Covered in the LET

Date of Examination	Secondary					Elementary			
	Subj1	Subj2	Subj3	Average		Subj1	Subj2	Subj3	Average
2007, August	73.49	73.09	74.85	73.87		71.73	71.82		71.79
2008, April	72.57	73.93	74.68	73.96		63.00	63.25		63.15
2008, September	76.23	74.21	73.87	74.48		74.05	69.97		71.61
2009, April	74.61	72.75	73.80	73.54		71.29	71.00		71.11
2009, October	73.46	70.54	73.03	72.44		68.51	65.57	69.63	67.79
2010, April									
2010, September	72.39	71.98	73.23	72.57		67.07	68.96	70.19	68.70
2011, April	72.72	72.14	69.42	71.13		66.31	67.38	71.23	68.71
2011, September	72.52	72.23	73.93	72.96		65.35	63.68	66.12	64.99
2012, March	71.04	71.91	72.09	71.79		73.08	72.92	75.83	74.12
2012, September	76.33	75.42	74.40	75.18		72.19	70.57		71.22
2013, March	80.16	74.55	76.14	76.31		69.27	71.18		70.42
2013, September	73.64	71.83	75.10	73.50		72.42	70.74		71.41
2014, January	73.73	72.03	72.59	72.58		70.82	71.47		71.21

2014, August	73.76	71.89	72.91	72.67		71.88	70.06		70.79
2015, March	75.05	72.45	74.00	73.59		71.10	70.43		70.70
2015, September	76.30	74.56	73.23	74.36		70.41	71.23		70.90
2016, March	76.07	73.75	74.41	74.48		71.05	70.52		70.73
2016, September	79.44	72.31	71.73	73.51		70.24	75.62		73.46
Average	74.64	72.87	73.52	73.50		69.99	69.80	70.60	70.16

Table 2 displays the subject area ratings of the Education graduates. For the secondary level, the highest rating is noted on general education courses (Subject 1) with a mean of 74.64, followed by specialization courses (Subject 3) with a mean of 73.52, and with the lowest rating noted on professional education courses (Subject 2) with a mean of 72.87. The highest individual grade received for the general education courses was 80.16 while the lowest was 71.04. For the specialization courses, the highest grade was 76.14 while the lowest was 69.42. For the professional education courses, the highest grade was 75.42 while the lowest was 70.54. Looking at the individual ratings, it can be noticed that the lowest grade was on specialization courses. It can be deduced from these data that secondary level graduates performed better in general education courses because these subjects were the introductory parts of their specialization courses, where they also fared well. This result proves the point raised by Legaspi and Camarse (2009) that the grades in the general education courses and major courses are still the best predictors of success in the LET.

For the elementary level, the highest rating was noted on general education courses with a mean of 69.99 while the professional education courses got a mean of 69.80. The highest individual grade received for the general education courses was 74.05 while the lowest was 63.00. For the professional education courses, the highest grade was 75.62 while the lowest grade was 63.25. Although the mean rating for the general education courses was a little higher than the mean rating for the professional education courses, the highest individual grade for the professional education courses was better than that of the general education courses. During the times when specialization courses were included in the examination for the elementary level, the mean rating was 70.60 with 75.83 as the highest grade received by the individual taker and 66.12 as the lowest grade.

Problem 3. What course of action can be taken by the administration of the COEd to improve the LET performance of their graduates?

Although DLSU-D COEd is designated as a Center of Excellence in Teacher Education, it has to improve its LET performance.

Results of the study showed that the first time takers generally perform well in the LET although the 100% passing rate is still not attained. To target a higher percentage passing in the LET and ultimately reach the 100% passing rate for the first timers, the COEd administrators need to look into their admission and retention policies. There is a great need to be stricter in the quality of students accepted and in the implementation of the college's retention policy since various researches have proven the predictive validity of the students' academic performance to their board examination performance. There is also the need to check how the general education, professional education and specialization courses are taught and what kind of examination is given. The Table of Specifications (TOS) provided by the PRC on the contents of the examination should be the basis of the competencies taught to the students with the use of the multiple choice type of test as the format of the major examination. As proven by the different researches made on the various licensure examinations, review classes and a mock examination should be made part of the requirements of the students before graduation to increase their chances of success in the board examination.

Results also showed that the repeaters performed poorly in spite of the number of retakes that they made. To increase their chances of passing, the COEd should prepare a “remedial” program for these graduates composed of mentoring on how to take the test and a review of the basic competencies included in the LET. A session on enhancing one’s confidence can also be inserted in the program to give these graduates the necessary boost to believe in their capacity to pass the LET.

The COEd should also differentiate its own graduates from all the other takers of LET as reflected in the institutional report provided by PRC. This will enable the college to prepare the correct intervention program for these two groups of takers.

In terms of the subject areas covered, it was noted that both in the secondary and the elementary levels, the professional education courses received the lowest mean ratings. Since the professional education courses represent the component of the curriculum that aims to develop the range of knowledge and skills needed in the practice of the teaching profession (CMO 30, S. 2004), there is a need to improve the performance of the graduates in this component since this pertains to the teaching competence of the Education graduates - how to teach. The COEd administrators should ensure that their own teachers who are teaching the professional education courses are well-equipped with the necessary knowledge and skills in teaching that they can pass on to their students. There should be a regular updating of these teachers on the latest trends in methods and strategies in teaching.

Conclusions and Recommendations

From 2007 to 2016, the overall passing rates of the secondary level takers are always above the national passing rates. Likewise, the first-timers maintained passing rates above the national passing rates during the period covered. The overall passing rates of the elementary level takers are above the national passing rates except for April 2010 and September 2012. The first-timers, on the other hand, maintained passing rates higher than the national passing rates during the period covered. For both levels, the repeaters performed poorly, with their passing rates generally below the national passing rates which pulled down the institutional LET performance.

In terms of the subject areas covered, both elementary and secondary level takers have the highest ratings in the general education component and the lowest ratings in the professional education component.

To maintain its status as a Center of Excellence in Teacher Education, the COEd has to improve its LET performance. To achieve this, it has to be strict in its admission and retention policies. It should religiously monitor the kind of instruction provided by the faculty handling the general education, professional education, and specialization courses. It should ensure that the competencies prescribed in the TOS of PRC are developed among its students. It should check the type of examination given by the faculty members, requiring them to follow the format of the LET examination. It should also develop a special program for its graduates who, throughout the years, failed the LET. Improving the performance of its repeaters will pull up the institutional rating of the COEd.

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Digital Divide in Thai Academic Community: A Case Study of Thailand's Large Public University

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Abstract

For many years, most universities in Thailand have been facing many growing and important socioeconomic issues - one of them is the declining numbers of enrolled students. In addition, technological revolution is challenging higher education business model as well, for example, many universities face a new major competitor in form of massive open online course, or MOOCs. This results in some universities already added digital classes to their syllabus. While the digital readiness or e-readiness seems to be one of the most important competencies of the university in this digital era, its “digital divide” in academic community exists. The term “digital divide” is traditionally used to connote the differing standard among different groups of people in term of their ability to access to digital technologies. Now, such term also includes the issues emphasize on the degree to which people succeed or struggle when they use technology to try to search for information, solve problems, and make decisions. In this paper, digital divide means the imbalances among different people in term of their adoption of digital technology for adult learning in higher education context. This paper discusses the digital divide in Thai academic community by comparing the e-readiness among different groups of university staffs. The study's analysis also explores attitudes and behaviors that underpin university staff preparedness in using digital tools for learning. The study will provide a case study necessary for the higher education's management when the digital readiness assessment is the key for university's strategic decision making.

Keywords

Digital divide, Digital readiness assessment, Higher education

Introduction

Today's universities worldwide are facing an increasing complex and challenging environment. Information and communication technology (ICT) has become an indispensable part of both workplace and our own leisure activities. Many countries, for example, Ireland, Australia, Belgium, Hong Kong, Japan, Korea, Norway, the UK, and the US are concerned with how ICT may impact education sector. Many universities in the UK have been taking action and handling with digital competence in higher education, for example, University of Oxford, University of York, London School of Economics, and University of Twente. A number of plans, strategies, programs, and working and research groups are being developed to deal with digital readiness for their targeted members, e.g., Joint Information Systems Committee (JISC), Universities and College Information Systems Association (UCISA), Higher Education Academy (HEA), and European Commission. At macroeconomic level, many studies have indicated that ICT development and mobile device penetration are strongly correlated with economic growth and social benefits (World Food Programme, 2009; Ellis, L. J., 2012; Malisuwan, et al., 2016).

Despite a lot of efforts to achieve digital advancement in higher education, it is argued that “digital divide” or, in other words, “digital inequality” among community members is one of the major obstacles to the success. However, problem with digital divide is not one dimensional. While most people think of digital divide as the problem of access to technology, the issue itself encompasses many problems regarding user’s literacy, usage skills, quality of contents, and other social barriers.

While it is one of university’s primary commitments to provide environment and tools that promote digital skill learning to university’s members, e.g., via free Internet access, quality Wifi, right to access to digital media, electronic classroom and academic database, these offerings appear not to be sufficient to make the university a techno-utopia. Investing in technology is certainly one necessary factor but it is neither the only factor nor the preliminary driving factor to bridge the digital divide. This comes to the question of this preliminary study: *Is there a digital divide among working staffs in university’s environment?* The aim of this study is to explore the digital competence/literacy of university staffs and to examine the factors that influence the different level of university’s staff digital competence. It should be noted that this paper is a preliminary part of a comprehensive research project – Measuring Digital Competence in Thai Higher Education: Thailand 4.0 and ASEAN perspective.

What is digital divide?

The term *digital divide* is used to connote such differing standards or imbalances or inequality of access to digital society; sadly though, it may also exist within the confines of one single nation (WSIS, 2004; InfoDev, 2004; Yu and Wang, 2004; Ifinedo, 2004). The definition of “digital divide” changes over time. Malisuwan et al. (2016) argued that in the 1900s, digital divide means different levels of access to traditional and mobile telephone services, the gap of which in developing and developed countries had been bridged and filled by today’s universal access to mobile phone services to the point of almost non-existing. Figure 1 shows that since 2011 the gap between the numbers of subscription of mobile phone service in developed countries and developing countries has been narrowed down. Since the 21st century, however, digital divide is measured based on inequality of access to high-speed broadband Internet. The statistical report from International Telecommunication Union (ITU), conducted between 2005-2015, reveals that the gap between the numbers of Internet subscribers in developing and developed countries, however, remains large (ITU, 2015).

Based on Malisuwan et al. (2016), even in developed countries, unequal access to information technology, or digital divide, is seen in different areas, namely in different regions and localities, urban and rural areas, among groups of population with different educational, economic and social backgrounds. Digital divide may come in the form of computers with low efficiency, low-speed Internet connections based on outdated technology, as well as limited access to quality content. More importantly, digital divide exists due to lack of digital competence or skills, or as some researchers called digital intelligence, on top of the communication tools and devices.

In this paper, digital divide means the imbalance or inequality among university’s members in terms of their adoption of digital technology for learning and developing themselves in higher education context.

Digital situation in Thailand

Several national governments (InfoDev, 2004; Davidrajuh, 2004; Ifinedo, 2004) have policies and programs in place aimed at curbing the negative impacts of the digital divide within their countries. In particular, many such governments across the globe have resorted to instituting e-government initiatives (InfoDev, 2004; Yu and Wang, 2004; Joi, 2004; Ifinedo, 2004) as a way of better positioning themselves in the Information and Knowledge Age (Neff, 1998; Hart, 2003; Castells, 1999; Turner, 2001). Like others, Thai government also established Electronic Government Agency (EGA) in 2011 to be responsible for supporting Thailand’s e-government efforts. The EGA is under the supervision and management of the Ministry of Information and Communication Technology (currently the Ministry of Digital Economy and Society) to improve the government’s general government-run online operations and services. The agency is expected to promote the opportunities and equality for Thai people in access to public services and maximizing the security of

government's electronic services towards Thailand 4.0 – Thailand's new economic model launched in 2016.

Many factors contribute to digital divide in Thailand; these factors include lack of infrastructure, expensive equipments and services, poor quality of service, and, lastly, lack of digital skill (Charoen, 2008). The latest survey by the National Statistical Office (2014) on public subscription of Internet services through mobile and fixed phone networks showed that Thais steadily and increasingly subscribed to Internet services both in urban and rural areas. In urban areas, Internet subscription increased from 21.2% of the population in 2005 to 44.9% in 2014, and in rural areas from 8% to 26.9% in the same period. However, the gap of urban and rural computer users during this period remained at a relatively wide margin of approximately 13-19%, and this urban-rural gap showed signs of widening further in 2011 mainly due to a projected rise in subscription of mobile Internet services in urban areas (Malisuwan et al., 2016). On technological side, since the end of 2016, Thailand has the operators for 900MHz, 1800MHz, 2100MHz mobile phone services who have offered 3G and 4G Broadband services covering at least 90% of the population. It is expected that the number of Internet users connected through mobile phones will rise especially in Thai rural areas.

It will be interesting, however, to see if this development will help narrow the digital divide in Thailand in the future or not. It appears that there is a mismatch between level of technology advancement and people's digital skills. A number of studies related to digital divide in Thailand have provided the picture that, at policy making level, solving the digital divide problem is not merely offering access to technology and tools but involves developing citizen's digital skills. Simply said, giving internet access and high-tech computers into the hands of under-privileged people, or those who do not have sufficient skills and awareness of importance of technology, did not create significant usage impact. Since the objective of the main research is to investigate the digital divide in higher education sector, we choose university as our focus of research's attention.

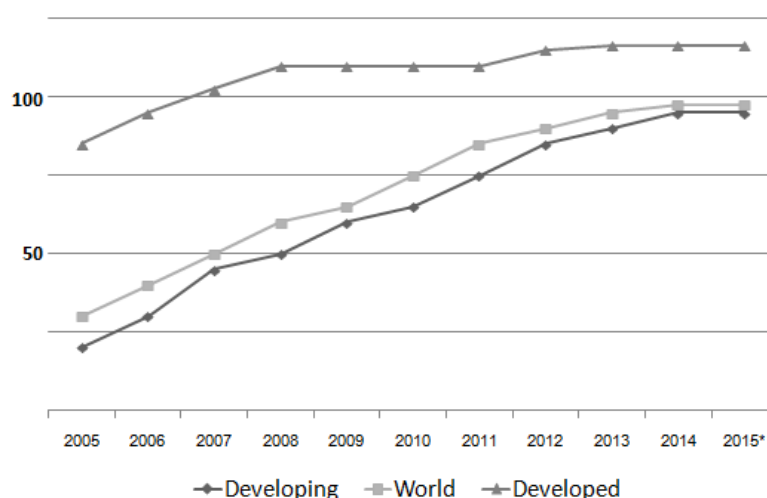


Figure 1: Subscription of mobile phone services in developing and developed countries during 2005-2015 Source: National Statistical Office (NSO), The Household Survey on Information and Communication Technology (ICT), 2005 – 2014.

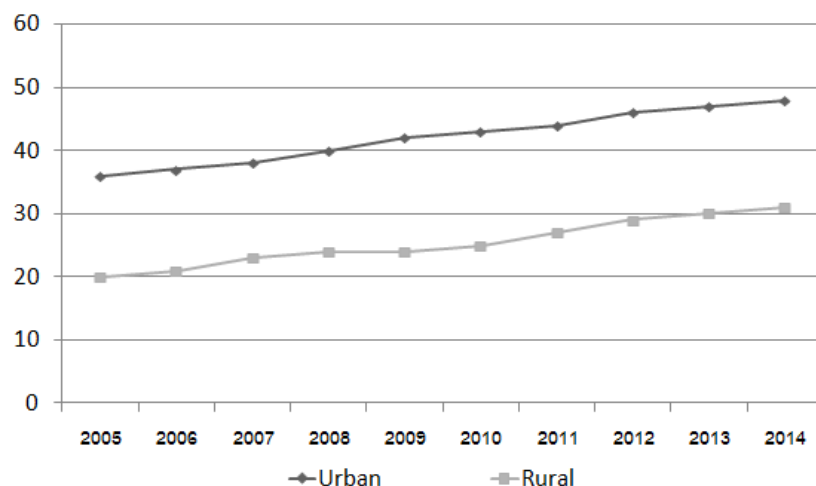


Figure 2: Levels of computer utilization in urban and rural areas in Thailand during 2005-2014 Source: National Statistical Office (NSO), The Household Survey on Information and Communication Technology (ICT), 2005 – 2014.

Research method: measuring digital divide

The focus of this preliminary study is one of Thailand's largest public and government-based universities, with estimated 47,000 undergraduate students and 2,500 graduate students enrolled in year 2016. The university offers baccalaureate, master's degree, and doctoral degree from 14 faculties since 1971. Since this study is at preliminary stage of the larger research project, we choose Faculty of Business Administration as our starting point. Due to the university's main objectives, it can be assumed that the university is a place that attempts to offer equal access of technology to all university staffs with all respects.

The population of this study is all university staffs from Faculty of Business Administration, total 150 questionnaires have been distributed to all faculty staff members - both in academic and administrative positions. The response rate is 75 percent when the 112 questionnaires are accepted which consists of 40 academic staffs and 72 administrative staffs. Based on Taro Yamane's (1973) formula, with 95% confidence level the number returned questionnaires is considered to be justified and reliable sample size.

Within the same university environment, it is expected that there is equal access to digital systems, such as Wifi, online database, and other electronic tools, for almost all faculty's staffs – to be precise, administrative staffs and academic staffs. Hence, measuring digital divide is focused on digital skills or literacy among faculty's members rather than the access to digital infrastructure or facilities.

The questionnaire is used as the research instrument for self-assessment purpose and is organized into two basic parts. The first part is demographic information about respondents which includes some facts about job descriptions, gender, age, level of education, years of working experience, and English reading skill. The second part is Digital Skills part which consists of 54 questions and seven elements of digital literacy adapted from Joint Information Systems Committee's Digital Literacy framework which is widely accepted to be used in many universities worldwide as a measurement of digital skills (JISC, 2014). The detail of each element of Digital Literacy is shown in Figure 3. To be specific, these seven elements consists of: 1) media literacy, 2) digital scholarship, 3) communication and collaboration, 4) ICT literacy, 5) learning skills, 6) career and identity management, and, lastly, 7) information literacy.

Each respondent will be asked to rate their level of confidence in 5 Likert scale points along each element.

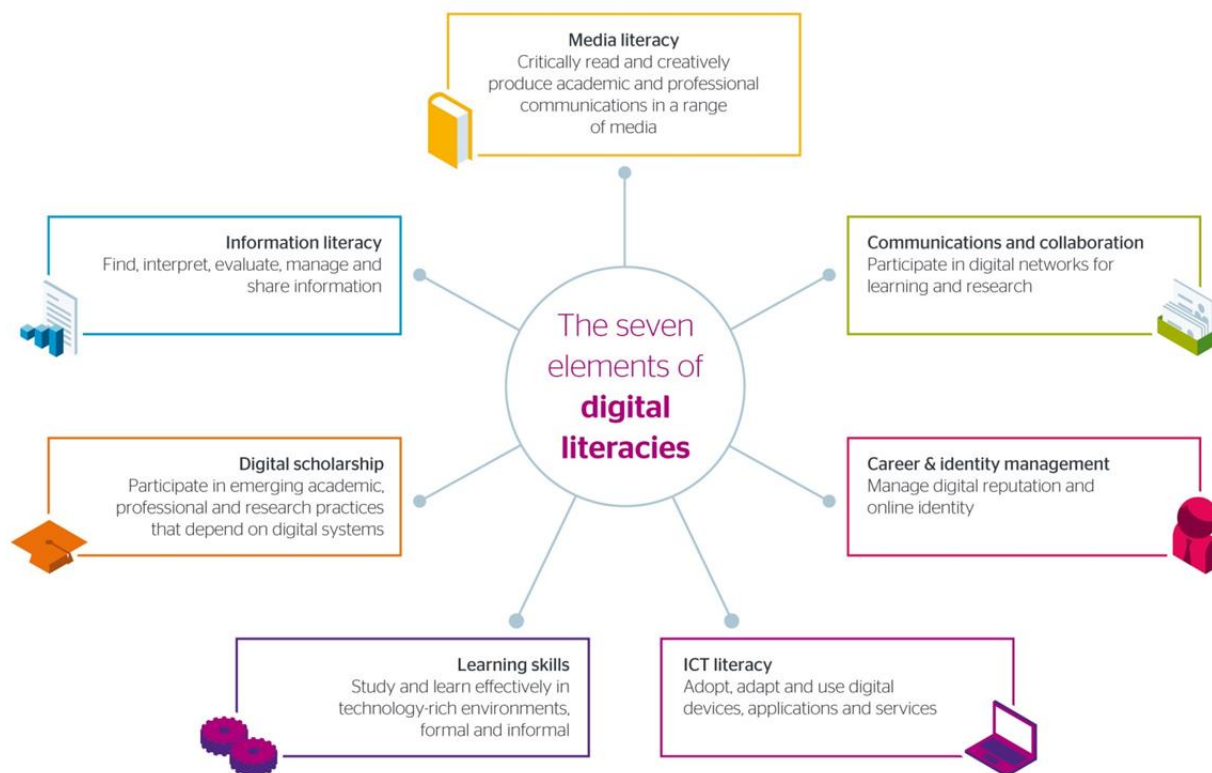


Figure 3: JISC's Digital Literacy Framework Source: JISC. (2014). Seven elements of Digital Literacy Framework. UK. (<http://www.jisc.ac.uk>)

Results

The data from questionnaires was analyzed through SPSS. The demographic data of respondents was analyzed and presented using descriptive statistics in form of Frequency and Percentage. The information of different demographic that influences level of each digital competence element will be analyzed and presented by comparing means in forms of T-test and F-test. To analyze the reliability of the questionnaire, Cronbach Alpha is being tested and shows 0.947, suggesting that the questionnaire has relatively high internal consistency (Bland and Altman, 1997).

Level of education

The statistical analysis from Table 2 shows that educational level influences level of Media Literacy of respondents among all groups. To be specific, the respondents with bachelor's degree or higher are all have higher level of media literacy than respondents who have education with lower than bachelor's degree.

Table 2: The comparison between different levels of education on competence level of Media Literacy

Level of Education	Mean	Lower than Bachelor's degree or equivalent	Bachelor's degree or equivalent	Master's degree or equivalent	Higher than Master's degree or equivalent
		2.61	4.05	4.26	4.44
< Bachelor's	2.61	-	1.44*	1.65*	1.83*
Bachelor's	4.05			0.21	0.39
Master's	4.26				0.18
>Master's	4.44				-

*The mean difference is significant at the .05 level.

Level of education influences level of Information Literacy as well. The statistical analysis from Table 3 shows that educational level influences level of Information Literacy of respondents among all groups. To be specific, the respondents with bachelor's degree or higher are all have higher level of Information Literacy than respondents who have education with lower than bachelor's degree.

Table 3: The comparison between different levels of education on level of Information Literacy skill

Level of Education	Mean	Lower than Bachelor's degree or equivalent	Bachelor's degree or equivalent	Master's degree or equivalent	Higher than Master's degree or equivalent
		2.35	3.72	3.62	3.57
< Bachelor's	2.35	-	1.37*	1.27*	1.22*
Bachelor's	3.72			0.11	0.15
Master's	3.62				0.05
>Master's	3.57				-

*The mean difference is significant at the .05 level.

The statistical result implies that level of education promotes staff's digital literacy especially those involve ability to find, manage, and share information online and skill to critically read, create, and communicate using various digital media for academic purposes.

However, it should be noted that level of education does not have impact on the other 5 digital skills, that is to say, digital scholarship, communication and collaboration, ICT literacy, learning skills, and career and identity management element. This suggests that other digital skills may be less relevant to the selected samples.

Level of English reading skill

The statistical analysis from Table 4 shows that English reading skill influences level of Information Literacy of respondents among two groups. To be specific, the respondents who are fluent in English reading have higher level of Media Literacy than those respondents who are not fluent. Those respondents who cannot assess their English reading skill have much lower Media Literacy than those who are fluent in English reading significantly.

This suggests that there is relationship between English language and digital skills, which is not surprising. This is due to the fact that English is the key language to access to most digital facilities; for example, almost all top search engines in the world are in English, most commands on digital tools are originally in English, etc.

Table 4: The comparison between different levels of English reading skill on level of Media Literacy

Level of English reading skill	Mean	English illiterate	Not fluent	Fluent	Unsure
		4.07	4.05	4.45	3.47
Illiterate	4.07	-	0.02	0.38	0.60
Not fluent	4.05		-	0.40*	0.58
Fluent	4.45			-	0.98*
Unsure	3.47				-

*The mean difference is significant at the .05 level.

Job responsibilities

Table 5 shows that type of job description also influences significantly on digital skills. Academics have higher level of digital skills, namely, Media Literacy, Digital Scholarship, Communication and Collaboration, and Career and Identity Management, than those who are in administrative position.

This suggests that what kind of job people do influences different level of skills including digital skills. Since academic staffs, by definition of their job, involve researching, studying, communicating knowledge contents to their students, it is part of their job to access, use, update, learn, and develop digital skills to be able to be more knowledgeable. Many academic staffs are professional researchers who are skilled digital guru. It is unfortunately, however, that administrative staffs, who most of the times are servicing students and other internal staffs, seems to involve the digital facilities a lot less. The paper-based environment in the sampled university is one of the major obstacles that blocks administrative staffs' digital skills.

Table 5: The comparison between academic and administrative position on level of digital skills

Digital skills	Academic		Administrative		t	P
	Mean	S.D.	Mean	S.D.		
1.Media literacy	4.39	0.65	4.13	0.65	2.04	0.04*
2.Digital scholarship	3.50	0.83	3.15	0.80	2.08	0.04*
3.Communication and collaboration	3.47	0.74	3.18	0.63	2.09	0.04*
4.ICT literacy	3.68	0.92	3.78	0.74	-0.61	0.54
5.Learning skills	3.85	1.03	3.59	0.80	1.34	0.18
6.Career and identity management	2.98	1.20	2.53	1.01	2.09	0.03*
7.Information literacy	2.59	0.54	2.60	0.54	-0.12	0.92

*Statistical significant at the .05 level.

Conclusions

The study suggests that there is the digital divide among university staffs and many factors contribute to this inequality. First of all, the type of job, that is, administrative or academic, seems to be the major influencer on level of digital skills, while other factors such as level of education, level of English reading skill appear to have impact on level of staff's digital literacy as well. However, as we expect, the level of education is related to level of digital skills. We believed that it is not the education per se that contributes to different level of digital skills but, in Thailand, level of education implies the socioeconomic status. Simply put, the poorer (the have-not) seem to barely achieve bachelor degree level while the richer (the have) can earn the bachelor degree or higher.

Next, it is recommended that to help promote digital skills and equality for all university's staffs, the heavily paper-based environment eventually should be removed. In Thailand, the greatly paper-based environment is intertwined with bureaucratic styled, government-based Thai university. It appears to be the major obstacle that hinders administrative staffs' digital skills and, in general, other bureaucratic, government-based universities in Thailand as well.

In addition, in Thailand, where English is still the second language, the opportunity of practicing English reading skills seems to be very limited, even in the university environment. Most Thai university's staffs, both administrative and academic, prefer to read Thai knowledge contents, which still offer very limited knowledge and academic portals, rather than English ones. Unfortunately, the less practice means the lesser chance the skills will be developed, and, hence, to inhibit digital skills.

To be concluded, it appears that having the technology and digital facilities is not enough to eliminate the digital divide. The study shows that whilst the university offers all possible digital infrastructures necessary to all staffs and students, there is imbalance in digital skills among staffs due to many reasons. To make sure that most staff members develop better and more equal digital skills, knowledge and digital literacy should be intertwined to the digital facilities and infrastructures. Unfortunately, even though this logic sounds intuitive to planners and policy makers, it is one of the most overlooked issues when it comes to the digital technology investment issues.

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Teaching Children's Literature: The Write and Draw Practice

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Abstract

This innovative study offers a fresh perspective on how to implement children's literature into and across the teacher education in the higher education curriculum in ways that are both effective and purposeful. This is why, the University of San Agustin tries hard to provide teacher education students, specifically in the elementary level, the opportunity to develop creative skills to better prepare them in their future careers. Through exposure to a variety of teaching strategies, students' critical thinking is stimulated and they develop the needed skills to become creative teachers. This paper looks at how teacher education students can be best equipped - both as teachers of children's literature and designers of instructional materials. This also showcases some of the students' *Write* and *Draw* outputs that may serve as evidence of best practice in the teaching of children's literature.

Keywords

Innovative, Children's literature, Teacher education, *Write* and *Draw* Practice

Introduction

Norton (2010) identifies the value of literature for young people in her book *Through the Eyes of a Child*. Children's literature is important because it provides students with opportunities to respond to literature. It gives students appreciation about their own cultural heritage as well as those of others; it helps students develop emotional intelligence and creativity; it nurtures growth and development of the student's personality and social skills; and it transmits important literature and themes from one generation to the next.

The value of this paper is how it will provide future teachers with the first hand experience in their world of work through the context of teaching children's literature. This is also with the belief that the education students may have the skills on how to strengthen the cognitive developmental domain of their future pupils as they develop strategies to encourage deeper thought about literature.

For the most part, education students must promote that quality literature does not tell the reader everything he/she needs to know, there is a need for them to try strategies that may allow a variety of learning experiences for the learners. One pupil may take something completely different away from the piece of literature than the next learner, based on the two personal viewpoints and experiences. Norton adds that for children, "wordless picture books are excellent stimuli for oral and written language" (2010, p. 9). Students reading wordless books like *A Ball for Daisy* (Raschka, 2011), *The Yellow Umbrella* (Liu, 1987), or *The Red Book* (Lehmann, 2004) will be able to analyze the illustrations and develop their own dialogue for the story. This strengthens learners' cognitive functions in being able to form opinions on their own and to express themselves through language in summarizing the plot of a wordless book.

The Problem

This innovative study offers a fresh perspective on how to implement children's literature into and across the teacher education in the higher education curriculum in ways that are both effective and purposeful. This is why, the University of San Agustin, tries hard enough to provide teacher education students, specifically in the elementary, the opportunity to develop creative skills to better prepare them for their future careers. Through exposure to a variety of teaching strategies, students' critical thinking is stimulated and they develop the needed skills to become creative teachers. This paper looks at how teacher education students can be best equipped - both as teachers of children's literature and designers of instructional materials.

Thus, this paper looked into the Write and Draw practice as a strategy to teach children's literature to education students. Moreover, it considered the following questions:

Do you like the Write and Draw practice in the teaching of children's literature?

What benefits have you derived in the Write and Draw Practice in the teaching of children's literature?

What outputs were generated by the Write and Draw practice strategy in the teaching of children's literature?

Theoretical Grounding

Gibbs' Reflective Cycle (or Gibbs' Reflective Model) is the grounding of this paper. Gibbs' reflective cycle is a theoretical model often used by students as a framework in coursework assignments that require reflective writing. However, in this paper, the researcher utilized it as a grounding in which this study rests. The model was created by Professor Graham Gibbs and appeared in *Learning by Doing* (1988). It looks like this:

Conclusion: What else could you have done?

Feelings: What were you thinking and feeling?

Action plan: If it arose again what would you do?

Description: What happened?

Analysis: What sense can you make of the situation?

Evaluation: What was good and bad about the experience?

Gibbs' reflective cycle has 6 stages. They are usually given the following headings: 1. Description
2. Feelings 3. Evaluation 4. Analysis 5. Conclusion
Action Plan

This model was developed from an earlier theoretical model by David Kolb in his 4 stage experiential learning cycle (1984). Whereas Kolb's model is sometimes referred to as an experiential learning model (which simply means learning through experience), Gibbs' model is sometimes referred to as an iterative model (which simply means learning through repetition).



Figure 1: The Theoretical Framework

Methodology

Reflective Research

This investigation utilizes the reflective research framework. Reflection is about interpreting own suppositions (and practices), by looking at own perspectives from those of others, and by subjecting own assumptions to critical review (Alvesson & Sköldbberg, 2000, 2009). It should be evident that reflective research involves at least two levels, namely researching and paying much attention to own theoretical suppositions about practices—"careful interpretation and reflection" (p. 5)—often interpretation is limited and occurs after data collection and categorization in the research process; whereas reflection is seldom mentioned and usually limited to conclusions, limitations of the study and technical matters.

Reflection is firstly aimed at a heightened awareness of theoretical suppositions, of language and of pre-understanding; but secondly aimed at the innermost of practitioners, of narrative and of the context. Reflective research is about systematic reflection on numerous levels—an "*interpretation of interpretation*" (p. 6). The process of reflective research comprises the (re)construction of reality in which practitioners perform, critically interpreting and reflecting. Reflection also involves thinking about the prevailing conditions and the way in which underlying theory, cultural values and political perspectives impacts on interaction. "Reflection is difficult" (p. 245), because it requires pondering about premises of thoughts.

Research Participants

Twenty-seven (27) students majoring in general education were the participants of this study. They were enrolled in the Children's Literature class for school year 2016-2017 as part of the course syllabus, they need to learn different strategies on how teach children's literature aside from the classical texts for children that they need to read. This term they had a total of thirty (30) texts and more than ten (10) teaching strategies to learn and accomplish.

Grounded Theory. Allan (2003; 1-10) in, *A critique of using grounded theory as a research method*, defines Grounded Theory as a systematic methodology in the social sciences involving the construction of theory through the analysis of data. Grounded theory is a research methodology, which operates, almost in a reverse fashion from social science research in the positivist tradition. As more data are collected, and as data are re-reviewed, codes can be grouped into concepts, and then into categories. These categories may become the basis for new theory. Thus, grounded theory is quite different from the traditional model of research, where the researcher chooses an existing theoretical framework, and only then collects data to show how the theory does or does not apply to the phenomenon under study. Coding text and theorizing: In grounded theory research, the search for the theory starts with the very first line of the very first interview that one codes. It involves taking a small chunk of the text where line by line is being coded. Useful concepts are being identified where key phrases are being marked. The concepts are named. Another chunk of text is then taken and the above-mentioned steps are being repeated. According to Strauss and Corbin, this process is called open coding. Basically, this process is breaking data into conceptual components. The next step involves a lot more theorizing, as in when coding is being done examples are being pulled out, examples of concepts together and think about how each concept can be related to a larger more inclusive concept. This involves the constant comparative method and it goes on throughout the grounding theory process, right up through the development of complete theories.

Results and Discussion

The students were asked during the semester if they like the strategy of Write and Draw utilized by the teacher in the Children's Literature class. Eighty-three percent (93 %) of the students said that they like it while 7 percent said they do not like it. Figure 2 shows the data.

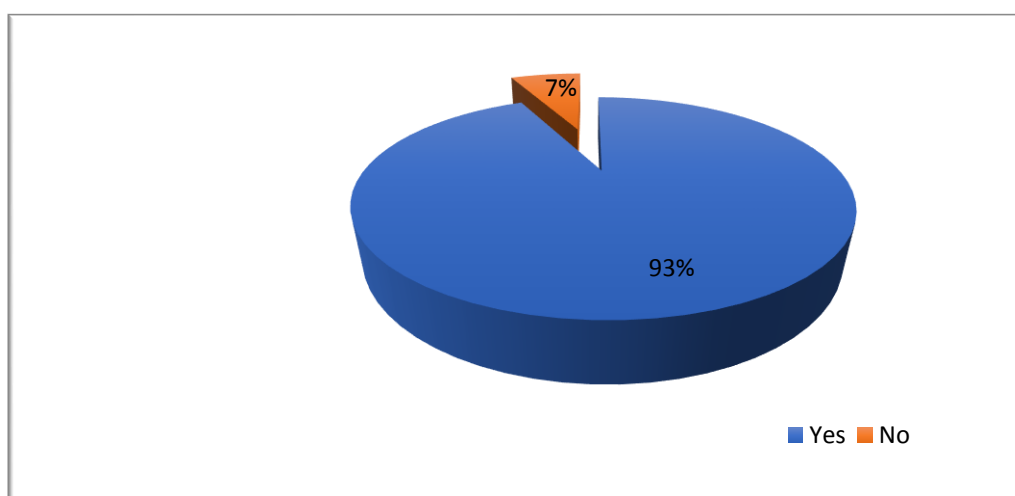


Figure 2. Use of the Write and Draw Practice

Benefits Derived from the Write and Draw Practice

Children's Literature class has been challenging and exciting as claimed by most education general education majors who were also the participants of this study. Themes derived from their responses included the following: *the strategy was exciting specifically the drawing portion. It was an opportunity for me to write my own story. I was able to practice both my thinking and writing skills. I find it challenging yet complicated. I need to motivate myself first in order to get things done.*

It is a general observation that students follow what the teacher asks them to do or accomplish. In this case however, the teacher will have a first hand information whether or not students will appreciate the

strategy based on the output that they have accomplished.

Student Outputs derived from the Write and Draw Practice

The student outputs were intentionally not included here because the files are very large. They will instead be included during the oral presentation. A brief description of the outputs are shown below.

Output 1 tells the story of a little girl named Joy. The author describes the extraordinary adventure encountered by this little girl and the magical creatures and her relationship with them.

Output 2 tells the story of a little child who has a talent in drawing. The author describes supernatural experience of this child and the magic pencil that makes the drawing possible.

Output 3 tells the story of a life in the farm. It gives a picture of how simplicity in family life assures genuine happiness. It describes the challenges that a family encounters and how family members go against these odds and live in love.

Output 4 tells the story of friendship. The characters are Moon and the Star. It is a challenge between their friendship marred with hurting words spoken. The absence of one makes a difference. Humility and forgiveness are pictured in this story.

Output 5 tells the story of the legend of the mermaid. The origin of how this creature was discovered by a group of men. They cannot believe what they saw until they finally realize that the creature (a beautiful lady) was a mermaid.

Summary of the Findings

Majority of the general education majors said that they like the strategy of Write and Draw.

Majority of the general education majors liked the Write and Draw Practice stating that *the strategy was exciting specifically the drawing portion. It was an opportunity for them to write their own story. They were able to practice both their thinking and writing skills. They find it challenging yet complicated. They need to motivate themselves first in order to get things done.*

The general education majors' Write and Draw Practice outputs were their own versions of simple stories for children like: *The Little Girl named Joy, The Artist, Binangon nga Tarum, The Moon and the Star*, and the *Alamat ng Sirena* among others.

Conclusions

Honed over years of experience and reflection in classroom teaching and rich with real examples of teachers implementing a variety of teaching pedagogy, the researcher finds the Write and Draw Practice as one of the multiple ways of engaging and teaching children's literature that extend beyond the genre, texts, and teaching approaches. It also provides teachers and future teachers an opportunity to explore on potential teaching and learning avenues in the teaching of Children's literature. Thus,

The Write and Draw Practice as a strategy in teaching children's literature is a helpful methodology for general education majors.

Teaching children's literature offers a variety of opportunities for general education majors to explore and the Write and Draw Practice is only one of those.

As learners learn in a variety of ways, the Write and Draw practice can be seen as a positive strategy that education students can utilize in their future work.

Recommendations

Despite the points that this paper wishes to address, further improvement regarding the conduct of this study is needed. Thus, it is recommended that:

Teachers of literature have to continuously look for ways that may make the teaching of children's literature more meaningful and useful to general education majors regardless of their skills and backgrounds.

When teachers teach, they always have to look into the nature of the lesson content and gauge this to what their students need. This way, they will have the opportunity to achieve their objective at the end of the semester.

Literature teachers should never cease to reflect on their teaching, develop appropriate methods and be conscious of students' learning behavior. This way, they can address what students' need in the context of literature teaching and learning, specifically children's literature.

Other studies can also be conducted in terms of children's literature teaching.

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Project Refun: a School-to-School Partnership on Reading Comprehension

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Abstract

Reading plays a vital role to every individual as it is the key to literacy. It is essential to develop proficient reading skills at an early age as it is the key to future success. Pardo (2004) suggests in his study that it is important for pupils to acquire decoding skills, fluency skill, background knowledge, vocabulary, motivation, and engagement to develop good comprehension skill. Moreover, Dougherty-Stahl (2004) suggests that effective reading comprehension is the culmination of mastering vocabulary, phonics, fluency, and reading comprehension skills. Project ReFUN is a school-to-school partnership (SSP) program between Lapidario Elementary School (the Leader School) and Southville Elementary School (the Partner School). The recipients of the said program are the 84 grade four pupils who were categorized under the frustration level based on the Phil-IRI (Philippine Informal Reading Inventory) pre-test result. Thus, the goal of the said program is to improve the reading comprehension level of the recipients. Moreover, it aims to gauge the impact of the program on the participants' reading comprehension level using Activities on Better Reading Comprehension (ABRC) materials. Post test result seems to indicate that the participants' reading comprehension level improved to instructional level since their scores range from five to seven. Moreover, the t-test computed value suggests that there is a significant difference on the participants' pre-test and post test results. Hence, with the seemingly successful outcome of the program, Southville Elementary School deem to continue the program even without budget allocation from the Department of Education (DepEd).

Keywords

Reading comprehension, School-to-school partnership, Project ReFun, Frustration level, Instructional level

Introduction

The School-to-School Partnership (SSP) program was implemented by the Department of Education because the agency believes that high-performing schools can share its best practices to schools who have not yet reached their full potential in school performance.

For the past three school years, Lapidario Elementary School has shown significant improvement in performance as shown by the different performance indicators stipulated in the School Based Management Validation Report.

From 1.46 score for the school year 2012-2013, the school's score increased to 2.00 and 2.41, respectively, for the succeeding two consecutive school years.

In addition, it can also be noted that the school's National Achievement Test score increased for the school year 2014-2015. From 83.46 NAT score in school year 2013-2014, the school's NAT score increased to 86.40. This increase can be attributed to the different intervention programs implemented by the school to ensure the high success of learning among the pupils. The different strategies utilized by the school are as follows: DEAR (Drop Everything and Read), remedial in reading, peer teaching, collaborative learning, and the like. The school strongly believes that reading is the key to literacy, thus, the school emphasizes the importance of developing good reading comprehension among its pupils.

As such, Lapidario Elementary School has been categorized with level five Performance Based Bonus in 2014, which is one of the criteria in the selection of the School-to-School Partnership as mandated in DepEd Order No. 44, s. 2016.

Hence, this program aims that with the partnership of Lapidario Elementary School and Southville Elementary School, the reading challenge being encountered by the grade four pupils of Southville Elementary School who were categorized under the frustration level, would be alleviated through the implementation of Project ReFUn.

Statement of the Problem

This study aimed to gauge the impact of the implementation of Project ReFUn on the reading comprehension of the participants of the program.

Specifically, this study aimed to answer the following questions:

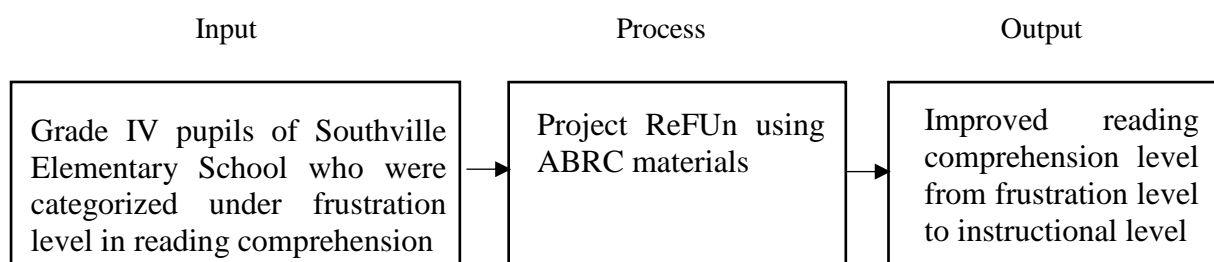
What is the reading comprehension level of the participants based on the Phil-IRI (Philippine Informal Reading Inventory) Pre Test conducted?

What is the result of the Post Test of the participants after the implementation of Project ReFUn?

Is there a significant difference on the Phil-IRI Pre Test and Post test results of the participants?

What is the future plan of the program after its implementation?

Framework of the Study



Hypothesis

There is no significant difference on the results of the pre-test and post-test on reading comprehension.

Scope and Limitation of the Study

This study focused on the improvement of the participants' reading comprehension level using the intervention materials-Activities on Better Reading Comprehension (ABRC) materials through project ReFUn. Moreover, the study will be limited to the results of the post-test after the implementation of Project ReFUn.

The participants of this study were the 84 grade four pupils in Southville Elementary School who were categorized under the frustration level after the Phil-IRI Pre-test was conducted.

As such, this study was limited to the following variables: the 84 grade four pupils of Southville Elementary School who were categorized under frustration reading comprehension level in the school year 2016-2017 and the implementation of Project ReFUn through the use of ABRC materials to improve the reading comprehension level of the participants.

Review of Related Literature

Reading

Reading is the process of deriving meaning from written or printed text (Alvermann & Montero, 2003). It is a complex process which includes many components. According to Armbruster et al. (2001), phonemic awareness, phonics, vocabulary, fluency, and comprehension are the five major areas of reading. Alvermann and Montero believe instruction in phonemic awareness, phonics, and fluency impact children's early reading development. It is necessary for a child to learn and understand each area in order for a child to achieve reading success. Phonemic awareness is necessary for the development of phonics; phonics is necessary for word recognition; word recognition is necessary for fluency; and fluency is necessary for reading comprehension (Eldredge, 2005). Pardo (2004) emphasized the relationship shared between all components of reading when noting that, before establishing good comprehension skills, students must acquire decoding skills, fluency skills, background knowledge, vocabulary, motivation, and engagement.

Bastug Muhammet, Gonca Demirtas (2016) said that poor reading achievement of children in elementary schools has been one of the major concerns in education. They conducted a study on child-centered reading interventions that focuses on the following domains in reading see, talk, dictate, read and write. In this study, they found out that student exhibited certain improvements at the levels of reading, reading rate, and reading comprehension. They suggested that child-centered reading strategies such as talking, dictating and writing should be the main focus of instruction for students with low reading literacy achievement to enable these students to meet the demands of the curriculum.

Mahgoub Dafalla Ahmed (June, 2015) concluded in their study that necessary to adopt the interactive method to provide a method of reading which integrates elements of both levels of processing skills: bottom-up and top-down. It is important to provide students explicit instruction of some lower level processing skills (bottom-up) such as teaching students some strategies in phonemic awareness, word recognition, and syntactic analysis, and some higher-level of processing skills (top-down) such as teaching students some strategies in guessing, inferences, and predicting. Good applications of techniques and procedures of teaching EFL (English as Foreign Language) reading may prove to be a viable intervention for improving students' performance in EFL reading.

Stephanie Pagan, Monique Senechal (2014) in their study they found out that involving parents in a summer book reading program has an implications for summer and intervention program designed for poor to average readers. Their study showed a promising evidence that providing access to appropriate books and maximizing the role of the parents could serve as an effective approach to improve literacy skills.

Reading Comprehension

Reading comprehension is seldom taught in higher grades even if the learners did not master the process in the lower grades. Mr. Dupree, in his research, recognizes that the three reading-comprehension skills: literal comprehension, evaluative comprehension and inferential comprehension, are necessary if students need to understand science textbook, math books and ultimately, to succeed in his/her class. Unfortunately, many high school students haven't learned effective strategies for comprehending expository text used in high school. In addition, a lack of sufficient background knowledge and content-specific vocabulary also hinder students' ability to comprehend in the topic or lesson.

Reading comprehension can be defined as the level of understanding of a passage or text (Bouchard & Trabasso, 2003). It is a "process in which readers construct meaning by interacting with text through the combination of prior knowledge and previous experience, information in the text, and the stance the reader takes in relationship to the text" (Pardo, 2004, p. 272). The ultimate goal of reading is to

understand what has been read (Nation & Angell, 2006). Comprehension is the reason for reading. It involves a complex process that includes many skills and strategies (Kolić-Vehovec & Bajšanski, 2006; Nation & Angell; Pardo). To be a good reader, it is critical to not only be able to identify the words, but to understand them as well. If readers can read the words, but do not understand what they are reading, they are not really reading. This process requires a numbers of skills, from recognizing individual words to “forming a coherent and cohesive mental model of a text” (Nation & Angell, p. 86). Effective reading comprehension is the culmination of mastering vocabulary, phonics, fluency, and reading comprehension skills (Dougherty-Stahl, 2004).

Methodology

Research Design

This study employed descriptive research one group pre-test post-test design since the main purpose of the study was to gauge the improvement on the reading comprehension level of the participants after the implementation of Project ReFUn.

Population and Sampling

This study utilized purposive sampling since the target participants are the 84 grade four pupils who were categorized under frustration level of reading comprehension after the Phil-IRI pre-test was conducted.

Data Collection

There were three phases in the implementation of the program: the Pre-implementation, Implementation proper, and Post implementation phases.

The following were the procedures that were undertaken during the pre-implementation phase: the formulation of the School-to-School Partnership teams – both of the Leader School (Lapidario Elementary School) and the Partner School (Southville Elementary School), identification of the SSP program that will be implemented based on the School Improvement Plan’s Priority Improvement Area of the Partner School, identification of the participants of the program based on the result of Phil-IRI Pre-test, conducting of the teachers’ and parents’ orientation on the program, conducting of the capacity building of the Leader School on the implementation of the program through the use of the ABRC materials and the sharing of its best practices and strategies employed in the school on the development and improvement of its pupils’ reading comprehension level.

The implementation of the program started on September 5 and ended on December 2. During the implementation of the Project ReFUn, the SSP team of the partner school conducted reading classes in the ICT Room at 10:00-11:30 in the morning and 1:00-2:30 in the afternoon since the school has shifting classes. To avoid class disruption, the participants who belong to the morning shift attended reading classes in the afternoon, and vice versa. The reading teachers utilized ABRC materials in conducting the reading classes. After the discussion and/or analysis of each passage in the ABRC material, the participants answered the comprehension questions of the passage read. The teacher checked the answers of the participants, recorded the scores, and provided the essential feedback to each question as the need arises. The SSP Team of the Leader School, on the other hand, conducted weekly monitoring and assessment on the pupils’ reading comprehension progress.

During the Post Implementation phase, the post test was prepared by the SSP Leader School. The Partner School conducted the post-test and tabulated the pupils’ scores. After which, the data from the pre-test was compared to the Post test result to gauge the improvement of the participants’ reading comprehension level after the implementation of the Project ReFUn.

Ethical Issues

Prior to the implementation of SSP Program Project ReFUn, the principal of the Partner School – Mrs. Aracely M. Lucero, conducted Parents' Orientation to discuss the role of the parents and the community to ensure the success of the program. Likewise, an informed consent was secured from the parents.

Data Analysis

To have concrete answers and results to each statement of the problem, the researchers used the statistical analysis below:

SOP 1: The researchers tabulated the scores of the participants in the Phil-IRI Pre-test result and computed its mean and standard deviation.

SOP 2: The researchers tabulated the scores of the participants in the Post Test and computed its mean and standard deviation.

SOP 3: Using T-test, the researchers compared the result of the Phil-IRI Pre-test result and Post test results. Moreover, the standard rubrics in interpreting the participants' score in Phil-IRI was used.

Results and Discussion

Phil-IRI Pre-Test Result of the Participants

Tables 1 and 2 illustrate the result of the Phil-IRI Pretest Result showing the participants' score frequency and percentage, and mean and standard deviation computation, respectively.

Table 1 The Frequency and Percentage of the Phil-IRI Pre-Test Result

Score	Frequency	Percentage
4	26	30.95%
3	16	19.04%
2	24	28.57%
1	18	21.42%

Table 2 Summary of the Phil-IRI Pre-Test Result of the Participants

Participants	Mean	Standard Deviation	Interpretation
84	2.60	1.14	Frustration

The result shows that majority of the participants, which account for 30.95% got a score of 4. It also indicates that 21.42% of the participants got a score of 1. The result seems to indicate that there is a close interval among the pupils' scores in the Phil-IRI pre-test.

Post Test Result of the Participants

Table 4 and 5 illustrate the result of the Post test of the participants showing its mean and standard deviation.

Table 4 The Frequency and Percentage of the Post Test Result

Score	Frequency	Percentage
5	18	21.42%
6	30	35.71%
7	36	42.85%

Table 5 The Summary of the Post Test Result of the Participants

Participants	Mean	Standard Deviation	Interpretation
84	6.21	.78	Instructional

The post test scores show that majority of the participants or 42.85% got a score of 7. It also shows that 21.42% of the participants got a score of 5. Moreover, the result indicates a close interval of the participants' scores. Likewise, it also shows that the reading comprehension of the pupils improved to instructional level.

Pre-Test and Post-Test Results

Table 6 indicates the correlation difference of the result of the pre-test and post-test showing its t-test computed value.

Table 6 Correlation Difference of the Result of the Pre Test and Post Test

Test	Mean	Standard Deviation	Reading Level	T-test computed value	Remarks	Decision
Pre-Test	2.60	1.14	Frustration	6.98	Significant	Reject null hypothesis
Post Test	6.21	.78	Instructional			

The t-test computed value shows that there is a significant difference between the pre-test and post-test results. From the frustration reading comprehension level of the participants, it improved to instructional reading comprehension level. Thus, the hypothesis is rejected since there is a significant difference between the pre-test and post test result after the implementation of Project ReFUN.

Future Plan of the Program

Based on the participants' post test scores, Project ReFUN seems to be successful since the participants' reading comprehension level improved to instructional level from the frustration level. The program's success is also evident on the score on the t-test computed value which shows that there is a significant difference on the pre-test and post-test after the implementation of the program. Hence, the school deems to continue the program.

Conclusion and Recommendation

Based on the results drawn, it can be concluded that Project ReFUn made a significant impact on the 84 participants of the program who were categorized under the frustration level of reading comprehension. After three months of implementation of the program, the participants' reading comprehension improved to instructional level. The participants' scores in post-test range from five to seven. In addition, the t-test computed value of the correlation difference of the pre-test and post-test is 6.98, thus, there is a significant difference between the pre-test and post-test results.

In the implementation of the program, the leader school emphasized the importance of establishing motivation, vocabulary development, and activation of the prior knowledge as stated by Pardo (2004). Hence, with these skills and the full support of the school heads, teachers, pupils, and the community, the program became successful.

After the implementation of School-to-school partnership, the following are the recommended actions:

School to school partnership should be continuously implemented with the support of the external stakeholders even without funding.

This intervention program can be effectively done in all grade levels not only in reading comprehension, but in other learning endeavor as well.

Conduct further study on the impact of Project ReFUn on the academic performance of the participants.

That all educators must work hand in hand positively to fully implement the program to improve learning outcomes.

Furthermore, a study conducted by Savage and Wolforth (2007) revealed that there is a significant impact on the university students' reading comprehension level in correlation with their academic performance (cumulative grade point average). As such, it is but important that the reading and comprehension skills be mastered during the basic education level so that the reading skills would be carried out until the individual's tertiary, graduate studies, or even when one starts his career.

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Appendix



Student Competencies on the Utilization of DLSU-D Library's Online Resources: A Basis for Enhancement of the Information Literacy Program

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Abstract

This paper aimed to assess the De La Salle University-Dasmariñas (DLSU-D) students' competency and literacy in the use of library online resources. It also identified the level of information literacy and competency of college students in the use of online resources of the library and formulated responsive strategies towards a more effective information literacy (IL) program in the university. This paper employed a descriptive type of research and used a self-made survey questionnaire to measure the competency and literacy level of students in the use of online resources. The respondents of the study were students who underwent hands-on-training from the 2013-2014 academic year to the 2015-2016 academic year. Stratified random sampling was utilized and statistical tools such as mean and percentages, t-test and analysis of variance were used to analyze the data. Findings of the study show that there is a need to further strengthen and market the Aklatang Emilio Aguinaldo-Information Resource Center (AEA-IRC) Hands On Training (HOT) program.

Keywords

Hands-on-Training, Online Resources, Information Literacy, Information Competency, Information Literacy Program

Introduction

Since the start of the millennium, librarians have been encouraged to take part in building an information smart society as stressed by the American Library Association (ALA) President, Nancy Kranich in her presentation to the Greater Tucson Economic Development Council, Tucson, AZ on August 2, 2000. In fact, in the academic community, teaching students to be information literate is necessary for lifelong learning. With the wide array of resources, students in this era should have the skills to independently recognize the information that they need. They should have the ability to locate, evaluate and use this needed information effectively (Cunningham and Lanning, 2002). Librarians essentially play an important role in developing the information literacy skills of students in partnership with the faculty members.

In particular, in DLSU-D, the librarians are working collaboratively with the faculty members who are teaching Information Literacy (ENG102) and Research Methods for hands-on training (HOT) on the use of library online resources. This is one of the activities in the information literacy program of the library. In this training, students are taught by the librarians to identify accurate information, develop search strategies, and organize the searched information. The HOT goals follow the definition of Doyle

(1992) for an information literate person of one who can “identifies potential sources of information, develops successful search strategies and accesses sources of information including computer-based and other technologies” (p. 4).

Online resources are among the vital collection of DLSU-D library in keeping abreast with the research needs of the academic community and in maintaining the accreditation status of the university. Subscription to online databases started with ProQuest via a consortium agreement with De La Salle College of Saint Benilde and De La Salle University. Since then, the library has continued to build its online resources through individual acquisition and/or consortium arrangement. Currently, Emerald ProQuest, IEEE, Cambridge eBooks, ScienceDirect, EBSCO, Philippine E-Journals, Philippine Studies, PressReader and Gale are the online resources provided by the library. The eBooks, on the other hand, started in 2009 with perpetual access. Generally, these online resources address the local and foreign references needed by the patrons in their research.

The utilization of online resources continues to increase from SY 2009-2010 to SY 2015-2016. This could be attributed to the HOT being provided by DLSU-D librarians. In order to identify the effectiveness of this training most especially the level of literacy and competency of college students in the use of online resources, the paper utilized descriptive research method. It aims to assess the DLSU-D students' competency and literacy on the use of online resources provided by the library. It also aims to develop and enhance the information literacy program of the university library. Specifically, it intends to answer the following questions: 1) What is the profile of the student in terms of college and year level?; 2) What is the level of DLSU-D students' competency in the use of AEA-IRC online resources?; 3) What is the level of DLSUD students' literacy in the use of AEA-IRC online resources?; 4) Is there a significant difference between the students level of competency in the use of AEA-IRC online resources when they are grouped according to profile? 5) Is there a significant difference between the students level of literacy in the use of AEA-IRC online resources when they are grouped according to profile?; 6)Is there a relationship between students' literacy and competency in the use of AEA-IRC online resources?; 7)What program can be developed to enhance the students' literacy level in the use of AEA-IRC online resources?

This is an initial paper conducted by DLSU-D librarians, in collaboration with a faculty member, as regards to assessment of the students' competency and literacy level. Essentially, this paper contributes to the research literature of the university in the area of library and information science. Thus, the value and importance of the library in the teaching-learning experience at DLSU-D is highlighted.

Framework of the Study

This study was guided by the Stufflebeam's Context, Input, Process, and Product (CIPP) model which is considered appropriate in assessing the merit and worth of a services from the stance of its beneficiaries or recipients. The aim of CIPP model is “to provide sound information that will help service providers regularly assess and improve services and make effective and efficient use of resources, time, and technology in order to appropriately and equitably serve the well-being of rightful beneficiaries.” (Stufflebeam, D.L., Madam, C.F. and Kellaghan, T., p.280).



Figure 1. Conceptual Framework

Figure 1 shows the variables of the study. The context is viewed from the lens of the Framework for Information Literacy for Higher Education developed by the Association of College and Research Libraries (ACRL, 2016). The framework defines “Information literacy as the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.” Input focused on student profile, college year level, the frequency of utilization of online resources, competency level and literacy level of each participating student. Process examined the factors found in input by conducting pilot testing, administering survey questionnaires and statistical analysis. Product consisted of recommendations for the enhancement of Information Literacy Program (ILP). The main goal of the AEA-IRC’s ILP is to make every DLSU-D Lasallian be an information literate. As noted in the IL standards, “IL forms the basis for lifelong learning” (ALA, 2000, p.2).

Methodology

This paper employed the descriptive type of research. A self-made survey questionnaire was created to gauge the competency and literacy level of the students. Students from seven colleges of the DLSU-D who underwent HOT from AY 2013-2014 to AY 2015-2016 were the respondents of this study. From the 3,473 attendees who are currently enrolled, the researchers identified a sample size of 362 using an online sample size calculator. Survey questionnaires were distributed among the seven colleges by the researchers from October 11 to 22, 2016. Prior to the actual survey, a pilot study was made to validate the questionnaire. The following statistical tools were employed: 1) mean and percentages; 2) T-Test; and 3) Analysis of Variance in analyzing the data collected.

Utilization of Online Resources

Graph in Figure 2 shows that the utilization of eBooks by number of searches made is more significant from the EBSCO collection as compared with other e-books from other provider. Though there is a low utilization on the first year of acquisition in SY-2013-2014, a deliberately high usage in the succeeding years. Moreover, Figure 3 revealed that eBooks from the Gale collection has huge number of downloaded fulltext collection compared with the eBooks from other source providers. Additionally, the statistics revealed that there are more e-books usage by sessions from the EBSCO collections as reflected in Fig.4.

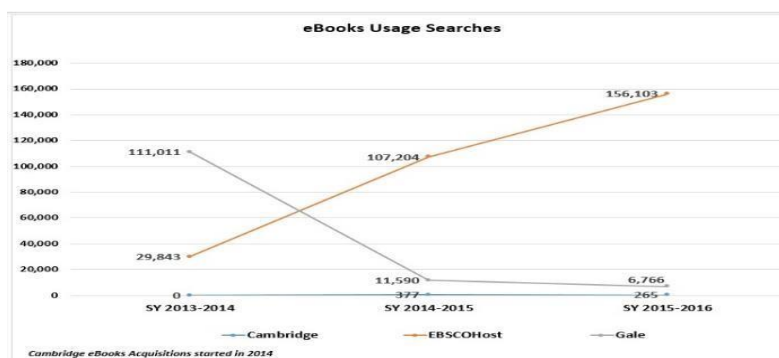


Figure 2. eBooks Usage Searches

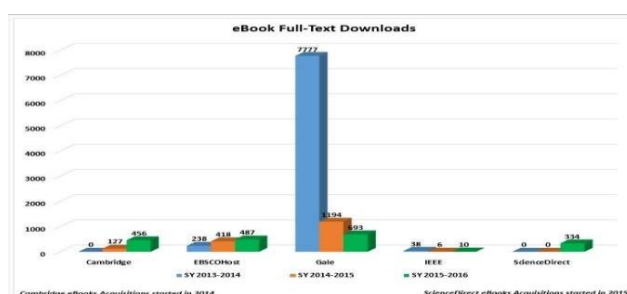


Figure 3. eBooks Full-Text Downloads

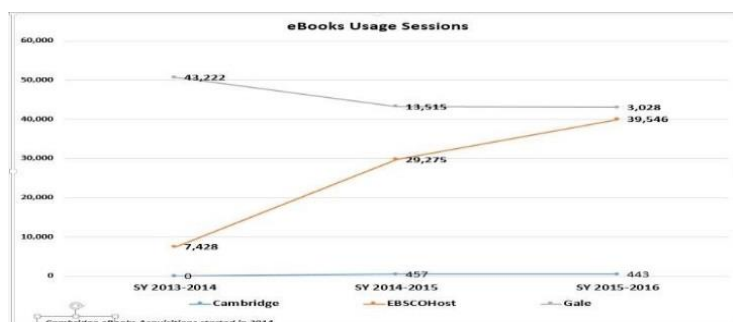


Figure 4. eBooks Usage Sessions

In terms of online resources utilization, Figure 5 exposed EBSCO Host collections as the most utilized online resources of AEA-IRC followed by Gale. Proquest, on the other hand, has the least number of searches for three consecutive years. In comparison, Figure 6 divulge that there are more full text downloaded from the EBSCO online resources against the other five online resources subscribe by the library.



Figure 5. Online Resources Utilization

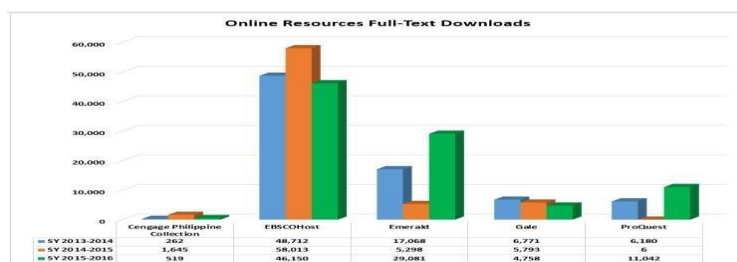


Figure 6. Online Resources Full-Text Downloads

Findings and Discussion

A. Profile of the Students

As shown in the figure 7 below, out of 369 respondents, 112 or 30.4 % are from the College of Business Administration and Accountancy which has the highest percentage among the colleges while the colleges of Liberal Arts and Communication has 80 or 2.7% respondents, Science and Computer Studies has 62 or 16.8% of the respondents. The two colleges with low number of respondents are from the College of Criminal Justice Education (CCJE) with 5 or 1.4 % and College of Education with 2 or .5%. When clustered according to the year level of the respondents, the highest percentage are from the 4th and 5th year level (51.8%) and the lowest percentage are from the 2nd year level (9.6%). The result of this survey confirmed that most of the respondents are from colleges where most students are enrolled. However in relation to year level, it only shows that there are more students in the higher years who are available when the survey was conducted.

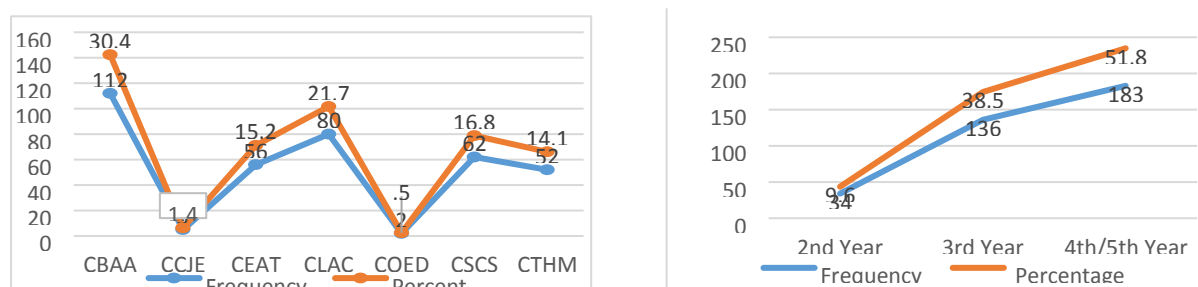


Figure 7. Profile of the Students

B. DLSU-D students' competency level in the use of AEA-IRC online resources

As shown in Table 1, very few respondents rated "Excellent" and "Poor" in the twenty-item statement relating to the competency level in the use of AEA-IRC online resources. Nevertheless, most of the respondents have their rating of "Good" and "Very Good" on all items in the competency level. Among the competency levels, the items "On the use of advanced search operation (search by Boolean operators)" has the lowest mean of 3.30 which only shows that most of the respondents are not very particular on advanced search operations whenever they look for information from the online resources. Such finding may indicates limited discussion on advanced search given during the HOT.

The forgoing results demonstrate that the competency level on the use of online resources is generally on the average level, though there are only quite a number of respondents who rated it "poor" or "excellent", this may be interpreted that not all of the respondents met the competency level set by the researchers. The findings somehow corroborated with the study of Head and Eisenberg (2009) about students difficulties in strategizing their search using online resources. Inadequate information searching skills may also affect usage of online resources as noted by Ojedokun and Lumade (2005).

Table 1. Competency Level in the Use of Online Resources

Competency Level	N	P	F	G	VG	E	Mean
1. On the use of basic search operation (search by title, author, subject, keyword, etc.)	369	1.4	5.1	35.0	38.2	20.3	3.7100
2. On the use of advance search operation (search by Boolean operators)	368	3.8	13.9	38.9	34.5	9.0	3.3098
3. On the use of search history/alert	364	3.0	11.8	39.6	32.4	13.2	3.4093
"4. Limiting the search result by source type (Academic journals, magazines, newspapers, books/monographs, book reviews, government documents and images)"	366	1.1	7.9	32.8	41.3	16.9	3.6503
5. Limiting the search result to full text only	366	3.0	6.8	36.9	39.9	13.4	3.5383
6. Limiting the search results to available resources in the library collection	367	3.0	7.1	33.5	39.8	16.6	3.5995
7. Limiting the search results to Scholarly/peerreviewed journal articles	369	3.5	9.8	36.3	36.6	13.8	3.4743
8. Limiting the search results by publication title	368	2.2	7.3	36.4	36.7	17.4	3.5978
9. Limiting the search results by language	368	2.4	8.7	35.3	33.2	20.4	3.6033
10. Filtering the search results by date of publication	367	2.5	7.4	33.8	36.0	20.4	3.6458
11. Creating an online resource personal account	368	3.0	10.1	34.0	38.6	14.4	3.5136
12. Opening an article in either PDF or HTML format	368	1.9	9.0	30.2	35.6	23.4	3.6957
13. Downloading, saving and printing searched article	368	3.0	9.5	31.3	34.0	22.3	3.6304
14. Sending e-mail of an article citation	368	4.3	10.9	35.1	32.6	17.1	3.4728
15. Adding an article to my personal account	367	3.8	12.3	36.5	32.4	15.0	3.4251
16. Selecting the required citation format of an article	364	3.8	8.2	36.0	35.2	16.8	3.5275
17. Sharing an article on my social media (e.g. Facebook, Twitter, etc.)	366	4.6	10.4	36.6	33.6	14.8	3.4344
18. Creating a note on an article	368	7.9	13.0	41	28.5	9.5	3.1875
19. Listening and downloading mp3 version of an article	368	10.3	15.2	39.7	24.2	10.6	3.0951
20 Translating an article to another language	368	12.8	13.6	37.8	25.5	10.3	3.0707
OVERALL	369						3.4749

C. DLSU-D students' level of literacy in the use of AEA-IRC online resources

In terms of literacy level, table 2 divulges that out of 369 respondents, only a few of them rated a lowest mean score of 12.32 while the highest rate is 21.00 with a total standard deviation of 4.23. As discussed in the IFLA (2011, p.1), "Media and Information Literacy is closely related to lifelong learning that enables individuals, communities, and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for the shared benefit of all individuals, not just a few" which is also confirmed in this study. Moreover, it also shows in the literacy table that only 37.9 % of the respondents with a verbal interpretation of "average" in the level of competency and only 8.1 % rated it "very low" and 8.9% rated it "very high." Based on the results, the students have an average literacy level in utilizing the online resources.

Table 2. Literacy Level in the Use of Online Resources

	N	Mean	Std. Deviation
SCORE	369	12.3279	4.23858
Valid (listwise)	N369		

Scores	Frequency	Percent	Verbal Interpretation
5 and below	30	8.1	Very Low
6-9	64	17.3	Low
10-14	140	37.9	Average
15-17	102	27.6	High
18-20	33	8.9	Very High

D. Students Level of Competency in the use AEA-IRC Online Resources when they are Grouped According to Profile

Figure 8 shows that the respondents from the College of Science and Computer Studies (CSCS) has the highest mean of 3.6852 with standard deviation of .5740 followed by the College of Tourism and Hospitality Management (CTHM) with a mean of 3.6342 and standard deviation of .5629 while the College of Education (COEd) has the lowest mean of 3.0 and standard deviation of 0.000 in terms of level of competency on the use of AEA-IRC online resources when they are grouped according to college. As such, the level of competency of CSCS students is higher compared to other colleges. This could be attributed to the nature of their courses.

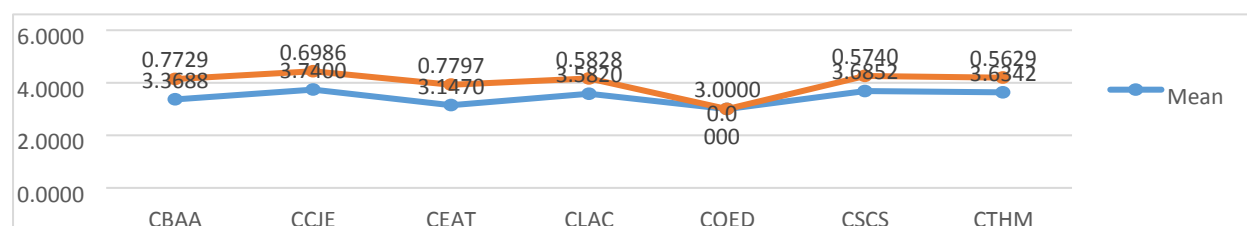


Figure 8. Level of Competency in the use of AEA-IRC Online Resources per College

However, when they are grouped according to year level as presented in the figure 9 below, the 2nd year level has the highest mean of 3.65 with standard deviation of .67350 while the 3rd year has the lowest mean of 3.4246 with standard deviation of .77405. Results show that the students from the 2nd year level are more competent, probably because of the fact that this group, has recently attended the HOT.

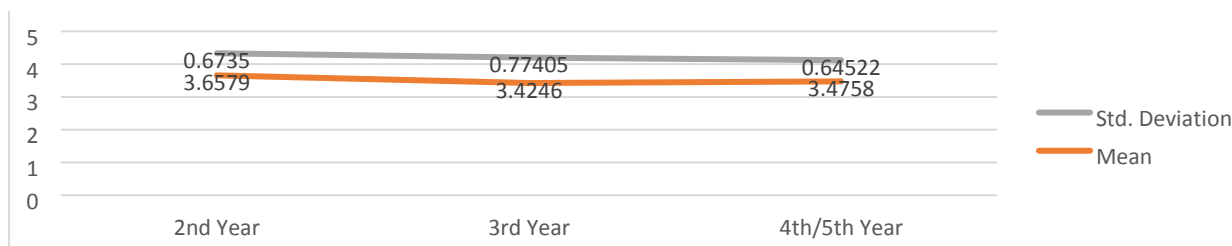


Figure 9. Level of Competency in the use of AEA-IRC Online Resources per Year Level

E. Students' Literacy Level in the use of AEA-IRC online resources when they are grouped according to their profile

In terms of literacy level when the respondents are grouped according to college, the CTHM has the lowest mean of 9.635 and standard deviation of 3.814 followed by the COEd with a mean of 10.500 and standard deviation of 6.364, while the CSCS has the highest mean of 14.113 with a standard deviation of 4.141. But when they are grouped according to year level, the 2nd year has the lowest mean of 12.0588 and standard deviation of 4.67061 while the 3rd year level has the highest mean of 12.7206 and standard deviation of 3.949. The results show that there is a need to improve the literacy skills of the CTHM students in the use of online resources.

The preceding findings revealed how each college extends effort in encouraging their students in utilizing the library's online resources. Based on the HOT attendance, it was discovered that COEd students has the lowest number of participants. Such could be among the reason why they have low literacy level. Moreover, technology competency affects information literacy level of students with regard to utilization of online resources as exemplified by the CSCS. The necessity to acquire computer skills to traverse the internet and electronic resources effortlessly is also noted in the study of Ojedokun A. A. and Lumade, E. (2005).

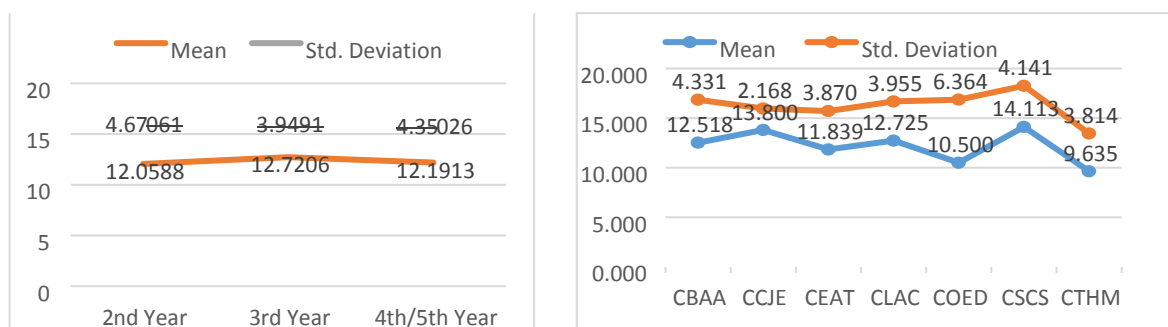


Figure 10. Literacy Level in the Use of Online Resources According to Profile

F. Relationship between students' literacy and competency on the use of AEA-IRC online resources?

Tables show that there is a significant difference between the competency level and literacy level of the students' respondents when they are grouped according to year level. However, when the respondents are grouped according to college, no significant difference was established between the competency level and literacy level of the students' respondents. As for the relationship between students' literacy level and competency level, the result shows no correlation between the two. However, low positive correlation is shown between competency level of students and the students' frequency in the use of

AEA IRC online resources. These findings deviate from the study of Ukachi (2015) and Adeleke and Emeahara (2016) with regard to positive correlations between information literacy skills and students' utilization of online resources.

Table 3. Comparison of Literacy and Competency When Grouped Per College

	Sum of Squares		df	Mean Square	F	Sig.
COMPETENCY	Between Groups	13.066	6	2.178	4.784	.000
	Within Groups	164.783	362	.455		
LITERACY	Between Groups	622.287	6	103.715	6.269	.000
	Within Groups	5989.035	362	16.544		

Table 4. Comparison of Literacy and Competency When Grouped Per Year level

		Sum of Squares	df	Mean Square	F	Sig.
COMPETENCY	Between Groups	1.483	2	.742	1.513	.222
	Within Groups	171.621	350	.490		
LITERACY	Between Groups	25.800	2	12.900	.720	.487
	Within Groups	6269.571	350	17.913		

Table 5. Comparison of Literacy and Competency According to Frequency of Usage

			COMPETENCY	LITERACY
How often do you use AEA-IRC online resources?	Pearson Correlation	1	.194**	.094
	Sig. (2-tailed)		.000	.074
	N	364	364	364
COMPETENCY	Pearson Correlation	.194**	1	.044
	Sig. (2-tailed)	.000		.396
	N	364	369	369
LITERACY	Pearson Correlation	.094	.044	1
	Sig. (2-tailed)	.074	.396	
	N	364	369	369
**. Correlation is significant at the 0.01 level (2-tailed).				

Proposed Students' Information Literacy Program (ILP)

The AEA-IRC should develop an ILP that includes the goal and objectives, activities, time frame, target participant and its expected outcome. The said ILP should be part of the Annual Plans and Programs and should be coordinated to the colleges for proper implementation. Moreover, the developed ILP

should not be only for the 1st year and 2nd year students but there should be a refresher for the 3rd year and 4th year students engaged in research activities. (Please see attached ILP)

Conclusion and Recommendations

Findings of the study showed that there is a need to further strengthen and market AEA-IRC HOT program. Also, a suggested revision of the program that emphasizes certain features like advanced search techniques, highlighting, translation, search alerts, e-books offline access, among others. It is also imperative that as early as first year, the students should not only be given library orientation, instead, it must be coupled with HOT. Collaboration with faculty members regarding the development of IL module must be established. Gamified module created in the Schoolbook should be promoted and if possible integrated into the research subjects or in English classes. Students low scores yielded in the result also seek reflection to revisit the manner of facilitating the HOT program. At this point, the current study has proven that a two-hour training is not enough, thus the need of a refresher training for those in the higher year level is recommended. It is through constant practice where students can master various searching techniques that eventually improve information literacy.

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Digital Readiness for Thailand 4.0 Model: A Study of Accounting Students from a Large Public University in Thailand

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Abstract

Since 2016 Thailand's new economic model, or so called Thailand 4.0, has promoted the implementation of information technology in many ways especially through the new government sector's payment system called National e-Payment. This means most accounting practitioners have been challenged by the whole new way to produce important accounting and tax information for their business entities. Traditionally, accountants are responsible for preparing, collecting, recording, and filing all relevant accounting and tax documents such as tax invoices, receipts, and other documents in hard copy formats. However, with the new National e-Payment system, all documents will be processed electronically, for example, via e-Withholding Tax, e-Tax Invoice, e-Receipt, and e-Filing. In other words, the digital readiness for such new system becomes one of the most important qualities of accounting graduates that private sectors are looking for. Thus, under Thailand's new economic model environment, producing qualified and digital ready accounting graduates should be one of long term strategies for all institutions that offer accounting courses. The aim of this research is to identify and measure digital readiness dimensions that require in producing the qualified accounting graduates. The study will be useful for all universities to appropriately improve their curricula to promote learning and digital skills needed by accounting students. The results for this study are collected from 380 accounting students, both undergraduate and graduate levels, from one of Thailand's largest national universities via the questionnaire survey method.

Keywords

Digital Readiness, Digital Literacy, Accounting Students, e-Tax Knowledge

Introduction

Thailand 4.0 and accountant's new skills

Like many other developing countries, Thailand has been struggling to escape the middle income trap – the economic ceiling the developing countries often hit. It is believed that to be able to pull the country out of such trap, Thailand needs the revolutionary policy that enhances the whole country's economic capabilities. Since July 2016, Thailand's Prime Minister General Prayut Chan-o-cha announced to launch the Thailand 4.0 strategic model (Figure 1), which aims to turn Thailand into smarter economy where creativity and innovation through the application of technology is the key. One of important revolutions is called the National e-Payment system which intends to transform the whole taxation system into an electronic version or, in other words, in a digital form. Enforced by the Revenue Department and started to implement in 2016, a full electronic tax system (e-Tax system) is expected to challenge all parties engaged in Thailand's economy, for example, public sector, business sector - including all small and medium enterprises (SMEs), financial institutions, and government sector. It is argued that the full e-Tax system will promote transparent, efficient, and effective environment necessary for all aforementioned parties and, in particular, for the electronic commerce (E-commerce).

In business context, it is widely accepted concept that accounting is the language of business. Accounting primarily transforms all economic activities or business transactions into accounting process and eventually become accounting information. The primary objective of accounting is to provide business information that is useful for decision making purposes (William, et al, 2008). As such, accounting itself is not a standalone job but rather the process or the systems or sometimes called accounting systems which consists of personnel, procedures, technology, and records used by organization. With such systems, organization will be able to develop accounting information and to communicate this information to decision makers.

In Thailand, the preparation of income tax, withholding tax, value-added tax (VAT) and other business taxes is a specialized field within accounting or sometimes called tax accounting. The need for some types of accounting information for taxation purpose is prescribed by law, e.g., under Revenue Code. Under this law, every business is required to have an accounting system that can measure the company's taxable income and explain the nature and the source of every item in the company's income tax return. Another example is when monthly preparation and filing of withholding tax and VAT return and payment is legally imposed in Thailand. In most cases, preparation and filing of withholding tax and VAT is mainly performed based on hard-copy document. However, with the implementation of a new full e-tax system, all tax related documents and information will be entirely transformed into an electronic version. In other words, Thailand 4.0 economic model will eventually change an accounting landscape. Most business tax and accounting information will be processed and recorded digitally.

With rapid development in technology and regulation, modern accountants require new skills – in particular the digital skills or digital intelligence or as some researchers called digital quotient (DQ). Like other profession, accountants must all be prepared for the new opportunities that are being created and the new skills that are being demanded by clients. That is to say next generation accountants should be digitally ready and prepared for the coming age of digital business.

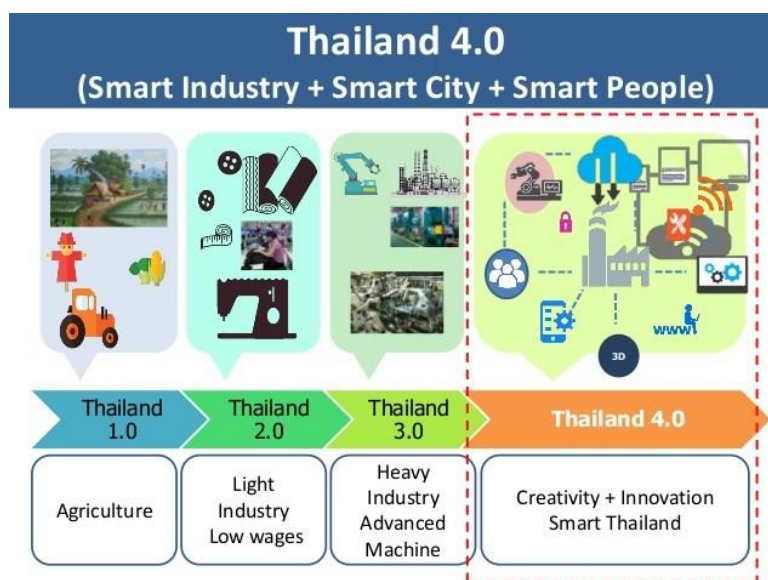


Figure 1: Thailand 4.0 Economic Model, Source: Retrieved from <http://www.nstda.or.th/thailandtechshow2016/>

Digital readiness and digital literacy

Digital readiness or, its synonym, e-readiness means different things to different people, in different context, and for different purposes (Peters, 2001). APEC (2000) defined e-readiness as the degree to which the community is prepared to participate in digital economy. But this is not simply a matter of numbers of computer servers, websites, and mobile phones, but also things such as people's ability to utilize technology skillfully (UNESCO, 2006). At individual citizen level, what people's digital readiness means has been debated for many years. Many referred it to digital competence (Krumsvik, 2011); some used term digital literacy (Gilster, 1997; Bawden, 2001). Many other terms are used interchangeably with the term digital readiness; for example, digital intelligence, digital skills, e-skills, information literacy and many more. Digital competence is defined by European Parliament and the Council as the confident and critical use of Information Society Technology (IST) for work, leisure, and communication (European Community, 2007). Such definition relates to many aspects of life and is considered to stretch beyond mere know-how and technical skills, for it refers to confident and attitude as well (Janssen, et al., 2013); while the term "digital literacy" is more often used in the European initiatives and policy context. In higher education context, the term digital literary and digital capabilities are widely adopted. In this study, we measure digital readiness with the degree of digital literacy or competence.

Pew Research, in the United States, measure American's digital readiness using three elements – skills, trust, and use of digital tools to complete the individual task (Horriagan, 2016). By this, digital readiness, or preparedness, is used to measure people's digital skills and their trust in technology, which may influence the use of their digital tools. This definition is oriented towards functional information technology (IT) skills that believed to be necessary for American citizen to survive in digital society. However, a broader definition of digital readiness has been offered by Sharpe and Beetham's (2010) framework, which comprises of four steps – access and awareness of digital tools, skills, practices, and identity – and has been called differently as digital literacy as shown in Figure 2. Joint Information Systems Committee (JISC), in the United Kingdom, has adopted this framework to develop the assessment tool for student's digital skills.

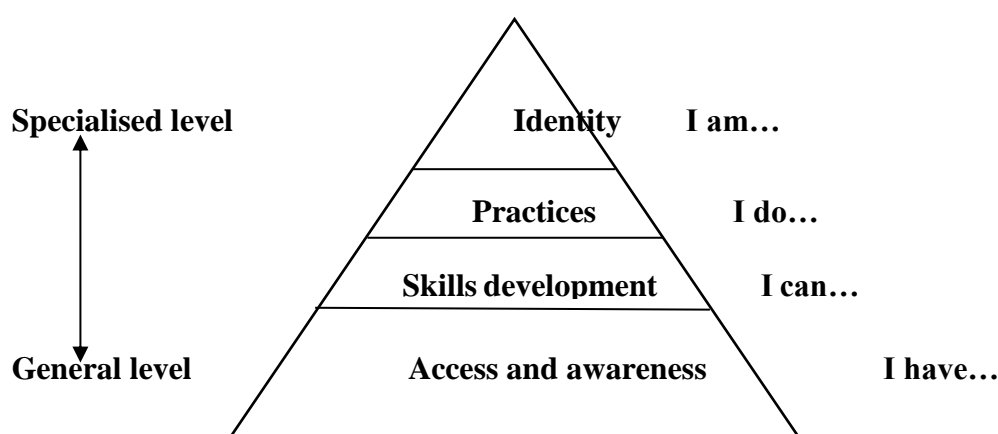


Figure 2: Beetham and Sharpe's (2010) Digital Literacy framework

Seven elements of digital literacy (skills) framework

JISC's (2014) seven elements of digital literacy framework, which is presented in Figure 3, is widely recognized in higher education and, in particular, among many UK universities and institutions. To name a few, these include University of York, Universities and Colleges Information Systems Association (UCISA), Bournemouth Universities, University of Oxford, and London School of Economics. Seven elements consist of followings:

Media Literacy

Media literacy means ability to critically read and creatively produce academic and professional communications in a range of media. This also includes a student's ability to, for example, do followings:

- understand digital copyright boundaries, accessibility and have an appreciation of audiences
- design, create, edit, and embed digital artefacts, materials, and stories, for example, in forms of images, audio and video, podcasts, screencasts, and infographics
- understand appropriate delivery methods of those materials
- critically read across a range of digital media (e.g. text/graphical/video/animation/audio)
- recognise appropriate pedagogic opportunities to embed the use of digital media effectively (e.g. student projects/assessment)
- understand the appropriateness of one media over another

Communications and Collaboration

This second element includes degree of participation in digital networks, for example, the edgeless universities, for learning, research, and assessment and involves the degree of practice to:

- effectively use of apps, devices and tools (e.g. social media/Blackboard) to create spaces for online research and collaborative working/knowledge production such as forums, wikis, blogs, OneDrive/Google Drive
- join professional networks such as LinkedIn groups
- share tasks and calendars to negotiate roles for group work
- join the tutoring/pastoral support using virtual classroom technology (e.g. Blackboard Collaborate)
- have an appreciation of social, cultural and professional boundaries (e.g. become more internationalised)

Career and Identity Management

Career and identity management means a person's ability to manage digital reputation and online identity across a range of platforms. This also includes ability of a person to curate personal digital artefacts to create an online "brand". Examples are followings:

- creating a person's own digital footprint
- owning a personal domain for professional practice such as WordPress
- participating in a professional online activity, for example video-conferencing or contributing to a LinkedIn group
- effectively use of PDP file (for example, ePortfolios) to build a bank of assets which signpost digital skills
- understanding the risks and benefits of an online presence and creating digital boundaries which reflect this knowledge

Information, Communication and Technology (ICT) Proficiency

ICT Proficiency means adopting, adapting and using digital devices such as cameras, phones, tablets, applications and services effectively. This basic element may include:

- developing “the new IT skills” to use basic productivity and presentation software, understand web browsing and classroom technology
- using cloud based services effectively, for example, OneDrive, Office 365, Dropbox, Google Drive, Social Media
- understanding how to get the most out of appropriate educational apps
- having an appreciation online security such as backing up and knowing how to recover from failures
- understanding digital handshakes, moving from one device to another

Learning Skills

This means to study and learn effectively in technology-rich environments both formal and informal, virtual and physical. It also means using digital tools to organise, plan and reflect on learning. Examples are:

- a more sophisticated and appropriate use of Blackboard and wider third party tool set (such as Panopto/Kaltura/Box of Broadcasts/PebblePad/PeerMark/GradeMark) for content creation, delivery, assessment and feedback
- understanding how to deliver effective sessions using in-classroom technology and the informal teaching areas such as Eduroam/Apple TV (streaming)/Classroom management apps
- ability to use the Electronic Library to find and aggregate digital information (e.g. Evernote/Social Bookmarking)
- understanding how students are accessing and using content and be aware of the moral and ethical implications of doing so

Digital Scholarship

Digital scholarship means participation in emerging academic, professional and research practices that depend on digital systems. It also includes collecting and researching data using digital methods. Students become partners and co-producers of knowledge to publish work online. This can be measured through:

- degree of using web aggregation services (e.g. Scoop.it/Storify/Bookmarking/Flipboard/Paper.li/Reddit)
- degree of undertaking research using digital questionnaire and analysis tools (e.g. SPSS/Survey Monkey/Limesurvey)
- degree of curating and collating content using cloud-based bookmarking services (e.g. Diigo/CiteULike/Delicious/Pinterest)
- degree of having an appreciation of the opportunities that “open scholarship” can provide (such as Massive Open Online Courses or MOOC)

Information Literacy

Information literacy is defined as the capacity to find, evaluate, manage, curate, organise and share digital information, including open content. At higher levels, it means a critical awareness of provenance and credibility of data sources. This may involve:

- capacity to interpret information for academic/professional/vocational purposes
- ability to act within the rules of copyright and to use appropriate referencing for digital sources

Methods

Due to the nature of topic - digital literacy is quite new concept to Thai students and even in Thailand – we, hence, consider the study is exploratory in nature. The selected method of this study is survey using questionnaire as research instrument. The population is accounting students, both undergraduate and postgraduate level, who enrolled in year 2016 in one of the largest public universities in Bangkok, Thailand. The university offers baccalaureate, master's degree, and doctoral degree from 14 faculties since 1971. The university is well recognized in Thailand and has been famous for a long history of producing qualified professional accountants to serve both private and public sectors.

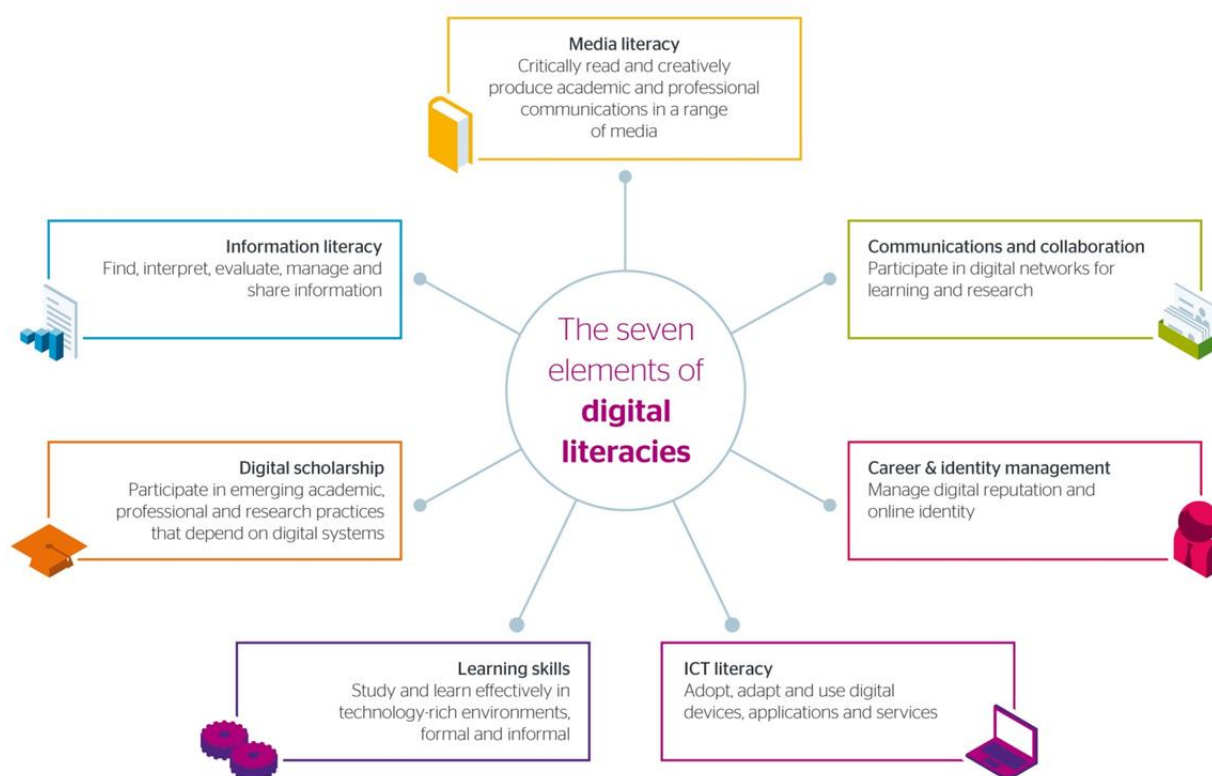


Figure 3: JISC's Digital Literacy Framework Source: JISC. (2014). Seven elements of Digital Literacy Framework. UK. Retrieved from <http://www.jisc.ac.uk>

The total 450 questionnaires have been distributed to all accounting students, while the returned and valid questionnaires to be run using SPSS Program is 416 questionnaires. The questionnaire's response rate is 92 percent and data points consist of 291 postgraduates and 125 undergraduate students. Based on Taro Yamane's (1973) formula, with 95% confidence level the quantity of returned questionnaires is considered to be justified and reliable sample size.

The questionnaire is used for the self-assessment purpose and is organized into three basic parts. The first part is demographic information about respondents which includes some facts about student's gender, age, level of education, years of working experience, and English reading skill. The second part is Digital Skills part which consists of 54 questions; these are seven elements of digital literacy adapted from JISC's Digital Literacy framework. And the final part is about Knowledge of Thailand's Electronic Tax System, which all accounting students are expected to know. Each respondent will be asked to rate their level of confidence in 5 Likert scale points along each element.

Results

Due to the exploratory in nature of this study, we choose to present only results that show statistical significance. We found that level of Work Experience have influenced on level of student's digital literacy, to be specific, ICT literacy and Career and Identity Management; experience also has impact on technical knowledge about e-Tax. However, Table 1 shows that more years of work experience result in less ICT literacy.

Table 1: The comparison between different levels of work experience on ICT literacy

Level of work experience	Mean	Never work	Less than 5 years	5-10 years	More than 10 years
		4.12	4.14	4.07	3.74
Never work	4.12	-	0.02	0.05	0.38*
<5 years	4.14			0.07	0.40*
5 to 10 years	4.07				0.33*
>10 years	3.74				-

*Statistical significant at the .05 level.

Result from Table 2 indicates that students who have work experience between 1-10 years can manage their digital skills that benefit to their career much better than those who never worked and those who work for too long, that is 10 years and over. The results from Table 1 and Table 2 imply that accountants usually do not gain more digital skills from their workplace. Instead, accountant may gain better digital skills through their lifestyle and leisure activities.

Table 2: The comparison between different levels of work experience on Career and Identity Management

Level of work experience	Mean	Never work	Less than 5 years	5-10 years	More than 10 years
		2.56	3.10	3.12	3.01
Never work	2.56	-	0.54*	0.56*	0.45
<5 years	3.10			0.02	0.09
5 to 10 years	3.12				0.11
>10 years	3.01				-

*Statistical significant at the .05 level.

In Table 3, it is quite obvious that technical knowledge about e-Taxation can be improved with more years of experience of practicing accounting in workplace. To be specific, accountants generally are aware of new technical knowledge from working in accounting field.

Table 3: The comparison between different levels of work experience on e-Tax Knowledge

Level of work experience	Mean	Never work	Less than 5 years	5-10 years	More than 10 years
		2.95	3.30	3.38	3.59
Never work	2.95	-	0.35*	0.43*	0.64*
<5 years	3.30			0.08	0.29
5 to 10 years	3.38				0.21
>10 years	3.59				-

*Statistical significant at the .05 level.

The statistical result from last table, Table 4, indicates that postgraduate accounting students are much better in managing their digital proficiency towards their career, with 3.21 mean compared to 2.72 of undergraduate accounting students. Postgraduate students also have more technical knowledge about e-Tax than undergraduate students, 3.42 compared to 3.11.

Table 4: The comparison between undergraduate and postgraduate students on level of Career and Identity Management and e-Tax Knowledge

Measurement	Undergraduate		Postgraduate		t	P
	Mean	S.D.	Mean	S.D.		
Career and Identity Management	2.72	1.11	3.21	0.97	-4.48	0.00*
e-Tax Knowledge	3.11	0.89	3.42	0.76	-3.45	0.00*

*Statistical significant at the .05 level.

Conclusion

From the research results, it is quite sad to say that Thai accounting students tend to improve their digital skills involuntarily. The results imply that accounting students – both undergraduate and postgraduate levels need more attention from the university in term of developing their digital literacy or skills necessary to make them successful both academically and in the world of work. The study shows that there is no difference between postgraduates and undergraduates in term of their digital skills except for one element – Career and Identity Management aspect. This means students will develop their own digital knowledge and skills only when they have to, such as when they need to use digital tools to promote their career profile or to benefit their current jobs. Although the university has provided the universal technological access necessary to all students, postgraduate students have underutilized the digital infrastructure provided. In other words, postgraduate accounting students are compulsive by external factor, for example, job market pressure, to improve their digital skills, while undergraduate students who mostly are full-time students do not have such situations. Hence, developing students' digital literacy should be one of the key strategic directions of the university curricular, rather than leaving it on the students' own hands.

The university should improve accounting curriculum by integrating digital competence as part of the learning outcome at postgraduate and undergraduate level. For example, by evaluating the postgraduate students' class participation or contribution via electronic discussion forum or online threads, or creating a seminar class through internet (e.g. Webinar). Other example is when the university officially offers itself as the digital skill evaluation agent which offers classes and organizes evaluation exams for public. By this, digital skills will be measured and administrated in similar way to the Test of English as Foreign Language (TOEFL) and can attract students in general. To address the issue of low digital skills for older and more experienced accounting students, offering the digital skill class as a prerequisite to their graduation may help them be aware of the importance of digital age. To help improve e-Tax knowledge for undergraduate accounting students, it is recommended that the Apprenticeship subject should specify needed digital skills that required for accounting students – skills such as e-filing, e-invoice, e-

withholding tax. By doing this, university will offer the accounting curriculum that promotes the better digital skills for their students. However, it should be noted that the first and top priority for the university is not about the accounting curriculum per se, but the whole university environment including human resources. To develop the better accounting curriculum to fit digital age, the accounting academic staffs should be the first group of staffs who need digital reskilling as well. This should be part of their compulsive academic progress evaluation. This conclusion is in the same line with the research on digital divide that developing human's digital competence should be the first priority that comes before the investing in technology infrastructure. Lastly to say, we also suggest that the digital competence instrument in this study needed to be more refined to be better fit to Thailand context and, maybe, Asean contexts in the future.

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Factors Affecting Early Childhood Education Students' Learning Achievement at Ramkhamhaeng University

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Abstract

Ramkhamhaeng University (RU), Thailand, is an open-admission university. With this nature, there is a stark difference between the number of Early Childhood Education (ECE) students admitted and that graduated. Roughly, about 20 percent of those admitted graduated. In an attempt to find the factors involving their success rate, this research aimed to study factors affecting these students' learning achievement (SLA); study the correlation between instructors' - students' factors and their SLA; and construct an SLA predictive equation. The population of the study were 2,132 RU students majoring in ECE. The Sample group was 350 students, purposively selected from those registering for the major courses in the 2nd semester of 2016. The instrument was a 3-part questionnaire collecting the subjects' demographic data, their opinions regarding factors affecting their learning achievement and their accumulated GPA. Means, standard deviations, Pearson correlation coefficient and multiple regression analysis were used to analyzed the data. The findings indicated that the factors affecting SLA included students' commitment to learning, the teaching and learning process, student-teacher engagement, and media and learning facilities. Only the first two factors correlated with the SLA at the .05 level. They had the predictive power of 60.2 percent ($R^2 = 0.602$) and the equation was $Y = 2.126 + 0.202X_1 + 0.062X_2$.

Keywords

Learning Achievement, Learning Commitment, Teaching Learning Process, Student-teacher Engagement, Correlation

Introduction

Technological advancement happening at a breakneck pace has caused rapid changes and disruptions in social structure, trade and commerce and environmental exploitation in countries around the world, Thailand is of no exception. These facts emphasize the need for the country to accelerate the development of their human capital and infrastructure to keep in pace with the digital world (The Government Public Relations Department, 2016). The Thai government has implemented several measures to stimulate the needed development, particularly in terms of increasing human capacity.

The path to the development of human capital starts at the most important period when the children are young or in their early childhood stage. Learning and development during the very early stage of life or the first six years of a child's life is very crucial as it is the period when brain can be developed at the maximum level (Niyomkha, 2012) and children are in the stage where they acquire "...concepts, skills and activities which become the integral part of the child's personality and lay the foundation for life-long learning (UNESCO, 2013, 2). Neglecting to provide or voiding of the opportunity to receive a proper training during this period will have a long-term negative effective on their life. Systematic and appropriate early childhood education helps build a strong foundation for children and prepares them for a higher level of learning. With the current social and economic situation, more and more Thai parents are seeking early education for their children. This, together with the government's policy announced in mid 2016 making early childhood education a universal right for all Thai children (NPKC's Decree 248/2016), prompts the need for an increasing number of early childhood teachers and

a quality early childhood teacher education. Effective teacher training is one of the most vital and significant tool and strategies for both qualitative experiences and qualitative improvements of early childhood education (UNESCO, 2013, 4; Li, 2008).

Training of early childhood teachers are done at the tertiary level. At Ramkhamhang University(RU), the Early Childhood Teacher Education (ECE) program is being offered by the Department of Curriculum and Instruction, the Faculty of Education. The program covers all aspects of teacher development including knowledge of child development, development methods and strategies and inculcation of ethical practices as required by the Teachers' Council of Thailand.

A brief description of how teaching and learning is organized at RU will give a rough picture of the rationale for this study. Being an open-admission university, process and procedures in conducting academic activities are different in a number of ways from those at other conventional universities. Interested individuals can readily apply for admission without having to take an entrance examination; they only need to have a minimum of high school education. By law, classes are provided like any other universities but are not compulsory; academic support and student activities must be provided full-scaled like any normal university. Foundation courses and some others are also concurrently offered via e-learning. However, those courses that require hands-on experience in the classroom or practicum are left to the discretion of the instructors to manage their student attendance. With this policy, it means students attending RU are a cohort of rather diverse individuals in terms of age, gender, educational background, interest, socio-economic status and potential.

From past record, the Early Childhood Teacher Education program at RU has been quite popular, and close to a thousand students apply for admission annually. However, there is a stark difference between the number admitted and that graduated. Only about 20 percent of those admitted graduated each year. The majority of them simply dropped out, transfer to other programs or did not achieve at the level required for graduation. It is interesting to seek an explanation for this trend so that the information can be used to increase the success rate of the students.

Several educators and studies concerning higher education program have identified several constructs or factors necessary for effective results of the program. They include the curriculum content, student entry characteristics (e.g. motivation, commitment to learning, academic potential, professional potential), teaching and learning (e.g. teaching methods and strategies, planning), engagement between teacher and student (e.g. different modes of contact between teacher and student), and educational environment (e.g. academic support and learning facilities) (Cinches et al,2016; Le, 2014; Sukhothaithammatirat University, 2014; Julirachanee, 2013; Khayankit, 2011; Sirimahasakorn, 2009; and Tantipalacheeva, 2008b). It is of interest to investigate the effect of these factors and see how they influence student outcome and if they can be used to predict the success of the diverse group of learners in the ECE program at RU. The researcher chose to include only four factors in this study, namely, Student, Teaching and learning, Student-teacher engagement, and Instructional media and facility since the curriculum content has been specifically set by the Teachers' Council of Thailand. Thus, the objectives of this study were to (1) study the factors affecting the learning achievement of undergraduate students enrolled in the Early Childhood Teacher Education program (ECE) at RU; (2) study the correlation between these factors and the students' learning achievement (SLA); and (3) construct a regression equation to explain which predictor variable accounted for how much of the SLA.

Methodology

Sample and Instrumentation

The population of the study were 2,132 students enrolled in the Early Childhood Teacher Education program at RU. The sample group, selected purposively, consisted of 350 ECE students who met the minimum 81 cumulative semester credits criterion and registered for ECE courses in the 2nd semester of 2016.

The instrument of the study was a 3-part questionnaire collecting the following data. Part I collected student's demographic data including gender, age, work experience, household income, hometown, family member, living status and GPA at the time of the survey. The questions were in the form of checklist and fill in the blank. Part II, containing four sections, asked students to rate the four predictor variables in a Likert 5-point scale. Each section had 10 questions, for a total of 40 questions. Questions in the first section (Student) covered student entry characteristics, commitment to learning and motivation to succeed. Questions for the second section (Teaching and Learning) covered teaching and learning methods and strategies, quality of instruction and evaluation of learning. Questions for the third section (Student-teacher Engagement) covered relationships between students and teachers, students' attitudes toward teachers and means of building student-teacher engagement that the teachers used. The last section of Part II (Instructional Media and Facility) contained questions regarding the appropriateness and variety of instructional media and technology used by the teachers, courseware, physical size of the classroom and its atmosphere. This part of the instrument had a reliability of 0.92. Part III was an open-ended question.

Procedure and Analysis of Data

The questionnaire was distributed to the sample group when they attended classes in all the major courses, close to the end of the semester. The sample group was asked to attach a copy of their transcripts to verify their GPAs when they returned the questionnaires. The demographic data were analyzed for frequency and percentage. The students' rating of the four predictor variables were analyzed for mean and standard deviation. The correlation between the factors affecting SLA and the students' GPA was analyzed using Pearson correlation coefficient (r). A multiple regression analysis was conducted and the results used to construct the regression equation.

Results and Discussion

The findings of the study answering the research objectives were presented in Table 1-5. Almost all of the samples were female (99.43%) with the majority of them in the age range of 20-25 years old (64.93%). At the time of the survey, half of the sample had never worked (50.40%) and those with a temporary job or regular job were almost equal in number (23.50% and 26.10%). Half of the respondents reported having an average household monthly income of THB 10,001-30,000, while roughly over 30 percent had income under 10,000. Students from the South (33.60%) and the Northeast (28.40%), each comprised almost one-third of the sample group. A little bit over half of the sample (53.00%) had 2-4 family members while almost half (45.80%) had more than 5 members in their families. Almost half of the respondents lived with family and almost one-third (25.50%) lived by themselves. Table 1 showed specific details of each demographic category of the sample group.

Table 1: Demographic Data of the Sample Group

Demographic Category		<i>f</i>	%	Demographic Category		<i>f</i>	%
Gender	Male	2	0.57	Hometown	Bangkok and Suburb	57	16.50
	Female	348	99.43		Central	42	12.20
Age	Under 20	26	7.53		North	32	9.30
	20 – 25	224	64.93		Northeast	98	28.40
	26 – 30	42	12.17		South	116	33.60
	31 – 35	23	6.67	No. of Family Member	1	4	1.20
	36 – 40	14	4.06		2 – 4	183	53.00
	40 up	16	4.64		5 up	158	45.80
Work Experience	None	174	50.40	Living Status	With family	168	48.70
	Temporary Job	81	23.50		With relatives	40	11.60
	Regular Job	90	26.10		With friend or friend's family	30	8.70
Household Monthly Income	Under 10,000	117	33.92		Living alone	95	27.50
	10,001 – 30,000	176	51.01				
	30,001 – 50,000	37	10.72				

(In THB)	50,000 up	15	4.35		Others	12	3.50
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Even though this study did not directly focus on the concept variables (gender, age, and etc.), the findings in Table 1 did indicate some notable set of data. The researcher, then, made some comparisons of each variable with the students' GPA using one-way ANOVA, as shown in Table 2. The analysis showed that there were differences in two categories which were Household Income and Number of Family Members. Students from households with different average monthly income were different in their GPA at the .05 level ($F = 4.056$). Specifically, Students from the households with less than Baht 10,000 per month had a significantly less GPA than those from the households with more than Baht 50,000 per month at the .05 level. Students with different number of family members were different in their GPA ($F = 5.058$) at the .05 level. Specifically, students with only one member in the family had significantly less GPA than those with 5 and more family members at the .05 level.

Table 2: F-value of Demographic Data and Students' GPA

Demographic Category	F	Sig.
Age	2.057	0.086
Work Experience	0.696	0.499
Household Monthly Income (In THB)	4.056	0.007*
Hometown	1.837	0.121
No. of Family Member	5.058	0.007*
Living Status	0.573	0.682

* $P < 0.05$

Table 3 below showed early childhood education students viewed the following factors as having different levels of influence on their learning achievement. Factors having influence at a high level included Instructional media and facilities ($\bar{x} = 4.25$, $SD = 0.71$), Teaching and learning ($\bar{x} = 4.21$, $SD = 0.77$) and Student- teacher engagement ($\bar{x} = 3.90$, $SD = 0.92$). The students viewed themselves as having only moderate influence on their own learning.

Table 3: Means and Standard Deviation of Factors Affecting SLA of Early Childhood Education Students

Factors Affecting SLA	\bar{x}	SD
Student (X_1)	3.33	1.18
Teaching and learning (X_2)	4.21	0.77
Student- teacher engagement (X_3)	3.90	0.92
Instructional media and facilities (X_4)	4.25	0.72

An application of Pearson correlation analysis as shown in Table 4 revealed that the following factors correlated with the students' SLA significantly at the .05 level: Student ($r = 0.766$), Student-teacher engagement ($r = 0.539$) and Teaching and learning ($r = 0.449$). Instructional media and facilities showed no significant relationship with the SLA. Thus, this variable was excluded in the next step of the analysis.

Table 4: r Values Showing Correlation between Factors Affecting SLA and Students' GPA

Factors	(X_1)	(X_2)	(X_3)	(X_4)	GPA
Student (X_1)	-	0.683*	0.439*	- 0.079	0.766*
Teaching and learning (X_2)	0.683*	-	0.361*	0.085	0.539*

Student- teacher engagement (X ₃)	0.439*	0.361*	-	0.101	0.449*
Instructional media and facilities (X ₄)	- 0.079	0.085	0.101	-	- 0.104
GPA	0.766*	0.539*	0.449*	- 0.104	-

* P < 0.05

An analysis to explain the portion of the variance in the outcome variable (SLA) was also conducted as shown in Table 5. The result indicated that ECE students' learning achievement had a linear relationship with the remaining three variables at a significant level of .05. It is then logical to include these variables in the multiple regression analysis.

Table 5: Testing the Linear between the Predictive Variable and GPA

Source of Variance	df	SS	MS	F
Regression	3	24.512	8.171	174.119*
Residual	345	16.190	0.047	
Total	348	40.702		

* P < 0.05

To examine the predictor variables, a multiple regression analysis was conducted to find the multiple correlation coefficient, the unstandardized and standardized regression coefficient. These data were used to construct the regression equation. The result of the analysis was shown in Table 6.

Table 6: Multiple Linear Regression Analysis of the Predictors Value of Factors Affecting SLA

Predictive Variable	B	SE _b	β	t
Student (X ₁)	0.202	0.014	0.696	14.347*
Teaching and learning (X ₂)	0.062	0.017	0.138	3.641*
Student- teacher engagement (X ₃)	0.005	0.017	0.014	0.294
a = 2.126, R = 0.776, R ² = 0.602, SE = 0.072				

From Table 6, the three predictors which were entered simultaneously into the model were Student, Teaching and learning and Student-teacher engagement. The standardized coefficient of the predictors were as follows: Student (B = 0.202), Teaching and learning (B = 0.062 and Student-teacher engagement (B = 0.005). Only two of the variables were significant predictors of the SLA while Student-teacher engagement was not. Student - teacher engagement was excluded from the regression equation as it had a predictive power of less than 95 percent level of confidence. The multiple correlation coefficient (R) between Student and Teaching and Learning and the SLA was 0.722. Together, they accounted for 60.20 percent of the variance in the SLA with a standard error of prediction at 0.072. The regression equation to predict ECE students' SLA was $y = 2.126 + 0.202X_1 + 0.062X_2$

Conclusion and Recommendations

This study started out by looking at the four factors indicated by literature that they influence students' learning achievement (SLA) and to seek to establish whether each of this factor bears any relationship with the SLA of undergraduate students in the Early Childhood Teacher Education program at Ramkhamhaeng University (RU), and if there is such a relationship, how much each factor could explain the variance in the SLA and how effectively they could be used to predict the SLA.

Findings indicated that students viewed their own overall attributes as having a moderate level of influence on their learning achievement. However, when we looked closer at the subquestion, students indicated that they viewed their own commitment to learning as having influence at a high level. This

could explain why this factor (Student) significantly correlated with the SLA. Teacher training involves both theoretical study and hands-on experiences. Students who responded to the survey has spent no less than two years in the program and, to a degree, are aware that successful applications of theories are dependent on practices, particularly when one is working with small children; they need practices in simulated and real classroom situations. However, since RU has no regulation requiring class attendance, students who come to class regularly must possess a high level of commitment to learning, high enough to drive them to want to come to class to achieve. When this factor was entered in the regression analysis, it emerged as the strongest predictor of the SLA. A number of students enrolled in the program come with a stereotyped perception that open-admission university means no class attendance. So the reality of having to do hands-on activities in class and time needed for face-to-face instruction might prompt some of them to drop out or transfer to other programs that do not require much of their presence in class. It is, therefore, recommended that the ECE program holds some kind of orientation to explain the nature of the program and emphasize the need for class participation in the major courses as one of the factors leading to academic success to these students early on in the program.

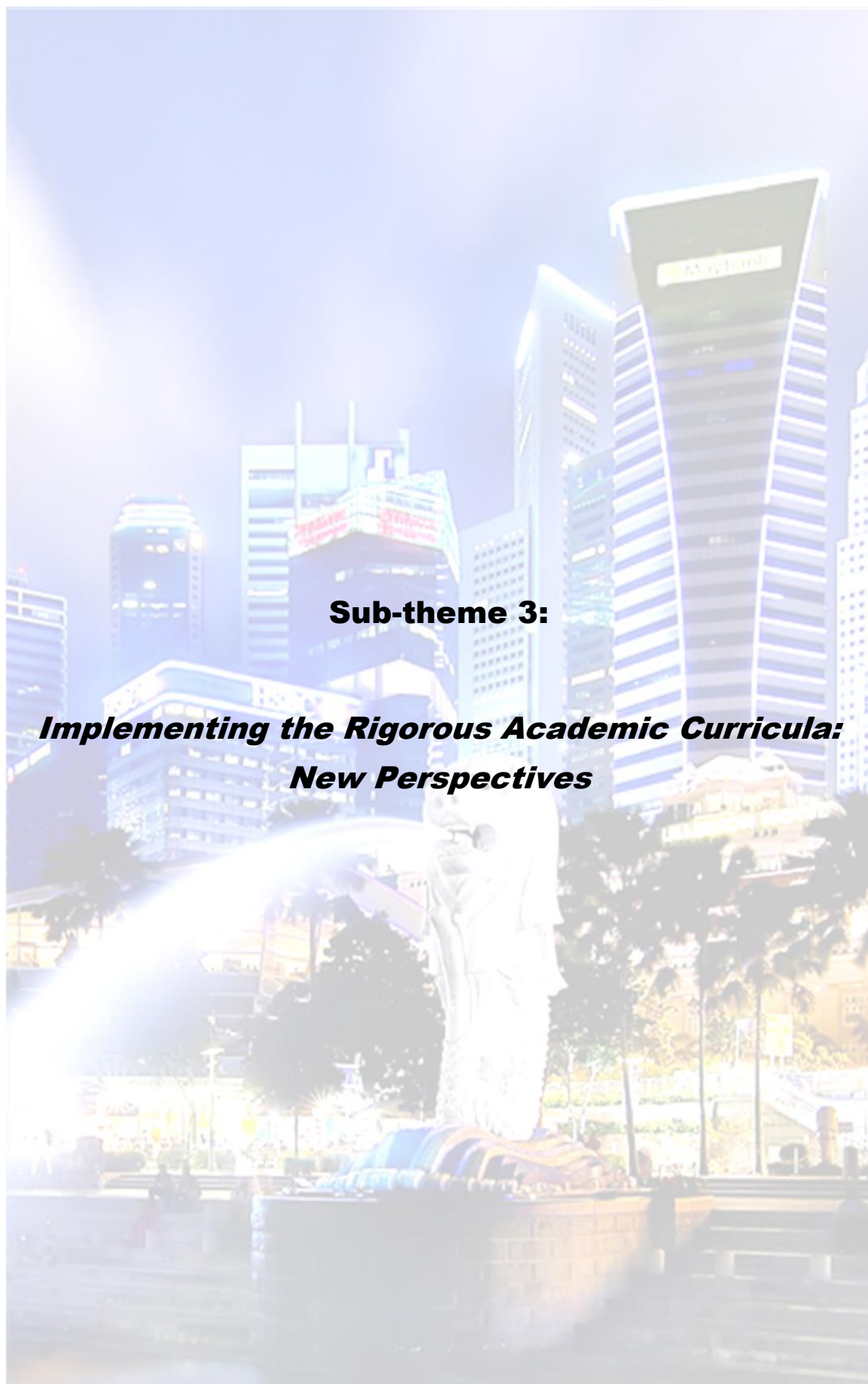
Students also viewed the Teaching and learning as another factor that highly influenced their achievement, in particular, the instructors' content knowledge and teaching competency, announcement of course objectives, clear evaluation criteria and diverse teaching and learning methods and strategies. This is consistent with the fact that RU follows the standards about instructors' qualifications, recruitment process and quality assurance set by the Office of the Higher Education Commission, Ministry of Education. It is a good thing that these qualities are perceptible to the students, as evident by their responses and its significant correlation with the SLA. It is not surprising that Teaching and learning is one of the two predictors of students' achievement.

In Student-teacher engagement, students rated positive relationship with instructors, consultation opportunities and acceptance of students view as being the highest influencing subfactors to their SLA, but rated the opportunities to react with instructor outside class as low. Nevertheless, this factor still correlated with the SLA. However, when entered into the model, it could not predict SLA. This finding is inconsistent with that of Cinches et al (2016) about the positive effect of student-teacher engagement resulting in more teaching effectiveness. It is possible that when the students applied for admission at RU, they did it with the knowledge that it is an open-admission university and the face-to-face encounters with instructors are not necessarily routine; therefore, at a degree, they might hold a presumption that interactions between students and teachers were not the most necessary part of their education at RU. However, in the researcher's personal view, student-teacher engagement is and should be an important part of the instructional process. Considering all the technological tools which provide conveniences in learning, student-teacher engagement is the humanistic element of the educational process, specifically, in any teacher training program which trains its trainees to deal with human. Even though the regression analysis does not indicate that this factor could predict the SLA and it has to be eventually taken out of the equation, it is still interesting to do some further study to see what kind of other effects it has on the students other than academically, e.g. the affective side of being a teacher such as capacity to be compassionate to student (when they themselves become teachers), and etc.

The empirical data obtained from this study also lead to the following policy-wise recommendations for student retention in the program. A consistent and clear communication channels using modern technology such as Facebook, Group Line or Learning Blogs between student-teacher, student-student and teacher-teacher should be put in place in order that students with learning problems know where to go for help or advice, or teachers can spot students with learning difficulties from the early stage of the problem. Certain patterns of long-term peer support groups should be established so students with low motivational level or with adjustment/learning problems feel encouraged to stay on with the program. Provision of facility and time for extra counseling or tutorials to support those students who are prevented from attending classes regularly due to certain difficulties circumstances in life or occupational constraints should be made available to them. Finally, face-to-face meetings at a regular interval throughout the program (e.g., once a year between the first and second semester) should be held to check on the students needs.

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Sub-theme 3:

Implementing the Rigorous Academic Curricula: New Perspectives

Effect of Inquiry-Based and Content-Focused Approaches on the Oral Communicative Competence among Senior High School Students

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Abstract

The Philippines has finally embraced the additional two years in high school with its kicked off on June 13, 2016. The senior high school (SHS) curriculum includes subjects supposedly offered in the first two (2) years in college. Oral Communication, which is usually taken in the first semester, has been offered in Grade 11 starting last year. Contents and learning competencies in the Grade 11 Oral Communication subject paralleled that of the college offering. Issues, difficulties and other concerns encountered by a SHS language teacher can provide reference to college speech instructor; hence, sustaining the learning through appropriate speaking activities that can be offered to students when they reach higher education. This study investigated the effect of inquiry-based and content-focused approaches on the oral communicative competence among the 64 Grade 11 students of a national high school in the Division of El Salvador City during 2016-2017. A teacher made English language speaking tests was administered to assess the students' English speaking ability. The test consisted of six items (four mini-guided-situation and two picture-description test items) which reflected the current issues senior high school students were familiar with. Before the intervention, the students from the inquiry-based group were in the "Developing" level for the following competencies: relevance, organization, vocabulary and non-verbal cues and improved to "Approaching Proficiency" after the intervention. With the students exposed to content-focused approach, there were minimal increases in the students' performance for relevance, organization and non-verbal cues after the intervention. Furthermore, students exposed to inquiry-based approach yielded a significant difference in their pretest and posttest in the said competencies except for vocabulary skill. Students who were exposed to content-focused approach showed no significant difference in their pretest and posttest ratings in oral communication skills. Moreover, there were significant differences in the mean improvement of the two groups in their oral communication skills with the students exposed to inquiry-based approach showing higher mean.

Introduction

Learners of this century are said to be creative and expressive; however, their speaking competency in the target language can be a barrier to express their thoughts and ideas. In the Senior High School courses or domains, oral communication is offered to improve students' competency in conversational English; thus, minimizing or eliminating communication breakdown when they are faced with situations that requires articulation of thoughts using English as the second language (L2).

The Senior High School students under the class of the researcher claimed that among the language skills, speaking for them seemed to be the most difficult and challenging since it requires the use of the target language in almost all of their presentations, reports and collaborative activities. The researcher also observed that students ran out of words and stuttered when they expressed themselves in English. Because of these, students can barely convey their message clearly; thus, depriving them to elaborate their thoughts and ideas. Since 21st century skills include effective communication, maximizing activities which entail lifelike situations are essential to prepare learners to become globally equipped with the competencies necessary for their college education and future careers.

According to Gellis (2013), the four language skills of listening, speaking, reading, and writing are all interconnected. Proficiency in each skill is necessary to become a well-rounded communicator, but the ability to speak skillfully provides the speaker with several distinct advantages. The capacity to put words together in a meaningful way to reflect thoughts, opinions, and feelings provides the speaker with these important advantages: ability to inform, persuade, and direct, ability to stand out from the rest;

and ability to benefit derivatively for career enhancement. Speaking skills are important for career success, but certainly not limited to one's professional aspirations. Speaking skills can enhance one's personal life, thereby bringing about the well-rounded growth one seeks.

The academic performance may be influenced positively by the students' active engagement in the classroom (Emerson & Taylor, 2004; Johnson, 2005). Second language (L2) learning requires that learners take ownership of learning activities through interaction, active participation and the use of the target language in a more authentic context (Tabber & deKoeijer, 2010). The traditional "chalk and talk" method which involves the teacher talking to students and writing notes on the chalkboard results in rote learning, learners' low level of retention, and passive learning. The researcher argues that students' exposure to speaking activities which entail life-like situations using the target language would improve their oral communicative competence. However, such assumption has to be validated empirically. Thus, the researcher was motivated to conduct this study.

Theoretical and Conceptual Framework

This study assumed that knowledge is best constructed when learners are involved in negotiation of meaning. The researcher argues that Inquiry-Based and Content-Focused Approaches influence students' oral communicative competence; thus, knowledge construction is attained through social and learner-centered learning.

This current investigation is anchored on Jean Piaget's constructivism theory. It is a theory based on observation and scientific study -- about how people learn. People construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences (Perkins, 2000).

Piaget's theory on Constructivism helped the researcher in establishing the claim that the students' exposure to constructivist strategy such as Inquiry-Based Instruction during speech activities has significant effect on the learners' oral communicative competency. Inquiry-Based teaching is a constructivist approach since it requires learners to construct their own understanding of concepts through activities covering life-like situations which they can integrate in their past knowledge. It also allows learners to interact with classmates and peers to develop not just their academic facets but also their social and personal growth. Hence, the researcher used the 5-E model (engagement, exploration, explanation, elaboration and evaluation) to incorporate Inquiry Instruction Model in the classroom.

Beach and Myers' Inquiry-Based Instruction (2001) claimed that students are more engaged with language when they connect it to their own lives, and they discover that worlds are constructed through language and texts and through multiple literacies. They also learn how to employ intercultural inquiry, and acquire tools for coping within and between social worlds.

Colwell (2003) asserted that in order for the classroom to really affect children, it must contain curriculum that is a reflection of the students' interests. And one can see that the basis of inquiry is letting students explore topics that are related to their own questions. It is from these questions that inquiry can be a tool that connects the child's social world (capacities, interests, and habits) to the curriculum.

In this study, aside from incorporating meaningful questions to activities that require research, the researcher also exposed the students to panel discussion, role play, skits and debate. The latter activities have maximized the 21st century skills of the learners; thus, providing them avenue for social interaction and awareness of issues in the current world. Through these, learners had the opportunity to voice out their own thoughts and views on the issues that they can relate to.

Using the 5-E Model of Inquiry Instruction, the researcher was able to stimulate students' curiosity on the topic (Engagement), let the students manipulate the materials and made discoveries (Exploration), invited students to share their discoveries based on the descriptions provided (Explanation), allowed

students to create connections between new concepts, principles, theories and real-world experiences by applying them to a new situation (Elaboration) and assessed students' knowledge and provided feedback on performance (Evaluation). Through these stages, the teacher-researcher was able to secure a meaningful output from students' authentic and logical ideas which motivated them to express their deeper understanding of the concepts presented in class. It also provided opportunities for students to gain confidence and develop enthusiasm in class discussions which made them well-rounded individuals equipped with the 21st century skills namely: collaboration, critical thinking, creativity and communication.

Inquiry-Based Approach provided the researcher with an opportunity to capitalize the naturally inquisitive behavior of students. Through this, the students were more engaged in each of the stages in the 5-E Model and extended their knowledge to different situations. While completing inquiry-based lessons, students developed important skills that will help them become successful, lifelong learners.

On the contrary, Brown (2007) defines traditional English curriculum as a content-focused approach in which teachers make decisions about which literary works will be taken by students, how writing will be assigned, and what vocabulary will be studied. The goal of Content-Based Instruction (CBI) is to fulfill the academic and linguistic needs of English language learning. Peregoy and Boyle (2005) observed that the objective of CBI is to help students understand the content and build language skills at the same time by using English at a comprehensible level. Similarly, Echevarria, Vogt, and Short (2008) explained that content-based ESL classes are taught by language teachers whose primary goal is English language development and whose secondary goal is to prepare students for the class. Gordon (2007) likewise noted that if children learn the academic aspects of a second language in the early grades, they are likely to succeed in school when they move into the upper levels.

For the duration of the intervention, the researcher used the traditional method like drills and lecture to develop mastery among the students in the second group. International Phonetic Alphabet (IPA) sounds were presented and students were asked to mimic how the researcher articulates the sounds. Tongue twisters, canned speech and recitation of scripts were also maximized as tool for speech improvement. Ready-made dialogue from the book was memorized by the students and presented in front of the class. The concepts in oral communication were taught using the lecture method and students' oral competency was assessed using pen and paper test and their performance in memorized dialogues.

The purpose of the classroom teachers, however, do not simply imply arming their learners with tacit knowledge of language structures, but it also entails teaching them ways that enable them to use language in real life situations. That is, the teachers' interest should not just be in the fact that the learners get to know the language but that they get to know how to use it. Therefore, the teacher's concern ought not to be merely with linguistic competence but with what is termed "communicative competence" or the ability to use language in real communicative settings. This, of course, does not mean that language usage is to be forever stored in the dark corner of language teaching.

Communicative competence includes, in addition to the knowledge of language structures, the ability to use this in instances of social interaction appropriately in concrete situations. Language has always functioned and will always continue to function as a means of communication; a means of establishing and maintaining a contact, expressing oneself (attitudes, ideas, feelings) in different social situations. Morrow & Johnson (2001) put it: "The aim of any communication is to get its message across and this is the true criterion by which any communication should be judged".

With the aforementioned theories and concepts presented, the researcher argues that students' exposure to Inquiry-Based and Content-Focused Approaches has a significant effect on students' oral communicative competencies.

Statement of the Problem

This study sought to determine the effect of Inquiry-Based and Content-Focused Approaches in the development of the oral communicative competence of the Senior High School Students. Specifically, this study sought to answer the following questions:

1. How do the participants rate in their Oral Communication test before and after the intervention in terms of: Articulation; Grammar; Relevance; Organization; Vocabulary; and Non Verbal cues?
2. How do the participants in each group compare in their Oral Communicative Competence pretest and post-test ratings?
3. How do the two groups of participants compare in their Oral Communicative rating increment?

Hypotheses

Problem 1 is hypothesis free. On the basis of problems 2 and 3, the following hypotheses were tested at .05 level of significance

H_{01} : The students in both groups did not significantly differ in their oral communicative competence after the intervention.

H_{02} : The students in both groups did not significantly differ in their knowledge increment in oral communicative competence after the intervention

Research Methodology

Research Design

This present research employed the quasi-experimental method. DiNardo (2008) described quasi-experimental method as an empirical approach used to estimate the causal impact of an intervention on its target population

Research Participants

A total of sixty four (64) Grade 11 students were chosen as participants of the study. Grade 11 Diamond with 32 students were exposed to the Inquiry-Based Approach, and Grade 11 Ruby experienced the Content-Focused Approach. These two sections were from a National High School in the Division of El Salvador City, province of Misamis Oriental, Philippines, for the academic year 2016-2017.

Research Instruments

To measure the senior high school students' oral communicative competence, performance scores in English Language Speaking Tests (developed by the researcher and a 3-man review committee made up of high school English teachers) was used. A teacher made English language speaking tests was administered to assess the students' English speaking ability. The test consisted of six items (four mini-guided-situation and two picture-description test items) which reflected the current issues senior high school students were familiar with.

The six instruments that were used for this study were reviewed by the members of the panel. Pilot-testing was done to determine its reliability.

Scoring Procedure

The researcher adopted Sipacio and Balgos' (2016) scoring guide in evaluating speech presentations.

Range	Description
5	Advanced
4	Proficient
3	Approaching Proficiency
2	Developing
1	Beginning

Data Gathering Procedures

On the first week of the study, the purpose of the research was introduced to the students before administering the English language tests to assess students' initial level of oral communication skills. Thereafter, the groups were exposed to different instructional conditions. Twelve weeks after the interventions, the students from the two groups took the posttest to see if there has been any improvement in their oral communicative competence.

Furthermore, the students' oral performances were evaluated by the researcher together with two inter-raters, who were also English teachers, using the rubrics for speech presentation designed by the researcher and validated by the members of the panel. Students were called one by one inside the classroom to give their responses on the four mini-guided situations and two picture descriptions. The researcher together with the inter-raters tallied the scores of the students' performances and the mean scores for the six competencies (articulation, grammar, relevance, organization, vocabulary and non-verbal cues) were recorded. The researcher also conducted a Focused-Group Discussion (FGD) to solicit feedback, observation and suggestion from the student-participant and reflect on their thoughts and views regarding the class and the approaches exposed to them.

Statistical Treatment of the Data

In treating the data, the following nonparametric tools were used by the researcher.

For data in problem 1 descriptive statistics such as percentage, mean, frequency distribution, and standard deviation were used; for data in Problem no. 2, T-test for paired samples was used to show the significant differences in the participants' oral communicative competence before and after the speech interventions were given; and for data in Problem no. 3, T-test for independent samples was used to determine if there were significant differences in the increment of the two groups of students' oral communicative competence.

Results and Discussions

Problem 1. How do the participants rate in their Oral Communication test before and after the intervention in terms of articulation; grammar; relevance; organization; vocabulary; and non verbal cues?

Table 7 presents the summary of the oral communication skills of the Senior High School students in both the Inquiry-Based and Content-Focused Groups. It can be seen from the data that in the Inquiry-Based Group, the competency which had the highest mean score during the pretest was on grammar, while it was on both articulation and grammar which obtained the highest mean scores during the post test. Moreover, students' competencies on relevance, organization, vocabulary and non-verbal cues remarkably improved from Developing to Approaching Proficiency after the intervention was given.

Meanwhile, in the Content-Focused Group, the competency which had the highest mean score during the pretest was also on grammar but the posttest mean score remained at 2.57. Although the students' competency on non-verbal cues improved from Developing to Approaching, most of the competencies were still on the Developing level. Based on the data presented, it was evident that the former group obtained a significant increase in the posttest.

During the Focused-Group Discussion (FGD), students expressed that they lack exposure to English speakers since their conversations with their peers and classmates were that of the vernacular. This phenomenon may have contributed to their competence in articulating their thoughts using the target language. Gass and Selinker (2008) emphasized how second language learners create a new language system with only limited exposure to English speaking environment. The limited exposure likewise explains why only few learners appear to achieve oral English competence.

Table 7. Summary Table of the Participants' Oral Communication Skills Rating Before and After the Interventions

Oral Communication Test	INQUIRY-BASED APPROACH				CONTENT-FOCUSED APPROACH			
	PRETEST		POSTTEST		PRETEST		POSTTEST	
	M	Desc	M	Desc.	M	Desc	M	Desc
Articulation	2.54	AP	2.90	AP	2.55	AP	2.55	AP
Grammar	2.60	AP	2.90	AP	2.57	AP	2.57	AP
Relevance	2.33	Dev	2.61	AP	2.38	Dev	2.43	Dev
Organization	2.41	Dev	2.72	AP	2.39	Dev	2.43	Dev
Vocabulary	2.47	Dev	2.60	AP	2.42	Dev	2.38	Dev
Non-verbal	2.36	Dev	2.83	AP	2.43	Dev	2.51	AP

Legend: AP – Approaching Proficiency Dev- Developing

Problem 2. How do the participants in each group compare in their Oral Communicative Competence Pretest and Post-test ratings?

H₀₁: The students in both groups did not significantly differ in their oral communicative competence after the intervention.

Table 8 presents the results of the test of difference in the participants' oral communicative competence pretest and posttest ratings. The data reveal that the communicative competence of the students exposed to Inquiry-Based Approach significantly differ in five out of six competencies that were measured with the post test showing higher means. Only the vocabulary skill of the students had no significant increase based on the figures. On the contrary, the oral communicative competence of the students who were exposed to Content-Focused Approach showed no significant difference in their pretest and posttest ratings.

From the findings of the study, the null hypothesis on non- significant difference in the oral communicative competence of the students can be rejected in the Inquiry-Based Approach.

Table 8. T-test with Paired Samples' Result of the Test of Difference in the Participants' Oral Communicative Competence Pretest and Post-test ratings

	INQUIRY-BASED APPROACH				CONTENT-FOCUSED APPROACH			
	PRE TEST	POST TEST	t	p	PRE TEST	POST TEST	t	p
Articulation	2.56	2.94	4.31**	.000	2.56	2.50	1.44	.161
Grammar	2.59	2.81	2.52*	.017	2.56	2.53	.571	.572
Relevance	2.31	2.59	3.48*	.002	2.38	2.50	-1.68	.103
Organization	2.41	2.69	3.04*	.005	2.44	2.34	1.14	.263
Vocabulary	2.44	2.53	1.79	.083	2.38	2.41	-.373	.712
Non-verbal	2.31	2.78	5.23**	.000	2.44	2.50	-.812	.423

*significant at 0.05 level

** significant at 0.01 level

The findings of the study affirm the claims of Emerson & Taylor (2004); and Johnson (2005) that the performance may be influenced positively by the students' active engagement in the classroom. Tabber & deKoeijer (2010) also emphasized that second language (L2) learning requires that learners take ownership of learning activities through interaction, active participation and the use of the target language in a more authentic context. The traditional "chalk and talk" method which involves the teacher talking to students and writing notes on the chalkboard results in rote learning, learners' low level of retention, and passive learning.

Problem 3. How do the group of participants compare in their Oral Communicative rating increment?

H₀₂: The students in both groups did not significantly differ in their knowledge increment in oral communicative competence after the intervention.

Table 9 presents the result of the test of difference in the participants' test score increments in Inquiry-Based and Content-Focused groups. The data show that the increments in the students' performance significantly differed with students who were exposed to Inquiry-Based Approach demonstrating higher means from all the oral communicative competencies measured.

Table 9. T-test with Independent Sample Result of the Test of Difference in Participants' Test Score Increments in the Two Groups

Oral Communicative	INQUIRY-BASED APPROACH		CONTENT-FOCUSED APPROACH		t	p
	M	SD	M	SD		
Articulation	.31	.471	.00	.000	3.75**	.001
Grammar	.25	.508	.00	.000	2.78**	.009
Relevance	.25	.440	.06	.246	2.10*	.041
Organization	.22	.420	-.03	.177	3.10**	.003
Vocabulary	.03	.177	.00	.254	.571	.570
Non-verbal	.41	.560	.03	.177	3.613**	.001

** Significant at 0.01 level (2-tailed)

* Significant at 0.05 level (2-tailed)

From the findings of the study, the null hypothesis on non-significant difference in the knowledge increment in oral communicative competence of the two groups can be rejected. The data show that there is a significant difference in the increment on the oral communicative skills of the students in the two groups with the students demonstrating higher increments in all the dimensions of the skills.

The findings of the study supports Rekrut's (2002) claim that Inquiry-Based teaching approach strengthens both students' linguistic and communicative competence where activities were presented into a meaningful context in a natural sequence. The implementation of inquiry teaching benefits second language instruction in all aspects. It not only serves the purpose of increasing the opportunity of participation and maintaining students' attention, it is an instrument to initiate and sustain the instructional interaction.

Furthermore, the findings also validate Wells' (2000) assertion that a student's metacognitive skills can be developed through inquiry. They do not just have to memorize material and then reiterate it on a test; instead, they have to develop skills for researching, organizing, thinking abstractly, questioning and reflecting. These skills are applicable to all areas of their life and will help them in their personal, school, work and social lives. A student who is learning these skills now will have intrinsic motivation and will continue their learning throughout their lives.

Findings

The following results were disclosed after analyzing the data gathered.

1. The students from the Inquiry-Based Group demonstrated an improvement in their skills in relevance, organization, vocabulary and non-verbal cues to the Approaching Proficiency level after the intervention was given. With the students exposed to Content-Focused Approach, there were minimal increases from the students' performance in relevance, organization and non-verbal cues after the intervention.
2. The oral communicative competence of the students exposed to Inquiry-Based Approach significantly differs in their pretest and posttest except in vocabulary.
3. Students who were exposed to Content-Focused Approach showed no significant differences in their pretest and posttest ratings in oral communication skills.
4. There were significant differences in the mean increment of the two groups in their oral communication skills with the students exposed to Inquiry-Based Approach showing higher mean increments.
5. There was no significant difference in the score increment of the two groups in terms of vocabulary.

Conclusions

The student-participants in this study generally lack the competency in oral communication in terms of articulation, grammar, relevance, organization, vocabulary and non verbal cues. Such phenomenon confirms the researcher's claim that Senior High School students' competency in speaking can be a barrier to express their thoughts and ideas using the target language since speaking for them is the most challenging and difficult among the language skills. Evidently, in the study, the use of Inquiry-Based Approach helped improve the students' oral communication.

Inquiry-based learning allows students to be active creators of knowledge; to see each other as authorities; and to validate their learning. It provides such opportunities for all students so that they can draw on and confirm the dimensions of their histories and experiences that are deeply rooted in the surrounding community to create the conditions where students come together to speak, to engage in dialogue, to share their stories, and to struggle together within social relations that strengthen rather than weaken possibilities for active citizenship" (Emerson, 2004). It can be inferred that students who are exposed in Inquiry-Based Approach more frequently can acquire higher oral communicative competence compared to Content-Focused Approach.

Recommendations

In the light of the findings and conclusions in the study, the researcher presents the following recommendations:

1. For English teachers that they expose students to Inquiry-Based Approach so that the students can take ownership of their learning process and become independent learners;
2. For English teachers to create learning exemplar and modules that integrate inquiry-based activities so that students will be equipped with speaking skills necessary in their higher education and future careers;
3. Higher Education Institutions consider the result of this study as a reference to address other concerns students might still have on their oral performance so that educators can include these in the crafting of the syllabus;
4. HEI teachers give a post test to these respondents to see if their levels have increased from that of their senior high school performance.

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Autonomy in Teaching Curriculum Development at Vietnam National University, Hanoi: Current Situation and Solutions

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Abstract

Vietnam National University, Hanoi (VNU) has been entrusted by the Government with the pioneering role in training high quality human resource, initiating new directions for the development of the country's science and technology. Since established, VNU has been given autonomy in curriculum development and opening new training disciplines. With this greatest autonomy, VNU has always focused on developing spearhead scientific and academic disciplines to meet the diversified and increasing demands of domestic and international labour markets. VNU, then grant the autonomy to its member universities. However, the decentralization to member universities and faculties in developing teaching curriculum encounters certain difficulties. The questions put forward are "How much autonomy in developing curricula can be granted to member universities and faculties?" and "How to improve the quality of the curricula?" The data collected from 256 staff by means of a survey questionnaire and 15 VNU managing officials through in-depth interviews reveal the reality in developing curricula at Vietnam National University Hanoi and the advantages and disadvantages of the autonomy. Based on the results, some solutions are suggested to improve the curriculum quality.

Keywords

Autonomy, teaching curriculum, curriculum development, VNU

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Vietnam National University, Hanoi (VNU), established in 1906, is one of the two national universities in Vietnam, which ranked 139 in Asia by QS World University Rankings 2016. With its numerous high quality, multi-disciplinary, multi-field undergraduate, graduate education programs and fundamental and applied research fields, VNU plays a key role in the Vietnam education system.

VNU has 34 constituent units consisting of 7 member universities, 5 faculties, 7 research institutes, 2 training centres, and 13 service units. Currently, VNU has 95 undergraduate, 142 graduate and 121 doctoral programs with the annual enrollments of 7300 undergraduate, 3000 masters and 400 doctoral students.

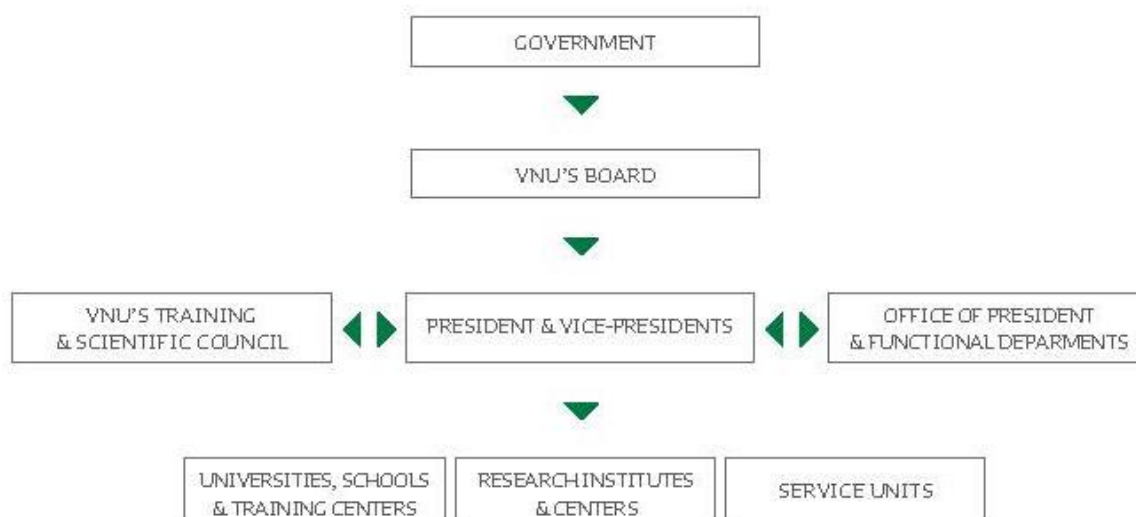


Figure 1: VNU's organizational chart

An overview of higher education autonomy

Autonomous university typically refers to a [university](#) which exercises independent control over its day-to-day operations and curriculum. It implies that the sponsoring state does not have control over academic matters of the school. Conversely, universities that are not autonomous generally have their curriculums controlled, even dictated by the state's [Ministry of Education](#) or government agency regulating higher education¹.

Institutional autonomy allows a public college or university the flexibility to fulfill its mission without undue interference from external bodies such as political or special interest groups. Scholars have identified two types of institutional autonomy, the first surrounding academic matters and the second concerning administrative activities. Substantive autonomy, also labeled academic flexibility², has been identified with the "goals and programs" of the academy³. Procedural autonomy subsumes the processes by which these are achieved⁴, including the financial and personnel tasks in administrative procedure⁵.

University is where new knowledge is created and academic freedom is an absolute right. University lecturers are free to undertake researchs and publish their researchs, free to undertake their lectures and academic discussions; free to criticize the university's censorship and regulations. According to Shils, academic freedom is its self, related to the university's core objectives which are freedom in studying and disseminating the truth. The truth is considered as a mandatory principle, but not a barrier to academic freedom⁶. Many scholars around the world have studied the development of curriculums such

¹ https://en.wikipedia.org/wiki/Autonomous_university

² Volkwein, J.F., & Malik, S.M. (1997). State regulation and administrative flexibility at public universities. *Research in higher Education*, 38(1), 17-42

³ Berdahl, R. O., & McConnell, T.R. (1999). Autonomy and accountability: Who controls academe? In P.G. Altbach, R.O. Berdahl & P.J. Gumport (Eds), *American higher education in the twenty-first century: Social, political, and economic challenges* (PP. 70-88). Baltimore: The Johns Hopkins University Press.

⁴ Berdahl, R. O., & McConnell, T.R. (1999). Autonomy and accountability: Who controls academe? In P.G. Altbach, R.O. Berdahl & P.J. Gumport (Eds), *American higher education in the twenty-first century: Social, political, and economic challenges* (PP. 70-88). Baltimore: The Johns Hopkins University Press.

⁵ Volkwein, J.F., & Malik, S.M. (1997). State regulation and administrative flexibility at public universities. *Research in higher Education*, 38(1), 17-42

⁶ Callahan M.1995. *Academic Freedom, Autonomy and Accountability*. Largely abstracted from: OCUA, *Some Perspectives on Academic Freedom, Autonomy and Accountability*. Task Force on Resource Allocation, Ontario Council on University Affairs. From website: <http://cclp.mior.ca/Compex/AcFree_Account-Aut_MSgp.pdf>.

as Emmanuel Atanda Adeoye, Piter F. Oliva, Yvonne Osborne, ...⁷ with the main focus on the development of models, guidelines, and review of curriculums. “Curriculum development is a process of improving the [curriculum](#). Various approaches have been used in developing curricula. Commonly used approaches consist of [analysis](#) (i.e. need analysis, task analysis), [design](#) (i.e. objective design), [selecting](#) (i.e. choosing appropriate learning/[teaching methods](#) and assessment method) [formation](#) (i.e. formation of the curriculum implementation committee / curriculum evaluation committee) and [review](#) (i.e. curriculum review committee)”⁸

In Vietnam, like anywhere else in the world, the development of curriculums that meet the needs of society is an important task of universities. In recent times, the survey of social needs for the development of curriculums has always been a primary concern of the universities. In order to create more conditions for the universities, the Ministry of Education and Training (MOET) has given certain autonomy in the development of curriculums. VNU, being one of the two national universities in Vietnam, assigned by the Government the pioneering role in training high quality human resources as well as exploring new directions for the development of the country's science and technology enjoys a degree of autonomy that other higher education institutions in the country do not have.

With this highest autonomy, VNU has always focused on the development of spearhead disciplines to meet the diversified and increasing demands of the domestic and international labour markets. Thanks to high autonomy in the development of the curriculums, since 1997, VNU has developed and deployed the curriculums for talented students. This is the educational program delivered only at VNU. Graduates from these programs are truly outstanding and many of them have been admitted to master's and doctorate programs at the world's leading universities.

In Vietnam, research on the development of curriculums has drawn interest of researchers for the past 10 years. Experts with numerous studies on this topic include Chinh Nguyen Duc, Hien Nguyen Vu Bich, Ngoc Le Duc, Khuyen Le Viet, Trinh Doan Thi Minh,...⁹. Their research focuses mainly on issues related to models and processes to develop and review education programs, or designing education programs following CDIO approach. There has been no in-depth research on the autonomy of curriculum development. Therefore, this research was done with a view to bridging that gap in the literature. Two questions related to this issue are put forward for the current research are:

- How much autonomy in developing curriculums can be granted to member universities and faculties?
- What needs to be done to improve the quality of the curriculums?

Research method

A survey questionnaire was used to collect data from 256 staff of 18 training units. In-depth interviews with 15 VNU managing officials were also conducted to collect information on autonomy in developing the curriculums at VNU. SPSS software was applied to analyse the collected data.

⁷ - Emmanuel Atanda Adeoye (2006), Curriculum development: theory and practice, Lagos: National Open University of Nigeria.

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Table 1: Number of staff involved in the survey

No	Title, Degree	Quantity	Ratio %
1	Professor	2	1%
2	Associate professor	26	10%
3	Doctoral degree holders (not include Prof and Assoc. Prof)	88	34%
4	Master's degree holders	140	55%
	Total	256	100%

Autonomy in developing curriculums

Results of the in-depth interviews with 15 managing officials on the autonomy in the development of curriculums were as follows:

In Vietnam, MOET undertakes the development and management of undergraduate, master and doctoral programs. Based on the list of coded training disciplines developed by the MOET, VNU develops a plan for its own training disciplines. Each year, based on the needs of the society, especially the demand of the labour market for high quality human resources, VNU can add its new training disciplines to MOET's existing list.

VNU member institutions have autonomy in identifying the needs of new occupations, in studying the socio-economic development trends locally and internationally, in implementing surveys and forecasting on human resource needs in order to propose the plan for developing curriculums. The proposed plans will be submitted to VNU leaders, who will review them and then issue the decision on the plan for curriculums for 5 years. During the implementation of the plan, if there are new demands for human resources, the VNU members can propose to VNU to adjust the plan for the following years.

MOET sets up regulations for all curriculums of all universities nationwide. The regulations dictates that each undergraduate program should have 6 compulsory modules consisting of 27 credits which account for 20% of the program. For a master's program, there should be 2 compulsory modules consisting of 8 credits which account for 12% of the program. For doctorate programs, there is no regulation from MOET concerning compulsory modules. Instead, it is the university's job to decide the modules for this level. MOET organises, manages the development of the syllabus and textbooks of all modules for all universities. These syllabuses and textbooks will be taught in all universities nationwide.

Current situation of autonomy in the development of new curriculums

According to the VNU regulations for undergraduate programs, member universities have the autonomy in developing proposals to open new curriculums on the list of VNU training fields. VNU sets the minimum amount of knowledge for the curriculum and the structure of the curriculum. In order to develop interdisciplinary studies, VNU developed 212 syllabus and textbooks of general education and divided the modules into major groups.

When developing new curriculums, VNU member universities must comply with the modules of general education provided by VNU. A Vice Rector of a member university said: *"Our students can study at any VNU member for some interdisciplinary modules. This ensures the effectiveness of the curriculums and saving the training costs"*.

In addition to the modules administered by MOET and VNU, VNU members can proactively develop the remaining modules of the programs. A Rector of a VNU member university said *"The syllabus and textbooks are mostly written by the lecturers and professors. If needed, some materials of other reputable institutions will be referred"*.

Current situation of autonomy in the revision of current curriculums

During the implementation of the curriculums, member universities have autonomy to actively update syllabuses and textbooks. If there is a change in the title or number of credits of the module, the institution is responsible for reporting to VNU for consideration and approval. A Vice Rector of a member university explained: *"Updating the content of the syllabuses is an annual task of the lecturer to keep pace with the development of science and technology in the world, especially when the industrial revolution 4.0 is taking place"*. A managerial officer said: *"The syllabuses of the training modules are updated regularly, every 3 years on average, up to every 5 years. When a textbook is reprinted, the faculty members update the latest knowledge of the field into it"*.

Table 2: Comparison of the autonomy of VNU member universities and other universities

TT	VNU member universities	Universities outside VNU
I	Process	
1	Category of academic disciplines	
	Follow the MOET's category of academic disciplines and VNU plan of training disciplines	Follow the MOET's category of academic disciplines
2	New curriculums	
	The universities develop new curriculums, consisting of modules issued by the MOET, and by VNU; The universities actively develop new curriculums according to the VNU's approved plan of training disciplines; VNU reviews proposed curriculums; VNU approves the proposed curriculums.	The universities develop new curriculums, consisting of modules issued by MOET; The universities actively develop and review new curriculums; The universities report to MOET; MOET approves the proposed curriculums.
3	Revision of current curriculums	
	The universities actively revise and review current curriculums; The universities report to VNU; VNU promulgates curriculums	The universities actively revise and review current curriculums; The universities are allowed to promulgate the curriculums by themselves; After that, the universities report to MOET.
4	Development of the module syllabus	
	The universities actively develop and review module syllabuses (VNU promulgates some syllabuses of general education)	The universities actively develop and review module syllabuses; The universities have right to promulgate the syllabuses.
5	Compiling and publishing textbooks (for curricula other than MOET management)	
	The universities compile and review textbooks of some modules of general education in VNU's list of disciplines. The universities publish the textbooks.	The universities compile and review textbooks. The universities publish the textbooks.
II	Advantages	
	The universities are flexible in the development of their curriculums using the common, shared VNU resources. This facilitates the implementation of interdisciplinary, unique and pioneering programs which are impossible to implement in other universities. VNU controls the quality of these curriculums. This helps to promote the interdisciplinary of programs and supports VNU members to develop the programs in the right direction, which meet the needs of society.	The universities are active and flexible in selecting and opening new curriculums.
III	Challenges	
	The procedure sometimes limit the creativity and initiative of the members.	The universities are independent so there is less interconnectivity in training activities; It is difficult to implement interdisciplinary programs.

Current status of autonomy in management and approval of curriculums

VNU issued a document (No.1366/QD-DHQGHN dated 25/4/2012) regulating the launching a new curriculum and adjusting an existing curriculums. Accordingly, the steps for developing a new curriculum or adjusting an existing curriculum are clearly defined. The common point between new curriculums and existing curriculums is that after the institution complete the designing of a new curriculum or has made necessary adjustment, all curriculums are sent to VNU for review and approval, and issued¹⁰. Through in-depth interviews with 15 leaders of VNU about the autonomy situation in curriculum development, the results are as follows:

Current status of autonomy in launching new curriculums

The 4 steps in launching a new curriculum are as follows: The institution sets up a project to develop the new curriculum, which is then reviewed by the institution at the grass root level; VNU organizes the curriculum appraisal, and then promulgate the new curriculum; the institution prepares training quality assurance conditions; VNU evaluates the conditions for the program delivery and then assigns the tasks to the institution.

A manager at VNU said *“Every year, due to the limited budget allocated by the State, VNU can only open 8 to 10 new curriculums. There are so many projects for launching new education programs resulting in a huge waste of time and effort of lecturers. This even annoys the staffs who are involved in the projects”*.

Current status of autonomy in adjusting current curriculums

- Curriculum update and adjustment goes through the following steps: First, the faculty proposes the update, adjustment of the curriculums and syllabi of the discipline; then, the Science and Training Council meets to review the updated, adjusted curriculum; after that, the institution submits documents to VNU for promulgation.
- The evaluation and promulgation of curriculums are VNU's jurisdiction. If 20% or more of the curriculum contents are being updated or adjusted, VNU will hold a specialised appraisal council and decide to issue.

However, the fact that all the changes in the content must be approved by VNU has made institution hesitate to make update or adjustment even though it is necessary to do so. One principal said: *“VNU should stipulate that its member universities can update or adjust 20% of the content of their curriculum every year while VNU inspects and monitors the performance of each institution.”*

Survey on the autonomy in developing and managing curriculums

The author has surveyed 256 managers, lecturers, experts, technicians, researchers, doctors in 18 institutions in VNU (Table 1). According to the survey results (Figure 2), 16% of the respondents agreed with VNU's decision to open all new curriculums, meaning that they agreed to the status of build and manage new curriculums at VNU, 25% of respondents agreed with the plan that institutions decide on opening all new curriculums. This is also a solution to solve the shortcomings of a VNU manager mentioned in the in-depth interview (section 4.1) in the expectation of not wasting of time and effort in making projects. 59% of respondents said that VNU should decide to open some important, specialized curriculums, whereas normal curriculums should be decided by the head of the institutions. Thus, the majority of respondents think institutions need greater autonomy not only in launching new curriculums, in addition to being autonomous in identifying new demand for industry need, actively research the trend of social economic development domestically and internationally, take the initiative in implementing social survey on the demand for human resources and forecast future human resource need.

¹⁰ VNU (2012), Decision No. 1366/QD-DHQGHN on 25 April 2012 for Regulations for opening new curriculums and adjusting curriculums.

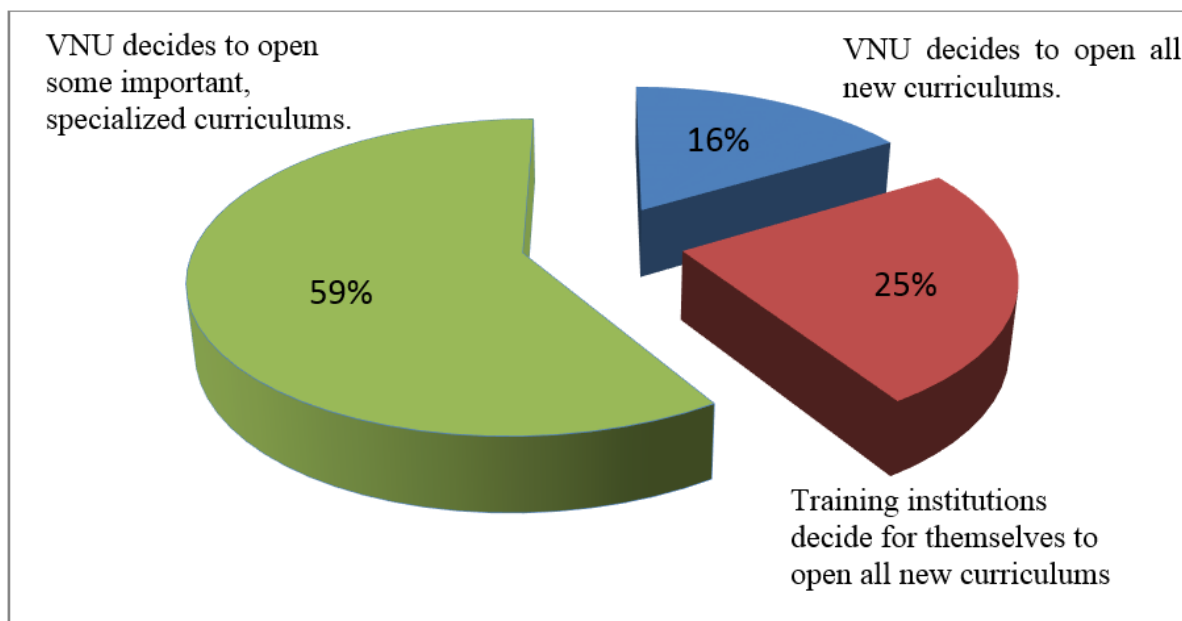


Figure 2: Survey on the right to open new curriculums

For curriculums that are currently being carried out (Figure 3), 30% of the interviewees agreed with the current situation in VNU, that is, the heads of institutions organize the adjustment, VNU evaluates and issue adjusted curriculums. A great number of staff (70%) wish for some change, which means more autonomy is given to the head of institution so that they can decide for themselves the adjustment of their curriculums. These officers propose universities autonomy in adjusting current curriculums at the highest level. The results of in-depth interviews (section 4.2) show that the principal of a university also suggested that VNU should only check and supervise the performance of member universities, giving more rights to the universities in adjusting current curriculums.

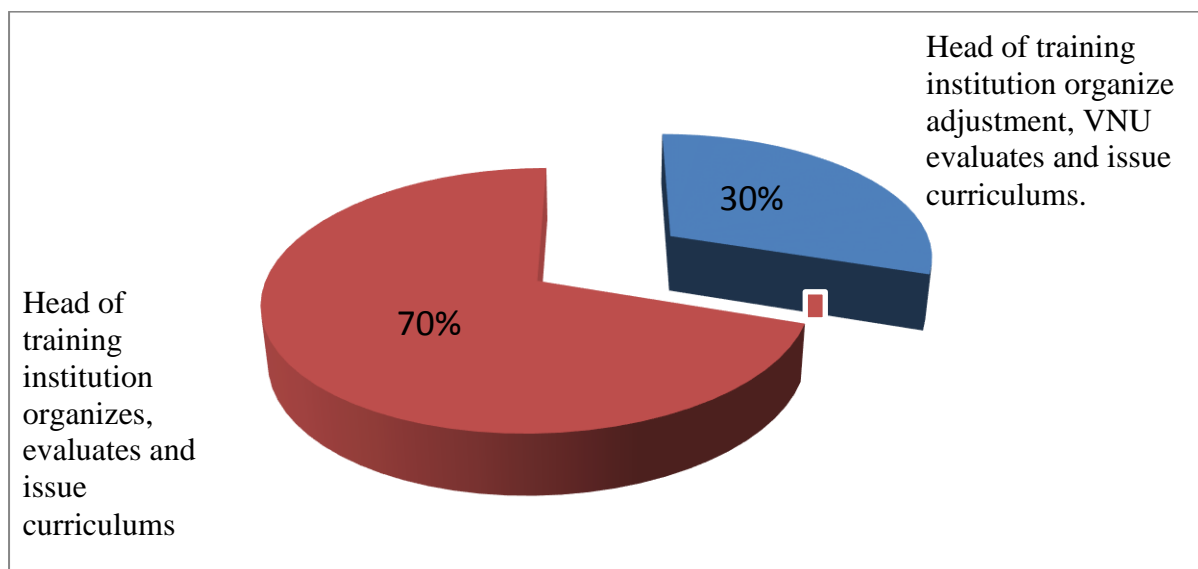


Figure 3: Survey on the right to adjust curriculums

Solutions for enhancing autonomy in developing curriculums

General solutions

- VNU should to develop a system of legal document stipulating the process of opening, adjusting curriculums towards enhancing autonomous rights of training institutions in developing curriculums.
- Training institutions of VNU should actively develop high quality curriculums, setting budgets for implementing the curriculums that helping them less dependent on government's budget. MOET issued Circular No. 23/2014/TT-BGDDT on 18 July 2014 that allowed training institutions develop for themselves high quality curriculums¹¹. Many training institutions of VNU have good facilities, rich source of reference materials, highly qualified faculties, experienced managers to implement higher and higher quality curriculums.
- VNU develops more the modules of general education, digitalize and share them for all VNU members in order to strengthen the interconnectivity of VNU members, to increase the training effectiveness and create favourable conditions for learners to develop their capacities.
- VNU should not set up compulsory subjects, but compile syllabuses and reference materials for some of general subjects which are actively selected by training institutions. That will give institutions advantages to take initiative in opening new curriculums.

Special solutions for opening new curriculums

VNU should requires training institutions to invest in accurate disciplines planning, responding to human resource needs in the coming years, specially in compliance with human resource needs of industrial revolution 4.0. The institutions develop plans for opening new curriculums which are matching with the list of allowed majors of VNU. The approval for plans will depend on quality criteria. Concurrently, VNU should to inspect, evaluate the quality assurance conditions of the institutions. That helps decrease wasting money and effort of institutions, and immediate implementation of the curriculums would help them to be more up to date.

Special solutions for adjusting curriculums

For programmes that have not had graduate students: VNU should evaluate and approve for adjusted curriculums. Evaluation process needs to implement at 2 levels: internal level (at training institutions) and external level (at VNU).

For programmes that have had graduate students: Leaders of training institutions adjust, evaluate, and deliver the curriculums themselves. The leaders have responsibility to explain, report to VNU management and academic issues. Autonomy rights for training institutions will help curriculums to be updated regularly, responding to the developing economic and social trends the country and international integration.

Conclusion

Thanks to the autonomy rights that VNU enjoys, its member institutions have advantages in opening new curriculums. The training institutions of VNU have had autonomy rights in most aspects of curriculum development and evaluation. However, when developing curriculums, the training institutions have met some difficulties. The solutions for autonomy in developing curriculums which the author mentioned above will contribute to the process of enhancing quality of curriculums at VNU, helping it to implement the duties of a pioneer in training high quality human resources, opening new road in developing technological sciences of Vietnam.

¹¹ Ministry of Education and Training (MOET) (2014), Circular No. 23/2014/TT-BGDDT, delivered on 18 July 2014 for Regulations for high quality training in universities.

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https://en.wikipedia.org/wiki/Autonomous_university

Autonomy and Internationalization of Higher Education A Case Study at Vietnam National University, Hanoi

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Abstract

Autonomy and accountability are the top priority in the process of renovating higher education around the world today; an important tool needed to the functioning of a university to fulfill its commitment to society. Strengthening the rights to autonomy and accountability are the main movements of universities world-wide in order to meet the development rules of society. In the movement of integration and development in Vietnam, universities are moving from centralized management to subsidized decentralization and strengthening the autonomy and social responsibility of universities to meet the goals of the innovation and integration phase. This paper would evaluate the internationalization of higher education at VNU in the context of university autonomy. A number of policy factors affect international cooperation at the VNU; The role of scholarly exchanges for students, lecturers in the context of international integration; The impact of international affiliate programs to the internationalization of higher education at VNU.

Keywords

VNU, autonomy, internationalization, higher education

Acknowledgment

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Rationale

Autonomy in Higher education which is a trend of the development, is a pre-requisite for implementing administrative approaches in order to reform and improve the training quality. Autonomy will create the motivations for higher education institutions to renovate in order to achieve a greater level of effectiveness, while increase competition among educational institutions to facilitate the diversification of educational activities. Therefore, the global trend is shifting gradually from a State controlled model to a State supervision model. For example, Japan had approved the law of National Universities Associations which granted legal autonomy to all universities with greater power than the Director/Principal Board. In 2005, Singapore granted the similar law for its three universities¹². According to Matthias Kreysing¹³, the autonomy issue in German universities changed in the early years of 21st century, when the government controlled most of their activities. The author presents information on the reform at a well-known university in Germany and points out that universities need to find

¹² <https://www.vnu.edu.vn/btdhqghn/?C2145/N12636/Tu-chu-dai-hoc:-Xu-the-cua-phat-trien.htm>

¹³ Matthias Kreysing, Autonomy, accountability, and organizational complexity in higher education: the Goettingen model of university reform, Journal of Educational Administration, 2002

appropriate methods to increase their competitiveness and autonomy even in a state-controlled environment.

According to Anderson & Johnson (1998)¹⁴, there are seven components of autonomy in higher education, in which autonomy in academic activities and educational programs such as teaching methods, assessment and evaluation of learning outcomes, curriculum content and materials are the important factors in the international integration process of higher education.

Autonomy and internationalization policies in Vietnam

After several studies about Vietnam educational and training programs by Vietnam Education Fund (an independent agency of US government) and Vietnam – the Netherland project, the Intel company has concluded that the training quality is relatively low which means the training programs has low efficiency, graduates are weak in academic and practical capacity, self-study ability, foreign language and computer skills.

Under the current condition, the financial resources, the human resources and the managing approaches have not been guaranteed to construct and develop certain universities in Vietnam into world class level. Thus, the feasible solution is to combine the existing infrastructure and human resources of potential universities as well as research centres with the support of standardized international universities partner to develop new training models which are high quality and international standard. By this, Vietnam could deploy a high quality educational and training system and achieve world-class standard. Furthermore, the lessons and experience conducted from the implement process could contribute to the “Fundamentally and Comprehensively Innovation of Higher Education for a dramatic transformation on training quality”¹⁵.

Facing this problem, the Vietnam Government advocates to focus on developing higher education. A part of this policy is granting the legal autonomy and accountability to higher education institutions¹⁶. Self-determination in training programs and being active in international co-operation are two main contents included in the autonomy law. Moreover, the internationalizing policies had been implemented and became reality through certain imprints. From the fact about the socio-economic development in the trend of globalization, and the rising trend of Vietnamese students studying abroad as well as studying at international educational institutions, the competition of international training programs and the commitment to expand upon the WTO accession, etc, Vietnam higher education is required to have new development and breakthrough in terms of quality, modernity and internationalization to attract not only local but also international student, and avoid to risk of losing the market to provide higher education service right in Vietnam.

The participation of international scholars is extremely active in the recent years in terms of research and training of Vietnam universities. Over the years, the Fulbright Program in Vietnam has sent almost 200 US scholars to work at Vietnamese universities and research institution in the field of information technology, public health, environmental science, economic and specially, education. Furthermore, other programs and NGOs such as the ASIA Non-government Funds, Japan Foundation have provided hundreds of volunteer teachers and scholars who come from many countries, to work in Vietnam. The participation of international scholars has brought in the new vitality for the system, aroused the aspirations for international integration and broadened the vision of the academic staffs which promotes innovations in terms of teaching method and creative thinking.

International student exchange activities are mainly invested in order to seek for the skills and experience learning opportunities for Vietnamese students in the context of international integration.

¹⁴ Source: The OECD (2007) has developed a series of indicators bases in its surveys of its member countries measuring autonomy (financial autonomy, staff policy autonomy with respect to hiring/firing and wages, student selection and course content) and accountability (evaluation mechanisms and funding rules)

¹⁵ Ministry of Education and Training, Project of Reform Vietnam Higher Education 2005-2020.

¹⁶ The Government of Viet, Higher Education Law (2012), Article 32.

The Vietnam Education Foundation established by the US Government, over a decade, has brought approximately 300 Vietnamese lecturers and students to study in the US, specializing in the science and technology major. The opening door to the World has been widened to Vietnamese lecturers and students. Vietnamese citizens who are currently studying abroad and experiencing the international cultures and knowledges, are actively contributing to the internationalization process of Vietnam universities.

In the 1990s, the co-operation activities with international partners were initially formed, however, in a few number which mainly through the government level co-operation programs. Several government-level co-operation programs which had been approved since 1995 could be listed as The Vietnam – Belgium Master Training Programs, the French-Vietnam Co-operation Training programs, the Vietnam-Netherlands projects, the Vietnam-French High Quality Engineering Training programs (PFIEV) and the Vietnam – Japan information technology engineer training program.

After Vietnam's accession to the WTO (2006), the investment of foreign countries in Vietnam under the form of joint-higher education training programs started to develop excessively. At present, there are 485 international joint-training programs are licensed for non-profit activities and are mainly funded by student's contributions. Specifically, 44% of the joint training programs are reviewed and licensed by 5 universities and 14 higher education institutions are piloted to grant autonomy in international co-operations¹⁷. This figure demonstrates that internationalization of higher education and autonomy in co-operation has increased in the recent years.

As of 2016, there are 83 Vietnam higher education institutions have signed the joint-training agreement with 224 foreign education institutions of 33 different countries and territories. Countries with dominant programs affiliated with Vietnam education institutions include US (78); France (75); UK (72); Australia (42); China (34) and Taiwan (27).

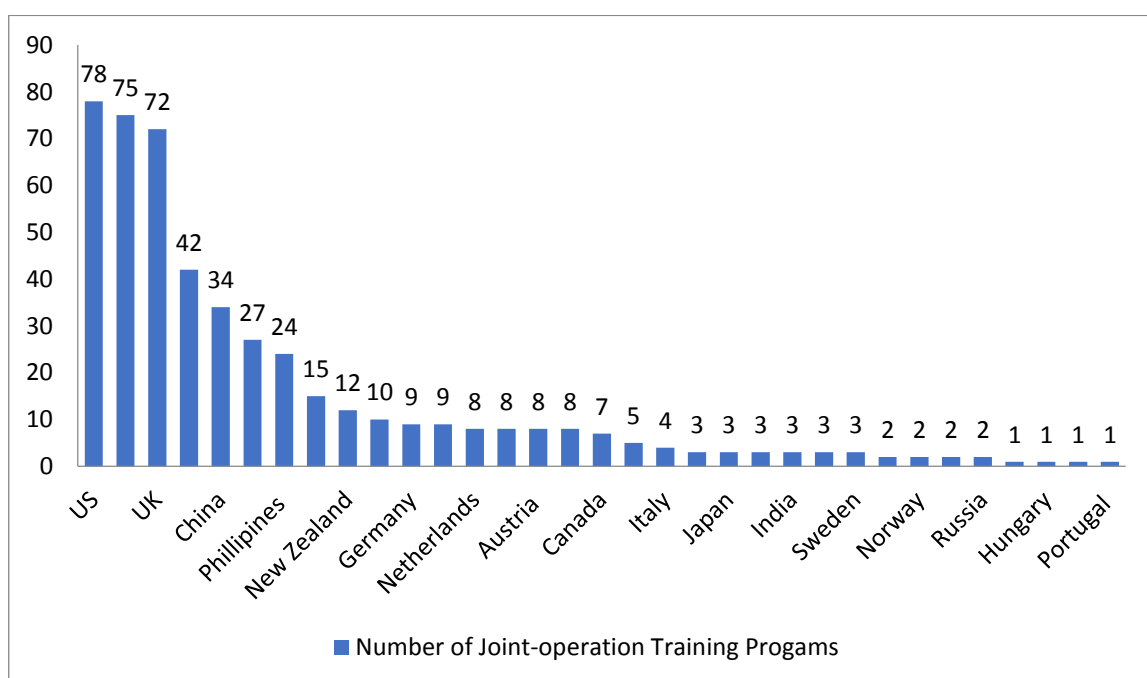


Figure 1. Number of International Joint-Operation Training Programs by Countries and Regions

The international joint-training programs are organized under various forms such as Full-time training in VN or half of the training programs in VN and half in the partner-university countries. Most of the international joint-training program are designed similarly as a studying abroad program. Specifically,

¹⁷ Decree number 77/2014/NQ-CP of Government dated 24th October, 2014 on piloting the reform of operation mechanism to public higher education institutions for the period of 2014-2017.

most of them are taught in English, others in French or some in Chinese. Due to the weak foreign language skills, this is one of the biggest barriers of Vietnam Higher education institutions during the enrolment process.

The international joint-training programs are implemented for all levels of education but focus primarily on undergraduate and post-graduate degrees. At nationwide level, there are 233 undergraduate international joint-training programs (48% of total programs), 206 master international joint-training programs (accounted for 42,5%) and 9,5% of the total joint training programs are for Ph.D, diploma, intermediate and certificate level. However, the joint training programs are implemented in many field with many diversified professions, but the proportion in education field is unfortunately imbalance.

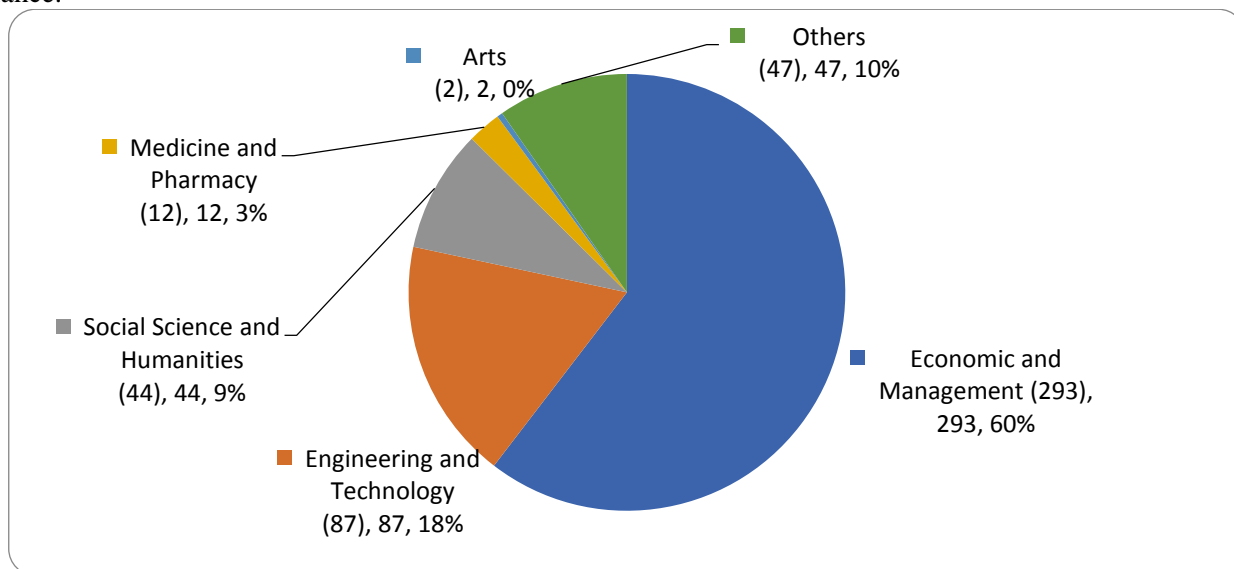


Figure 2. International joint training-program by proportions of field

Observingly, the education institutions in Vietnam has paid a major attention to the forming and development of the joint-training program in the field of Economics and Management (approximately 60% of the country's overall joint training program). The remaining are Engineering and Technology; Social Science and Humanities; and Arts and Pharmacy programs as the major containing the least joint programs. Additionally, most of the certificates of the joint training program are issued by the foreign partner institutions. Another small number is jointly awarded by the both side of the co-operation (06/485 programs, equivalent to 1.2%) or some by Vietnamese education institutions (16/485, equivalent to 7% of the overall programs)¹⁸.

Methodology

This research is to analyze the study at the member universities of Vietnam National University, Hanoi. A survey is conducted online from 256 faculty member, including 28.91% managers, 29.30% specialists, 33.98% lecturers and the rest in other positions. The degree level proportion includes 45.31% of Ph.D, 41.02% of Master level and the rest as bachelor degree. The survey contains the analysis about university's autonomy (i) discussions about Plan and Mission (ii) Human resources (iii) Science, Technology and International Relations (iv) and Training (v). The issue of Autonomy and internationalizing higher education falls into two of the five dimensions of this survey. Therefore, this research aims to assess the internationalization of Higher Education in VNU in the context of autonomy which includes the role of exchanging student and faculty members; and the internationalization of the curriculum.

Empirical Results

¹⁸ International training Department, Ministry of Education and Training, 2016,

Autonomy and policies affect international cooperation at the VNU

VNU always affirms that International Relations is the main driving force to promote resources in order to serve the overall development of VNU to become an international standardized research university. The international relations activities is diversified in terms of content and form, with many effective international cooperation programs on training research that demonstrate strength and potential cooperation of VNU. “VNU always strives to prioritize the development of long-term and reliable cooperation with prestigious universities, well-known scientific and educational organizations, foreign corporations and enterprises under the form of scientific research, technology transformation, international cooperation in undergraduate and post-graduate program, organizing international science seminars, exchange of student, academic staffs and faculty members”¹⁹.

In terms of implementation of internationalizing and autotomizing Higher Education, VNU has taken a brand-new step in flourishing academic staffs such as i) piloting policies on treasuring high-level scientists; ii) deploying activities to attract international scholars in VNU in the term of 2016-2020. VNU has deployed the project Developing High quality scientists and administrators, with a target of 26% teachers who are able to teach in English by 2020; 26% scientific research having published journals, seminars, projects; and high number of leaders having international science projects and quotas in specific training majors. Looking for international partners has been focused by the member universities of VNU. This study conducted the opinion of lecturers on the question that which managing level should decide the concept of searching international partners. Most of respondents reveal that the university/educational institutions itself should be able to look for its partners. This shows that there is a consensus about the autonomy in searching for international partners through the guideline and direction of government.

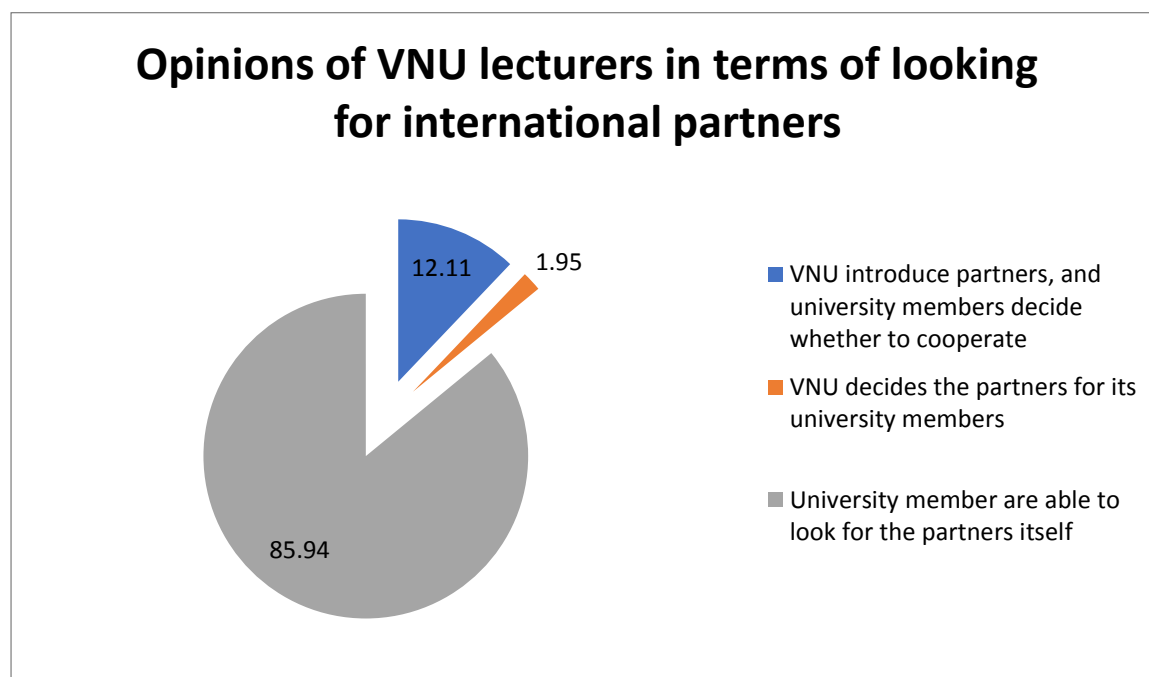


Figure 3: Opinions of VNU lecturers in terms of looking for international partners

VNU has completed the report on the status of granting autonomy and self-responsibility to its members which will be submitted the managing level of VNU for the guideline to deploy the regulations on the autonomy mechanism in the public members of VNU. Besides, VNU has implemented many reasonable solutions which create favourable conditions for nearly 400 professors and associate professors from local training and research institutions as well as hundreds of prestigious scientists in the world to visit, teach and exchange in VNU.

¹⁹ VNU, Hanoi, 2016, annual report on “Creativity and Startups”,

VNU has been active under a unique mechanism, “to invite foreigners and Vietnamese staying aboard visit to work, teach and research in VNU”²⁰. Accordingly, the member universities have been pointed the missions to develop their strategies, programs, international cooperation plans, report to VNU for approval of international cooperation training programs before implementation.

Every year, VNU welcomes hundreds of lecturers and international scientists to visit teach and work. Groups of scientists to visiting VNU to jointly research and share the achievements in the field of science. Capable research groups (25 groups) were established and researched with the participation of international scientists from countries such as Germany, Japan and Korea. The International Director of the Key Laboratory is a prestigious and influential foreign scientist in the region and in the world in the field of science.

At VNU, international undergraduate programs are designed flexibly. Students are able to choose to whether to study full-time or part-time and receive a degree from an international partner school. There are 6 units in VNU conducting a total of 26 international cooperation training programs at undergraduate and post-graduate level. The unit which having most affiliated programs is the Faculty of International Studies with 12 programs. The cooperation form is likely diverse, for example: full-time and part-time degree programs; part-time study abroad program (students study a semester at VNU, the rest of the time studying at foreign partner schools) enables students to a variety choices of training options. After 1.5-3 years of studying at VNU, students in English major could be transferred in their final years to universities that have cooperation agreements with VNU.

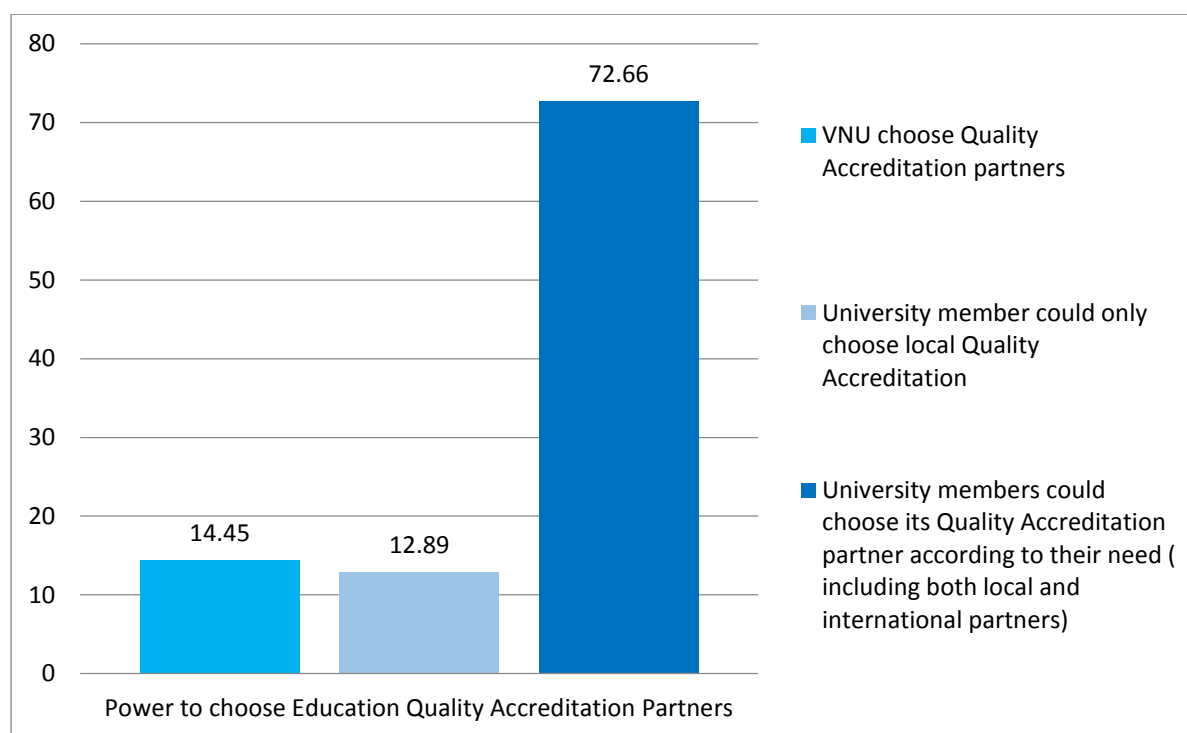


Figure 4: Power to choose Education Accreditation Partners

By implementing international cooperation training programs, the members of VNU, indicated that the Quality Accreditation is always a top priority. The study investigates the views on the power to choose an educational quality accreditation agency. The results show that 72.66% of the respondents considered that the university was free to choose the quality assurance agency according to their needs (including agencies from other countries). This means that the opinion about autonomy in quality assurance in this

²⁰ The government of Vietnam, 2014,26/2016/QĐ-TTg, Regulations on the organization and operation of VNU and its member universities.

survey is significant. This idea is correct and proportional to the number of training programs of VNU which has been tested in accordance with AUN-QA standards, accounting for over 40% of the whole program that has been tested in Vietnam.

Discussion

By analyzing the process of internationalization of Vietnam higher education in the period 2000-2016, it is clearly seen that there is a significant development in the trend of internationalization of higher education which could be shown through:

- The participation of international scholars in the research and training activities in Vietnamese universities. This has brought new vitality to the system, aroused the aspirations for international integration and broadened the vision of the academic staffs, as well as promoted innovations in teaching methods and creative thinking.
- The rising number in the participation of Vietnamese scientists at international conferences and seminars. The door connecting with the outside world is progressively opened to Vietnamese teachers and students. Moreover, Vietnamese citizens studying abroad with international experiences in science and culture are actively contributing to the internationalization of Vietnamese universities.
- International cooperation are not only aimed to settle the place of study and fulfill the need of human resources for production and business establishments. International cooperation have a further, more strategic goal: to import advanced educational technology, to train faculty and to contribute to the modernization of Vietnamese higher education. The practices of international cooperation shows that short-term and long-term goals are closely linked. If they fail to fulfill the task of assuring the quality of training and supplying human resources up to international standards, they cannot accumulate and perform long-term tasks.

It could be affirmed that Autonomy in the internationalization of Vietnam higher education through the investments in the higher education system, the establishment of universities with the participation of international elements, the exchanges of lecturers, students and collaborative research; is a growing trend of development which has been supported by the Government of Vietnam and other stakeholders. This trend has deeply affected Vietnamese universities in all aspects and contributing positively to improve the quality of human resources for Vietnam.

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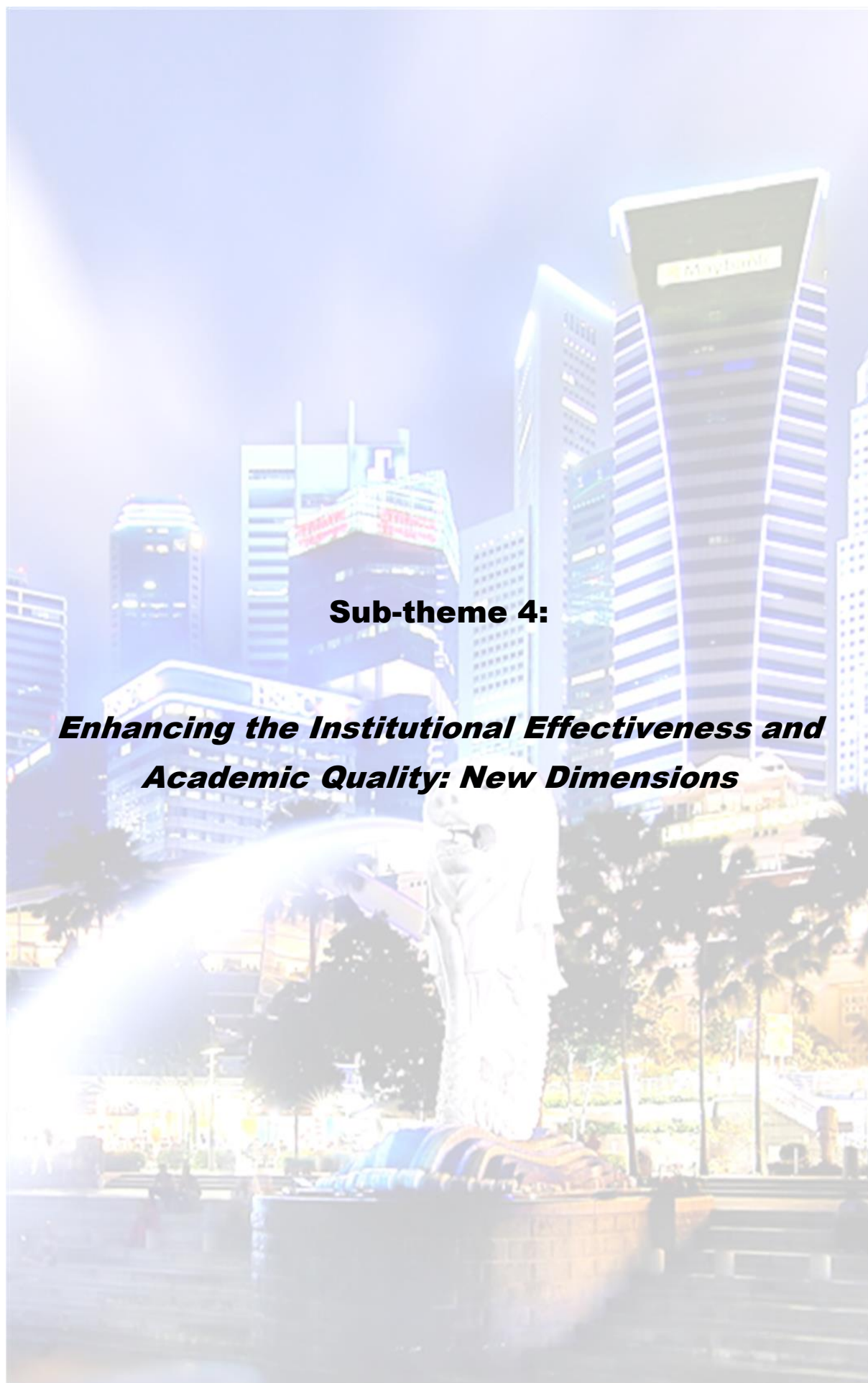
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Sub-theme 4:

***Enhancing the Institutional Effectiveness and
Academic Quality: New Dimensions***

A Revolution in the Science of Learning: Higher Education at the Crossroads

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Abstract

We are in a century of accelerating scientific break-throughs. During the past few centuries, the physical sciences generated the industrial revolutions. The human sciences are now maturing to the point of generating social revolutions. This paper proposes that our scientific understanding of human learning has matured to a point that it can and should be systematically taught in schools, ensuring that school graduates are independent learners. To support this proposition, the paper identifies and explores four key conceptual constructs that are transforming education: (1) Neuroplasticity, Cognitive Load Theory and Chunking are three critical discoveries that, fused together, describe how learning takes place; (2) the Theory of Flow shows how to make learning enjoyable; (3) there are two modes of thinking; and (4) cognition is integral with sensory/motor, emotional and social operations. The paper then explores two implications of this revolution for higher education. Firstly, how can higher education foster and enable this revolution? And secondly, how will this revolution impact higher education's own structures and methods. This paper analyses evolving concepts to predict and propose a future. Before concluding, the paper briefly critically reflects on its analysis - its limitations and risks.

Keywords

Cognitive load theory, Developmental theories, Learning theories, Independent learning, Instructional design, Higher education modelling, Theory of Flow.

Introduction

Over 50 years ago the physicist turned historian Thomas Kuhn introduced us to the idea that science progresses through periods of long, slow maturation, with periods of sudden, sharp, revolutionary paradigm shifts (Kuhn, 1962, 1970). One such paradigmatic shift was the Copernican revolution, which shifted the earth from the centre of the universe to a small, insignificant planet in one of a multitude of galaxies. The renewed interest in and maturation of the physical sciences enabled the industrial revolution, a period of burgeoning improvements in global material wealth. This material success imprinted (Marquis & Tilcsik, 2013) in society a belief and trust in the physical sciences and its reductionist method.

Many of the most famous scientists of that period were not linked with universities. Michael Faraday, Francis Bacon, Benjamin Franklin, Daniel Fahrenheit and James Watt are just some of the many scientists who worked outside the university framework. And universities, continuing to teach the traditional subjects of grammar, rhetoric, dialectic, music, arithmetic, geometry and astronomy lost touch with the needs of the modern industrial society. It took the Humboldtian revolution, in which universities adapted the reductionist method of the physical sciences, of requiring and permitting narrower and narrower specialisations of their schools and professors, for research and relevance to

return to universities (Enders, 2006; Perkin, 2006). Today, the Australian Bureau of Statistics (2008) specifies 1238 research domains.

While progress in the physical sciences has accelerated ahead, progress in understanding the biological, social and cultural aspects of human life – Human Science (University of Oxford, 2017) - has been much slower. It is not zero progress – rather, our knowledge in these sciences is less. Our practical applications of these sciences are less reliable. The methods of the physical sciences – of reduction, quantification and mathematization – haven’t worked as well for the human sciences.

Today, earth is increasingly shaped by human activity, and the most intractable problems we seek to resolve are human problems: global warming; waste management; generational disadvantage; interpersonal violence – to name just a few. *Wicked* problems (Australian Public Service Commission, 2012).

We instinctively feel that the key to these issues lies with improving education. Yet education itself is a very Human system, shaped over centuries by our cultures and stakeholders. How do we reformulate education, and what scientific paradigms offer us guidance?

Wendell Bell (1997, 2003), in proposing Futures Studies as a rigorous discipline, called it a human science for a new era. He noted that “thinking about the future is a universal phenomenon that can be traced back to the dawn of human prehistory” (p2). This paper takes the position that we are experiencing a scientific revolution in Human Science. Human Science is coming of age. Human Science is at the cusp of delivering solutions to wicked problems. A social revolution comparable to the industrial revolution.

The next section makes the case that our understanding of human learning, primarily through work in neuroscience and cognitive psychology, has reached a point where our knowledge allows us to transform Education. Our understanding of how humans learn is now sufficiently mature for it to be systematically taught. Doing so will create a society of independent learners- a society where individuals have the capacity to take charge of and further their own education.

Next, the paper explores the implications for universities. Universities have a valuable role to play in enabling this transformation. If students have reliable independent learning skills, universities can reduce direct teaching costs and redirect resources to other elements of the instructional design model.

Before concluding, the paper briefly critically explicates its theoretical approach and explores its limitations and weaknesses.

Four Constructs on Learning

The purpose of this section is to present four important developments in our understanding of learning: to substantiate the central argument that learning can now be systematically taught as a science that students can learn and apply to design and take control of their own learning: “Give a man a fish, and you feed him for a day; show him how to catch fish, and you feed him for a lifetime”²¹.

(1) Neuroplasticity, Cognitive Load Theory and Chunking

Broadly speaking, unlike with most other cells, the body stops producing new neurons in early childhood. The neurons we have in childhood needs to last us a lifetime. However, what does grow (and reduce) are the neurons’ ability to send and receive signals – termed neuroplasticity (Draganski et al., 2004). This is what causes learning. Memories appear to be the connections between cells and their

²¹ Perhaps deriving from the Chinese proverb ‘Who teaches me for a day is my father for a lifetime’ (Knowles, 2009)

ability to send and receive signals. Memories appear to correspond to minute physical changes in the brain.

Cognitive Load Theory (Sweller, van Merriënboer, & Paas, 1998) divides memory into two components: (1) a working memory that is used for thinking and manipulating ideas, but is only capable of holding a few ideas, and only for short periods, and (2) a long-term memory that is virtually unlimited in size and can store information for very long periods.

Chunking is the process by which neurons group together, so that when one fires, then they all fire. These connections also allow more complex thought. Human working memory is only capable of holding a limited number of thoughts simultaneously. When ideas are chunked together, the chunked set of thoughts take up only one slot in working memory, allowing other ideas to be simultaneously processed.

Learning requires repetition. When material hasn't been chunked by sufficient repetition, then learning more complex material will be more difficult. Just learning material is not enough – it needs to be learned well. Optimal tactics for the development of long-term memories include (a) repetition; (b) spacing – repeating delivery of the same material several days later; (c) recall – requiring the student to recall the memory rather than it being provided; and (d) association with other existing memories (Oakley, 2014).

(2) The Theory of Flow

Mihaly Csikszentmihalyi's Theory of Flow (Cheron, 2016; Csikszentmihalyi, 1991; Csikszentmihalyi & Asakawa, 2016; Nakamura & Csikszentmihalyi, 2014) describes an optimal state of mind in which a person is immersed and focused on their activity. To achieve Flow, a person must be working on material that gives immediate feedback on whether they are succeeding or not, and they should be succeeding most of the time but not always. The activity should not be too hard nor too easy²². Adele (2012), in a fascinating Scientific American article, "*Zen and the art of genius*" describes current research by the US military.

Neurochemical activity explains the importance of immediate feedback. Immediate positive feedback connects pleasure with the correct answer as well as the test-taking process. Delays in feedback and the resultant uncertainty causes anxiety in the student, heightening the likelihood of negative associations. Excessive success creates satiety and boredom.

These two constructs thus give a model for best instructional design:

- (a) Material must be broken down (de-chunked) into bits the student is familiar with. This design step is a learned skill. Discipline experts without this skill make poor teachers, since in their mind the material is highly chunked, and they do not appreciate the level of de-chunking necessary.
- (b) The de-chunked material should be presented using the tactics of (i) repetition; (ii) spacing (iii) recall and (iv) association with existing memories until the material is chunked and in long-term memory.
- (c) This process needs to be neither too hard nor too easy for the student.
- (d) Regular and rapid feedback is important.
- (e) When students are struggling to learn new material, this shows that earlier material has not been sufficiently chunked into long-term memory. Continuing the student on the same

²² An enhancement to the concept of flow is that of Deliberate Practice (Anders Ericsson, 2008; Ericsson, Krampe, & Tesch-Römer, 1993). The authors studied the training of elite performers – those who achieve national and international recognition, in comparison to more pedestrian performers. Elite performers devoted more time to what the authors termed Deliberate Practice – effortful, focused attention to identifying and correcting errors. As such, Deliberate Practice is a state beyond Flow: the practice is not pleasurable, but delivers more efficient, effective learning than Flow.

trajectory is counter-productive and harmful. The student needs to go back and practise earlier material until it is chunked and in long-term memory. Formative assessment prior to starting new learning material is essential as it verifies that earlier material has been chunked and stored in long-term memory.

(3) *Two Modes of Thinking*

Kahneman, a psychologist who won the Nobel prize in Economics for his work on human decision-making brought the existence of two distinct modes of thinking into widespread public awareness through his book *Thinking, Fast and Slow* (Kahneman, 2011). Kahneman describes it well, arguing that most decisions are made in System 1 (Fast) mode, but when asked to explain the reasoning behind the decision, the System 2 (Slow) mode comes up with a rational explanation for the decision. Expert chess players, for example, don't usually rationally plan future steps. Rather, they map the current board layout to board layouts in memory and choose which ones are most associated with success and move pieces towards the best layouts. Experts are those with a phenomenal memory of board positions (Kahneman & Klein, 2009).

Very similar, yet subtly different groupings of the characteristics of and labels for these two modalities have been put forward by various scholars from different disciplines (Table 1):

Table 1: The concept of two modes of thinking, as expressed by different scholar

Scholar	Discipline	Labels	
Kahneman (2011)	Psychology	Slow (system 2)	Fast (System 1)
Fox et al (2005)	Neuroscience	Task Positive Network	Default Mode Network
Cole & Schneider (2007)	Neuroscience	Cognitive Control Network	Autobiographic Memory Network
Oakley (2014)	Education, Engineering	Focused	Diffuse

Advances in medical imaging have allowed us to map specific brain regions that increases activity during certain types of thoughts. When a subject is asked to perform calculations or other demanding mental task, specific areas of the brain become more active and other areas become less active. Fox et al. (2005) have labelled the former as the "Task Positive Network" and the latter as the "Default Mode Network" respectively.

Oakley, in collaboration with Sejnowski, a computational neuroscientist, developed a course, "Learning How to Learn" delivered through the on-line platform Coursera (Oakley & Sejnowski, 2014). This course is currently ranked as the world's most popular Massive Open On-line Course (MOOC) of all time and is presently available with four language subtitles. Major elements of the research discussed in this paper is available to the public and is rapidly spreading.

A frequent expectation from education is the ability to innovate. The concept of two modes of thinking suggests that there could be two distinct approaches to enabling innovation: using System 1 thinking, which aligns with a popular use of the word "*creativity*" and using System 2 thinking which aligns with a popular use of the phrase "*critical thinking*". Thomas Edison and Salvador Dali are famous historical examples of the deliberate exploitation of the former (Oakley, 2014). Both would think about a problem and doze, holding an object. As they started to doze, they fell into a light dream state – System 1. They drop the object they were holding, and the noise woke them, the thoughts in their mind at that time often providing inspiration. Sleeping on a problem and breaking off a period of intense work to go for a walk are other tactics that exploit this thinking method.

Alternatively, an example of critical thinking would be De Bono's (1987, c1985) six thinking hats: a method for deliberately managing the thinking process and examining the problem from different angles (such as critically or optimistically). Another teachable method would be through the identification of cognitive biases and societal ideologies: understanding weaknesses in existing ways of thinking maps potential analytical pitfalls.

This duality may provide insight into differences seen between some Eastern and Western students. The Eastern approach with its emphasis on developing strong analytical skills develops minds with deep, sophisticated discipline knowledge, but less able to release the mind for creative thinking. The Western trained mind, may have weaker analytical skills and depth, but be better at creative thinking. Different types of meditation may strengthen the neural networks for each type of thinking. Techniques that build the ability to maintain concentration, such as the Chakra or the Anapanasati meditation techniques of gently bringing the wandering mind back to the focus of thought, may improve system 2 thinking, while open monitoring mediation, such as Vipassana may help the development of System 1 skills (Oakley, 2017).

(4) Cognition is integral with sensory/motor, emotional and social operations

Currently, education focuses on cognitive abilities - an emphasis, a privileging of analytical over sensory-motor, emotional and social operations. A construct inherited from a dominant western philosophical tradition. The brain itself is wired integrating all its functions, and separating one activity from another is an artificial reductionism. Optimal human functioning depends on skills in all these areas that develop from birth²³. At birth, infants must bond with their mothers for survival – sensory-motor, emotional and social skills. Recognising faces and smiling, for example, requires complex muscle movements that are practised and improved early in life. The early neural networks continue to develop as children find their place in their tribe, sensing and responding to the emotional cues of others: “that male is angry – avoid him or risk broken bones”.

These multi-faceted skills, inadequately addressed by our education system, are crucial in the modern world. Reading requires eye movements (saccades) learned in infancy. Children with a rich oral vocabulary learn to read faster. Dale Carnegie, though not a scholar, popularised the importance of non-cognitive skills in his iconic *How to Win Friends and Influence People* (Carnegie, 1936). Since then, several scholars have stepped in, drawing from recent research to address this gap in our education system. Eckman's (2007) *Emotions Revealed*, Cialdini's (2007) *Influence* and Patterson et al's (2012) *Crucial Conversations* are just a few²⁴.

Different parts of the brain do not grow (and prune) simultaneously, implying that different types of learning occur most economically and effectively at different periods. While education currently has models of cognitive development (e.g. Piaget and Erickson), there is a significant scope for improving the effectiveness and cost of education by designing delivery to take advantage of recent advances in our understanding of human neurobiological schedules.

²³ The Center on the Developing Child at Harvard University (2014) promotes three core concepts: that (a) experiences build brain architecture; (b) Serve and Return Interactions shape brain circuitry; and (c) toxic stress derail healthy development.

²⁴ Reading and writing, on which our education system focuses, is an evolutionarily recent communication method. Human biology and tribes evolved to support communication by sound and body language. Tone and body language are powerful means of communication. Face-to-face communication may thus be a critical requirement for establishing trust. As such being able to produce and interpret tone and body-language are important skills. And tone and body language are used differently by different cultures. They appear to be picked up by children early in life and become automated, subconscious.

Perhaps most valuable in our increasing integrated understanding is with regards to the importance of stress and anxiety²⁵. Stress is a valuable biological mechanism, delivering improved concentration and physical power in moments of danger. However, highly stressful situations can cause trauma, and chronic stress causes significant physical and mental damage. In education, exam stress is a recognised major issue. The techniques for noticing and training one's emotions can be taught at schools and universities.

The Impact on Universities

In exploring the costs of systems, it is useful to differentiate between fixed costs and variable costs – the distinction being that fixed costs do not vary with the number produced, but variable costs do. At an earlier SEAIR conference, the authors showed that of the different elements of systematic learning needed in a knowledge economy²⁶, delivery – actual teaching - was the most expensive variable cost (Somasundaram, Bowser, & Danaher, 2006).

However, attempts to reduce such costs, such as through massive on-line courses and examinations with minimal teaching, results in very high numbers of drop-outs and exam failures. Too many students aren't independent learners. The key argument of this paper is that we now have a sufficiently robust understanding of how learning occurs, to the point that these skills can be effectively taught and assessed.

It is essential, though, that all students be competent independent learners. One therefore needs to have a systematic, regulated process. Universities can adopt one or more of several tactics:

1. Establish a university entrance exam to assess independent learning skills;
2. Develop enabling courses that teach independent learning skills; and
3. University Education faculties influence the development of a learning science curriculum for schools.

As funding is freed from teaching expenditure, this funding can be allocated to other productive activities such as:

1. Improving curriculum design and assessment.

As students start becoming more expert in learning, they will become better at assessing the quality of educational materials. Assessment material play in an important formative role, informing learners where they need to study, as well as providing deliberate practice. Currently, students dislike quizzes as they force learning and create anxiety. Teachers themselves avoid them as writing good quizzes is itself a demanding instructional skill. However, as students start understanding the high value of quizzes, they will start demanding more.

2. Move students from independence to interdependence and service.

Independent learning is not the culmination. Covey (1989, 2013) proposed a four-stage model of human development that can be characterised as dependence -> independence -> interdependence -> service, which has direct correlates with learning stages. The concept of interdependent learning is already well established, with Bandura's (1986) model of social learning, and current pedagogic models for group and team work.

The concept of service as a definitive life stage is less well recognised. It aligns with Maslow's

²⁵ That is not to subtract from other emotions that are important to learning. Motivation, drive, and resilience, for example, are all skills with strong emotional components. They involve interactions between the nervous and endocrine systems that are the subject of active research.

²⁶ That is: (i) the establishment of learning outcomes; (ii) the design of delivery; (iii) delivery; (iv) assessment; (v) accreditation; and (vi) maintenance.

(Koltko-Rivera, 2006; Maslow, 1954; 1971) concept of self-transcendence as the final stage in the hierarchy of needs. Universities are moving beyond their traditional model with its two outputs of Teaching and Research, to adding a third one called “Engagement” – reaching out and serving the wider community. A small but growing movement is Ashoka U – an expanding consortium of universities committed to developing social entrepreneurship among its students. The next point discusses integrating service into the curriculum.

3. Replacing teaching with other curriculum delivery mechanisms that better utilise the students as a resource – e.g. engaging the students in community outreach programs, work based learning and research²⁷.

University students are a major underutilised national resource. At present, we consider productive work and learning as independent activities that cannot be done simultaneously. However, once we recognise that learning needs repetition and that even competent workers do make mistakes, we are more amenable to implementing work-learning environments involving repetition with high levels of supervision. The issue is that designing and operating suitable work-learning environments takes a significant amount of skill and energy.

Such a work-learning environment exists in research. Senior professors manage research teams with experienced researchers as well as research students working together. One also sees such a structure in the medical specialities, with work-learning hierarchy of specialists, registrars and junior doctors.

There are opportunities in many fields. Public health campaigns needing home visits or child health checks could be performed by pairs of students, or even a senior student and a junior student, with robust quality systems in place. But, it would need academic staff with the capacity and willingness to work routinely in the field.

4. Expand the university’s focus on tertiary education beyond that of current students – e.g., the continuing development of former students and tertiary education for the wider community.

Trow (Marginson, 2017; Trow, 2005) popularised the concept of increasing participation in university education: from elite to mass to universal. Techniques such as MOOCs and using students to teach; develop course material; assessment items or wikis are techniques that can make reduced cost higher education available. But they need leadership and a commitment to ensuring continuity.

These four activities discussed above are not separate but rather feed into and support one another as an integrated whole – the sum of which is far greater than the parts. They integrate student learning into the two other major functions of universities, research and community engagement.

Critical Review

A principal strength of science in comparison with other bodies of knowledge such as religion is its scepticism (Harari, 2014). Science is built on the premise that its body of knowledge is incomplete and prone to error. It is the duty of scientists – both authors and readers - to apply scepticism.

²⁷ To ensure viability and cost effectiveness, such programs need to be designed as repeatable processes rather than one-off projects that need substantial development for every student batch.

This paper consolidates and conceptualises research and theory from scholars in multiple disciplines. Research and theory that are and will continue to evolve and sometimes even be corrected²⁸.

This paper goes even further. It seeks to predict the future. And not simply predict an invariant outcome but champions steps for a preferred outcome. Steps that go beyond the role of traditional objective science, to an intensely subjective, value ridden activity. But that is the nature of Futures Studies (Bell, 1997, 2003, p. 5): “to demystify the future, to make their methods explicit, to be systematic and rational, to base their observation on the empirical observation of reality when relevant, and to test rigorously the plausibility of their logic in open discussion and intellectual debate”.

This paper applies a prospective case study methodology (Bitektine, 2007). It identifies seminal basic research from multiple disciplines, and via inductive reasoning presents them as a coherent body of knowledge that can be taught to achieve a society of independent learners capable of fuelling a social revolution comparable to the industrial revolution. The paper also presents evidence that this research is being popularised by scholars and consumed by a thirsty public. What the paper does not do, is beyond its scope, is to quantify the status of the revolution, or what would constitute a critical mass.

Conclusion

This paper began by positing a scientific revolution in the human sciences, and detailed four such paradigm shifts in our understanding of human learning. This revolution also extends to our understanding of society and its structures. To design and implement this vision we need to apply our new understanding of society and its structures.

The revolution is by no means over. It is continuing. Some may argue that it is better to wait till the science to be absolute, for the path to be even clearer and more definitive than it is now. But science is always progressing, and there is likely to be no definitive end. Rather, it is incumbent on us to do what we can, using our best endeavours and best understanding. Universities are tasked with allocating resources wisely to further this understanding, communicating this understanding to the wider community and applying it to their own operations.

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²⁸ The human brain automatically seeks patterns – a sense-making reflex: ancient seers looked at the stars and saw constellations – their gods. The task of modern scholars is akin to the ancient Asian parable of the king who led his blind men, each to a different part of an elephant and asked them to describe it. The man at the head perceived a jar, the one at the ear a winnowing basket..... Disagreeing, they fell to blows ("Udana: Exclamations," 2012, p. 6:4). Modern scholars overcome this blindness through conferences, with multi-disciplinary research teams, and above all by joining together to form universities.

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Overeducation in Singapore: A Demand-Supply Analysis

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Abstract

There is a growing consensus that students are investing time and money to obtain a degree that may not land them on jobs that are commensurate with the newly acquired qualification. The concern exists in Singapore. The Singapore government released the Applied Study in Polytechnics and ITE Review (ASPIRE) report in January 2014 to mitigate the situation where students pursue tertiary education in field of studies that are lacking in market prospects as well as over-education whereby students end up with jobs that actually require lower academic qualifications. To curb the supply side of the equation, the government through the Committee for Private Education embarks on the mission to raise the entry requirements for Singaporeans enrolled into external degree programmes - the external degree programmes are offered by foreign universities in Australia, the United Kingdom and other countries, in partnership with private education institutions (PEIs). This paper uses the demand-supply framework to discuss these and other measures. Our analyses suggest that curbing the growth of the undergraduate education market is a herculean task that needs time. A degree is often seen as a passport to good life. And many Singaporeans are (still) not able to get into the public universities such as the National University of Singapore. Raising the bar to enrol into the external degree programme may raise discontentment, and force more Singaporeans to travel abroad to acquire a degree.

Keywords

Overeducation, Undergraduate, Singapore

Introduction

A worker is said to be overeducated if he/she has acquired more education than is necessary to perform his/her job. The person is also considered as over-educated when he/she has difficulty looking for jobs that match his/her formal qualifications and ends up with jobs that actually require lower qualifications. Overeducation is of increasing concern in both the developed countries such as the United States (Li, Malvin and Simonson, 2015), United Kingdom (Piper, 2015), South Korea (Cho, 2015), Hong Kong (Cohn and Ng, 2000), the Netherlands (Hensen et al, 2009), Finland (Jauhiainen, 2011), and the developing nations (Quinn and Rubb, 2006; Abbas, 2008; Mehta et al, 2011).

Overeducation did not seem to be a significant concern in Singapore in the early years of independence. A committee formed in 1976 to review Singapore's technical education noted that only 16% of secondary school leavers furthered their studies at post-secondary education institutions, including the polytechnics. The drop-out rate at Primary 6 was at 40% (Varaprasad, 2016, pp. 30-31). Low-skilled jobs were plentiful for lowly educated residents.

But as Singapore economy moved ahead, more have acquired a degree, seeing the qualification as the passport to good life. Economic fluctuations caused by the 1997 Asian financial crisis, September 11 terrorists attacks in the United States and 2008/2009 global financial meltdown had led to contraction of the Singaporean economy and more people, particularly the PMET, lost their jobs. Educational attainment after years of hard work did not automatically translate to more income security.

Tan Chuan-Jin, the Acting Minister for Manpower, commented that: “More are aspiring to enter university and as a result, an increasing number of graduates will enter the labour market..... We cannot take for granted that we would not face these problems (overeducation and underemployment) in the future.”²⁹

Acquiring a degree in Singapore has been made easier because of the provision of transnational education, which offers an alternative pathway especially for individuals who have failed to gain admission into the local public universities. Universities from the United States, United Kingdom and Australia establish partnerships with private education institutions (PEIs) to offer undergraduate and postgraduate programmes. For example, Singapore Institute of Management Global Education has 11 partners, three of which are from Australia, seven from the United Kingdom and one from the United States.

But the quality of the PEIs and their programmes vary. The closures of some of the PEIs due to unethical practices and mismanagement have raised concerns. Singapore’s reputation as an education hub is at stake. Students demand shorter courses and more convenience, leading to an increase in the demand for shorter and easy-to-graduate courses. Such a behavior involved on a mass scale has led to an increase in supply of courses that were of questionable quality. Coupled with the concern about overeducation, the government has put in place measures to restrict direct entry to external degree programmes for certain segments of the population.

This paper adopts an analytical track in understanding how the government has tried to overcome the overeducation phenomenon in Singapore. The key objective of this paper is to detail the policy measures that the Singapore government has put in place to curb the demand and supply of undergraduate education in Singapore. The following section reviews the literature, including some studies that discussed the causes and consequences of overeducation. The policy measures to curb the demand and supply of undergraduate education in Singapore are discussed next. The concluding remarks are contained in the final section.

Literature Review

Overeducation is not a new phenomenon. Scholars like Hecker (1992) and Vedder et al (2013) have documented evidence of overeducation since the 1970s. In a competitive labor market, employers compete to hire the most productive workers and pay wages that equate to the individual marginal productivity. A key assumption, as popularised by the Human Capital Theory (Mincer, 1974), is that education is productivity enhancing, that is, each additional year of education brings about an improvement in productivity. Demand for education in this regard is a function of good future prospect.

Individuals have also obtained higher education because it serves as a useful signalling device of one’s knowledge and skills thereby improving his/her opportunity to secure a job (Di Stasio et al, 2016). Employers are prepared to hire (over)educated persons because they require less supervision and monitoring (Van der Meer and Wielers, 1996) and are able to better cope with work and time pressure (Verhaest and Verhofstadt, 2016).

Lester Thurow (1975) popularised the Queuing Theory where potential applicants are ranked based on observable characteristics and education attainment is one of the criteria that determines the attractiveness and suitability of the candidate. But recent research has found that education has lost its value as a signalling device to prospective employers because more applicants have acquired undergraduate or college degrees (Vedder et al, 2013).

Others such as Buchel and Mertens (2004) have argued that individuals chose to become overeducated so as to compensate for fewer job advancement opportunities whereas Chevalier (2003) has pointed out

²⁹ Committee of Supply Speech by Mr Tan Chuan-Jin, Acting Minister for Manpower, 07 March 2014, in Parliament.

education attainment is one way for lower ability workers to join higher ability workers in the pool of graduates seeking for job opportunities.

From the psychological perspective, individuals' life satisfaction can be (partly) determined by comparing their performance against others. They can become dissatisfied after comparing with peers who have achieved more success and invested more in education. The perception that the success has been attributed to education may prompt the individuals to invest more in education. In addition, individuals can be dissatisfied, resulting from comparisons being made with others with the same position in terms of job opportunities and job outcomes, but who have invested less in their education.

Life dissatisfaction can also be resulted from comparison against self. One may have invested in education only to find out that the additional investments have not improved his/her employment situation. Such relative or comparison effects have been demonstrated as important in the literature, for example, Veblen (1899) and Frank (1985).

With regard to job satisfaction, researchers have found a negative association between overeducation and satisfaction at work. That is, overeducated persons are less satisfied at work as compared to well matched workers (Tsang et al, 1991; Johnson and Johnson, 2000). Belfield (2000, p. 35) puts it this way:

“With rapid recent expansion of participation in higher education in most Western economies, there are concerns that some graduates may find a degree to be a poor investment... Some new graduates may find work for which they are overeducated or at which they are underutilised”.

A large body of literature discusses the wage consequences of overeducation. Studies for many countries suggest that overeducated individuals earn less than adequately educated workers with similar educational background [Alba-Ramirez (1993); McGuinness and Bennett (2007); Ng (2001)]. Returns to overeducation are generally half to two-thirds of the returns to required education (Hartog, 2000). Chevalier (2003) found that individuals who are overeducated in fields that were not related to their work were subjected to three times the wage penalty as compared to those whose degree majors were related.

Some researcher have suggested otherwise. For example, in their study using labor market data from the United States, Li, Malvin and Simonson (2015) found that gender and the type of business major matter. Female workers who were overeducated generally suffer a lower wage penalty. In fact, overeducated female workers in operations logistics and business economics majors were found to have enjoyed a net premium of about 5%.

The Demand Side

It can be argued that the aspiration of many Singapore residents is to at least obtain a degree. For example, HSBC's 'Learning for Life' report concluded that 90% of the parents in Singapore believed that an undergraduate degree was necessary for their children to achieve their life goals. The report also noted that more than 80% of the parents were willing to send their children abroad to obtain a foreign university degree (HSBC, 2015). A year later, HSBC reported that Singapore parents spent on average S\$21,000 a year on their child's university education, twice that of the global average. 55% of the Singapore parents surveyed thought that spending money on their children's education was more important than saving for retirement, against the global average of 49% whereas 38% of them (against a global average of 30%) would prefer funding their children's education than paying their mortgage or rent.³⁰

It has been reported that eight out of ten polytechnic graduates in Singapore would eventually get a degree.³¹ While some may gain admission to one of the public universities, others enrol into private

³⁰ “Singapore parents spend \$21K a year to send kids to uni”, The Straits Times, 10 June 2016.

³¹ “University degree: mindset shift needed”, The Straits Times, 14 April 2015.

education institutions or travel abroad to obtain a degree and compete in the job market that is in favour of degree holders.³²

Strong aspiration for higher education qualifications can be partly attributed to moderately high intergenerational mobility in Singapore on an absolute term.³³ In addition, meritocracy has served as a principle of good governance in Singapore through a highly competitive education system, and system in awarding government scholarships, and appointing persons to top positions in the civil service. Inevitably, the environment raises the demand for education as many regard education qualification as the key for success and for greater opportunities in the future.

The rate of return to education in Singapore in the period from 1980 to 1994 as estimated by Toh and Wong (1999) showed higher rate of return to tertiary education (polytechnic and university) as compared to the rate of return to secondary education. Low et al (2004) reported a 13.2% increase in earnings for workers who invested an additional year of education. Sakellariou (2003) and Yeo et al (2007) reported an increase of 13.1% and 13.7% in earnings, respectively, for an additional year of education with a higher rate of return for tertiary education as compared with non-tertiary education.

The notion that attainment of academic qualification does not automatically lead to higher payoff, especially for qualifications that are not entirely helpful in one's career, has been elevated as the hard truth of today's complex and competitive society, and is supported by the Singapore government.

The government has tried to change the mindset of vocational education to make it more attractive to parents, students and employers. Under the Technical Education Department (TED) in 1968, public campaigns were introduced in Singapore to change public's perception toward vocational education. Top of the trade television and Apprenticeship of the Year awards were established to promote vocational education. When TED was replaced by the Industrial Training Board (ITB) in 1973 and later Vocational and Industrial Training Board (VITB) in 1979, greater autonomy was given to the institution as a means to respond to the changing skilled manpower needs in Singapore.

A significant turning point came in the early 1990s following the release of the government report entitled "*The Report on Upgrading Vocational Training*" (VITB, 1991). The report proposed replacing the term 'vocational' and renaming VITB as the Institute of Technical Education (ITE). The rationale for the change as noted in the report was that "pupils and parents have a poor image of vocational training. The term 'vocational' as in 'vocational training' is often assorted with a low image.... This is mainly due the perception that vocational institutes are for school failures..... similarly, in view of the negative perception that VITB is a place for school failure, it is proposed that VITB be renamed.... Removing the term 'vocational' would help to break the negative associations, long entrenched in the local context".³⁴

ITE was bold and had a strong ambition to be a world class technical education institution. Campus facilities in the three sites at Simei, Chao Chu Kang and Ang Mo Kio are top notch, not usually seen in vocational institutions. Aerospace students are trained on an actual Boeing 737. Students in the hospitality programme are trained in a 22-room campus hotel. ITE worked hard to develop closer relationship with the industry partners, inking over 100 Memoranda of Understanding with world class companies such as Rolls-Royce, Adobe, McDonald's and others – a significant testament to the quality of its courses. ITE has also put in place the Developing a Curriculum system, a process that requires the curriculum to be endorsed and signed off by industry representatives basically to ensure that the course learning outcomes are packed with knowledge and skills required by the industry.

It can be argued that vocational education in Singapore is a viable alternative to higher education. Graduates are equipped with curricula that meet the industry standards, leading to relatively good job

³² In 2015, one in three polytechnic graduates was admitted to the public university. "1 in 3 local university students admitted last year is a polytechnic student", The Straits Times, 2 May 2016.

³³ On measures of social mobility in Singapore, see Ng (2007) and Yip (2012).

³⁴ Quoted in Law (2015, p. 167).

prospects for graduates. In December 2016, it was reported that applications to the ITE have increased by more than 10% over the last ten years. In 2015, the ITE took in 24.5% of the Primary 1 cohort, up from 20.6% in 2010.³⁵

To further convince students to think through their options before investing time and money on the undergraduate programmes, the government embarked on an extensive review of the polytechnic and ITE systems. Led by Indranee Rajah, the government-led committee published its findings and recommendations in the Applied Study in Polytechnics and ITE Review (ASPIRE) Report in August 2014 (Ministry of Education, 2014).

The ASPIRE report places emphasis on acquisition of deep knowledge and skills relevant to the industry that students really need to advance their careers. Several initiatives have been introduced following the release of the ASPIRE report.

The Earn and Learn Programme launched in March 2015 aims to provide opportunities for ITE and polytechnic students to work while they study.

Under the Education and Career Guidance scheme, school career counsellors spend time with ITE and polytechnic students from Year 1 onward to immerse students with industry and occupational knowledge through close links with industrial professionals.

The SkillsFuture scheme, an initiative launched in February 2015, aims to shift individuals' focus on paper chase to mastery of skills. Singaporeans aged 25 years old and above to given up to S\$500 credit to attend courses that focus on skills training and development. A centralised website has been set up to help Singaporeans identify a wide variety of courses in information and technology, communications, accounting, finance, social services and others.

A book project, sponsored by the Ministry of Culture, Community and Youth, entitled "A Nation of Skilled Talents" was published in 2015 to profile 50 successful graduates from the ITE and polytechnics (Loh and Chadi, 2015). The book tells the success stories of the vocational education in Singapore, preparing students for gainful employment upon graduation and showing that to be successful in Singapore does not equate to being a degree holder.

Government ministers have joined the chorus. Paper qualification, writes Minister Ong Ye Kung, is merely "the means to an end – the end being to achieve mastery – to be really good at what we are doing... So what needs to change is the kind of paper qualifications we want to have".³⁶ Former Minister for Education, Heng Swee Keat, noted that it is important for us to learn "in every domain, anytime, anywhere for a purposeful, fulfilling life. In other words, we need to live the pioneering spirit, beyond learning for grades, to learning for mastery, beyond in school, to learning throughout life, and beyond learning for work, to learning for life".³⁷

The ASPIRE's recommendations were seen favourably by some commentators as a blueprint in support of industry –focused and practice-oriented curriculum, to develop the persons' capacity to solve unseen problems rather than solve known problems. The Straits Times reporter, Sandra Davie writes, "A key new feature is the place-and-train programme, modelled after the Swiss and German apprenticeship schemes. After leaving the ITE and polytechnics, graduates can undergo structured on-the-job training in the workplace which will complement what they learnt in school".³⁸

The Supply Side

³⁵ "Vocational learning the vogue for more students", The Straits Times, 14 December 2016.

³⁶ Ong Ye Kung (2016) "What SkillsFuture is about", The Straits Times, 21 April 2016.

³⁷ "From 'study book' or du shu to learning with joy for life". Speech delivered by the Minister for Education on 6 March 2015. Also published in The Straits Times on 7 March 2015.

³⁸ Davie, S. (2014) "More training and career pathways for ITE, poly grads", The Straits Times, 27 August 2014.

There were only two universities in Singapore in 1965 - Nanyang University (1956) and University of Singapore (1962). The former was a Chinese-medium university founded by local Chinese community whereas the University of Singapore was one of the two autonomous divisions of the University of Malaya, one of which was located at Bukit Timah in Singapore and the other in Kuala Lumpur. Nanyang University and University of Singapore merged in 1980 to form the National University of Singapore (NUS). An engineering practice-oriented university, Nanyang Technological Institute (NTI) was established in 1981, and became a full-fledged University, Nanyang Technological University (NTU) in 1991. In August 2000, the third university, Singapore Management University (SMU), was established. It recruited its first class of business students in 2000 - in partnership with the Wharton School of the University of Pennsylvania. Singapore University of Technology & Design (SUTD) was added to the list of universities in Singapore in 2010. Modelled after the Massachusetts Institute of Technology (MIT) of the United States and Zhejiang University of China, the SUTD offers courses in technology and design in the disciplines of engineering, information systems and architecture.

In 2012, the Singapore government set the target of reaching the Cohort Participation Rate (CPR) of 40% by 2020, and the establishment of the Singapore Institute of Technology (SIT) and SIM University (UniSIM) as Singapore's fifth and sixth universities and expansion of intakes in universities were key steps in achieving the goal (Ministry of Education, 2012, p. 23). SIT offers an alternative pathway for polytechnic students to obtain a university degree from reputable universities such as University of Manchester, University of Nevada and DigiPen Institute of Tech. UniSIM issues its own degree, which are to fit the needs of industry and businesses. From July 2013, UniSIM students could apply for tuition fee loan of up to 90% of the subsidized fees payable.³⁹

The number of places in the public universities has never been and will never be enough to meet the aspirations of Singaporeans. There will always be more applicants than slots available for the public universities. The problem was less worrying in the early years of independence. Low skilled jobs were plentiful for lowly educated residents. They attended schools to acquire skills, and lifelong learning was not really necessary to earn middle-wage. But as the Singapore economy moved ahead, returns to skilled and educated labour increased whereas those of lowly skilled and educated decreased. Lifelong learning becomes a necessity for today's workers as a means to reinvent and advance their careers. The influx of foreign talents further caused discomfort among the local students who were grappling with deprivation of local university places and depressed wages at the lower end of the scale.⁴⁰

The market reacted to the change. In the 1990s and 2000s, in particular, the private education sector expanded rapidly to take advantage of the rising demand for tertiary education in Singapore. The number of PEIs in Singapore grew from 150 schools in 1987 to 305 in 1997 and 1,200 by 2007. The number of full time international students enrolled in PEI programmes grew from 9,000 in 1997 to 37,000 in 2007. In 2008, there were 120,000 students enrolled in the PEIs in Singapore of which 45,000 of them were international students. In 2013, it was reported that 36% of Singapore residents who pursued tertiary studies obtained their degrees through the PEIs, up from 26% in 2008.⁴¹

But there was lack of regulation and standards to guide private education institutions (PEIs).⁴² PEIs offer undergraduate programmes that were of short duration and questionable quality. They set low minimum entry requirements, thereby attracted students from vocational education background to attain

³⁹ UniSIM was renamed the Singapore University of Social Sciences (SUSS) and accorded the autonomous university status by the Singapore government on 11 July 2017.

⁴⁰ In 1998, the Committee on Singapore's Competitiveness (CSC) called for an increase in foreign talent, arguing that an inflow of foreign talents would not result in "a loss of jobs for locals, but will instead increase the economic pie for all to benefit". Led by Lee Yock Suan, the Committee recommended "setting aside more places for foreign students in our education system from primary to tertiary levels and by offering more scholarships to foreign students to study in Singapore" (Ministry of Trade and Industry, 1998, p. 91).

⁴¹ Joanna Seow (2014) "More taking private route to a degree", *The Straits Times*, 4 September 2014; Sandra Davie (2014) "Get private schools into push to build deep skills", *The Straits Times*, 20 November 2014.

⁴² According to the 2014 CEP Annual report, there were estimated 77,000 locals and 29,000 foreigners enrolled in private commercial schools (Council for Private Education, 2014).

an undergraduate qualification, resulting in a surge in the supply of graduates in Singapore. Several PEIs were closed due to mismanagement, causing many students to be stranded without completing their education. Singapore's reputation as an education hub was severely hit. There were also concerns with PEIs with their varying admission criteria and assessment standards and the period and duration to attaining a degree as compared to the public universities.

The government through the Private Education Act has attempted to raise the standard of governance in the PEIs. The Private Education Act was enacted on 16 October 2009 to establish the baseline requirements for all PEIs in the areas of governance, information transparency, and the quality of provisions was introduced. The Council for Private Education (CPE), a statutory board was established in December 2009 to regulate the private education industry.⁴³

With the formation of the CPE, two immediate schemes were formed; the Enhanced Registration Framework and the EduTrust Certification Scheme. The objectives of these two schemes were to uplift and maintain standards of the private education sector.

The Council introduced a fee insurance scheme. The objective of this scheme is to protect the fees paid by students under the Enhanced Registration Framework. The introduction of this scheme signifies the importance the council places on protecting the student. Yet another scheme to protect students is the introduction of the dispute resolution initiative introduced in 2010.

One of the key thrusts of CPE is the strategic development and promotion of the private education industry. This is done through the EduTrust Certification Scheme. The main objective is to ensure PEIs maintain high standards in management and provision of education services. There are six criteria in which PEIs are assessed; management commitment and responsibilities, corporate governance and administration, external recruitment agents, student protection and support services, academic processes and assessment of students and quality assurance and monitoring of results.

Based on the assessment and the scores obtained under the EduTrust, PEIs may qualify for one of the following certification:

- EduTrust Star or Edu Trust – Valid for 4 years or
- EduTrust Provisional – Valid for 1 year.

There have been several changes introduced to EduTrust over the years. The latest slew of new measures was introduced by the CPE in 2016. More crucially, PEIs will be required “to set appropriate minimum academic entry requirements for admitting fresh school leavers who do not have relevant working experience”.⁴⁴ Students who are admitted to the external degree programmes must possess either:

- GCE A-Level, IB Diploma, or other equivalent pre-university certifications; or
- polytechnic diploma or equivalent; or
- PEI qualification that provides direct articulation into an EDP

To gain admission to a programme that articulates to an EDP, applicants must possess either

- GCE O-Level or equivalent; or
- Nitec, Higher Nitec or equivalent

A significant exclusion is the ‘N’ level holders who will no longer be able to gain admission into either the external degree programmes or pathway programmes. The CPE has also excluded Nitec and Higher Nitec graduates from the ITE from gaining direct entry into an EDP. By establishing these benchmarks, CPE notes, “prospective students will be clearer about the prerequisites” for such courses. With the changes to the entry requirements, PEIs may lose a segment of their target groups and that could impact

⁴³ In Oct, 2016, the Council for Private Education is renamed as Committee for Private Education and is part of the Skills Future Singapore (SSG).

⁴⁴ “New measures to strengthen student protection and increase information transparency” (adapted from <https://www.cpe.gov.sg/cpe/slot/u100/News%20and%20Events/Press%20release/2016/Media%20release%20for%20new%20measures%20cleared%20Final%20website.pdf>).

severely the business and key operating strategies of the PEIs. The PEIs could see a large drop in their enrolment.

Changes to the minimum academic entry requirements will also mean students who otherwise could pursue a private education route to obtaining a degree will now not be eligible to do so. Once seen as the sector to complement the public education sector in providing local students who do not do well academically in secondary school an option to still pursue an academic degree will now have no option but to enrol into the ITE or pursue work.

Concluding Remarks

What would be the effect of the government's initiatives on the undergraduate education market in Singapore?

It is worth noting that the ASPIRE committee has acknowledged that changing the mind-set of students and parents "to go beyond qualifications, to go beyond the classroom, to go beyond narrow definition of success" is a tall order, and will take many years, if at all, to make the society change.⁴⁵

One reason is that Singapore's education system that emphasises streaming at Primary 4 (up from Primary 3 in 1992) and Primary 6 has the unintended effect of classifying individuals as high achievers and low achievers thereby adversely affecting the status and standing of the individuals. Students are admitted to multiple pathways such as Express, Normal (Academic) and Normal (Technical), depending on their academic results, reflecting the three-tier education model consisting of universities, polytechnics and ITE. Gopinathan (2015, p. 98), quoting Oakes (1985) study on the 'social properties of tracking' was spot on in that the system has failed miserably in recognising the psychological inclination, particularly the tendency for students to compare with peers, and feel unhappy over the perceived lower status and labelling as slow learners and under achievers.

In addition, it is well known that inequity between knowledge workers with intellectual capacity and administrative and production workers is a growing concern, leading many working professionals to associate the acquisition of a formal qualification such as an undergraduate or postgraduate certificate as necessary to fit into the demands of the knowledge-based economy. At the same time, the inflow of immigrants contributes to depressed wages and vastly increases income and wealth inequality. Immigrants meet Singapore's demand for highly skilled labour. They typically command higher salaries, contributing to social exclusion and discontentment among the locals who feel the power of education in bridging the socio-economic gap. The notion that one can get rich without a degree may fall on deaf ears when a majority of their peer with higher education qualifications are perceived to enjoy a higher standard of living.

With many Singaporeans are (still) not able to get into the public universities, raising the bar to enrol into the external degree programme may raise discontentment, and force more Singaporeans to travel abroad to acquire a degree. An alternative worth considering is to build a small number of high quality PEIs to deliver high quality tertiary education that meets genuine market needs. After all, there are good returns to this education as demonstrated in the literature.

Clearly, the government has a greater control over the supply side of the education market, and therefore is likely to achieve more success in overcoming the overeducation concerns in Singapore. The CPE has raised the barriers to entry into the private education sector by imposing stricter rules and guidelines. The government has established more universities (e.g. Singapore Institute of Technology) to offer a facelift reputation wise at least to divert student enrolment of graduates from the polytechnics from less reputable universities in partnership with the PEIs to the two institutions. It is worth noting that the aim is not to deter individuals from a tertiary education. Rather, the government's aim is to direct the students' mentality away from chasing for a degree to skills acquisition and mastery of skills.

⁴⁵ Quoted in Varaprasad (2016, p. 151).

The Ministry of Education has reviewed the university landscape, and decided to adopt the applied degree pathway. The pathway caters to a broader range of students, addresses diverse industry needs and enhances employability of graduates through innovative applied pedagogy that emphasizes strong theoretical foundations and transferable skills, and close collaboration with relevant industries. “The integration of classroom knowledge with real-world applications would create a learning environment that is hands-on and collaborative, with a strong industry orientation. We want to motivate students to master new skills, and apply that knowledge in solving real-world problems. This would better equip them with skills that are valued by employers, and enhance their employability in the global marketplace” (MOE, 2012, p. 7).

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Effect of Education on Donors' Perception of Governance in the Non-profit Sector.

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Abstract

This study examines how education affects the donors' perception of governance in the non-profit sector. The study identifies the factors that contribute to corporate governance in non-profit organisations (NPO). Non-profit organisations (NPOs) are meant to serve the public rather than to earn a profit for its members. Non-profit organizations have philanthropic goals and certain social purpose such as charitable services, educational, religious, or other activities that serve the public interest. It is imperative that these organisations observe good corporate governance to safeguard the interests of the public and donors. Donors, who are the main contributors to the existence of these NPOs, must have a say in the regulation of NPOs. Education provides individuals of all ages with the skills and knowledge to perform many productive and successful roles as global citizens. As such education promotes responsible giving to the society at large. The research addresses and analyses questions on factors of effective governance of non-profit organizations from various donors with different education backgrounds. To examine the proposed research model, a sample of 250 donors was drawn in Singapore. Chi-square tests were used to examine the hypotheses. The study provides positive results in relation to the tested relationships. It was found that donors with a broad education background perceive that the shared roles and responsibilities of NPO, structure, characteristics and processes of board, information disclosure and transparency, and social responsibility and accountability have a significant impact on compliance to governance. These governance contributors encourage donors of good education background to donate generously to Non-profit organisations.

Keywords

Education, Donors, Non-profit organisations (NPOs), Code of Governance, Donors' Perception

Introduction

Education becomes valuable when a person has to weigh both sides of any given situation. Education provides a solution when evaluating what is reasonable and rational. Philosophers like Aristotle and Plato stated that education was pertinent to the moral fulfilment of any individuals and the welfare of the society to which they belong. (OECD, 2017).

The large growth in business globally, and reasons for responsible management has brought about theories in management on what are good governance processes that ensures the best interest of all the stakeholders (Becht et al., 2005).

Corporate governance allows involvement of one or more parties who make organizational decisions to act in the best interest of the organization and its stakeholders. Berle and Means (1932), who is the pioneer in the modern-day thinking about corporate governance, has developed concepts which are most necessary due to the separation of power between management of the large public companies and their shareholders.

In the past decades, many corporate scandals, financial statement modifications, and bankruptcies has caused increased governmental and shareholder interest in corporate governance which brings into the Sarbanes-Oxley Act (SOX) into importance. Many countries have made important changes in their

laws which are based on the responsibilities of directors, officers and corporate transparency obligations. A non-profit organisation is set for a reason other than earning a profit. They are meant to serve the public rather than to earn a profit for its members, (Cornforth, C, 2003). They are very drive themselves on certain purposes.

Nonprofits survive mostly on donations from individuals, government and organizations. Since their income comes from donors, they are expected to apply their funds wisely in order to maximize benefits of the intended beneficiaries (Ingram, 2009).

Nonprofits governance process is different in many respects such as stakeholder groups, ownership, purpose, legal form, civil relations, control, remuneration of management, transparency regulations, performance measurement and public perception, (Sprecher, 2010). The structures and management of non-profit organisations need to be more transparent in terms of governance.

Donors contribute mainly to the existence of these nonprofits. Donors' perception and expectation must be addressed so as to achieve an effective set of governance principles. Hence, most countries around the world have code of corporate governance for non-profit organizations to support the NPO board members in their fiduciary work, promote best practices in non-profit governance and enhance public confidence in these organizations.

Donors who are educated and better informed make informed decisions towards their donations which boost the donations in the non-profit sector and create responsible giving.

This paper seeks to find out the common factors affecting the governance process of nonprofits, test them in the point of view of donors from various educational backgrounds. It aims to contribute towards the existing literature by examining how donors with higher educational background perceive various factors as contributors to the governance process. It is expected that the results will provide a useful reference to nonprofits in setting their governance policies. Specifically the objective of the study is to identify how education affects a donors' perception to the factors of governance and how it affects their giving.

The following section of the paper synthesizes the literature on theories governing the governance model for nonprofits factors contributing towards their governance. Based on the literature, the paper develops a research framework and specific hypothesis about the factors contributing to the governance of charities and NPOs. The paper then explains the methodology of empirical study and the results. The final section of the paper discusses the findings of the study and its implication towards charities and NPOs.

Literature Review

Non-profit organizations devote their resources exclusively to carrying out their stated purposes, (Crystal, Taylor, 2006). The supporting principles governing the corporate governance of NPOs are analysed here.

The Governance Model of NPO

Many theories have been developed to establish corporate governance in the corporate sector such as agency theory, stewardship theory, resource dependency theory, a demographic perspective, stakeholder theory, and managerial hegemony theory. These theories are examined in this paper to understand how they could be useful for the governance of NPOs. Agency theory is based on the assumption that the owners of an organisation and those who are managing it will have conflicting interests. Agency theory states corporate governance principles ensure that management acts in the best interests of shareholders. Based on this theory on NPO governance, the board act as 'parents or the owners' of the NPO's mission and their major role is to monitor management and ensure their compliance in achieving the organisation's objectives. The board should ensure that resources donated

to the organisation used to serve the intended beneficiaries of the NPO. (Osborne, 2006; Jensen, Meckling 1976; Ashby, J. 1997)

Stewardship theory stated the human relations perspective. It accepts that managers perform as good stewards of an organisation's resources in order to improve the organisation's strategy and improve in important decisions. Hence, management ideas and practices should be used in governance and management is selected based on their expertise. This governance model can also be used in NPOs as well, as the NPO board's role is to make policy, clarify the mission and sustain the vision of the organisation. (Hung, 1998; Pound, 1995; Carver, 1990)

Resource dependency theory agrees that organisations are interdependent with their environment. Organisations depend upon other organisations for resources. Board members are recruited for their external links and knowledge which can benefit the organisation. This is common in many NPOs to include on their board personnel with links to improve funding from the public. (Pfeffer, Salancik, 1978)

Democratic perspective also has a strong influence on the governance of organisations, mostly on public and voluntary organisations. It suggests that the role of the board is to represent the interests of groups the organisation serves. The role of the board principally is to act in the interests of different groups and establish the overall policy of the organisation. (Osborne, 2005)

Stakeholder theory is based on that organizations should be responsible to different groups in the society other than its owners. The accountability to other stakeholder is important to non-profit sectors too (Hung, 1998; Tricker, 2000)

Managerial hegemony theory states that shareholders only legally own corporations; however, they do not control them as control is usually in the hands of professional managers who are the chief executive. From this standpoint, the board is like a 'rubber stamp' for management's decisions. This is also common in NPOs where founder members are the managers of these organisations and the board mainly functions figuratively to give acceptability to founder members' actions. (Berle, Means, 1932; Mace, 1971, Herman, 1981; MacIver, 1989)

These theories are criticised for only revealing one particular aspect of the board's work. The later models brought about the concept of paradox to address this problem and to take a multi-paradigm perspective concerning governance by contrasting opposing theoretical approaches. (Lewis, 2000; Hung, 1998; Tricker, 2000)

Hence, board's processes, characteristics and structure seemed to be the key criteria in setting a governance model for NPOs.

Factors contributing to Corporate Governance in NPOs and donors' perception of governance

The following section analyses the various factors that NPOs to understand the factors of effective governance contributing to the confidence of its donors.

Board's processes and structure play a significant role in the governance of NPOs. It depends upon the roles played by the members of the board in setting direction, making policy and strategy decisions, overseeing and monitoring organizational performance, and ensuring overall accountability. The processes maintained by the leaders of NPOs and the boards of directors are pertinent contributors to the success of the organizations they serve. (Renz, 2007; Ingram, 2008; Agatiello, 2008)

Roles and responsibilities of NPOs influence good governance. Board's responsibilities, its principle of equality, integrity, openness and accountability influence donors to donate generously. (Renz, 2007 Marsch, 2016)

Disclosure with regards to financial resources and audit are also regarded important contributors to governance. One of the greatest assets of the non-profit sector is the openness and spirit of freely sharing information, experience and results in timely manner (Independent Sector Source, 2015; Will, Emery, 2004; Kim, 2003). Accountability and transparency were considered as important attributes of good governance where maintaining open and productive relationships with key stakeholders to whom it serves and to those who provide the resources. Transparency, responsible citizenship, accountability, safeguard public trust is among good attributes recommended. (Starke, 2009; Keohane, 2002, APAC, 2012)

These principles, factors and guidelines were developed by past literatures, and proven to be contributors of good governance for NPOs, (Chokkalingam, 2015). Donors play an important role in the existence of NPO; they fund and support the needs of these organisations.

Donors are responsible to provide financial resources for NPOs which is a large sector of our social economy. For all nonprofits, donors provide capital and income to keep them in operations. Hence, when extending their donations they should put more effort in understanding the operations of a nonprofit organization and check whether these organizations engage in activities that is consistent with their own values. Donors should review the organization's mission, objectives, and types of beneficiaries, employment practices and governance policies to make sure they are comfortable with its direction. Donors cannot give consistently and should make conscious effort to identify organizations with values congruent with their own objectives (Schmidt, 1997; Weiner, 1998, 1999, 2000, 2001; Tsui, 2016).

Hence, education becomes an integral part of a responsible donor who would want to donate responsibly and effectively. Education makes a better donor. Charity awareness and scope of services are likely to have a larger impact on donors of higher education. Thus, they need better governance of any non-profit organisations before forwarding their donations. Donors with less education tend to be affected by advertisements by the nonprofits (Snipes, Oswald, 2010).

There were limited studies made on how educated donors perceive the compliance to governance and whether these factors contributing to the governance of NPOs, affect these donors in their donations.

Research Framework and Hypotheses

From the above literature, it could be summarized that main factors affecting the governance of NPOs are Roles and Responsibilities of NPOs, board processes and structure and disclosure and transparency. The three independent variables are studied in the point of view of donors with various level of education and are suggested to have a direct or indirect impact on the compliance to governance of NPOs and the donations made. The dependent variable is compliance to governance contributing towards higher donations. The proposed research model is illustrated in the figure 1 below.

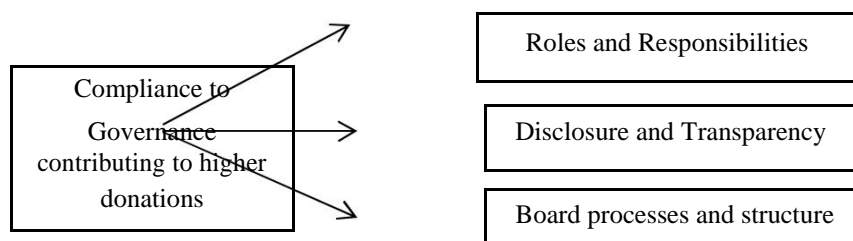


Figure 1: Factors affecting good governance in NPOs and contributing to higher donations
Source: Chokkalingam (2015)

On the basis of the above, the following research hypotheses are developed.

Research Hypothesis 1

- H0: Education does not influence donor's perception that the roles and responsibilities of NPOs contribute towards good governance and higher donations.
- H1: Education influence donor's perception that the roles and responsibilities of NPOs contribute towards good governance and higher donations.

Research Hypothesis 2

- H0: Education does not influence donor's perception that Board of Directors' structure and processes of NPOs contribute towards good governance and higher donations.
- H1: Education influence donor's perception that Board of Directors' structure and processes of NPOs contribute towards good governance and higher donations.

Research Hypothesis 3

- H0: Education does not influence donor's perception that disclosure and transparency of NPOs contribute good governance and higher donations.
- H1: Education influence donor's perception that disclosure and transparency of NPOs contribute towards good governance and higher donations.

Methodology

Based on the past empirical research and the literature review, survey questionnaire was developed. The three factors were tested against compliance to good governance and higher donations. The questionnaires were formed. The respondents answered using the five-point Likerts' Scale in the questionnaires. Likerts' scaling is used by researchers as an appropriate tool to capture the responses of the respondents. (Collis, Hussey, 2014; Hayes, 1998).

The survey questionnaire comprises of the following segments:

- 1 The demographics variables testing the donor's profiles based on age profile, gender, ethnicity with various educational backgrounds.
- 2 Donors' perception towards governance and the three factors - roles and responsibilities of NPOs, board of directors' structure and processes, disclosure and transparency among donors from various educational backgrounds.

The survey was done in Singapore among donors with various educational background. Questionnaires are given to donors in many public places like universities, hospitals, MRTs (train stations), bus stations and offices. The respondents were identified as donors before the questionnaires were handed over to complete.

The donors are selected using the random sampling within the categories. Using the quota sampling, a sample size of 400 donors was selected. The final sample size selected of the total 400 is 250 questionnaires representing 63% response rates.

Once, donor's association of the factors to the compliance to governance is determined by using the association analysis such as a Cross tabulation performed. The "*Independent Sample T*" test is used to determine either to accept or reject the research hypothesis. The test is undertaken at 95% level of confidence at 2 tailed level of test. Standard error means also examine to test the hypothesis.

Chi-square Test is used to compare observed data with what we would expect to obtain as per specific hypothesis. The chi-square test tests the null hypothesis, which shows that there is no significant difference between the expected and observed result. This test is used to analyse whether there is a significant association between the two variables (Klein, 2012).

Empirical Results

This section presents the results of the statistical analyses and testing of the hypotheses on how education influences the donors' perception that the three factors contribute towards the compliance to governance and higher donations. The SPSS software is employed for data analysis.

Sample Characteristics

Based on the table 1, 140 respondents are donating to the religious organizations which are about 56% of the total number of donors selected for our sampling. 34 and 36 of them are donating to health and educational institutions, which represent about 14% and social services donors register about 16%.

Table 1: NPOs selected from four main categories

Categories of NPOs	Frequency	Percentage
Religious	140	56.0
Education	34	13.6
Social Services	40	16.0
Health	36	14.4
Total	250	100.0

Table 2: Donors' Educational Level

Educational Level of Donors	Frequency	Percentage
O/A level/ Polytechnic	97	38.8
Graduate	126	50.4
Postgraduate	19	7.6
Primary	8	3.2
Total	250	100

Table 3: Donors' Characteristics

	Frequency	Percentage
Gender		
Female	139	55.6
Male	111	44.4
Ethnicity		
Chinese	178	71.2
Malay	36	14.4
Indian	29	11.6
Others	7	2.8
Age profile of donors		
20 to 29 years	90	36
30 to 39 years	71	28.4
40 to 49 years	41	16.4
50 to 59 years	30	12
60 to 70 years	18	7.2
Total	250	100

Over the decade, there was a large increase in the proportion of the population with tertiary qualifications (Department of Statistics, 2012). Going along with the statistics, Table 2 illustrated the sample selected represent 50% of the respondents are graduates, 39% represents and O/A Level and Polytechnic students and only 8% represents donors with primary level qualification and 3% are post graduates. These data and sample donors indicate that donors with basic level of education do not donate as much as those who have higher level of qualification. When questionnaires were handover over, many senior citizens and people with lower qualification had indicated that they do not donate at all. In the sample, 58% respondents are graduates and postgraduates which prove that the more qualified are better earning and hence, donate more.

Table 3 indicates 56% are females and 44% are males where female donate more than men. As for the age profile of our donors, the more educated donors are the young ones who are better earning and willing to contribute more to the society. The older donors may be less educated, less aware of the societal needs, less earning power and thus fewer donations they give.

Reliability Analysis

The analysis below provides test instrument (research questions) validity and reliability that data collected to test the research objectives and hypothesis.

The most commonly used test for reliability by researchers is the Cronbach's Coefficient Alpha.

This mean higher the reliability of coefficients better the measurement constructs. According to Hair, generally accepted lower limit Cronbach's coefficient is 0.70, however if the value decrease to 0.60 is acceptable for exploratory research (2006, p.137).

The table 4 below shows the results of the reliability tests conducted on the questionnaire. The overall alpha is 0.891, and so all the values in this column should be around that same value. If any of the values is greater than overall alpha, the deletion of that item improves reliability, (Field 2016). None of the items in the table deleting any question would increase the alpha of 0.891 further. Thus, the reliability of 0.891 for the sample selected indicates good reliability.

Table 4: Reliability Analysis

	Total Correlation	Cronbach's Alpha if Item Deleted	Overall Cronbach's Alpha
Governance	.634	.888	.891
Roles, Responsibilities	.748	.864	
Board Processes and structure	.779	.858	
Disclosure and Transparency	.807	.851	

Hypotheses Testing of Relationships

Each of the hypotheses was tested separately. The chi-square test is used to understand whether there is a significant difference between the expected frequencies and the observed frequencies in one or more groups, (Howell, 2011). A Pearson chi-square test was conducted to examine whether there was a relationship between education and the independent variables and the dependent variable of compliance to Governance in the perception of donors.

Governance and Roles

The table 5 reveals that the Chi-square of 1335.687, df = 780 and significance .000. This shows that probability of the chi-square test statistic is $p=0.000$, less than the alpha level of significance of 0.05. The strength of association is tested through Phi and Cramer's V. Cramer V at 45% is good as the

study is about qualitative variables into quantity, hence results are very strong. If Cramer V is above 30%, it indicates a strong relationship (Howell 2011).

Hence, donors from various education backgrounds believe that there is a strong positive relationship between the Governance and Roles and Responsibilities.

Upkeeping one's responsibilities is seen to an important quality to a well-educated individual, (Hodgson 2010). This is evident as more than 95% of the sample are from individuals of higher educational background who would give more importance to the roles and responsibilities of the board.

Table 5: Chi-square test on governance and roles and responsibilities

	Value	df	Asymp. Sig. (2-sided)		Value	Approx. Sig.
Pearson Chi-Square	1335.687 ^a	780	.000	Phi	2.311	.000
Likelihood Ratio	542.693	780	1.000	Cramer's V	.453	.000

Governance and Board Processes and Structure

The table 6 below shows a chi-square of 1085.471, df = 598 and significance of .000. Since the significance is less than 0.005, this indicates donors believe that there is a strong positive relationship between governance and Board processes and structure. Cramer V is 43.4% which is above 30% shows very strong association. Hence, the donors from various educational background perceived that board processes have strong association to governance and hence to their donation principles. Educated individuals believe that before they go down that road, they need to ensure that they are focused on the right processes. This is evident, high-educated individuals internalize process-oriented understandings to successfully perform in their academic qualifications and hence, they prefer good processes and structure be present in organization to which they extend their donations too.

Table 6: Chi-square test on Governance and board processes and structure

	Value	df	Asymp. Sig. (2-sided)		Value	Approx. Sig.
Pearson Chi-Square	1085.471	598	.000	Phi	2.084	.000
Likelihood Ratio	443.418	598	1.000	Cramer's V	.434	.000

Governance and Disclosure and Transparency

Table 7 shows the significance is less than 0.005, there is a strong positive relationship between Governance and Disclosure and transparency. Cramer V is 45.9% showing a very strong association. Thus, the donors from various educational backgrounds have mandated that being transparent and disclosing required information have strong association to good governance. This variable has the highest association among all the three variables. The educated donors who are 96% of the total sample selected consider transparency as the key to a non-profit organisation's success as they would not extend donations to organisations whose disclosure and transparency are limited. They prefer to use their time and attention span in their private matters rather than clarifying issues and seeking out information before contributing to the NPOs, (Andersson, 2008).

Table 7: Chi-square test on the relationship between compliance and disclosure

	Value	df	Asymp. Sig. (2-sided)		Value	Approx. Sig.
Pearson Chi-Square	1368.090	858	.000	Phi	2.339	.000
Likelihood Ratio	546.711	858	1.000	Cramer's V	.459	.000

Discussion

Of the 250 donors contributed towards this research, 140 donors donated to religious organisations, 34 to educational institutes, 40 to organisations for social services purpose and 36 to health organisations. It has been noticed that donors who have very basic level of education do not donate as much as those who have higher level of qualification. About 58% donors who responded are graduates and post graduates which confirms the fact higher qualification leads to better earning power and therefore more spending power, hence they donate more than the less educated ones. The study also establishes that the young donors who are more educated donate generously as compared to the older ones. This proves the fact that the young donors are more educated and has more earning power and will be more aware of the societal needs. The older generation does not donate as much, perhaps they may have to keep their savings for their own needs.

Donors believe that governance is important element in extending their donations (high mean score). Donors vary widely in their opinion about roles and responsibilities as directly influencing the governance as the standard deviation was the highest among the rest of the variables. There was a strong mandate by donors for the association of governance to roles and responsibilities, governance to board processes and structures and governance information disclosure and transparency as proven by Chi-square test. It is evident that donors with higher level of education feel governance is important when donating their money to NPOs. They also strongly believe that the board should have clear roles and responsibilities, good structure and processes which must be transparent. These attributes are proven to be the main elements of governance in the eyes of these educated donors.

Conclusion

This study provides useful information about how education influences donors' perception on good governance. Factors identified by extant literatures, proven to be correct indicators of good governance in the donors' perception.

Practical Contributions

Donors largely agreed that the governance is necessary for non-profit organisations. Donors who have higher education also believe that the board of NPOs must be responsible and should have well-laid policies and policymakers need to be transparent. The findings of the study suggest that donors of higher education approve governance is important to extend their donations. Hence, NPOs should uphold good governance by improving their roles, responsibilities, processes, structure, disclosure and transparency. The regulators of NPOs should continue to review their procedures in monitoring these organisations on good governance. Donors of higher education feel that NPOs should improve communication with its donors and publish plans and funds allocation. The roles and responsibilities of the board should be published in their websites or newsletters to improve communication and disclosure. Effective communication with donors of higher learning draws better donations and improves governance process of nonprofit organizations.

Limitations and Future Research

This study provides some interesting insights on the donors' perception of what is good governance from donors of various educational backgrounds. It identified factors contributing to good governance and tested their association to basic governance in the perception of donors. This was done on a smaller scale in Singapore. Further studies should incorporate more samples with developing countries with higher number of donors.

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Vector-based Models for Educational Institution Shape Analysis

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Abstract

Over the past 25 years, performance measurement has gained salience in higher education, and with the explosion of structured data and the impact of business analytics and intelligence systems, there are new angles by which big volumes of data can be analyzed. Using traditional analytical approaches, pairs of reciprocal cohorts are considered as two separate discrete entities; therefore, basis of analysis are individual pairs of values, using statistical measures such as average, sum, mean or median, of the total population. Missing in traditional approaches is the lack of a holistic performance measure in which the shape of the comparable cohorts is being compared to the overall cohort population (vector-based analysis). The purpose of this research is to examine shape analysis, using a Cosine similarity measure to distil new perspectives on performance measures in higher education. Cosine similarity measures the angle between the two vectors, regardless of the impact of their magnitude. Therefore, the more similar behavior of the two comparing entities can be interpreted as more similar orientation, i.e. load pattern distribution, between the two vectors. The efficacy of the proposed method is experimented on a college of RMIT University from 2010 to 2016. The current research also proposed two other distance measures: Euclidean and Manhattan distances. The experimental results provide new insights to analyzing patterns of student load distribution and provide additional angles by orientation instead of magnitude / volume comparison. These insights assist University executive to be assured of the decision making process.

Keywords

Load Pattern Distribution, Vector-based Analysis, Shape Analysis, Cosine Similarity, Magnitude versus Orientation.

Introduction

With respect to the growth of stored structured data in educational organizations, specifically in higher education, the use of modern analytical tools that provide a holistic analysis of student load or headcount is more in demand than ever. Student load refers to a measure that counts students in terms of full-time equivalence units – in Australia, it is called equivalent full-time student load (EFTSL). Conventional student load analysis is basically comparing pairs of reciprocal cohorts which are summarized in the form of “Average” or “Sum” of series of data. The essence of such approaches is based on *scalar interpretation* which focuses on magnitude of results (Ma. Florecilla C. Cinches 2017). However scalar-interpretation analysis suffers from lack of *vector* information which represents the holistic similarity in distribution (shape) of compared data. As an example, trend analysis of educational load in consecutive years is useful to investigate the overall performance but does not represent the organizational load pattern. Or how to investigate the impact of policy changes in the performance of colleges and schools, regardless of comparing their performance magnitude only.

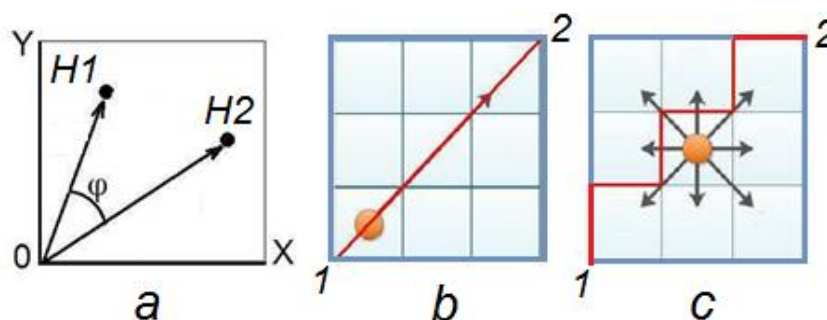


Figure 1: Cosine similarity between two vectors: H1 and H2 by measuring the cosine of the Φ angle. The Euclidean and Manhattan distances between two points are shown in (b) & (c) respectively.

This research employed a mathematical concept for proposing a *vector-based* analysis, and looks at the series of data. Vectors have magnitude and directions and can help us to utilize a *vector interpretation* of data rather than conventional scalar interpretation which is based on magnitude only. However both are similar in format of data: a *List* (1-dimensional) or *Tables* (2-dimensional) of values. Vector-based approach is utilized in image analysis to investigate the content-based similarity (distance) among the images. Images are 2-dimensional data in form of integer matrices. We applied a similar approach on 1- and 2-dimensional data to investigate the similarity of performance in consecutive years or semesters. *Shape analysis* is a term which is applied to this approach in the current research.

Two models are proposed in this research: *Cosine similarity* and *Minkowsky distances* (*Euclidean* and *Manhattan*). These two distance metrics are utilized in image analysis to investigate the similarity between content of images.

The data utilized in this research is provided by RMIT University from 2010 to 2016. The total performance and shape analysis of a sample college of RMIT University is investigated in this research.

In the next section, we introduce background and related works of the proposed method in detail. Methodology of shape analysis of load data is introduced in the third section. The fourth section is dedicated to the scalar versus vector analysis. The fifth Section is dedicated to analyzing the results and discussions for the two shape analysis models and finally the sixth section represents the conclusion of the current research.

This analysis provides an alternative lens by which institutional planners can further explain to decision makers changes in the student distribution as well as considering its effect on various cohorts. The other critical outcome of this research is that it challenges traditional approaches for examining student load distribution over time, and it suggests new possibilities that can be considered, e.g. where opportunities for growth in certain market segments have been inadvertently missed.

Background and related works

To measure the similarity between two vectors, measuring the cosine of the angles between the two vectors is a method known as *cosine similarity* (Huang 2008, Ye 2011). The range of result is between -1 and 1. If the angle is zero, it shows the ultimate similarity between the two compared vectors, regardless of their magnitude, which the cosine similarity would be 1. Conversely when the two vectors are totally in opposite directions, the cosine angle would be -1. Two vertical vectors represent 0 similarities in this approach. Figure 1-a illustrates the cosine similarity between two vectors and Formula 1 shows how

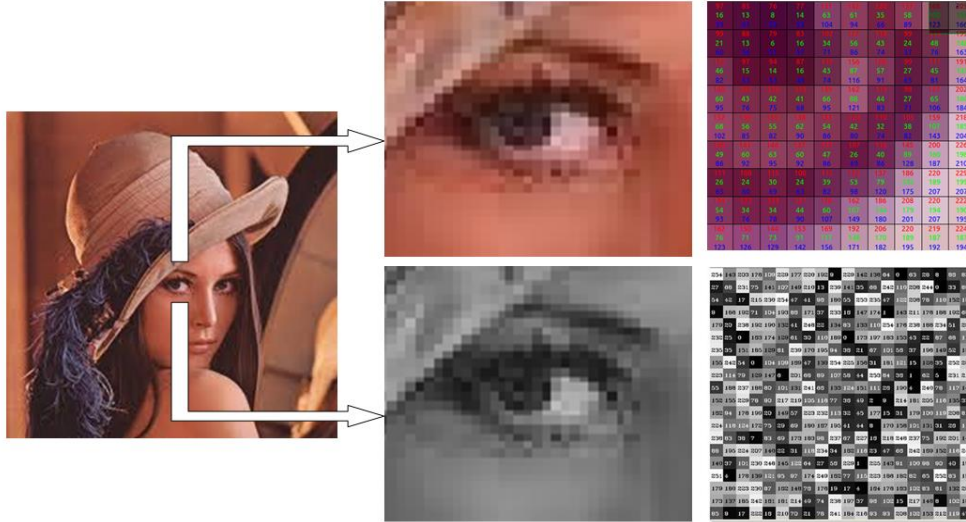


Figure 2: Content of an image in two modes; top in a colored image and bottom in a grayscale image to calculate this similarity measure.

$$\text{Cos}(H1, H2) = \frac{H1 \cdot H2}{\|H1\| \cdot \|H2\|} \quad (1)$$

$$S(H1, H2) = \frac{\sum_{i=1}^n (H1_i H2_i)}{\sqrt{\sum_{i=1}^n H1_i^2} \sqrt{\sum_{i=1}^n H2_i^2}}$$

Formula 1 shows the cosine of the angle between two vectors $H1$ and $H2$ is equal to the dot product of the two vectors divided by the magnitude of them. The formula is expanded in $S(H1, H2)$ where S represents the similarity of vectors $H1$ and $H2$. The components of the vectors are shown as $H1_i$ and $H2_i$.

There are other distance measures to investigate the similarity among two vectors (Rouhi 2015). *Minkowski* distance measures the distance between the two points or vectors. Two of the most popular Minkowski distances are *Euclidean* and *Manhattan* distance metrics (Huang 2008). To simplify the concept we can focus on the distance between two points in a 2-dimensional plane. Euclidean or L2 Norm, measures the straight line between the two points. Calculation of this distance is shown in Formula 2.

$$\text{Ed}(H1, H2) = \sqrt{\sum_{i=1}^n (H1_i - H2_i)^2} \quad (2)$$

If $H1$ and $H2$ represent two vectors, the Ed (Euclidean distance) between the two vectors would be equal with the sum of squares of the differences of the corresponding components. The resulting value shows the straight distance between the two vectors or points. Figure 1-b shows Euclidean distance between two points: 1 and 2.

For the same situation, the Manhattan distance represents the distance between the two vectors or points but strictly on horizontal and vertical paths, unlike Euclidean which

utilizes the diagonal path. Figure 1-c and Formula 3 represent this distance.

$$Md(H1, H2) = \sum_{i=1}^n |(H1_i - H2_i)| \quad (3)$$

For $H1$ and $H2$ as two vectors, the Manhattan distance is defined as the sum of the absolute differences of the corresponding components of the two vectors. As can be seen in Figure 1-c, the Manhattan distance is the simple sum of horizontal and vertical distances between two points in a 2-dimensional plane.

One of the applications of cosine similarity and Minkowski distances are in content-based image processing (Russ 2016). Colored images are composed of three tables or matrices that contain integer values, representing the intensity of light for three basic color components: Red, Green and Blue. The same concept is used for grey-level images. The only difference is that grey level images utilize only a single matrix to store the intensity of light; 0 for black and 255 for white components which are known as pixels, unlike the colored images which are composed of three matrices. The integer values between 0 and 255 represent the different shades of grey (Chen 2015, Russ 2016). Figure 2 demonstrates the concept of colored (top) and grey-level (bottom) image.

As depicted in Figure 2, an image is nothing more than matrices of integer values. Hence, the techniques that compare two images by calculating the similarity or distances between the two images can be used for any data which is represented as 2-dimensional vectors (tables). The authors of the current research utilized the idea from the content-based image similarity detection and implemented the models on educational student load data. The results show the cosine similarity can be utilized as a holistic performance measure or shape analysis tool in analysis of educational data. The details will be presented and discussed in the fifth section.

Research method

As described in the previous section, a grey-level image is just an integer matrix. If similarity between the images can be implemented by help of mathematical distance measures, utilizing the same methods can therefore be implemented on any numeric matrices i.e. load and headcount of different cohorts in educational data warehouses.

To provide a platform for evaluating the proposed models for shape analysis, the performance of a college at RMIT University was selected as the pilot platform. A common approach is measuring the performance of the selected college by comparing scalar values representing load or headcount. However this approach is incapable of evaluating the similarity on *load pattern distribution* of the specified college which represents the college shape.

To achieve this, the college student load data should be composed in the form of a matrix (table) for each year. The X-axis of the matrix can represent the Broad-levels of education (BLEVEL) or program codes and the Y-axis can represent the broad or narrow Fields of Education (FoEs). In such a composition, each element of the matrix represents the total Load of each Blevel or program by FoEs (narrow or broad).

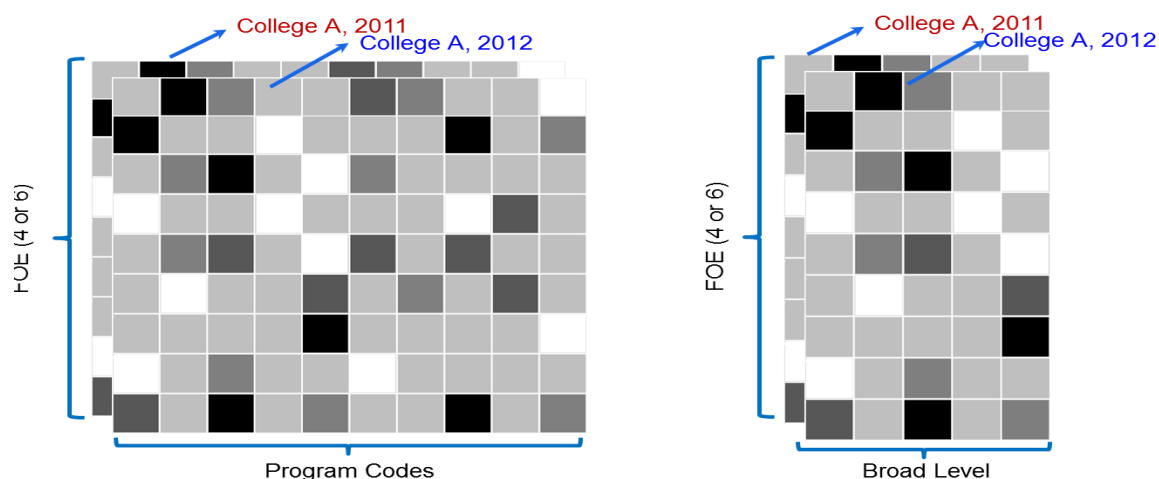


Figure 3: Illustrating the performance of a sample college “A”, in two different years in matrix format. Two compositions are illustrated: narrow or broad FoEs by program codes and by broad-levels of education (BLEVEL).

Providing the same matrix for each year of the college performance finally generate several matrices with similar number of rows and columns. It should be noted that if a FoE or Blevel or program does not exist in some years, it should appear in those matrices with zero values to make all matrices equal in size, similar number of rows and columns. Figure 3 illustrates load distribution for a sample college in the two compositions; FoEs (narrow or broad) by programs (left) and FoEs (narrow or broad) by Blevels (right). The experiments conducted in the current research are based on narrow FoEs by Blevels.

Table 1: Total sum of student load for the sample college breakdown by Blevel and year.

<i>Year</i>	<i>RSCH</i>	<i>PGRD</i>	<i>UGRD</i>	<i>Total(Year)</i>
2010	181	1542	4112	5835
2011	215	1444	4699	6358
2012	247	1361	4860	6468
2013	290	1398	5425	7113
2014	271	1347	5262	6880
2015	315	1347	5048	6710
2016	253	1407	5649	7309
Total (Blevel)	1772	9846	35055	

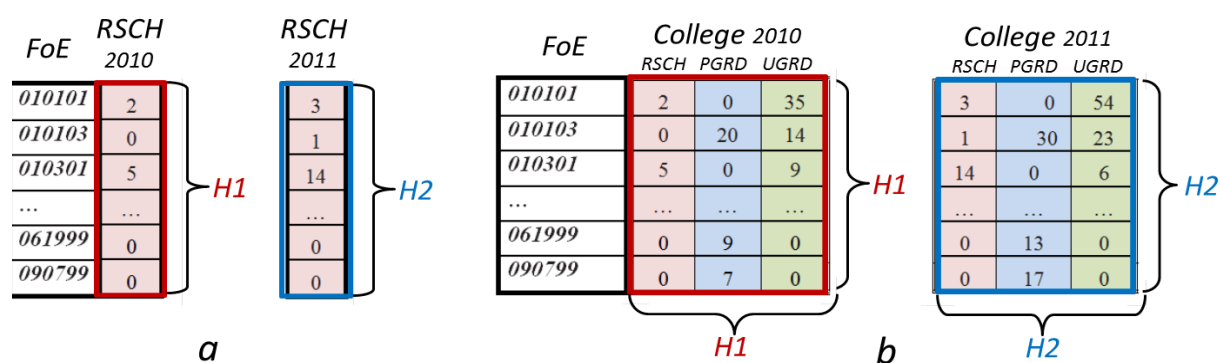


Figure 4: Load pattern distribution (shape) in two different models: a) 1-dimensional shape analysis by cosine similarity and, b) 2-dimensional shape analysis by Minkowski distances. Vectors are shown as $H1$ and $H2$.

Table 2: Detailed load table of the sample college breakdown by narrow FoE, Blevel and year

narro w FoE	Yea r	2010			2011			...			2016		
	Blevel	RSC H	PGR D	UGR D	RSC H	PGRD	UGR D	RSC H	PGRD	UGR D	RSC H	PGRD	UGR D
010101		2	0	35	3	0	54	...	...	...	0	0	34
010103		0	20	14	1	3 0	23	...	...	...	0	10 4	23
010301		5	0	9	14	0	6	...	...	...	2 1	19	8
...	
061999		0	9	0	0	13	0	...	...	...	0	7	0
090799		0	7	0	0	17	0	...	...	...	3	7	213
Total		181	154 2	411 2	215	1444	469 9	...	...	...	253	1407	564 9

Scalar- versus vector-based analysis

The load (EFTSL) of a sample college at RMIT University has been selected to evaluate the proposed methods for shape analysis in different years. The three Blevels for each year are as follows:

- Higher degree by research programs (RSCH)
- Postgraduate by Coursework programs (PGRD) and
- Undergraduate programs (UGRD).

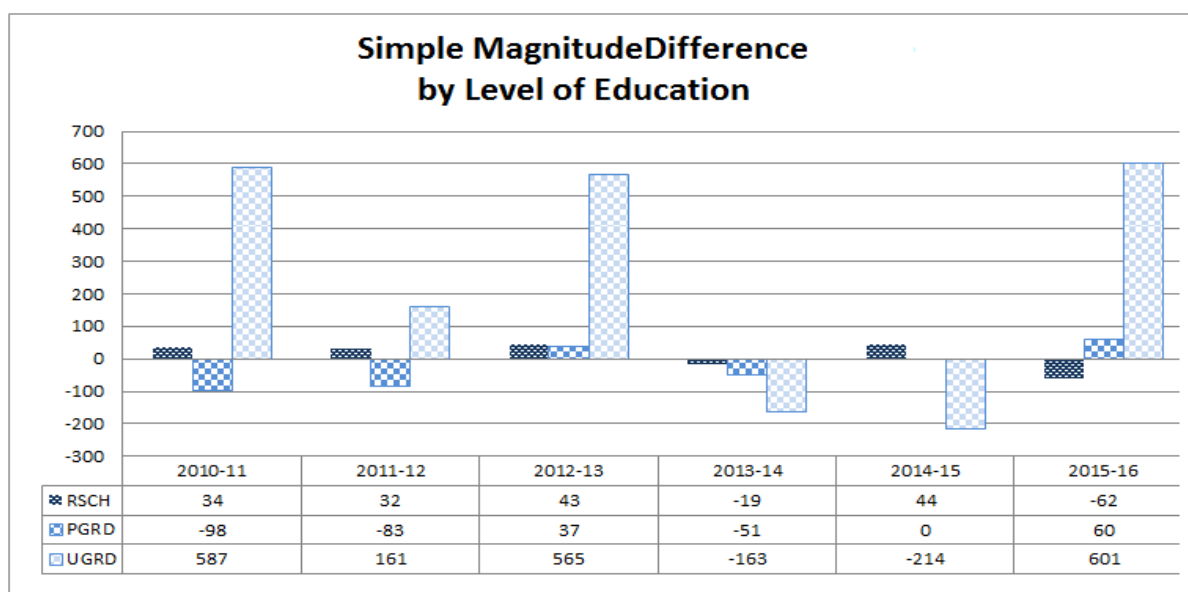


Figure 5: Conventional performance analysis of a sample college based on sum of load difference.

The original data is in the format of load by year and Blevel, presented in Table 1. Load of each year is presented in format of a list (1-dimensional) of values in rows and columns. This format is normally used in conventional analysis models (Tinto 2006, Kuh 2008).

The simple data structure in Table 1 is broken down by narrow FoEs and each year is represented as a matrix (2-dimensional) showing the load of FoEs by Blevels as shown in Table 2 partially.

To investigate the performance of the specified college in each Blevel, the conventional model is comparing the sum of Blevels in each year. The graph shown in Figure 5 illustrates the difference of the overall load, presented in Table 1, broken down by Blevels, by years. This approach can help us to analyze the trend and investigate about the performance growth rate.

However conventional models are incapable of analyzing the student load based on the *load pattern distribution*. Such load distribution is demonstrated in Table 2 in the form of a list (colored columns) or sub-tables (tripled-line matrices) as well as in Figure 4. This characteristic is called *Shape Analysis* in this research and investigates the similarity of load pattern distribution in

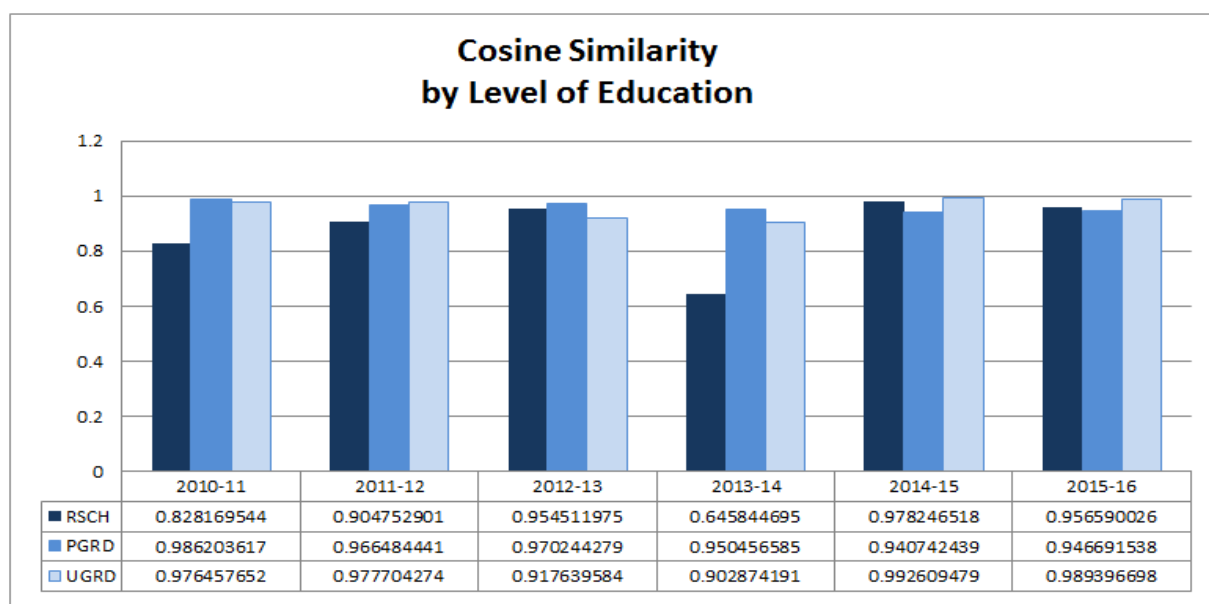


Figure 6: Shape analysis of a sample college based on cosine similarity. The similarity values are between -1 and 1, for minimum and maximum similarity in performance of the college.

the columns or sub-tables of Table 2. Figure 4 depicts the student load distribution used for shape analysis in 1-dimensional (4-a) and 2-dimensional (4-b) models. To compute shape analysis for Blevels, the cosine similarity, introduced in Formula 1, is used. In this approach each two comparable Blevels, i.e. 2010-RSCH and 2011-RSCH, are considered as two vectors: H1 and H2 which are highlighted in the same color in Table 2. Applying the cosine similarity provides the angle between the two vectors, regardless of their overall magnitude.

The similarity in student load pattern is represented by similar increase or decrease of load in the corresponding pairs of FoEs, which finally represents similarity in the behavior of the specified college. The core competency of shape analysis is in vector interpretation of data which is independent of the overall magnitude of load in each category (scalar interpretation).

Results and discussion

In this section a detailed comparison between the conventional and the proposed models is provided and discussed in two sub-sections. The first model provides a 1-dimensional load analysis of the sample college on each Blevel. However the second model provides a 2-dimensional load analyses of the college in a holistic approach including all the Blevels.

Cosine-similarity model for 1-dimensional load analysis

The conventional load analysis on Blevels is based on the difference of overall magnitude of Blevels on pairs of years. The results of this method are demonstrated in Figure 5 which is derived from the sum of loads provided in Table 1. As an example, for UGRD load analysis based on the conventional model, Figure 5 reveals that the maximum load reduction can be seen in the 2014-15 years with negative growth of -214 EFTSL.

Conversely for the same UGRD programs, the maximum increase of load can be seen in 2015-16 with positive growth of +614 EFTSL. Based on the conventional model, the most significant fluctuation of UGRD programs can be seen in these two pairs of years.

The proposed model based on cosine similarity shown in Figure 6 reveals another aspect which does not conform to conventional load analysis shown in Figure 5. The graph in Fig

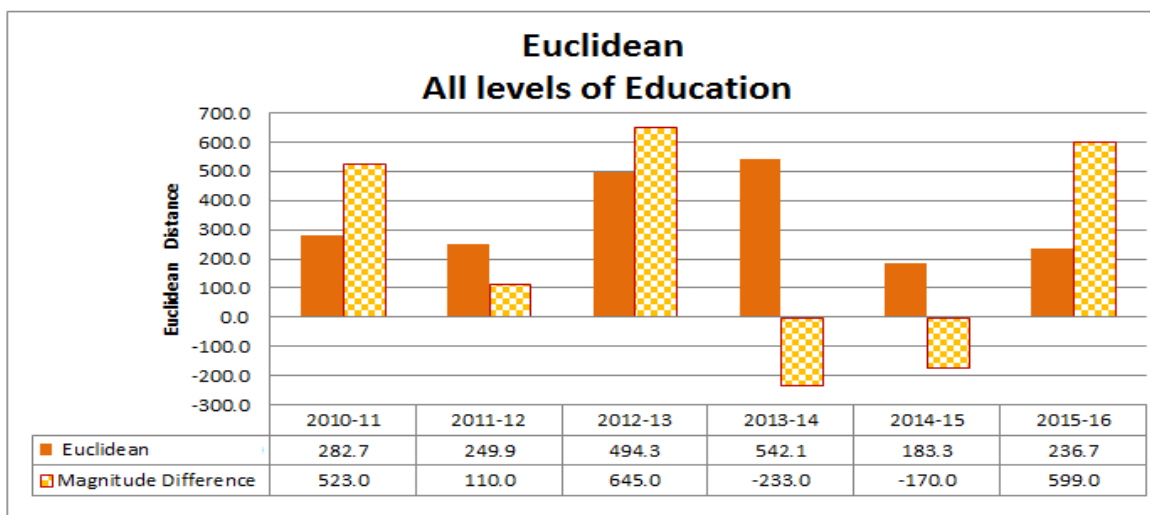


Figure 7: Comparing pairwise load of a sample college by Euclidean (solid) versus conventional sum of load (crossed) from 2010 to 2016.

(5) shows the UGRD programs in the same paired years (2014-15 and 2015-16), have a cosine similarity near to 1, which reveals the shape of the college has been almost identical in those pairs of years. The cosine similarity value for UGRD programs in 2014-15 and 2015-16, is 0.99 and 0.98 respectively which shows the angle between the two vectors is almost zero, similarly for 2015-UGRD and 2016-UGRD. From an analytical point of view, the higher values in cosine similarity represent the lower changes in distribution of load among compared pairs of cohorts. It shows that the college has similar pattern in increasing or decreasing of load among UGRD FoEs. In other words, the college behaves in similar *shape* for UGRD programs.

Another example is the RSCH programs in 2013-14. The overall magnitude in RSCH programs, between RSCH-2013 and RSCH-2014 is -19 which is the lowest. Conversely the college shows the maximum change in its shape due to minimum value of cosine similarity 0.64, compared to the previous and following years. This can be the result of offering new FoEs or significant enrolment change in some of the research programs in the FoEs of these two years.

As can be seen in Figure 4-a this model analyzes the distribution of load by Blevels individually and consequently the magnitude of load among Blevels does not skew the analysis results.

The significant aspect of the proposed model is its independency of overall sum of load. Such tolerance against the load magnitude is the core competency of the proposed shape analysis based on cosine similarity. This model is general and can be applied on any cohorts such as analyzing the shape of load distribution of:

- Low-SES versus other domestic students,
- International versus domestic,
- ATSI versus domestic and
- Gender load distributions.

Minkowski-distances models for 2-dimensional load analysis

The experiments of this section are conducted on the same college used for cosine similarity. However instead of comparing the individual Blevels comparisons, we compared the holistic college performance on all the three Blevels for pairs of consecutive years. The results are shown in Figure 7 and 8. In both figures the overall load difference

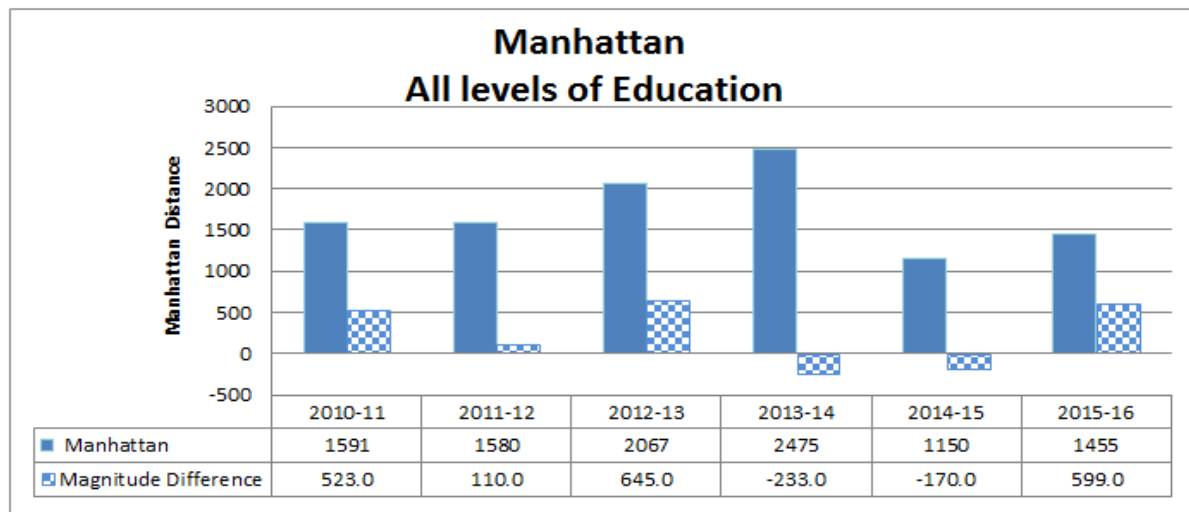


Figure 8: Comparing pairwise load of a sample college by Manhattan (solid) versus conventional sum of load (crossed) from 2010 to 2016.

is compared with the Minkowski distances.

Two Minkowski distance measures will be introduced in this section: Euclidean and Manhattan. Both distances have similar behavior and naturally show the same distribution of load but with different scales. The results of these distance measures are positive values and represent the distance among student load pattern distribution of the two compared entities. These measures are incapable of detecting which compared cohorts are higher or lower, but they can show how their shapes are following similar load pattern distribution on FoEs.

The conventional model shows the maximum load difference of the college can be seen in 2012-13 (645), 2015-16 (599) and 2010-11 (523). However the proposed 2-dimensional models focus on distribution of load within the matrices of each year as shown in Figure 4-b. These models show the largest distance between the shape (load pattern distribution on all narrow FoEs) of the college can be seen in 2013-14 while its magnitude in the conventional model is insignificant (-233). The reasons for such shape difference can be due to introducing new programs or fluctuation in FoEs enrolments which can justify the larger Minkowski distances of 2013-14.

This contrast between the conventional approach and the Minkowski distances helps decision makers better interpret and analyze holistic college performance. Similarly, these models can be applied on any cohorts as mentioned in previous section.

Conclusion

The objective of this research is to introduce new models to analyze quantitative data in education systems. The proposed approach utilizes vector- instead of scalar-based interpretation used in the conventional analysis models (Tinto 2006, Kuh 2008, Ye 2011, Ma. Florecilla C. Cinches 2017).

The utilized distance measures have been used in image processing to measure the content-based similarity among the images. Since an image is a matrix of integer values (intensity of pixels), the idea inspired us to utilize the same techniques for analyzing the educational load data which is configured in the form of a matrix.

Two models are introduced: Cosine similarity and Minkowski distances (Euclidean and Manhattan) for partial and holistic shape analysis. The efficacy of the methods was investigated on the load data of a sample college in RMIT University from 2010 to 2016.

The results show the capability of the proposed techniques in analyzing load pattern (shape) of the college by comparing the distribution of loads by Field of Educations (FoEs) and Broad-levels or Education (Blevels).

The proposed shape analysis models can help decision makers to answer some questions such as; how similar is the load pattern of an educational cohort to the other cohorts or compared to itself during the previous years, or how similar is the shape of an educational entity such as a college or a University, to the other colleges or Universities?

Analyzing the distribution of load and measuring it with the proposed models, can help educational organizations to investigate their performance from a new angle and provide more insights to decision makers to develop more effective strategies. For example, the utilization of this approach could lead to a shift in student recruitment away from historical patterns to one where new possibilities are considered. For decision-makers this new approach could provide a new validation angle by which student load distribution data can be put to hypothesis-testing or forecasting.

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How can IR Support the Management of Japanese National Universities on the Mid-Term Plan Related to Globalization?

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Abstract

Japanese national universities should promote their globalization plans. However, there are some unsuitable management plans. While institutional research (IR for short) is expected to help in drawing mid-term plans up, there are no methods to contribute it by IR at present. The mid-term plans are drawn up by Japanese national university corporation in order to achieve their mid-term objectives. 56 mid-term plans are related to globalization among the plans drawn up by the universities adopted in Top Global University Project in Japan. We will analyze these plans based on formally and virtually criteria. Some plans don't have essential elements: inputs, activities, outputs, and outcomes. For these plans, IR can show some processes based on data in order to draw mid-term plans up based on logic model. IR can also show data which can indicate present conditions for inputs, can realize objectives for activities and outputs, and can predict future conditions for outcomes. On the other hand, there are plans which have no or unsuitable numeric targets. The plans with no numeric targets are basically unsuitable for plans of action. The other plans with unsuitable numeric targets may be unachievable. As a result, such university will suffer a loss. IR should provide the executive with numeric data which can show present and future circumstances. Especially, it is very important to maintain the systems for sharing inter-university data in order to collect the data outside the university and compare one another. In this research, we will not only clarify the problems of the management plans but also study how IR can support these plans concretely.

Keywords

Institutional Research, Japanese National University, Mid-Term Plan, Globalization

1. Introduction

In recent years, Japanese national universities have to promote their globalization plans to correspond to the world that is developing the internationalization rapidly. In the severe situation of management resources, these universities should draw up appropriate plans of action and accomplish them efficiently and effectively. However, there are several inappropriate plans among the management plans drawn up by Japanese national universities.

IR is expected to support the management decisions which are based on various data. Unfortunately, for the present, no ways to support them by IR are established in Japan. We will not only clarify the problems with the management plans drawn up by Japanese national universities but also study the ways to supports the plans which have something problematic.

2. Methodology

In this paper, we promoted our study by observing following methods.

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2-1. Analysis of Problems of Mid-term Plans

2-1-1. Targets

In Japan, 11 national universities were adopted as the Top Global University by The Ministry of Education of Japan. We analyzed 56 mid-term plans (Mid-term Plan, 2015) which were drawn up by these 11 universities. These mid-term plans were also related to globalization.

The mid-term plans are drawn up by Japanese national university corporation in order to achieve their mid-term objectives in 6 years. All Japanese national universities have to achieve the mid-term objectives which they drew up. These objectives are concerned with business operations. These mid-term plans have to be evaluated every 6 years. If these plans are not achieved, the university may suffer disadvantage because the result of the evaluation are reflected on its budget.

2-1-2. Viewpoints

2-1-2-1. Components of Plans

We confirm whether all mid-term plans have essential components. There are some ways to establish components of logic models. We divide all mid-term plans into (1) *inputs*, (2) *activities*, (3) *outputs*, and (4) *outcomes* based on (Sakano, 2012). The difference between outputs and outcomes is not defined clearly. In this paper, we follow the definition described in (Sakano, 2012). He explained as follows: “Outcomes mean the goals which are set what and how the targets will change. Activities provides various services for the targets to occur such changes. There are many cases that outputs are the targets who were provided the services as a result of activities.” We give a plan “Improvement of English ability by increasing of class subjects” as an example. In this plan, increasing of class subjects is the activity, the number of students attending these classes is the output, and improvement of English ability is the outcome.

2-1-2-2. Appropriateness of Contents of Components

Next, we confirm whether the contents of the components are appropriate substantially. Especially, *the numeric targets are important to achieve the plans efficiently and effectively*. So, we confirm whether the numeric targets exist.

Table 1: Situation of Each Component Based on Logic Model

		value	rate
Number of mid-term plans related to globalization		56	100.0%(56/56)
(1) Inputs	Number of mid-term plans with Inputs	0	0.0%(0/56)
	(Including numeric targets)	-	-
(2) Activities	Number of mid-term plans with Activities	54	96.4%(54/56)
	(Including numeric targets)	10	18.5%(10/54)
(3) Outputs	Number of mid-term plans with Outputs	4	7.1%(4/56)
	(Including numeric targets)	4	100.0%(4/4)
(4) Outcomes	Number of mid-term plans with Outcomes	22	39.3%(22/56)
	(Including numeric targets)	17	77.3%(17/22)

2-2. Way of Support Problems of Mid-term Plans by IR

We study the ways to support the problems of the mid-term plans, which are clarified in Section 2-1, by IR.

3. Analysis of Problems of Mid-term Plans

In Table 1, we show how the mid-term plans, which are related to globalization, contains the components based on the logic model. In the following parts, we analyze each component.

3-1. Inputs

3-1-1. Situation

There were no mid-term plans which contains input components. The inputs show the resources invested for putting the plans into practice. Then we have to understand, analyze, and allocate these resources for carrying out the plans effectively and efficiently.

Especially, the mid-term plans, which are related to globalization, influence not only the resources to own university but also domestic and foreign situations. It is very important to understand and analyze the data of own university, other domestic universities, and foreign universities, but it is also very difficult. What there are no mid-term plans which contains input components means that various data are not understood and not analyzed in all universities.

Needless to say, it is not necessary to describe all the inputs in detail in the statement of mid-term plans. However, the policy of university resource allocation is unknown for the outside in the situation that there are no inputs in the mid-term plans. Moreover, a shared awareness is lacking. From the point of view of an accountability for the world, it is very problematic though the universities are taken notice by the world.

3-2. Activities

3-2-1. Situation

Activities are appeared in 54 mid-term plans which is 96.4% of 56 mid-term plans. The mid-term plan is a plan for action. Then, it is necessary of establishing the activities “which provide various services for the targets to occur such changes”.

There are a few mid-term plans which are not appeared activities. For example, there is a mid-term plan “we increase the faculty who had schooling and researching history abroad up to x % of all faculty so as to respond the development of globalization”. This plan is inappropriate as a plan of action because it does not become a specific guide for activities.

3-2-2. Appropriateness of Numeric Targets

There are 10 mid-term plans which have numeric targets. This is 18.5% of 54 mid-term plans which activities are appeared. If the mid-term plans with impossible numeric targets were drawn up, these plans will be evaluated as “not achieved” and disadvantaged. Therefore, many mid-term plans seem to have no numeric targets.

For example, there are the mid-term plans with numeric targets for course establishment and overseas bases establishment. The examples of the former are “we expand the rate of international course establishment to 75 %”, “we have 500 classes using foreign languages”, and “we expand the rate of classes using English to 54.0% until 2021”. The examples of the latter are “we establish more than 7 foreign offices as the bases of our university until 2021”, “we establish more than 5 new global station”, and “we establish more than 20 alumni associations for foreign students”. These mid-term plans are achievable in own university and not related to foreign countries or foreign universities though these plans are related to globalization. Therefore, it is not clear whether these plans enable to achieve final outcomes. Such mid-term plans were drawn up because it seemed difficult to analyze the data from the other universities or the other countries.

3-3. Outputs

3-3-1. Situation

Outputs are appeared in 4 mid-term plans which is 7.1% of 56 mid-term plans. Outputs are “the targets who were provided the services as a result of activities”. It should be easy to appear the outputs in the mid-term plans because the outputs are the effects of activities. However, the number of mid-term plans with outputs were small because the process which is based on logic mode was seemed not to be recognized enough.

3-3-2. Appropriateness of Numeric Targets

All 4 mid-term plans which outputs are appeared have numeric targets. For example, there are the mid-term plans with numeric targets for the conclusion of academic exchange agreement and the student attending classes. The examples of the former are “we conclude the campus-in-campus agreements with 10 partner universities until 2021”, “we conclude the whole university agreements with more than 80 foreign universities”, and “we conclude 120 academic exchange agreements”. The example of the former is “we make 5 students take the course every year”.

3-4. Outcomes

3-4-1. Situation

Outcomes are appeared in 22 mid-term plans which is 39.3% of 56 mid-term plans. Outcomes mean “the goals which are set what and how the targets will change”. They are real purposes of mid-term plans. The Ministry of Education of Japan demands all universities to include numeric targets into mid-term plans. Also, when public offering of Top Global University Project in Japan, the application documents had to include numeric targets.

3-4-2. Appropriateness of Numeric Targets

3-4-2-1. Situation of Appropriateness of Numeric Targets

There are 17 mid-term plans which have numeric targets. This is 77.3% of 22 mid-term plans which outcomes are appeared.

For example, there are the mid-term plans with numeric targets for increasing foreign faculty, students from overseas, and students studying abroad. The examples of the former are “we increase the foreign faculty up to about 400” and “we increase faculty who are from foreign countries or have schooling and researching history abroad up to 47 %”. The examples of the latter are “we make the number of students from overseas more than 2,200 every year”, “we make the rate of the students from overseas for graduate students up to 22.0% until 2021”, and “we make the number of students who had studied abroad more than 1,250”. Moreover, for the abilities of students and staffs, there are “we increase the rate of the students who gains about 750 points of TOEIC to 15%” and “we add the staffs corresponding to 30% of the staff who gains about 800 points of TOEIC to the present staffs”, and for research results, there is “we increase the rate of the papers created by international coauthors to 10%”.

3-4-2-2. Study of Appropriateness of Numeric Targets

The numeric targets are appeared in several mid-term plans as mentioned above. It is doubtful whether these numeric targets are appropriate or not considering that outcomes are not only important but also influenced by the other countries and universities greatly. If the numeric targets are incorrect, the mid-term plans including these numeric targets are inappropriate as plans of action. Moreover, if the mid-term plans with impossible numeric targets were drawn up, these plans will be evaluated as “not achieved” and disadvantaged.

We confirmed the appropriateness of the numeric targets. We compare 2 mid-term plans which has characteristic numeric targets. The first one is “we add the staffs corresponding to 30% of the staff who gains about 800 points of TOEIC to the present staffs” and the second one is “we make the rate of the students from overseas up to more than 16.0%”.

The first mid-term plan uses the term “add the staffs corresponding to 30% to the present staffs”. If the number of “the staffs who gains about 800 points of TOEIC” is 100, the mid-term plan will be achieved when the number will become 130. Even if the number of such staffs is 200, it will be achieved when the number will become 260. Next, we consider the case that this mid-term plan is changed to “we increase the rate of the staffs who gains about 800 points of TOEIC to 30%”. We assume that the number of all staffs is 1,000. Even if “the staffs who gains about 800 points of TOEIC” is 100 or 200, the mid-term plan will be able to be achieved when the number of such staffs will be over 300. This mid-term plan can be achieved by the efforts of the university staffs. In other words, this mid-term plan is an achievable goal with a concrete numeric target.

The second mid-term plan uses the term “make the rate up to more than 16.0%”. The target number becomes 160 if the base number is 1,000. In the same way, the target number becomes 1,600 if the base number is 10,000. In other words, the greater the base number is, the more difficult to achieve the mid-term plan. The number of students who will be admitted will be adjusted in order to achieve the mid-term plan. It means that the mid-term plan will not be achieved by the efforts of the students. While the total number of the overseas students who belong to Japanese national universities which are adopted as Top Global University Project Type A is 17,462 on 2013, the same number on 2023 will become 31,977 (SGU, 2014). Moreover, the total number of the whole overseas students who are undergraduates, graduate students, and junior college students is 108,906 on 2013 (Overseas Student, 2017). Even if the overseas students will be increased by the effect of “a plan for 300,000 exchange students” (300,000 Exchange Student, 2008) by the Ministry of Education of Japan, it will be difficult to achieve the numeric targets at all universities. Even if these numeric targets will be achieved at all universities, we worry about a decline of quality of overseas students.

There are the mid-term plans which will be achieved by the efforts of the constituent members, and the mid-term plan which will be effected by base number. Especially, the second mid-term plan is very difficult to achieve because overseas students are related to other universities.

In the universities which are adopted as Top Global University Project, as prioritizing the adoption of large-scale competitive funding, the mid-term plans had inappropriate numeric targets because the present data were not surveyed or the achievability of the numeric targets were not considered. In the strict finances in each university, competitive funding is very important. However, universities have to do educational and research activities. Globalization is necessary but we should consider the effect to whole organization.

4. Ways to Support Problems of Mid-term Plans by IR

We should show the process based on the logic model from putting the plan into practice to achievement of goal by clarifying various data and support executives to import appropriate elements to mid-term plans. In following parts, we show the concrete ways of each element.

4-1. Inputs

Almost all inputs were not appeared in mid-term plans. As understanding, analyzing, and allocation of resources were not adequate, we should show the executives the data related to management assets in order to draw mid-term plan.

Especially, the mid-term plans related to globalization need the data not only inside each university but also outside them, and it is difficult to collect these data. If we can establish an inter-university consortium to collect and share various data, we can analyze inter-university data and support the

executives based on the analyzed data.

4-2. Activities

There were a few mid-term plans with activities and they were able to be conducted themselves. For the mid-term plans including activities without numeric targets, we can show a correct achievability by various data. Moreover, we should prepare the data which shows the situation of the other universities and the other countries in order to draw up mid-term plans including activities considering the other universities and the other countries.

4-3. Outputs

For the mid-term plan including outputs, we can show what kind of activities produce what kind of outputs and finally lead to what kind of outcomes by using data. In other words, we can make the executives recognize the process based on the logic model.

4-4. Outcomes

For the mid-term plans including outcomes, we can provide the data related to achievability and future estimate. Especially, if the political decisions are required, we should introduce the process and involve in it. Then, we can support the executives to decide politically considering the effect to whole institutional activities about globalization.

5. Conclusion

Mid-term plans are essence of Japanese national universities' management. However, some mid-term plans are drawn up without adequate data as evidences, others are drawn up by taking priority politically. Japanese IR supports to educational activities but there are few examples which support management activities such as drawing mid-term plans up. Then, we need to study how to support drawing mid-term plans by IR in order to prevent the mid-term plans from being inappropriate. In our paper, we surveyed the mid-term plans related to globalization by taking notice of inputs, activities, outputs, and outcomes which were based on logic model. Moreover, we studied the way of support the executives by IR. We can help to support to draw the mid-term plans by using various data. That is to say, these data can clarify the goals of four elements of logic model and it will be easy that the mid-term plans with clear goals will be judged whether they will be achieved or not. The role of IR is to provide appropriate data to draw up the mid-term plans. We should keep appropriateness of "management plan" as considering political decisions.

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The effects of teachers' shared leadership and Self-Efficacy on the students' Mathematics achievement: A Longitudinal Study

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ABSTRACT

This study aimed to investigate the impacts of teachers' shared leadership and self-efficacy on the sixth-grade students' Mathematics achievement during four academic years. Samples were 1,574 state teachers employed by schools under Bangkok Metropolitan Administration in 2016. Multi-stage random sampling was utilised. Studied variables comprised latent variables, namely shared leadership and teacher self-efficacy. Data were collected via questionnaires during October-December 2016. Secondary public data of the sixth grade national Math test results from the National Institute of Educational Testing Service (NIETS) between 2013 and 2016 were used. Data were prepared by SPSS and latent growth curve model for longitudinal analysis of change on the sixth grade Ordinary National Educational Test (O-NET) was evaluated by Mplus. Research findings indicated that growth curve model for the sixth grade O-NET Math tended to have lower growth rates. All models fitted with empirical data. Teachers' shared leadership and self-efficacy affected the sixth-grade students' Mathematics achievement during the academic years of 2013-2016.

Keywords

shared (or group) leadership, self-efficacy, Math achievement, growth curve model, longitudinal study

Introduction

In Thailand perspective, schools often expect their administrators to hold the most critical role. They are utmost important in leading a school to its superiority by centring themselves as heroes, which corresponds to the idea of traditional leadership (Bass, 1990). It is apparent that the academic leadership of administrators from the public schools under Bangkok Metropolitan Administration (BMA) or Bangkok School District correlates or influences changes in students' academic performance (Naiyapatana, 2003). Solo or individual leadership has become prominent for over 17 years. This results in instability of the organisation because no single leader can foresee all complexities in today rapid and severe changes of business operations. Thus, shared or group leadership is a new working skill necessitated in the 21st century. It likely helps drive education to measure up with changes due to a collaboration mechanism in the group and emotional attachment that lead to a positive emotional competence and an integration of collective goals. This also includes an enfranchisement of leadership from one individual to another according to changing circumstances (Militello & Benham, 2010; Méndez, Howell, & Bishop, 2015).

The Ordinary National Educational Test (O-NET) is a measurement of knowledge and reflection for grade 6, 9, and 12 students. Data from the National Institute of Educational Testing Service (Public Organisation) (NIETS) all suggest that the national academic achievement average is constantly declining. The latest O-NET results revealed that the average score for all grade 6 subjects fell below 50 per cent. Furthermore, the most recent international student assessment score for Mathematics by the Program for International Student Assessment (PISA 2015) unveiled that Thailand barely earned 1.4

percent student proportion with advanced skills. Teacher quality was named among key factors affecting the O-NET results (Glowwe, Hanushek, Humpage, & Ravina, 2011; Lathapipat & Sondergaard, 2015). In other words, human motivation urged teachers' commitment or incentive to work (McClelland, 1985). Schools' innovation atmosphere linked students' academic achievement (Freiberg, 1999). Teachers' accomplishment perception related to effective teaching strategies that resulted in teachers' positive behaviours (Emmer & Hickman, 1992). Shared leadership also had significant effects on the variance of school performance (Leithwood & Mascal, 2008; Finnigan & Stewart, 2009). It was a factor fostering innovative atmosphere for creative personnel as well (Jaiswal & Dhar, 2015).

Considering research pattern, most previous papers often represented cross-sectional descriptive studies. Very few works have been completed on the pattern development or change effect for test results of the national education as well as on answering the research question over cause of problem or how the external quality assessments on national educational test results correlated. Moreover, there exists no explanation to date on the reasons for differences in changes via longitudinal research along with study on education quality development through latent growth curve modeling for longitudinal analysis of change on the O-NET results during 2013-2016.

For this reason, the researchers were interested in studying the influence of shared leadership and teacher's self-efficacy on Mathematics achievement score gains of grade 6 students from the Bangkok School District. Examination of education quality development through longitudinal analysis of change on the O-NET results using latent growth curve modeling for the O-NET results was conducted. This helped follow the development of education quality assessment as well as learn the degree of effects that variables had on the development of national education test results.

Objective of the Study

This research study aimed to investigate the influence of shared leadership and teacher's self-efficacy on Mathematics achievement score gains of grade 6 students from the Bangkok School District via latent growth curve modelling analysis.

Framework of the Study

O-NET has been a key process that reflects education quality of schools and students in Thailand. Data from the NIETS, Office of the Basic Education Commission (OBEC), and the Office for National Education Standards and Quality Assessment (ONESQA) all pointed out that in Thailand, the context of education quality differed according to school characteristics such as leadership of the administrators. Shared (group or collective) leadership (SL) is a form of transformational leadership because interactions between leaders and followers ensue collective transformation leadership (House, Rousseau, & Thomas-Hunt, 1995; Avolio, Walumbwa, & Weber, 2009). Shared leadership imposes significant effects on the variance of school performance (Leithwood & Mascal, 2008; Finnigan & Stewart, 2009). Operations under shared leadership standpoint are a lot more effortless with positive emotion competence, solidarity, and innovative atmosphere for creative personnel as well (Jaiswal & Dhar, 2015).

Teachers' self-efficacy (SE) beliefs proposed by Bandura (1997, 2000) is a vital mechanism that connects knowledge, skills, and work behaviour of teachers so that they can perform their tasks effectively. According to Manddus and Stanley (1986, p.12), of all mechanisms driving performance, none is more important than belief in human ability. Teachers' accomplishment perception also relates to attentiveness for successful teaching strategies, which lead to teacher's positive behaviour such as devotion on teaching and challenging activities development (Emmer & Hickman, 1992). It also helps teachers to share their ideas for teaching and learning that create shared leadership in the school (Ritchie, Tobin, Rothl, & Carambo, 2007).

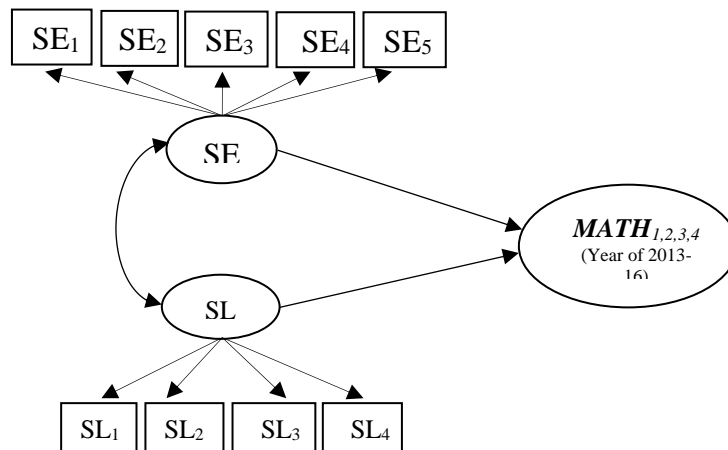


Figure 1: Conceptual Framework

Methodology

Correlational research design was employed in this study. Examination of secondary data for Thai education quality development through a longitudinal analysis of change in the national education test results during academic year of 2012-2015 from the NIETS was performed.

Sample and Variables: Samples used in the research were 1,574 public officials hired as teachers for Bangkok School District for the academic year of 2016. Multi-stage random sampling was deployed. The sixth-grade students of O-NET Mathematics results were collected from 83 schools during academic years of 2013-2016. Research variables examined in this study were two external latent variables—teachers’ shared leadership and teacher’s self-efficacy, and one internal latent variable—the sixth-grade students’ national test results in Mathematics from the NIETS.

Instruments: Research instrument was a questionnaire comprising 5 parts. Part 1 consisted of respondents’ general information. Part 2 contained 5-point Likert scale for 28 questions about shared leadership characteristics with reliability of .978. And part 2 concerned 7-point rating scale for 29 questions about teachers’ self-efficacy with reliability of .937.

Measures and Data Analysis: Data were collected through questionnaire handing out to the samples teachers between October and December 2016. Secondary data of the sixth grade O-NET Math test results from the NIETS between 2013 and 2016 were used. SPSS program was employed to prepare the data and latent growth curve model for longitudinal analysis of change on grade 6 O-NET results of the sixth-grade students was analysed by *Mplus* program. Model fitness was validated with empirical data by considering the Standard Root Mean Square Residual that measured the fitness of model against data ($SRMR < .08$), the Root Mean Square Error of Approximation ($RMSEA < .08$), Comparative Fit Index ($CFI \geq .90$), and Tucker-Lewis Index ($TLI \geq .90$) (Muthen & Muthen, 2010).

Results

Basic Statistic of the Development of Mathematical Score Analysis: The differences between the means of the Mathematics scores from four measurements from the initial agreement in the development curve with latent variable scores correlated with systematic time, at least during studying time. Thus, Mathematics scores on the four measurements in four academic years of 2012–2015 needed the change in data analysis in this research. The researcher examined the differences between the means of Mathematics score from the first measurement to the forth measurement with repeated-measures

ANOVA to determine the change in Mathematics score. The *F-statistic* value, which was statistically significant ($F = 785.715$, $p < .01$), indicates that the measurement period is significant in different mathematics scores in the four measurements. The data in this research could be further analyzed. The change of four Mathematical scores is shown in Figure 2.

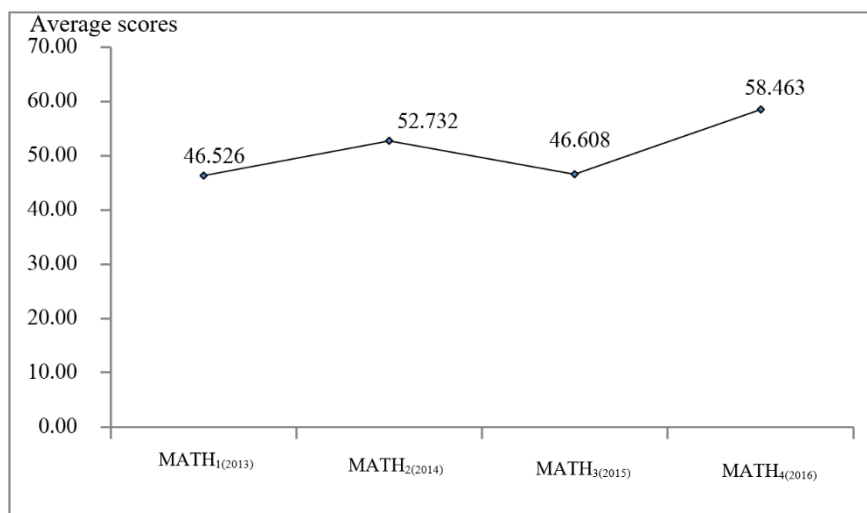


Figure 2: Line graph of the change in Mathematics scores of the sixth-grade students during four academic years

The relation between the Mathematics scores of grade 6 students from four measurements by taking score from each test to find Pearson's Correlation Coefficient. It is found that there was statistical significance at 0.01 level. The correlation coefficient of two variables is in medium level ($r = 0.122-0.567$). The correlation coefficient between the first measurement (MATH₁(2013)) and the third measurement (MATH₃(2015)) is the highest level ($r = 0.567$).

The examination in the development of Mathematics score of the sixth-grade students was found that the *F-statistic* values of non-linear regression analysis ($F = 536.908$) and linear regression analysis ($F = 908.734$) were both statistical significance at 0.01 level. When considering predicted coefficients (R^2) of the two models, approximately numbers were equal for both models ($R^2 \approx 0.200$), giving the highest order in the polynomial equation to support in further development in Mathematics scoring model analysis. It showed that Mathematics development scores were linear (Linear Pattern), thus defining as a pattern in further development in Mathematics scoring model analysis.

The Mathematics Scores of Sixth-Grade Students Development Rate Analysis: Based on the results of the first analysis (Baseline), there are also high errors of the model. The model does not have Goodness of fit for data, with high chi-square values. Some Goodness of fit are low, errors in estimation and errors of model are higher than the set criterion. It means this model does not fit with the data ($Chi-square=116.58$, $p=0.00$, $RMSEA=0.16$, $RMR=7.74$, $GFI=0.96$, $AGFI=0.88$, $NFI=0.90$, and $IFI=0.90$). The researchers modified the model (Modification) by setting errors from the second measurement and the third measurement to be related. It is analyzed that this model is fitted with the data ($Chi-square=1.10$, $p=0.29$, $RMSEA=0.01$, $RMR=0.43$, $GFI=1.00$, $AGFI=1.00$, $NFI=1.00$, and $IFI=1.00$). Thus, a researcher chooses this model finding factors which affect Mathematical development rate.

Estimation of parameters of latent variables in the equation of measurement shows that the effect value of developmental rate on the scores of the first measurement, second measurement, third measurement, and the fourth measurement are 0, 1, 0.05, and 1.89, respectively, all are statistical significance at 0.05 level. Error Variance from the first measurement, second measurement, third measurement, and the fourth

measurement are 49.26, 69.17, 64.79, and 47.54, respectively, all are statistical significance at 0.05 level. For the estimation of parameters of latent variables in the structural equation, the mean of the initial skill score is 7.48, the variance is 3.53, the average of the developmental rate is 6.97, the variance is 2.56, all are statistical significance at 0.05 level. Correlation between the initial skill score and developmental rate is 0.17 and statistically significant at 0.05 level. All statistics are showed in the illustration.

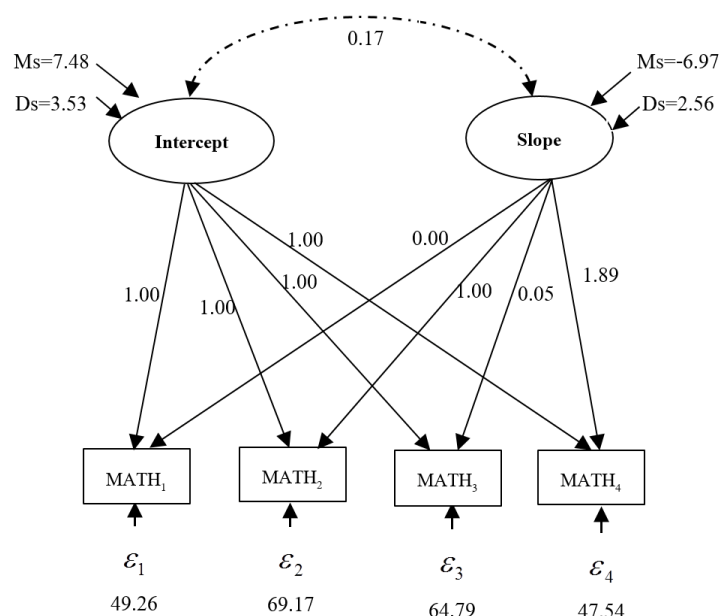


Figure 3: The results of estimating curve parameter with latent variables in studying of the Mathematical O – NET scores of grade 6 students development rate

The impacts of Teachers' Shared Leadership and Self-Efficacy on the Students' Mathematical Scores of development rate: On the first impacted factors analysis on the Mathematics scores, the researchers applied the basic model, but there were also high errors of the model. The model did not have Goodness of fits for the data, with high chi-square values. Some Goodness of fits had low values, errors in the estimation and errors of model were greater than the cut-off criteria of fit indices. This result indicated that the model did not fit to the data. A researcher modified the model by setting relation between errors in measurements. There were still high chi-square values. Some Goodness of fit values were lower than the set criterion, but they did not get below than 0.90. The estimated errors and model errors were slightly higher than the cut-off criteria of fit indices, but they were not over 0.08. The Goodness of fit which were higher than the cut-off criteria were *NFI* and *IFI*. It represented that this model was reasonable fit to the data (*Chi-square* =192.87, *df*=65, *p*=0.02, *RMSEA*=0.08, *RMR*= 0.07, *GFI*=0.92, *AGFI*=0.92, *NFI*=0.94, and *IFI*=0.95).

Estimation of parameters derived from the model were the weight of the components of the group leadership (SL). These included team spirit (SL₁), group trust (SL₂), group communication (SL₃), and emotional support (SL₄) which were 1.00, 0.85, 0.83, and 0.76, respectively. The weight of the components of Self-Efficacy (SE) which included the influence on making decision (SE₁), the influence on school resources (SL₂), the teaching and learning (SL₂), the classroom/school disciplines (SL₃), requesting community to be joined (SL₄), and atmosphere creation (SL₅) were 0.83, 0.90, 1.00, 0.92, and 0.84 respectively. All values were statistical significance at 0.05 level.

The teachers' shared leadership which affected the initial skill score and the developmental rate were 1.58 and 0.52, respectively. Both values were statistical significance at 0.05 level. While teachers' self-efficacy which affected the initial skill score and the developmental rate were 1.27 and 0.38, respectively. These statistic values were also statistical significance at 0.05 level. Correlation between teachers' shared leadership and teachers' self-efficacy was 0.46 and statistically significant at 0.05 level.

The effect values of developmental rate on the scores of the first, second, third, and fourth measurements were 0, 1, 0.68, and 2.14, respectively, all of the statistic values were statistical significance at 0.05 level. Error variance from the first, second, third, and fourth measurements were 31.42, 41.15, 37.52, and 35.17 respectively, all were statistical significance at 0.05 level. For the estimation of parameters of latent variables in the structural equation, the mean of the initial skill score was 11.27. The variance was 18.40. The average of the developmental rate and the variance were 7.21 and 3.53, respectively. All statistic values were statistical significance at 0.05 level. The correlation coefficient between the initial skill score and developmental rate was 0.37 and statistically significant at 0.05 level. All statistic values were shown in Figure 4.

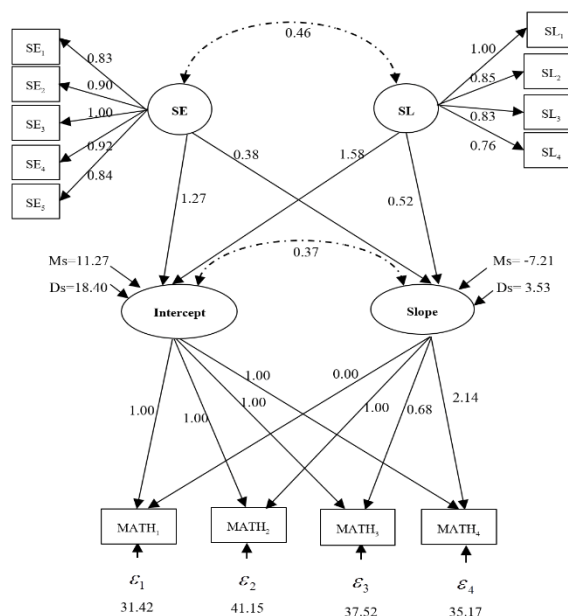


Figure 4: The results of estimating curve parameter with latent variables I studying of the Mathematical O-NET scores of grade-sixth students' development rate

Discussions and Recommendations

Findings from this longitudinal analysis of change in education quality of Thailand sixth-grade O-NET Mathematics test results indicated a declining tendency. The initial score was still lower than 50 per cent. This failed the quantitative target set by the Ministry of Education that specified a benchmark of 50 per cent or greater of students' achievement for core subjects by the end of the revised 2016 National Education Plan. The following factors for instance, teachers' shared leadership (SL) and self efficacy (SE) affected the O-NET Mathematics test results. This reflected a smoother operation under the context of shared leadership along with energy from positive emotion, unity, and driving force for working commitment. Teachers who realise and trust own determination ability for their successful profession and people who believe in themselves highly succeed in their career (McClelland, 1985). In changing circumstances, teachers may work interchangeably in order to suit their own capabilities. Moreover, teachers' self-efficacy beliefs is also associated to successful teaching strategies that create positive behaviours in them like dedication to teaching and development of challenging activities (Emmer & Hickman, 1992).

The longitudinal analysis of change in education quality of Thailand with school size as a covariate variable, the O-NET Mathematics progress score continues to decline since school characteristics such as the school size (Glowwe et.al., 2011) affects internal management of the school. The Bangkok School District faces understaff problem that in some primary schools the number of teachers does not match the number of classes and one teacher must carry high loads of teaching for multiple classes or subjects. This negatively affects the quality of education especially, small schools in the rural areas where most students come from underprivileged families in terms of social and economic disadvantages. This is consistent with a research on the Thai education system conducted by the World Bank that revealed the shortage of teachers and inequality in allocation of qualified teachers as main reasons for the low quality of education and high disparity in Thailand (Lathapipat & Sondergaard, 2015). Since budget increases in proportion to the school size, it reflects budget disproportion and probably affects the efficiency of teaching administration and the promotion of school environments favourable to students' academic achievement. Many small schools are still short of appropriate number of personnel. Sometimes, small schools become the training ground for new school administrators. However, it is surprising that in the context of school size, small schools revealed exceptional shared leadership over other school sizes. This is because the working environment within limited resources allocated by the centralized authorities and non-selectable students factor result in better interaction, unity, trust, and devotion among teachers in small schools. This in turn helps them strive for target achievement. Thus, besides quality of education, equality of education in the context of school size and teachers' shared leadership factor should also be urgently taken into consideration. This is to improve the overall quality of education system along with the development of Academic Achievement in Mathematics attaining to the objectives specified in the current education reform.

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Development Of Vietnamese Skilled Labor Respond To Job Requirements In Period 2010-2015.

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Abstract

In recent years, Vietnamese skilled labors have been gradually improving. However, there still existing a gap between labors qualification to the requirements of the work and the labor market demand. This situation has clearly reflected in the surplus (the unemployment rate of graduated student in college and university level) and the shortages of qualified/skilled workers (the shortages of qualified workers at vocational training to meet the requirements of enterprises and industrial parks, export processing zones) to meet job requirements. Currently, imbalance between supply and demand of labor's qualification to meet the requirements of the labor market is one of the most serious concerns of the education and vocation and training system in Vietnam in particular and the development of national human resources in general. This paper uses Vietnam Labor Survey's data (LFS) to analyze and assess the status of Vietnamese qualified/skilled labors to meet job requirements. Accordingly, the results will point out the gap between the supply of skilled labors and labor market demand in general, as well as the gap in every occupation and sector in the period 2000-2015. By doing that, this paper provides the scientific evidences for the ineffective in current education and training system. The paper will propose effective and sustainable recommendations to adjust the policies of national human resource development, national education and training, labor and employment to meet the requirements development and integration of Vietnam in the coming time.

Keywords

labors; skilled labors; supply - demand of skilled/qualified labors; shortages – surplus.

Vietnam labor market in the glance

The labor force is abundant but low skilled⁴⁶

Vietnam has a plentiful workforce. Up to 2015, the labor force is 53.9 million people (about 60% of the total population, of which males account for 51.57% (about 27.8 million). The number of working people is 97.88% of the total labor force. Unskilled labor accounts for 78.9% of the total workforce and 77.5% of the labor force. The number of skilled worker is 62.1%, of which the jobs that do not require the qualification level account for 47.1%

⁴⁶ Calculation based on the GSO's data 2016.

The education level of Vietnamese labor

✓ *The high school and above graduation rate of labor is not high and still existing of gender differences in general education*

The education level reflects the level of human resources. By 2015, more than 68.7% of 53.9 million people in the workforce just reach secondary school. The level of "never go to school" accounts for 3.7% and "under-graduated primary school" accounts for 11.2% of total workforce. At lower level of education (from never go to school to graduate primary school) females are more numerous than males, however, at the higher education level, males account for higher rate. This shows that education level of human resources in our country is quite low, mostly reaches at general education level and there is still gender inequality in general education for human resources.

Unit: %

Education level	Total	Urban	Rural	Male	Female
Total	100.0	100.0	100.0	100.0	100.0
Never go to school	3.7	1.5	4.7	2.7	4.7
Un-graduated primary school	11.2	6.5	13.3	9.9	12.6
Primary school	23.6	17.4	26.4	22.9	24.3
Secondary school	30.2	23.4	33.3	30.3	30.1
High school	12.6	16.7	10.9	13.3	12.0
Technical professional school/Skilled	21.1	34.7	11.5	20.8	16.3

Source: Calculation based on LFS 2015, GSO.

Figure 1: The proportion of human resource by education level in 2015

✓ *The number of skilled labor is low*

By 2015, there only 11.3 million people among 53.9 million people in the labor force is educated⁴⁷, account for 21.1%, of which, those rate in males higher than in females (20.8% in comparison with 16.3% respectively) and those rate in urban is higher than in rural area (34.7% compared to 11.5% respectively).

Unit: %

Skill level	Total	Urban	Rural	Male	Female
Total	21.1	37.6	13.6	23.7	18.3
Vocational certification/degree	5.8	8.5	4.6	9.3	2.2
Intermediate and college	6.3	9.3	5.0	5.3	7.4
University and above	8.9	19.8	4.0	9.1	8.7

Source: Calculation based on LFS 2015, GSO.

Figure 2: The skilled labor rate in 2015

So far, though Vietnam has abundant workforce in term of volume but low qualification. There only 3.1 million labor is at vocational level, account for 5.8% of workforce.

⁴⁷ Including people who graduated from vocational school to university and above in the national education system (learning time from 3 months and above and getting certification or degree)

Methodology approach and data

Methodology

The assessment of the level of the labour force with the surplus in technical qualifications (surplus), or the labour force with technical qualifications lower than the requirements of the job (shortages) is based on the mapping of Vietnam Standard Classification of Occupations as applied in the Census of Population and Housing in 2009 (VSCO-09)⁴⁸, with the country's educational categories⁴⁹ grouped in four (4) skills levels, as recommended in international standards⁵⁰. The mapping is shown in Figure 3 below.

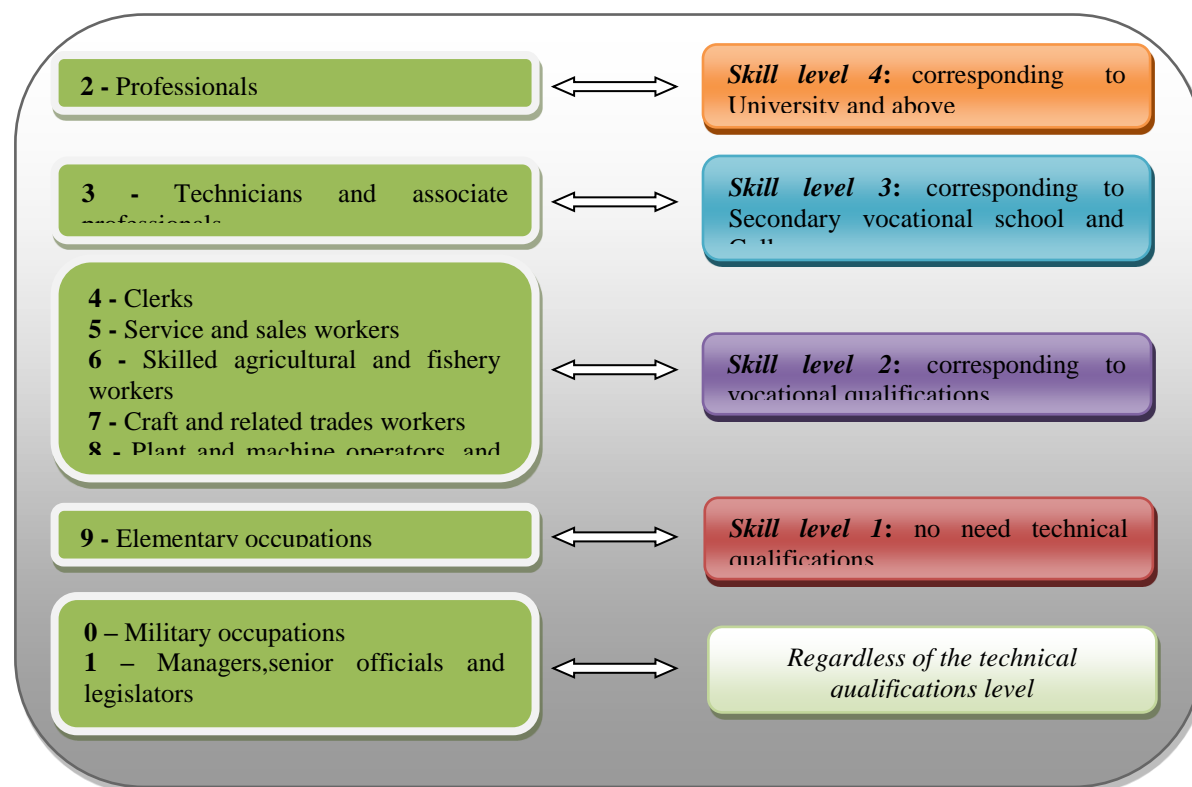


Figure 3: Framework for Mapping of VSCO-09 major groups to skill levels

The framework used for the design and construction of VSCO-09 is based on two main concepts: the concept of the kind of work performed or *job*⁵¹, and the concept of *skill*⁵². VSCO-09 can be divided into 4 levels of specific skills: (a) *Skill level 1*: no need of specific technical qualifications; (b) *Skill level 2*: corresponding with vocational qualifications⁵³; (c) *Skill level 3*: corresponding to Secondary vocational school and College; (d) *Skill level 4*: corresponding to University and above. We should also note that for jobs in groups “0 – Military occupations”, and “1 – Managers, senior officials and legislators”, as

⁴⁸ Vietnam Standard Classification of Occupations applies in the census of population and housing in 2009 was developed based on International Standard Classification of Occupations 2008 (ISCO-08).

⁴⁹ Vietnam classification of Educational Attainment, of Vietnam Education Code 2005

⁵⁰ ILO (2012); International Standard Classification of Occupations, ISCO-08: Volume 1- Structure, group definitions and correspondence tables; Geneva (Switzerland), pp. 12-13.

⁵¹ A Job is defined in VSCO-09 as a ‘set of tasks and duties carried out, or meant to be carried out, by one person for a particular employer, including self employment.’

⁵² Skill is defined as the ability to carry out the tasks and duties of a given job. For the purposes of VSCO-09, two dimensions of skill are used to arrange occupations into groups. These are skill level and skill specialisation.

⁵³ The knowledge and skills required for competent performance in all occupations at Skill Level 2 are generally obtained through vocational training. In some cases experience and on the job training may substitute for the formal education. Therefore, when analyzing this skill level 2 necessary to consider data combined with the experience (number of years) did the job.

well as for persons employed in “Labour in agricultural households”. these occupations will be considered as hosting any of the technical qualifications in the above framework.

In this paper, we use the following framework to calculate the rate of skilled labor supply meet to its demand (see Table 1 below)

Table 1: Conceptual framework for balancing the supply and demand for skilled labor

Occupations	Technical qualifications/Skills level				Technical qualifications/skill shortage (M)	Demand for technical qualifications (D)
	Non-technical qualifications	Vocational training	Secondary vocational school and College	University and above		
Unemployment	U1	U2	U3	U4		U [From U1 to U4]
Major groups “0”, “1” and labour in agricultural (<i>Regardless of the technical qualifications</i>)	(01)	(02)	(03)	(04)	M0=0	D0 [From (01) to (04)]
Major group 9: Elementary (<i>No need the technical qualifications</i>)	(11)	(12)	(13)	(14)	M1=0	D1 [From (11) to (14)]
Major groups from 4 to 8: Clerks and workers (<i>Request have to vocational training</i>)	(21)	(22)	(23)	(24)	M2 [(21)]	D2 [From (21) to (24)]
Major group 3: Technicians and associate professionals (<i>Request have to secondary vocational school or college</i>)	(31)	(32)	(33)	(34)	M3 [(31) and (32)]	D3 [From (31) to (34)]
Major group 2: Professionals (<i>Request have to university and above</i>)	(41)	(42)	(43)	(44)	M4 [(41),(42) and (43)]	D4 [From (41) to (44)]
Technical qualifications surplus (R)	R1=0	R2 [(12)]	R3 [(13) and (23)]	R4 [(14), (24) and (34)]		
Supply for technical qualifications/skilled labor (S)	S1 [U1 and (01) to (41)]	S2 [U2 and (02) to (42)]	S3 [U3 and (03) to (43)]	S4 [U4 and (04) to (44)]		
Balancing supply and demand technical qualifications/skilled labor (B)	B1 [S1-D1]	B2 [S2-D2]	B3 [S3-D3]	B4 [S4-D4]		

Source: Authors

As mentioned in the Table 1, some key concepts will be defined in this papers as follows:

Skills shortages rates (SSR): skills shortages can be assessed per major occupational group (SSR_j) and per the total labour market. This is defined as the proportion of persons with technical qualifications shortages in the total employment in a given occupational group requiring technical qualifications.

Demand and supply of skilled labor: The demand for technical qualifications or skilled labor is defined as the current employed persons in each major occupational group; the skills level required corresponds to skills level (technical qualification) associated to that occupational group as in Figure 1 above. The supply of technical qualifications (or skills) to the labor market is defined as the total number of persons in the labour force trained in each technical qualifications.

Skills underutilization rate (SUR): skills underutilization can be assessed per each of the technical qualifications category (SUR_i), by dividing the technical qualifications surplus by the total supply in the technical qualifications group. The overall skills underutilization rate can be assessed as the total number of persons in technical qualifications surplus and unemployment divided by the total skills supply

Skills adequacy (inadequacy) rate (SAR): will be defined as the number of persons in skills related adequate employment, divided by total employment. In this case persons employed in major groups 0, 1, and labour in agriculture will be considered as in adequate use of their skills.

Supply meets demand ratio (SMDR): Finally balancing supply and demand of technical qualifications in the labor market can be expressed by a ratio or the difference between the total supply and total demand of technical qualifications.

Data

This paper uses Vietnam Labor Force Survey (LFS) from GSO in period 2010-2015. The LFS was conducted by GSO from 2007, in which, from 2007-2013 is annual survey, from 2014 was conducted quarterly and from 2015 was conducted monthly.

The purpose of LFS is collecting information of labour, employment by households to calculate indicators of human resource and employment from formal and informal for administration, exploration and usage of labor force effective and reasonable development.

The scope survey in 2015 is 225,088 households was random selection from 3,760 areas over the country.

Results

The skills adequacy rate (SAR) of Vietnamese labor is very low.

In the period 2010-2015, the total supply of skills labor of the economy slowly increased, from 33.9% in 2010 to 44.6% in 2015, in which, this rate in male is higher than in female, that increased from 36.6% in 2010 to 49.7% in 2015 in comparison with the rate of 30.9% and 39.1% in respectively period. This rate is quite different between urban and rural areas. Those ratio in urban areas is higher than in rural areas, however, its increasing volume is lower, increases from 42.0% to 50.2% (corresponding to 8.2 percent point). Meanwhile, this ratio in rural area lower in volume but higher in ratio than in urban area, increasing from 26.8% to 39.1% (approximate 12.3 percentage point).

✓ The shortage skill rate in general mainly falls into the group of vocational level.

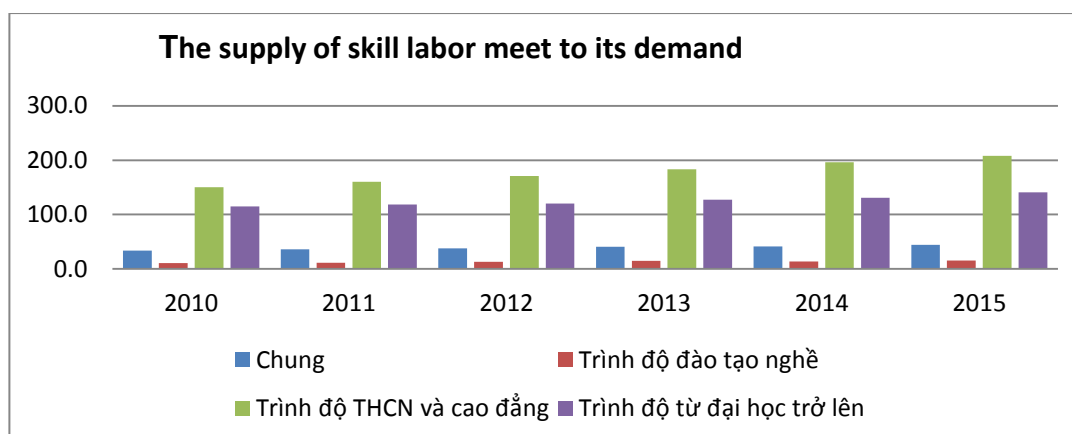
The shortage skill rate in the whole economy increases from 28.7% in 2010 to 32.1% in 2015, meaning that increasing 3.4 percentage point over 5 years, of which, these rate at vocational level is always at high level, from 79-87%. However, it recognized slightly down at vocational level in period 2010-2015, from 87.8% in 2010 to 79.4% in 2015. These rate at intermediate and college level decrease from 28.8% in 2010 to 25.3% in 2015 and slightly decrease at university and above, 14.1% to 9.7% respectively.

Wastage in education and training structure and usage of human resources

During 2010-2015, the skill underutilization rate (SUR) of workforce increases from 16.3% in 2010 to 23.9% in 2015. Meanwhile, these rate at vocational level is sustenive around 5-6%, the rate at intermediate and college level remarkably increases, from 28.4% in 2010 to 41.3% in 2015, and gradually increases at university and above, from 12.5% to 23.4% in the same period.

The overeducated labor gradually increases over 2010-2015, from 1.9% in 2010 to 4.3% in 2015, especially it is seen that the surplus of labor at university and above level increases from 0.5% in 2010 to 1.8% in 2015, meaning that third-fold increasing over past 5 years.

Unit: %



Source: Calculation based on LFS 2010-2015, GSO.

Figure 4: The rate of skill labor meet job requirement by technical qualification level 2010-2015

The shortage of skill labor mainly concentrates at low skill labor (elementary and vocational level) and its surplus at high skill labor (college and university and above level). The fact of one-third of total workforce (account for 34.5%) currently working at higher and lower than their own skill reflects the ineffectiveness in labor arrangement and wastefulness in skill labor usage.

- ✓ ***The ratio of supply and demand skill labor balance is low at all age group, especially at young age group.***

Though the figure shown that the skill adequacy rate of all age groups increases over years but is at low rate. Accordingly, these rate in group of 25-34 years old is the highest group, increase from 41.7% to 53.8% in 2010-2015 and these rate in group of 35-44 years old is the lowest ones, respectively increases from 28.1% to 37.3% in the same period. This fact reflects that the education and training system 10 years ago seems working more effective since the skill adequacy rate reaches at the highest among 05 age groups.

It is remarkable that the skill underutilization rate of workforce (SUR) in group age of 15-24 reaches at the highest rate among 05 age groups (increases from 27.5% in 2010 to 39.1% in 2015) while the lowest rate is in group age of 35-44 (only increases from 11.5% to 15.8% in respectively) and the group age of 45-55 maintaining at the rate of 15-16%. It can be said that the current education and training system and over 20 years has not yet responded to the job requirement since the group age of 15-24 is the age of newly graduation and the group age of 25-34 just graduated 2-13 years ago while the group age of 55-65 graduated 30 years ago. Clearly, the output of education system 30 years ago seems to be better meet to job requirement than today.

- ✓ ***The supply of skill labor in foreign invested economic sector and non-stated economic sector always not meet to the skill labor demand.***

In the period 2010-2015, the demand of skill labor in the foreign invested economic sector is always high⁵⁴, account for more than 90% but the capacity of skill labor supply only respond to 17-22% of its demand. Though stated economic sector gets the highest supply meets demand ratio among 03 sectors but only reaches at 81-85% of its demand and the non-stated economic sector just respond to 22-24% of its demand. In Vietnam, the non-stated economic sector and the foreign invested economic sector are playing important role in the economy, however, supply of skill labor in two sectors does not increase

⁵⁴ In the period 2010-2015, though the world economy is in crisis Vietnam economic remains the destination for foreign investors thanks to successfully build up the investor's believe; keep up stable political situation, remain the stable growth rate and ect. Especially, in the period 2013-2014, many big corporations have decided to invest in Vietnam or transfer investment location from other countries in the ASEAN region to Vietnam such as Microsoft, SamSung and ect. with a large registered capital (according to the Ministry of Planning and Investment).

as its requirements. Eventhough, the skill labor supply in foreign invested economic sector felt down in this period, from 21.8% to 21.1% in respectively.

It is remarkable that the supply meets demand ratio of skill labor at vocational level especially low in all 03 economic sectors, under 20%. Particularly, in foreign invested sector this ratio just reaches at 7-8% while those ratio at intermediate and college level, especially at university and above always get over 80 to 100%. These figures suggest that the structure in Vietnam education and training system is currently in severely imbalance.

There existing a clear diffenrence in skilled labor by economic sectors.

The balance of supply and demand of skill labor by economic sector is different. The increase and decrease trend is uneven in the period 2010-2015. There are industries where the level of the balance of supply and demand has improved meanwhile those industries has gradually decreased over the period. In general, however, skill labor supply does not response to each industries' demand.

In 18 primary industries (level I)⁵⁵, the "accommodation and catering services" industry gets the highest shortage skill labor rate rate, always reaches at 87-79% in the period 2010-2015; the next one is the "wholesale, retail and repair " reaches at 78-70%; the industry of "processing and manufacturing" ranks the third with the rate of 77-73%; the "real estate" industry with the rate of 60-48%. These number implies that the available capacity of skill labor responding to job requirement in those industries are very poor. In the context that the economy needs a structural changes, the "key and pionee" industries such as "accommodation and caterin services" and "processing and manufacturing" only response to 8.6-15.5% and 15.1-20.9% respectively in this period. The ratio in some industries such as "real estate" industry eventhough falls down and underdeveloped (decreasing from 49% to 43%).

Over period, these rate in some industries, for example, "processing and manufacturing" industry stays at same rate (around 19-20%). The reason is that these industries have not attracted students in the education and training system. It is afraid that this rate seems to be decreased in the upcoming time if there no change in current education and training system.

However, some industries get high rate of supply meets demand skill labor such as "education and training" industry (around 97-98%); "Production and distribution of water and electricity" industry (around 82-85%) and these rate in some industries even increase, for instance, "research activities" industry increase from 77% to 84% also showed the efficiency from investing in scientific research activities and calling for high quality human resources policy in Vietnam.

Conclusion and recomendation

Conclusion

According to above analysis results, it is easily to see that the current structure of Vietnam education and training system is in severe disporportion situation. Vietnam labor market is in the situation that overeducated and undereducated worker as well. The surplus of skill labor at college and university and above level as well as the shortage of the skill labor at vocational level reflect the imbalanced in current orientation of education and training system. This situation implies the wastage in all both term of finance and human resource of whole society, enterprises and individuals.

There are many reasons of the imbalance in training and usage of labor. However it can be seen that Vietnamese labor market has not fully developed is one of the most important reasons. Currently, Vietnam lacks a labor market information system covering all information from employers, employees and education and training institutions. This leading to lack information system of each learner, their employment status, their job placement and income after graduation to assess the education and training system. The information of labor demand of skills, knowledge, or the attitude of enterprises and

⁵⁵ According to the Vietnam Standard Classification of Occupations 2007

employers is also not sufficient. Moreover, the lack information between supply and demand has not yet developed leading to the fragmented linkage among education and training institutions, learners (and parent's learners) and enterprises and employers. The lack information among the parties also makes the decision of each learner to enter the labor market as well as to participate in each education level becomes ineffective.

Recommendation

According to all above analysis, this paper suggests recommendations in order to improve the quality of human resources to meet the labor market requirements in the coming time.

✓ *Completing an clear, updated, public and transparency information system of employment.*

The employment information system should be developed to regularly update over the country on the supply of labor as well as on the demand side, to provide specific forecasts on human resource by occupation, by industry, and by skilled level. This system should be collected and updated information from three parties including learners, educational institutions and employers. The output of the system will be scientific analysis and statistics showing the shortage as well as surplus supply in order to fill the gap of supply and demand labor. This system will be the basis source to support students and their family for their selection respond to the actual requirements of the labor market. This system may also provides useful information for educational institutions to regulate their activities to meet the needs of the qualifications and skills of the labors. At the same time, the system also be useful for enterprises and employers by providing information of employees in order to promote the matching between demand side (employers) and the supply side (workers). Last but not least, this system will become effective channel for State to make more sufficient education development policies.

✓ *Developing an healthy education and training market.*

- Completing the model of school under enterprises in order to enhance the efficiency of education and training system and labor usage by right skill level. At the same time, it also helps to improve labor's qualification by actual work. This model may encourage enterprises participate to human resource development and to push up the linkage between supply and demand of labor responding to social needs.

- The State encourages students to study the basic and general studies which currently not meet up to 50% of skilled labor demand, for instance of "processing and manufacturing", "mining", "construction" and ect. In short term, this shortage has caused difficulties in implementing the economic restructuring that Vietnam is aiming at. Therefore, it is necessary to have an appropriated education policy that can be encouraged, oriented the learner to study the majors in order to develop human resources in the long term responding to national development direction.

- Completing the vocational training system which can be encourage and promote learners, enterprises and society involvement./

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Determining Employment Barriers of Deaf Graduates for Joining the Workforce: A Graduate Tracer Study

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Abstract

This study investigated how long the Deaf college graduates land their first job, congruency of their job to the degree they have completed in college, how they were able to find their job, the role of their schools in their employment, and their experiences in their workplace, particularly in communication, access to information and other employment services and assistance, and more importantly, remuneration, promotion and incentives. This exploratory study utilized qualitative research approach using descriptive statistics. It is found out that hiring discrimination, limited communication skills, limited skills to match job, and difficulty of finding job are barriers to Filipino Deaf college graduates for joining the workforce. It is also found out that Deaf experience discrimination at work due to their limited communication skills, and also experience negative attitude and behavior from their hearing co-workers.

Keywords

Deaf employment, Employment Barriers, Inclusion, Hiring Discrimination

Introduction

A critical factor in securing employment is education (Mina, 2013). Securing a job in the Philippines is a challenge for everyone, even those who have completed tertiary education. It imposes impediment to those who have disabilities who also completed the same level of education.

In the Philippines, numerous persons with disabilities (PWDs) belong to the underprivileged sector of the society, and this increases their vulnerability in securing employment (Cortes, 2013). The Section 32 of the Magna Carta for Disabled Persons, also known as the Republic Act No. 7277 assures PWDs of equal employment opportunities (Mina, 2013). Also, according to Mina (2013) PWDs who completed college level education are more likely to be employed as officers, managers, supervisors, and service workers, as well as shop or market sales workers, while those who completed either college or post-secondary degrees are employed as clerks.

This study investigated the factors that impede employment of Deaf¹ college graduates. Specifically, how long it took the Deaf college graduates to land their first job, congruency of their job to the degree they have completed in college, how they were able to find their job, the role of their schools in their employment, and their experiences in their workplace, particularly in communication, access to information and other employment services and assistance, and more importantly, remuneration, promotion and incentives.

The work of De Caro, DeCaro and Noble (2002) stated that attitudinal and environmental barriers, particularly their inner social circle challenges Deaf people's self-perception and their capabilities. The works of Perkins-Dock, Battle, Edgerton and McNeill (2015), identified communication difficulties, conflicts related to deaf culture, availability of interpreters, too much pressure, discrimination, low morale, inconsistent expectation of employer, limited advancement, misunderstanding in meeting, transportation difficulties, underemployment, unrealistic expectations of employer, long hours of work, maltreatment, physical limitations and unfair treatment were barriers to job attainment and retention. On the other hand, in the United Kingdom, employment barriers such as hearing people's negative attitude and stereotyping narrows the abilities of the Deaf and hard of hearing in either landing or doing jobs (Kyle et al., 1989, De Caro et al., 1982, & Harris, 1995). Also, Deaf and hard of hearing who works full-time in the UK had lower earnings despite having higher qualification levels than the general population (Bradshaw, 2002). Moreover, there are reports in the work of Edwards et al., (2000) of the perceptions of Deaf about discrimination in seeking employment, compelling them to settle for jobs below their capabilities. Furthermore, limited access to employment services (Harris & Thornton, 2005) is also an employment barrier to Deaf and hard of hearing in the UK. The employment barriers reviewed from first world countries served as reference to possible barriers that Filipino Deaf also face in securing employment. To better understand the overall concept of the study, refer to the conceptual framework shown in Figure 1.

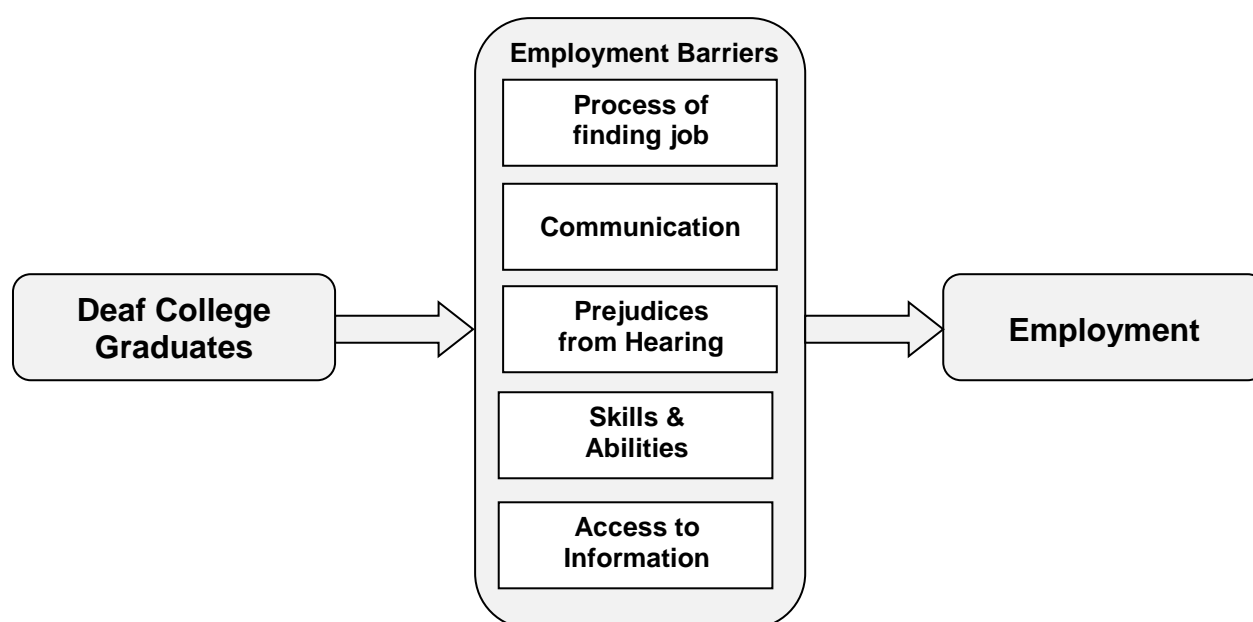


Figure 1. Conceptual Framework of the Study

Method

This exploratory study utilized qualitative research approach using descriptive statistics. The researcher invited random Deaf college graduates and those who graduated from technical institutes through convenience sampling. The survey was conducted online to ease accessibility, ability to monitor real-time responses (Andrews, Nonnecke & Preece, 2003), and protects data from transcription errors and alterations (Lonsdale, Hodge & Rose, 2006). A total of 36 Deaf graduates from various schools, colleges and universities in Metro Manila were invited to participate in the study, 33 agreed to sign informed consent and confidentiality agreement to participate in the survey, while 3 others declined to participate.

Furthermore, to neutralize potential bias, the researcher also invited different companies coming from diverse industries in the Philippines to answer a separate online survey. Their email addresses were from an online-based website directory of public listed companies in the Philippines. The survey asked if they both interview and hire Deaf applicants, or if their company were open to the idea of hiring Deaf applicants. Also employers were asked if they provide sign interpreters during hiring process and even at work to ease Deaf employee in accessing job and management related information and services, and if they provide sign interpreters whenever they have reports, meetings and other activities with their Deaf employees. The said online survey was sent to 97 companies, 53 email addresses reverted, and unfortunately during the duration of the study, none of the 44 companies answered the survey.

The survey utilized thematic analysis and descriptive statistics to present the findings of the study. Table 1 shows information on the respondents' demographic characteristics, Table 2 displays data on how respondents find jobs, while Tables 3 indicates employment characteristics of the respondents, and Table 4 depicts the promotion and remuneration received by employed Deaf respondents.

Results

The result of the study shows the demographics of 33 Deaf college graduates who volunteered to answer to the survey. It revealed that there are 19 female and 14 male with mean age of 32 years old.

Data shows 39% of the respondents completed Bachelor in Applied Deaf Studies, 9% completed Bachelor's Degree in Entrepreneurship, 6% completed Associate in Arts in Information Technology, and 6% who completed Bachelor's Degree in Multimedia Arts. There were 21% who did not specify the programs they have completed in College. Table 1 shows the data.

Table 1. Demographic Characteristics of Deaf Respondents

Demographics	f	%
<i>Degree Completed</i>		
Associate in Arts in Information Technology	2	6
Bachelor in Applied Deaf Studies	13	36
CPAD	1	3
BSBA Major In Management	1	3
Bachelor Science of Social Work	1	3
Multimedia Arts	2	6
BEED-Generalist	1	3
Entrepreneurship	3	9
BSBA Management	1	3
Bachelor of Arts in Animation	1	3
Not Specified	7	21

In looking for jobs, 33% shared that the school where they have completed their degree helped them in finding jobs. There were 27% who have found job openings through a referral from their relatives, family, and friends, while 15% braved to walk-in to companies and ask for job vacancies. There were also 6% who seek employment through job websites, while others are through their local government units and non-government organizations.

Data also revealed that 67% affirmed that the schools where they have completed their degrees have helped them in securing employment by matching the capabilities, talents, and skills of their Deaf graduates to the requirements and description needed by the companies and human resource agencies.

Moreover, 42% expressed that it took them more than 1 year to secure a job after graduation. There were 15% who took 3 months or less, while 12% took 7-9 months to land a job. There were also 9% who found their 4-6 months after graduation, and 9% who landed their first job 10-12 months after graduation. On the other hand, there were 12% who shared that they are already working while completing their college degrees.

On congruence of the job to the degree completed in college, self-reported data revealed that 79% believed to have secured a job congruent to the degree they have completed. There were 21% who did not believe to have found a job congruent to their degree because qualitative data suggest that it is their personal choice, and compelled to get the job despite the mismatch. Congruence of the job to degree completed was verified using the responses on the industry where they work and the job they hold.

Furthermore, when asked why it is difficult for Deaf college graduates to get a job, recurring themes suggest that hiring discrimination on Deaf applicants, limited communication skills, limited skills to match the job, difficulty in finding a job, and personal concerns are barriers to employment for Filipino Deaf college graduates. Table 2 shows the data.

Table 2. How Deaf Respondents Find Jobs

Factors	f	%
<i>How do you look for job openings?</i>		
Referral from friends, families, relatives, etc.	9	27
Walk-in to companies and ask job vacancy	5	15
Online job websites	2	6
From school / colleges / universities graduated	11	33
Job Fairs	2	6
Local Government Units	1	3
Non-Government Organizations	1	3
Others	2	6
<i>How does your school help you get a job?</i>		
Linking Deaf applicants to companies who hire Deaf graduates	22	67
No help at all	11	33
<i>How long it took to get a job after graduation?</i>		
Working Student	4	12
3 months or less after graduation	5	15
4-6 months after graduation	3	9
7-9 months after graduation	4	12
10-12 months after graduation	3	9
more than 1 year after graduation	14	42
<i>Is job congruent to degree completed?</i>		
Yes	19	79
No	5	21

On respondents' current employment, data shows that out of the 33 respondents only 24 are employed, 4 are seeking a job, 4 are managing family or personal businesses, and 1 respondent who is unemployed and not looking for any job. Looking closely to those who are currently employed, 83% stated that they

are employed full-time, while 17% are currently working part-time. It is also found out that there are 88% employed in an entry-level job, and 13% are employed as consultants.

In terms of the industries where the respondents work, data shows that 29% are employed in Education and Training, 17% in Government and Public Service, 13% in Finance, 8% in Hotel and Restaurant, 8% in Business Process Outsourcing, 8% in Retail and Consumer Products, 5% in Information and Communications Technology and some who are employed in Housekeeping and Maintenance, Media Production, and those employed as Encoders. Also, those who are managing their family or personal business are in the industries of education and training, and business process outsourcing. It is found out that 50% are working full-time in managing their family or personal businesses while remaining 50% works part-time in their family or personal businesses. In terms of their role, 50% shared that they are supervisors, while 25% works as a manager, and remaining 25% takes clerical roles in their businesses. Table 3 shows the data.

Table 3. Employment Characteristics of Deaf Respondents

Employment Characteristics	f	%
<i>Employed</i>	24	72
<i>Type of Employment</i>		
Full-time	20	83
Part-time	4	17
<i>Job Position / Level</i>		
Rank and File / Entry Level	21	88
Supervisor	0	0
Manager	0	0
Director	0	0
Executive	0	0
Consultant	3	13
<i>Industry</i>		
Business Process Outsourcing	2	10
Education / Training	7	33
Finance	3	14
Government / Public Service	4	19
Information and Communications Technology	1	5
Retail / Consumer Products	2	10
Hotels and Restaurants	2	10
Others: (Encoder/ Media Production / Housekeeping / Maintenance)	3	14
<i>Unemployed (not looking for job / no job at all)</i>	1	3
<i>Seeking Job (possible employment within 6 months or less)</i>	4	12
<i>Managing family or personal business</i>	4	12
<i>Type of Employment</i>		
Full-time	2	50
Part-time	2	50
<i>Job Position / Level</i>		
Rank and File / Entry Level	1	25
Supervisor	2	50
Manager	1	25
Director	0	0
Executive	0	0
Consultant	0	0

<i>Industry</i>		
Education / Training	1	25
Business Process Outsourcing	1	25
Others (not specified)	2	50

On respondents' compensation and benefits, it is found out that 63% are not promoted at work. Also, 75% of employed respondents are given the same compensation and benefits similar to their hearing co-workers, and 67% stated that their employers provide sign language interpreters during reports, meetings, and activities. However, 33% of the respondents shared that their employers do not provide sign language interpreters due to a limited budget, which results to communicate through writing, finger spelling, gesture, and lip-reading. Table 5 shows the data.

Table 4. Promotion and Remuneration Received by Employed Deaf Respondents

Promotion and Remuneration	f	%
<i>Employed</i>	24	72
<i>Did you get promoted?</i>		
Yes	9	38
No	15	63
<i>Are you given remuneration similar to hearing co-workers?</i>		
Yes	18	75
No	6	25
<i>Provides sign interpreters during meetings and other activities?</i>		
Yes	16	67
No	8	33

The respondents were also asked to share any experiences regarding discrimination or bullying at work. Recurring themes suggests that respondents experienced discrimination due to limited communication skills, and have experienced negative attitudes and behavior from their hearing co-workers.

Summary and Discussion

From the data generated, it is found out that most of the respondents are mostly female who is around 32 years old and has completed Bachelor in Applied Deaf Studies. Respondents shared that it took them more than a year to get a job; this affirms the work of Harris and Thornton (2005) which identified finding job is an employment barrier itself. Despite that it took them long to land a job after graduation, they were able to secure employment that is congruent to the degree they have completed in college. In looking for a job, the Deaf respondents stated that the schools from which they have completed their college education were vital for them to secure jobs. This is by matching their capabilities, talents, and skills to the requirements and description needed by the companies and human resource agencies.

Those employed, works full-time in an entry-level job in industries like business process outsourcing, education and training, finance, government and public service, information and communications technology, retail and consumer products, hotel and restaurant, and some are encoders or in the field of housekeeping and maintenance and in media production. It is also found out that those who work as supervisors were the ones who manage their family and/or personal businesses. There are also those who admitted that they are seeking a job and might be employed within six months or less, and there are also those who are currently unemployed and not looking for a job.

Following the findings of the studies made by Shroedel and Greyer (2000), as well as Harris and Thornton (2005), in the UK, Deaf employees were unable to get promoted, while in the US, Deaf

employees get promoted. The result in the UK was also found out to happen in the Philippines, particularly the Deaf respondents not promoted at work. Despite that, it is noteworthy that Deaf in the Philippines are given similar remuneration similar to their hearing co-workers, something that is different from the findings of Bradshaw (2002) that Deaf who works full-time had lower incomes compared to the general population. It is also remarkable to know that employers of Deaf respondents provide sign interpreters during meetings and other activities. Unfortunately for those who are not given sign interpreters, they communicate through writing, fingerspelling, gesture, and lip-reading at work.

Moreover, since no data was retrieved from the employers, literature suggests the work of Cortes (2013) on the employment of PWD's, the perception of Filipino employers were classified into four categories, and it is found out that added business value or the image of having positive work ethics, morale boost and company prestige was believed to be the best predictor for hiring PWDs. However, other factors include negative stereotype which translates to low productivity, frequent absenteeism and turnover, added cost and efforts at management which means additional safety measures, needs extensive training and supervision, as well as the social cost implies negative reactions from customers and co-workers. Also, employers prefer hiring PWDs who are male, non-college graduate, have a motor disability, and with previous work experiences in blue-collar jobs (Cortes, 2013). Likewise, the industries who mostly hire PWDs are hotels, restaurants, spas, and salons (Cortes, 2013).

Furthermore, qualitative data findings suggest that Deaf respondents experience discrimination due to their limited communication skills, and also experience negative attitude and behavior from their hearing co-workers. This affirms the findings of the work of DeCaro, DeCaro, and Noble (2002) that people who work with deaf underestimate their skills and capabilities. More importantly, qualitative data affirmed that hiring discrimination, limited communication skills, limited skills to match the job, and the difficulty of finding a job are barriers to Filipino Deaf college graduates for joining the workforce.

Recommendation

To improve employment conditions of Deaf college graduates in the Philippines, this study suggests the following: (a.) Schools with academic programs for the Deaf need to focus on creating a business-centric curriculum to intensify entrepreneurial mindset and capabilities of the Deaf that even it will take them a while to secure jobs, they have the financial capability to survive. (b.) Schools should seek partnership with NGO's and other philanthropic agencies who can either grant initial capital or has the capability to train the Deaf in business development and business incubation so they can start their own businesses, (c.) Strengthen the role of the schools for Deaf employment by establishing linkages and partnership with companies where the Deaf can work, (d.) Schools should also raise awareness in helping the business communities in improving employment accommodation and conditions for the Deaf, (e.) Schools should develop a school-to-work transition programs for the Deaf, to assist and prepare the Deaf in job applications, requirement preparation, and employment adjustments, (f.) The government should increase the awareness of companies about the capabilities and skills of the Deaf, and boost inclusion awareness and awareness of Deaf culture, (g.) Department of Labor and Employment should encourage more companies to boost employment for the Deaf and other persons with disabilities, and lastly, (h.) Add more questions to the survey to further drill down the investigation, and encourage more participants both Deaf and employers to answer the online survey to improve data set.

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A School-to-School Partnership: Contributing Factors and Synergistic Impact on the Reading Ability of Pupils

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Abstract

From an increasing exigency on the global literacy gap by 2030 and the interminable challenge on a sustainable quality education delivery, a model intervention program could help re-approach curriculum and pedagogy on this respect. Borne out of a consultative participatory needs assessment in the School-to-School Partnership (SSP) program and synergetic efforts of two public elementary schools, a developmental intervention program was generated. The study focused on the reading ability-literacy intervention of the selected grade III pupils and identified its contributing factors as a paradigm for the intervention program. Out of 213 grade III pupils, 46 (21.60%) fell under the frustration level and non-reading level (Phil-IRI test). A mixed method research design was used to treat the data gathered. A developmental intervention program was employed and monitored. The program was also assessed by the stakeholders. The outcome of the study implied a noticeable constant weekly increase on the pre-test until the post-test results – from a mean score of 5.09 to 64.00, garnering a difference of 58.91. The evaluation of the program by the stakeholders yielded a general weighted mean of 3.80, which signified “Highly Contributing”. Both null hypotheses were rejected, which means that there exists a significant difference among the assessment of the stakeholders on the implementation of the program and a significant difference in the pre-test and post-test results of the participants. Therefore, the results confirmed favorable effect of the implementation program on the literacy of the pupils. This implementation program can serve as a prototype program for pre-service education teachers from higher education to serve as a model literacy program which is founded on a multi-faceted approach and anchored on the premise of inter-institutional collaboration. Further development suggests a benchmark-potential for a global curriculum standard for reading. Future direction of the study intends to influence policy makers of educational systems to take into consideration the merits and attributions generated by the study.

Keywords

Need assessment, Reading ability-literacy intervention, Synergy

Introduction

With one in four young people in developing countries illiterate, how can we address an international ‘learning crisis’? UNESCO has indicated and acknowledged the exigency to address low-literate people in the achievement of the Sustainable Development Goals (SDGs), and contribute to closing the global literacy gap by 2030. Efforts in developing programs and designs to address literacy in a collaborative manner have been the topic of exploit for many agencies and institutions world-wide. Different context and approaches can be a source of ingenuity in formulating an intervention strategy to address literacy.

In this light, the School-to-School Partnership (SSP) program was launched by the Department of Education (DepEd) under the Department Order # 44, s. of 2016. It intends to cultivate a proactive collaboration between leader schools (high-performing schools) and nearby partner schools in developing programs or interventions towards management and curriculum delivery improvement that

will ultimately benefit its principal stakeholders – the learners. Schools were categorized according to the 2014 Performance-Based Bonus (PBB) level attained by the schools. DepEd believes that high performing schools can serve as an instrument and exemplar for reform and inspiration for other schools in order to reach higher school management level. High-performing schools or the leader schools can be a valuable resource for human, material and instructional/pedagogical resources. Hence, the distinction of the leader and partner schools were identified.

From this context, the SSP program of Aguado Elementary School (leader school) and Bagong Pook Elementary School (partner school) came to its inception. Through a consultative participatory needs assessment of the SSP team from both schools, a list of Priority Improvement Areas (PIAs) of the partner school was generated. Benchmarking on the prior endeavors made by the leader school, the SSP team was able to probe into the best practices which catapult the performance of the leader school and may serve as a potent strategy for the partner school. Through the synergistic effort of Aguado Elementary School (classified as leader school) and Bagong Pook Elementary School (the partner school) they have critically weighed the context of the partner school and have underscored the area of most exigencies, that is, Quality.

Out of this area, quality is measured through the achievement scores of the pupils. This is reflected in the learning areas as well as the level of literacy and numeracy the learners have achieved. Among the indicators of quality, the partner school needed its most crucial resource and partnership specifically addressed the pupils' reading ability. As cited by Glenn Suarez, 2015, reading is the true backbone of most learning. Everything starts with the written word — whether it's math, science or even home economics. As students go up the educational ladder, more reading is usually required as subjects become more dense and challenging (Philippine Star, 2010). Even Tongson, Jr. (2005 as cited by Nangleg, 2007) attested to the deterioration of reading skills of the pupils in the country. Responding to this potential decadence, that Every Child a Reader Program (ECARP) was been implemented. Reinforcing this action, the Bureau of Elementary Education (BEE) developed the Philippine Informal Reading Inventory (Phil-IRI). Both programs strike the core of improving the reading abilities of the pupils. From this, different initiatives, localization and contextualization programs have been made and cascaded from the respective regions to school level initiatives. Thus, conceptualization of combining local and global strategy in reading was applied in this study.

The case of the partner school, Bagong Pook Elementary School, out of 213 Grade Three pupils they have diagnosed, using the Phil-IRI examination, 46 of the pupils fell under frustration level and non-reading level. This represents 21.60% of the population of the Grade III pupils who are currently experiencing reading difficulty and greatly affects their literacy. Efforts have been made to address this concern. One of the interventions aligned with the foregoing was made by the partner school, i.e., Bagong Pook Elementary School. It was coined as Project Creating a Reading Learner in School (CARLS). Project CARLS was implemented purposively to motivate pupils to increase interest, enjoy and interact with the books they read. The study contributed to the Mean Percentage Score (MPS) in reading from the initial 7.92 percent prior to the program to 65.66 percent after the implementation. There was an increase of 57.74 percent. However, there were still remaining pupils (21.60%) who failed to recognized words and still needed further interventions (Obrero, Nalunat, & Digma, 2016).

Indubitably, it has established that reading play a vital role in the learning process of the pupils and that continuous improvement practices in the reading interventions portray the exigent need of the partner school. Hence, this is a case study format, identifying one group pretest-posttest approach. This implies that limitation of design lacks the comparative control group wherein it highlights the reading progress of the participants. This study focused on the contributing factors and impact of the implementation of SSP Program in the reading ability of the selected Grade Three pupils of Bagong Pook Elementary School. The development, implementation and evaluation of the program became the primary concern of this noble research endeavor.

Research Questions

Specifically, the study sought to answer the following questions:

1. What is the reading ability of the selected Grade Three pupils before the implementation of SSP program?
2. Borne-out of the SSP Team program planning, what are the factors identified that intends to contribute to the reading ability of the selected Grade Three pupils in the implementation of SSP program?
3. Based from the implementation of the factors identified, what is the result of the development and progress monitoring of the reading ability of the selected Grade Three pupils?
4. What is the stakeholders' assessment on the implementation of the SSP program?
 - a. Pupil-respondents
 - b. Parents
 - c. Teacher Implementers
 - d. SSP Team from leader and partner school
5. Are there significant differences in the assessment on the implementation of the SSP Program when grouped according to the stakeholders?
6. What is the reading ability of the selected Grade Three pupils after the implementation of SSP program?
7. Is there a significant difference between the Pre-Test result(prior to the SSP program implementation) and Post-Test result (after the SSP program implementation)?
8. Based from the results, what is the future direction of the study?

Framework of the Study

The figure below demonstrates the framework of the study following the conventional input-process-output paradigm.

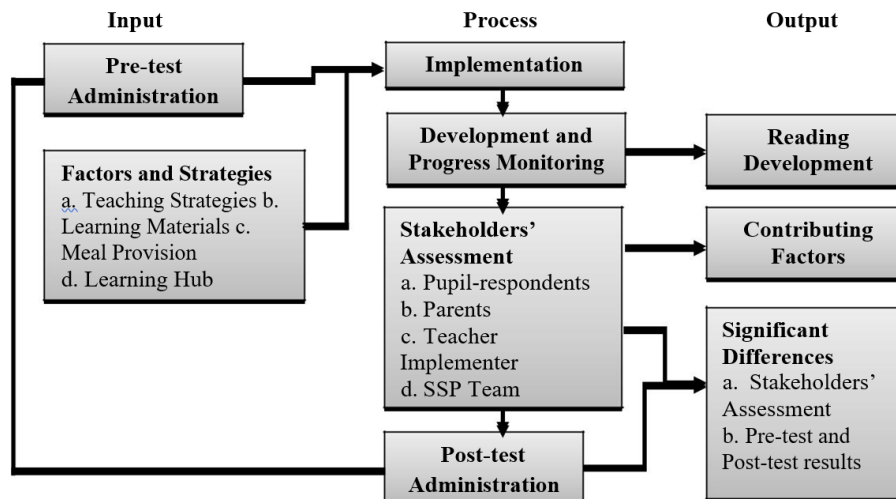


Figure 1. The research paradigm of the study showing the contributing factors and strategies developed and implemented by the SSP team in order to monitor the progress and improve the reading ability of the pupils as well as the assessment of the stakeholders on the program.

Methodology

This research utilized the mixed method type of research. Specifically, it involved a descriptive-comparative-developmental-qualitative research design. According to John Creswell (2007), the mixed methods research is called the third methodological movement; it means that is the evolution of research methodologies. It follows quantitative approach and qualitative approach. Mixed method research clearly provides and explains more comprehensive research results. This research design is appropriate for the current study due to the comprehensiveness of the approach which addresses the principal aim of the study. It involved a quantitative part which consists of the descriptive assessment of the study, the

developmental monitoring of the reading progress of the pupils, and the comparative assessment of the pre-test and post-test results as well as the stakeholders' assessment. These are all quantitative and consist of descriptive and inferential statistical analysis. Complimentarily, there is also a qualitative part of the study. This consists of the unstructured interview results of the assessment of the stakeholders on the program and factors. Therefore, a mixed method research design is apt to employ in order to acquire the salient findings of this study.

Results and Discussion

The findings of the study were systematically presented, analyzed and interpreted following the sequence of the research questions as enumerated previously.

Objective 1. The reading ability of the selected Grade Three pupils before the implementation of SSP program.

The first table shows the result of the Pre-test examination of the Grade Three pupil-participants.

Table 1:Pre-test examination result of the grade III pupil-participants

Pupils	<u>84 Words</u>		<u>Pre-test</u>	
	Score Average	SD	Mean Percentage	SD
N=46	5.09	1.443	6.06 %	1.718

Based from the previous table, it showed that the general mean score of the pupils was 5.09 and a mean percentage average of 6.06. The scores range from 2-8 out of a 84 item words test. These results implied a very low mean percentage score which means that selected Grade Three pupils really lack substantial foundation on their reading ability.

Objective 2. The factors identified by the SSP team that intends to contribute to the reading ability of the selected Grade Three pupils in the implementation of SSP program.

As a result of the consultative collaboration and planning of the SSP Team, the following factors were identified which intends to contribute to the reading ability of the selected Grade Three pupils.

1. The first contributing factor was the focus on teaching strategies used by the teachers. The SSP and the researchers identified the different approaches/strategies that will suffice for the program. The following are the identified strategies:
 - a. Phonics Based Approach,
 - b. Marungko Approach,
 - c. Whole Language Approach,
 - d. Balance Approach, and
 - e. Fuller Approach.
2. The second contributing factor was the provision of learning materials and supplies. This factor was considered due to the lack of learning materials or supplies encountered by some of the pupils. The following learning materials were identified:
 - a. Reading materials
 - b. Notebooks and papers
 - c. Writing Materials (pens)
3. The third contributing factor identified was the provision of meals to the pupils. Due to hunger or starvation of pupils under poverty or marginalized demographics, it has been observed that it greatly affects the performance in school. Free meal provision was constantly given.

4. The last contributing factor included in the study was the construction and establishment of a learning hub. This learning hub served as the environment or ambiance that conditions ideal learning for the pupils. Spacious, clean, organized, resource-filled and well-structured learning hub was organized by the SSP team were the conduct of the implementation of the program were held.

These were the components of the SSP program organized and supplied by the SSP team in hopes to contribute in the improvement of the reading ability of the pupils.

Objective 3. The result of the development and progress monitoring of the reading ability of the selected Grade Three pupils

The following graph reveals the progress and weekly development of the reading ability of the pupils under the SSP implementation program.

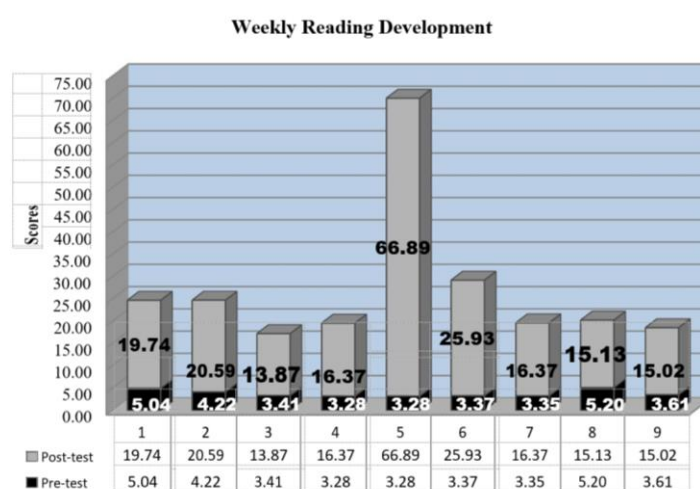


Figure 2. The graph reveals the progress report and weekly development of the reading ability of the Grade Three pupil-participants.

The previous graph revealed the progress report of the reading performance of the pupils on the nine-week intervention program. The program consists of weekly reading objectives which is cumulative. It started with letters, succeeded with words, syllables, phrases, sentences and finally reading of short stories. The first two weeks involved reading of letters. The first two weeks showed an increase from 5.04-4.22 to 19.74-20.59. On the next three to four weeks, the pupils focused on words. From 3.41 and 3.28, the pupils received an increase of 13.87 and 16.37, respectively. This series of weekly post-test results showed a constant increase until the last week. However, the fifth week showed a remarkably high point score increase from 3.28 to 66.89. The fifth week involved words. Week five escalated to an increase of 55.15 mean score. It implies a general positive outcome of the SSP implementation from the progress report of the pupils.

Objective 4. The stakeholders' assessment on the implementation of the SSP program

The subsequent table portrays the assessment of the following stakeholders on the implementation of the SSP program:

- a. Pupil-respondents,
- b. Parents,
- c. Teacher Implementers, and
- d. SSP Team from leader and partner school.

Table 2: Stakeholders' assessment of the contributing factors.

Indicators	Pupils (40)	Parents (20)	Teachers (12)	SSP Team (5)	Interpretation
1. Teaching Strategies					
a. Phonics Based Approach	3.37	3.70	3.75	4.00	Highly Contributing
b. Marungko Approach	3.35	3.70	3.75	4.00	Highly Contributing
c. Whole Language Approach	3.30	3.70	3.75	4.00	Highly Contributing
d. Balance Approach	3.28	3.70	3.75	4.00	Highly Contributing
e. Fuller Approach	3.22	3.70	3.75	4.00	Highly Contributing
2. Learning Materials					
a. Reading materials	3.98	3.95	3.75	4.00	Highly Contributing
b. Notebooks	3.98	3.95	3.75	4.00	Highly Contributing
c. Pen and Pencils	3.98	3.95	3.75	4.00	Highly Contributing
3. Meal Provision	3.57	3.95	3.75	4.00	Highly Contributing
4. Learning Hub	4.00	3.95	3.75	4.00	Highly Contributing
Weighted Mean	3.60	3.83	3.75	4.00	Highly Contributing

The legend used in the assessment and interpretation is as follows:

Likert Scale	Mean Interval Scoring	Interpretation
4	3.26-4.00	Highly contributing factor
3	2.51-3.25	Moderately contributing factor
2	1.76-2.50	Slightly contributing factor
1	1.00-1.75	Not at All contributing factor

The assessment of the stakeholders namely the pupils, parents, teacher implementer and SSP Team from the leader and partner schools were visibly shown in the prior table. The findings convey that all the weighted mean ratings were interpreted as Highly Contributing Factor except for one indicator along the student assessment which fell under the Moderately Contributing. The SSP Team

evaluated perfectly all the contributing factors with a mean of 4 while the pupil-respondents from its weighted mean of 3.60. This means that dominantly the stakeholders assessed the indicators or the intervention in general as highly contributing to the reading ability of the pupils. This apparently portrays a consensus on the contributory aspect of the program in improving the reading ability as well as the effectiveness of the purpose of the strategies employed.

During the informal interview to the pupils, almost all of them exclaimed that they enjoyed the teaching-learning process of the program and it added up to their excitement to meet their SSP teacher from the leader school every afternoon. The roused interests of the learners and the positive feedbacks of the stakeholders makes the researchers infer that they have received the program well and were satisfied, likewise.

Objective 5. The significant differences in the assessment on the implementation of the SSP Program when grouped according to the stakeholders

The succeeding table provides the significant difference of the assessment of the stakeholders on the SSP program.

Table 3: Test of difference results on the stakeholders' assessment.

Profile	f-value	Sig.	Decision	Interpretation
Stakeholders' Assessment	8.165	.000	Reject Ho	With Significant Difference

Based from the result of the inferential statistical analysis using the Analysis of Variance (ANOVA), the table revealed that the f-value was 8.165 and the *p*-value was 0.000 and significant at 0.05 level. This means that there exists a significant difference among the assessment of the stakeholders when they assessed the implementation program. Therefore, the null hypothesis stated previously that there is no significant difference in the assessment of the implementation of the SSP program when grouped according to the stakeholders should be rejected. Despite the apparent similarity to the consensus and rating of the stakeholders, statistically, there exists significant difference on the appraisal they provided. It portrayed that even though all groups of stakeholder fell under the "Highly contributing factors", there is a notable difference in the bracket of rating or mean scores of the stakeholders.

Objective 6. The reading ability of the selected Grade Three pupils after the implementation of SSP program.

The subsequent table shows the result of the pre-test and post-test examinations of the Grade Three pupils. It also showed the point difference incurred between the two.

Table 4: Pre-test and Post-test Results

Pupil #	84 Words		84 Words		Point Difference
	Pre-test Average	SD	Post-test Average	SD	
N=46	5.09	11.235	64.00	11.0631	58.91

The findings of the pre-test and post-test results showed a remarkable difference and increase from the pre-test scores of the Grade Three pupils to the post-test results. It showed that up to 77 out

of 84 words was the highest score recorded and achieved by the student from a score of 5. The point difference of the post-test result was very evident and high as well. This indicates that the intervention made in between the periods of implementation garnered an affect which led to the increase of the performance of the pupils in their reading ability tests. It therefore implies that the intervention has been contributory to the improvement of the reading capacity of the pupils.

Objective 7. The significant difference between the Pre-Test result (prior to the SSP program implementation) and Post-Test result (after the SSP program implementation)

The succeeding table provides the significant difference of the Pre-test and Post-test results.

Table 5: Test of significant difference results

Variables	t-value	Sig.	Decision	Interpretation
Pre-test and Post-test	-36.117	.000	Reject Ho	With Significant Difference

Affirming the results of the previous table # 3, the result of the test of difference on the comparison of the Pre-test and Post-test also validated that there is a significant difference in the result of the pre-test and post-test of the Grade Three pupils in the performance in their reading ability. The result of the paired samples T-test generated a t-value of -36.117 and a p-value of .000 which renders it very significant. Hence, the second null hypothesis that there is no significant difference in the pre-test and post-test results of the reading examination scores of the pupils must be rejected.

Objective 8. The future direction of the study.

Based on the findings of the study, it is very evident and remarkable that the progress of the pupils subjected to the SSP implementation program have garnered an improvement in their reading ability. Salient points of the study portray that the stakeholders acknowledge the advantage and benefits gained in the SSP partnership and the implementation of the program through the improvement of the reading abilities of the pupils concerned. The program also considerably showed the affirmative reception of the stakeholders towards the implementation. Ultimately the results of the test are sufficient evidence to confirm the effect and the succeeding impact of the implementation program on the literacy of the pupils. The identified contributing factors may still be augmented to include other factors. Further studies may focus on the added factors or on the regression analysis on the determination of these factors whether or not they serve as determinants of the achievements or performance of the pupils. The program must be continuously implemented to still monitor the progress of the pupils. A long-term implementation plan may be put into place.

Conclusion and Recommendation

The merits of the study showed the significance of the systemic approach in improving the delivery of education. The study relayed that the improvement of the pupils is not only reliant to one factor but of connected factors and at the same time the collaboration of agencies and stakeholders. This affirms the old adage that, “it takes a village to raise a child”.

Based on the results, majority or 30 pupils can already read and recognize words while a minimal 16.67% percent (or 5 pupils) of the pupils still have difficulty reading. Despite this case, the SSP team intends to pursue and continuously implement the program. The team has seen its benefits and intends to continue this as part of an intervention that remediates the reading needs of the pupil.

Therefore, it is recommended to evaluate the areas where the program needs improvement and to enhance the strategies from which it has covered. This program, in order to run, needs support from other stakeholders and the support of the other linkages. These steps will be taken into consideration. Enhancement of the contributory components or factors may be addressed.

This intervention program is a combination of local and global strategies in reading; this may be useful in other future studies; for basic and higher education institutions as references and maybe adopted or replicated in other institutions. It may be a point of reference by other institutions abroad as a basis for global curriculum standards and intervention in reading and literacy.

The researchers, through the results of the study, also intend to influence the policy makers of the educational system to take into consideration the merits and attributions generated by the study.

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Factors that Impact the Quality Assurance Implementation Process: A Case Study of a Private University in Vietnam

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Abstract

This study aims to identify the most relevant factors that impact the quality assurance (QA) system implementation process at a private university in Vietnam. To do so, it utilises an approach based on institutional theory to help advance explanations of the dynamic interactions between factors that support and/or constrain the implementation process of the private sector. The research findings confirm the empirical application of institutional theory, in which four factors, namely institutional isomorphisms, institutional logics, governance structure and institutional actors, are identified. The interrelationship between these factors to shape the implementation process is also demonstrated. It reveals that different institutional isomorphic mechanisms emerge during the process, but there was little evidence for the presence of the mimetic mechanism. In addition, this study also discovers the difference in institutional logics regarding the purpose of QA procedures caused by different interests and conceptions of diverse stakeholders. More interestingly, it uncovers the roles of governance structure and institutional actors in the process, particularly in the strategy of resources allocation to implement the new QA procedures. Hence, the study suggests that the successful implementation of QA mechanisms may depend on the consistence of institutional isomorphisms, the agreement of institutional logics, the agency and legitimacy of institutional actors supported (or constrained) by the governance structure, especially in their resource mobilization and allocation strategy.

Keywords

Private universities, Quality assurance, Implementation process, Institutional theory, Vietnam

Introduction

Quality Assurance (QA) is a great challenge for higher education (HE) in developing countries like Vietnam, particularly the private higher education (PHE) sector, which has been traditionally criticized for its poor level of educational quality (Hayden & Van Khanh, 2010). In an attempt to address the quality issues in HE, the Vietnamese government in recent years has adopted a new QA system (Do & Ho, 2011). The new QA mechanisms were first introduced to some selected public universities before applying them generally to all universities in the HE system. Private universities, with their negative reputation of poor quality, see the implementation of QA procedures as a significant opportunity to obtain legitimacy in a highly competitive environment.

This study aims to investigate the QA policy implementation process at a private university (meso level) to understand the factors that impact or determine the strategies of the university in their daily activities of interpreting and implementing the new QA mechanisms to serve their interests. The focus of this study is not the *outcomes*, which is the QA practices, but the *process*, or in other words, to answer the questions of which factors affect the process and how these factors interact to shape the behaviors of the private sector in the implementation process. Understanding how private universities respond to the external environment under these circumstances will help explain how the implementation process actually takes place. This, in turn, helps us to recognize the driving forces of the implementation process and gain insights for a successful implementation of QA policies in the future.

The literature regarding PHE in Vietnam is seriously insufficient. Though the problems that the sector is facing and their causes were mentioned in passing elsewhere in a handful of studies (Asian Development Bank, 2012; Hayden & Thiep, 2007; Van Dao, 2009) they were not treated as an independent topic, but instead as an additional interest or a marginal component of a study about HE in general. Taking a further look at international literature, researchers have indicated challenging issues that confront PHE and proposed suggestions to tackle the relevant issues (Jamshidi, Arasteh, NavehEbrahim, Zeinabadi, & Rasmussen, 2012; Levy, 2011; Wei, 2009). However, there are *significant differences in this literature, which are the result of the variation in the institutional levels upon which the research has focused. In addition, most of studies that address the quality issues of PHE sector generally provide a review of policies from comparative perspectives (Asian Development Bank, 2012; Levy, 2011) and an orientation for policy makers in terms of policy design and establishment (Lemaitre, 2009). There has not been any study conducted to explore the QA implementation process, which factors impact this process, and how private universities respond in such circumstances.*

This study firstly utilizes a conceptual and theoretical approach based on institutional theory. Such a framework will help to advance explanations of the dynamic interactions between factors that enable and/or constrain the implementation of QA mechanisms in private universities. These factors are ones found within PHE institutions themselves and those found in their local and national environments. By doing so, this study will potentially provide a richer, more nuanced explanation of the factors that impact the QA implementation process, and of the dynamic interactions of these factors across macro (national) and meso (institutional) levels. In addition, by undertaking a qualitative investigation at a selected Vietnamese private university, this study will contribute to the scholarly understanding of the field by emphasizing the empirical value of institutional theory. Collectively, the knowledge generated by this research will provide a scholarly foundation for the future development of QA strategies and policies to guide the development of PHE in Vietnam.

Quality Assurance Issues in Vietnamese Private Higher Education

QA in HE is a concept that indicates the set of procedures or methods to measure, monitor, evaluate, maintain or improve the quality standard of educational programs or institutions (European Association for Quality Assurance in the European Higher Education, 2005). In addition, it refers to the process that evaluates whether the programs or institution meet the required standards established by the institution itself, or by professional agencies or governments (Brennan & Shah, 2000). Common elements of quality assurance processes would include: educational standards, an institution's self-evaluation, external assessment and a final decision which is typically made public (Belawati & Zuhairi, 2007). In general, quality is considered to be assured by the institution itself. In this study, the concepts of Quality Assurance were operationalized according to the framework suggested by (Kis, 2005) as Table 1.

Table 1. Operationalisation of the Concept of Quality Assurance

Purpose of QA	QA Mechanisms	Evaluation Levels	QA Agency	QA Standard	QA Methods
Accountability Quality improvement	Accreditation Assessment Audit	Institution Program Course Individual	Government Professional agency Institution itself Media/Others	Input Output Process	Internal evaluation Peer evaluation External evaluation

Source: Kis (2005), re-organized by the author

The private sector in Vietnamese HE has been increasing rapidly in recent years (Phuong, 2006). These universities were established to meet the growing demand for higher education (Levy, 2006). They mainly focus on low-cost (of investment) but in high demand programs such as foreign language, business, accounting and law (Huong & Fry, 2002; Levy, 2006; Pham & Dam, 2014). In addition, private universities in Vietnam in general are low quality and status (Hayden & Thiep, 2007). More importantly, they are highly dependent on tuition fees (86% according to Asia Development Bank, 2009). This strong tuition-dependence figure makes the competition for student enrolment between universities more severe.

However, because PHE institutions are unable to compete with their public counterparts, which are ranked higher in the system, they gained the reputation of “degree mills” (Hayden & Thiep, 2007), in a sense that they collect only students who could not win a place in public universities. For this reason, quality is one of the most challenging issues for PHE sector, particularly for demand absorbing and non-elite private universities. Quite often, PHE institutions are found in the second and third-tier institutions ranked at the bottom of the higher education institutions ranking system (Asian Development Bank, 2012).

To address these issues, great attention has been given to quality management. Four accreditation agencies have been established (Association of Vietnam Universities and Colleges, 2016). Internal and external accreditation have been implemented in majority of universities (Do & Ho, 2011). The government also issued many decrees and resolutions in an effort to develop QA systems for education and vocational higher education. Within the agenda of governance reform, the Vietnamese government is trying to implement a new system of quality assurance, with both processes of institutional self-assessment and national external evaluation. MOET introduced a set of 10 standards and 63 criteria for institutional self-assessment (Vietnamese Ministry of Education and Training, 2007). Many universities (207 universities, according to Vietnamese Ministry of Education and Training, 2016) have implemented this new QA system under the pressure of the government’s new QA mechanisms and the general public’s call for quality improvement.

Institutional Theory as the Theoretical Approach

Institutional theory emphasizes the stability of organisations, their resistance to change unless these changes are compatible with the organization’s identity or culture (Kirby-Harris, 2003; Mouritsen, 1994; Ostrom, March, & Olsen, 1991). Institutions, defined as social structures that comprises three ‘pillars’, namely, *regulative* (laws and contracts which stipulate what must happen), *normative* (assumptions and expectations about what should happen), and *cultural-cognitive* elements (taken-for-granted scripts and mental models about what generally does happen) (Scott, Ruef, Mendel, & Caronna, 2001). Mirroring these three pillars are three mechanisms of institutional isomorphisms, which are *coercive* (by altering regulative pillars); *normative* (by altering the expectations of what is right and reasonable); or *mimetic* (for example, by taking a new practice for a granted as a part of a new culture) (DiMaggio & Powell, 1983; Scott, 2008).

External forces can be categorised into two types of environments: *material-resource* and *institutional* (comprising institutional logics, institutional actors and governance structure) (Scott et al., 2001). *Institutional logics* are “socially constructed historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality” (Thornton & Ocasio, 1999, p. 804). This concept helps explain contradictory practices and beliefs inherent in institutions (Friedland & Alford, 1991). *Institutional actors* function as both carriers and creators of institutional logics (Giddens, 1984) within a specific institutional environment (Scott, 2008). *Governance* are “those arrangements which support the regularized control - whether by regimes created by mutual agreements, by legitimate hierarchical authority or by non-legitimate coercive means - of the actions of one set of actors by another” (Scott et al., 2001, p. 21).

Case Description

The private university selected in this study was established in 2007, as a response to the rapidly increasing demand for a highly-skilled workforce and the traditionally strong zeal for higher education of the Vietnamese. It is a young private university established by a founder who originally was a CEO of a large public enterprise and a professor in a famous public university in Vietnam. This university is building its own niches in some areas which are in high demand such as foreign languages, medical, business and technology. Since then, the university has been increasing dramatically in terms of number of student enrolments and number of programs (from 400 students in 2007 to 6000 in 2015, mainly enrolled in finance, business, MBA, information technology, engineering, English, architect and pharmacy).

Under the tremendous pressure for quality improvement in education, the Vietnamese government represented by the Ministry of Education and Training (MoET) has adopted a new QA system. Firstly, the general policy statement was introduced in 2012 and the QA standards were issued in 2014. Following this, its criteria for assessment were developed in 2015, and the guidelines for implementing QA mechanisms were issued in 2016. Along with these regulative framework, a pilot project was carried out to help universities to implement the new QA mechanisms. Initially, a small number of public universities took the lead in applying QA mechanisms in assessing their educational quality. Lessons and recommendations were generated from this pilot project to generalize the policy to all universities in the HE system. I approached this university when it has just completed the self-assessment report and was about to take the next step of taking external accreditation. It took this university almost one year to prepare and complete the self-assessment step.

Data Collection Method

This research uses documents and semi-structured interviews as the major sources of data. This study attempts to explore the content of documents (legal and policy documents) and how human actors, who are the university leaders, interpret these documents to implement them in the daily functioning of a PHE institution. In analyzing the data, I used the concepts proposed by institutional theory as the templates in the coding process. The data was analysed through close reading of the interview transcripts and documents with the intention of developing a common coding framework that reflected the theoretical and empirical research aims, as well as emergent findings. Specifically, I focused on the interaction between the four concepts, namely institutional isomorphisms, institutional logics, governance structure and institutional actors.

Findings

Institutional Isomorphisms: A Lack of Mimetic Mechanisms.

Various forms of isomorphic pressures were found in the empirical data of this study. The external normative isomorphic pressure firstly came from the public demand for better educational quality. At the same time, the Vietnamese government intended to enhance the HE system's accountability. These pressures were fuelled by the global trend of adopting QA procedures. Collectively, these normative isomorphic pressures led to the decision of the government to adopt a new QA system. In this case, the normative pressures from key stakeholders (such as the public or government) are obvious and vital. Previous studies' results also found that normative isomorphism was at the beginning stage of the implementation of a public system (Kim, Kim, & Lee, 2009).

Accordingly, the Vietnamese government issued a series of regulations and policy guidelines to establish the QA system (see the Case Description Section). The issuing of these policy documents is a signal of a shift of isomorphisms from normative to coercive. This is crucial in a highly centralised governance context like Vietnam, where decisions are made in a top-down structure (Hayden & Thiep, 2007). However, legally enforcing through coercive mechanisms does not necessarily mean that the QA system is completely implemented and gain the full legitimacy. Tolbert and Zucker (1999) classified the institutionalisation process into three phases, namely pre-institutionalisation, semi-institutionalisation, and full-institutionalisation. At the full-institutionalisation stage, mimetic isomorphism will overtake the other isomorphic mechanisms, as the new practice will be taken for granted and gain support culturally (Scott, 2008). Though these stages should not be interpreted as clear-cut in a deterministic way, this study found little evidence of the mimetic mechanism at this stage of QA implementation in Vietnam. For instance, despite the majority of universities have adopted this QA system (207 universities, according to Vietnamese Ministry of Education and Training, 2016), most of them complain about the ambiguity of the QA standards and the difficulties in implementation (Vietnam National University HCMC, 2017). MoET also recognises how universities struggle to carry out QA procedures. In addition, the assessment and accreditation outcomes have not been made known to the public.

Recently, MoET often encourages universities to carry out self-assessment and report to the ministry, but there is no legal sanction for those who did not do. In the future, possibly in 2018, this (self-assessment) will become the universities' responsibility. [...] By making known to public the universities who did not report or did not follow the ministry's regulation regarding self-assessment, the public awareness will be improved. [...] Obviously, this will significantly impact the public's preferences of universities.

(Nguyen, personal communication, October 16, 2016)

These examples indicate that QA mechanisms were still under the process of institutionalisation in the Vietnamese PHE sector. The lack of mimetic isomorphism, the government's plan to enforce the QA mechanisms further through coercive (legal sanction) and normative (public awareness improvement) mechanisms and the unpreparedness of universities (complaints and difficulties) imply that Vietnam is at the semi-institutionalisation stage. Although there were clear signs of those changes would take place at the next stage, the findings of this study suggest that policy makers and administrators should pay more attention to mimetic isomorphism because cultural-cognitive institutions tend to institutionalise more slowly than normative and regulative institutions (North, 1990). This can result in conflicts between institutions and as a result, causing severe difficulties for implementation.

Differences in Institutional Logics

The empirical data of this study reveals that there are differences in the institutional logics regarding the purpose of QA. To be specific, the Vietnamese government focuses on enhancing accountability of the HE system through QA mechanisms, though both the concepts of accountability and quality improvement are emphasized in the official policy statements. For example, decree No. 29/2008/QĐ-BGDDT issued by MoET indicates the purposes of the QA system as: (1) improve quality; (2) ensure accountability; (3) provide accurate information for students and employers in their decision making (Article 3). However, the institutional logics of "accountability" can be clearly observed in the summative approach towards QA mechanism of the government. According to Kis (2005), quality procedures for accountability purposes are based on criteria set down by external authorities and institutions. They aim at strengthening external insight and control, with the possibility of undertaking external corrective action, if necessary.

In the case of Vietnam, the government expects that QA mechanisms will enhance universities' accountability of the education they provide because it aims to exercise its control over the system and demonstrate to the society that it makes "justifiable decision on educational policy" (Kis, 2005, p. 23). The government's intention of control is obvious in its strong involvement in every aspect of the QA mechanisms, and the strict reporting requirements. Universities are required to report in detail every single decision and action regarding QA to MoET such as self-assessment plan, assessment outcomes, accreditation plan, accreditation outcomes (Decree No. 29/2008/QĐ-BGDDT, Article 9). MoET is involved in each step of the QA process, from issuing QA standards, mediating between universities and external accreditation agencies, monitoring processes, approving assessment and accreditation outcomes. This strong involvement of MoET is aligned with its traditionally centralized governance model with the government as the source of authority (Asian Development Bank, 2012; Hayden & Thiep, 2007).

On the other hand, the main concern of the case university is quality improvement. Over the course of the long interview with the vice president who is in charge of QA, the participant repeatedly emphasizes the function of quality improvement. In addition, this university expects QA mechanisms will provide it an analysis of strengths and weaknesses and recommendations for further improvement:

What is the nature of self-assessment? It is for self-improvement. [...]. If you improve, you will be approved. [...] Educational quality improvement must be carried out through quality assurance. The university will surely get better once it does well with quality assurance. Firstly, based on the outcomes of the self-assessment report, we must see our weaknesses [...] to improve ourselves. [...] At least the self-assessment report will be like a warning for us because it shows our strengths and weakness.

(Nguyen, personal communication, October 16, 2016)

The statements above reflect the current status of Vietnamese private universities. Vietnamese private universities have gained the reputation of being the second tier of higher education institutions with poor quality performance (Bigalke & Neubauer, 2009). It is widely recognized that the main function of private universities is to provide spaces for students who cannot make it to public ones (Hayden & Thiep, 2007). This social norm is a huge obstacle to private universities in attracting better inputs, including students, staff and investment (Phuong, 2006). Thus, improving quality is one of the key strategies for private universities to obtain legitimacy. For them, QA mechanisms are a great means to convince the public that the education they provide is the best possible.

Institutional Theory explains these differences as the differences in institutional logics. This is caused by different interests and conceptions of quality between diverse stakeholders (Kis, 2005). For the government, the institutional logics of QA is accountability whereas for private universities, it is quality improvement. According to Kis (2005), there is an uneasy balance between accountability and quality improvement as the two major purposes of QA procedures. Indeed, it is a continuous debate whether it is possible to combine both purposes. In this study, I do not attempt to justify whether QA should serve accountability or improvement or both. My argument is that as long as there is a gap in institutional logics concerning the purpose of QA, it is difficult to make a successful implementation of QA systems. This requires policy-makers to carefully consider and take the viewpoints of the universities into account because they are not mere recipients but also *decoders* and *interpreters* of the policy (Kis, 2005).

Governance Structure

According to Gayle, Tewarie and White Jr (2011), university governance refers to the structure and process of authoritative decision making across issues that are significant for external as well as internal stakeholders within a university. In general, there are five models of internal university governance, which are collegium, bureaucracy, corporation, enterprise and trusteeship (Frumkin & Keating, 2010; McNay, 1999). The case university of this study displays several features of an enterprise model. Firstly, the university demonstrates a strong movement toward being market-oriented. Secondly, it pays stronger attention to effective financial management and outcomes for shareholders. It refers to the *managerial model* as Marginson and Considine (2000) had studied. Its market orientation approach was clearly showed in its mission statement as well as the programs its offers.

The mission of the university is to educate the high-skilled workforce in economics, business, technology, social sciences, and medical areas for the national goals of development and industrialization in the global era

(The Case University's Official Report No. 2)

Young (2004) criticizes the enterprise governance model for its major drawback of giving low priority to the education and learning objectives of universities, as well as for the exclusion of internal stakeholders. This study's empirical data confirms Young's concerns, as the founder and chairman of the governing board of the case university states:

If a member of the university does not follow my leadership, unfortunately I have to say goodbye to that person. [...] There is an argument that other members of private universities should be given more authority to participate in the decision-making process. That kind of argument really makes me irritated. I invested in this university, of course I have the right to exercise the total control over my investment.

(Le, personal communication, October 18, 2016)

As the main purpose of QA is to improve the educational quality, it requires a strong commitment of investing in facilities, curriculum, academic staff (Asian Development Bank, 2012). However, a governance model that does not take the other stakeholders' perspectives into account like this may negatively impact the QA implementation process, especially regarding the matter of budget allocation. Since I could not obtain the financial report of this university, there is no evidence to conclude that leaders of this university do not provide sufficient resources (material and human resources) to improve

quality. However, there are some signs that the academic staff may have a different view on how the university should spend its budget.

Your university can make profit, but that profit must be used to re-invest in the university itself. [...] The ultimate purpose of establishing universities is to serve the society. Allowing for-profit-higher education only causes damage to the education system.

(Nguyen, personal communication, October 16, 2016)

This participant implicitly expects a governance model that ensures the proper use of investment and controls the manipulation of the investors over the investment capital:

Right from the beginning, you need a proper vision. Let take the Taiwanese case. Once you make the commitment to invest in education, you are not allowed to use the investment in other purposes than education.

(Nguyen, personal communication, October 16, 2016)

The governance model that this participant described refers to the *trusteeship model* (Frumkin & Keating, 2010). However, in this study, I do not attempt to support and/or criticize any kind of governance models. My argument is that the governance arrangement may significantly impact the successful implementation of a QA system, and the empirical data supports this argument by proving the link between governance structure and key actors' decision on budget allocation strategy for implementing QA. This discussion will be elaborated further in the following section about the role of key actors.

The Role of Institutional Actors

Many studies highlight the significant role of leaders in introducing and promoting external quality monitoring schemes at their own institution (Kells, 1992; Vroeijenstijn, 1995). Stensaker (2003) emphasizes that leaders' strategic and interpretive skills are significant in the process of QA implementation, and they contribute to change both their own institutions and the external evaluation systems. The role of leaders like this, shown under the light of the institutional approach, is explained by the concept of institutional entrepreneurs (IEs). IEs are actors who seek to initiate and enact institutional change (Lockett, Currie, Waring, Finn, & Martin, 2012). However, such behaviors of IEs were not found in this study. In this case, the actors of this university are clearly not change agents or IEs. Nevertheless, it would be inappropriate to disapprove their roles in implementing QA mechanisms because empirically, their roles are significant, particularly in a context in which Vietnamese private universities are given more autonomy than their public counterparts.

The concept of autonomy here can be divide into procedural (the authority of institutions in essentially non-academic areas such as budgeting, financial management) and substantive issues (the authority of institutions to determine academic and research policy such as standards, curriculum, program offerings, staff policy) (Berdahl, 1990; Santiago, Tremblay, Basri, & Arnal, 2008). According to this definition, the PHE sector in Vietnam enjoys parts of both procedural and substantive autonomy. Private universities enjoy more financial autonomy in comparison with public ones, because they receive no form of state support and rely totally on tuition fees for survival (Hayden & Thiep, 2007). In addition, the sector's substantive autonomy is reflected in the policy documents and the participant's discussion:

Universities are free to determine their development orientation and to establish their educational missions and goals. MoET will not intervene.

(Nguyen, personal communication, October 16, 2016)

Universities' missions are established base on the universities' functions, responsibilities, resources and development orientations.

(Ministry of Education and Training, 2007)

In such an environment, the role of actors becomes crucial. Indeed, leaders in the case university were actively promoting the implementation of the new QA system. One of the participants even criticized the government for its slow response to the university's needs during implementation.

In Taiwan, the government officers' job is to help universities (implement the QA procedures), not to command universities to do this and that. How about Vietnam? Anytime it requires to meet them (MoET officers), I (the university leader) have to make countless requests of appointment. In Taiwan, government officers take the lead to help universities.

(Nguyen, personal communication, October 16, 2016)

To understand the behaviors of the actors in this case, the concept of institutional holes introduced by Yang (2007) provides great insights. *Institutional holes* are the structural gaps between two individuals or organisations in different institutional fields. In Vietnam, institutional holes exist to be exploited by institutional actors. As a result, instead of initiating changes in institutional arrangements, institutional actors prefer more to explore what they can do within the context of the ambiguous institutions in which they exist. Thus, in this case, instead of being IEs, institutional actors are actually *institutional hole explorers*.

In an attempt to investigate the role of institutional actors, Macfarlane, Barton-Sweeney, Woodard, & Greenhalgh (2013) apply four concepts relating to human actors: IEs (actors who serve as agents of change); embedded agency (the notion that agents make real, situated choices within institutional structures); subject position (an actor's position in an organization field); and the contrast between structural legitimacy (arising from an actor's formal position in the field) and normative legitimacy (arising from their ability to construct a moral argument with which to persuade other actors). Borrowing the concepts proposed by Yang (2007) and Macfarlane et al. (2010), I propose a better explanation regarding the role of human actors in implementing QA procedures in this case, as following.

The interplay of institutional pressures, embodied and enacted by actors (who generally held a high degree of normative and/or structural legitimacy at macro level) caused the new QA system to be implemented. The focus of the university towards quality improvement reflected the regulative and normative institutional isomorphisms (i.e. the national regulations of implementing QA procedures and the social expectations that private universities should improve their quality) and was strengthened by the actors' agency (i.e. their belief that QA is a crucial matter to their university). These actors advocate these norms and values identified by these coercive and normative isomorphisms to gain power and resources (i.e. being promoted, or receiving funding). In other words, their subjective positions became closely aligned with core elements of the field. Thus, the key actors had earnestly adopted the new QA system by exploring the institutional holes (i.e. enhancing the network with officials who undertake assessment or accreditation), which provided them advantages over their competitors. However, to successfully implement the QA procedures requires considerable resources. The decision of budget allocation strategy for QA implementation strongly depends on the key actors' agency (on what and how the university should spend its budget) and their legitimacy (actors who have stronger structural legitimacy generally take control of the resources).

Conclusion

This study attempts to provide a more nuanced depiction of factors impacting the implementation of QA mechanisms from institutional analyses perspectives. The findings reveal a sophisticated picture of how institutional logics, institutional pressures, governance structure and institutional actors interact and shape the implementation practice. The contexts including the popularity of the international QA norms, the backup effect of the national regulation framework regarding QA and the reputation of low quality perceived by the general public towards private universities provide fertile soil for QA policy to flourish. However, under such pressures, there was a continuous shift between different institutional logics, causing difficulties for the new QA to be stabilized and institutionalized. These institutional logics were embodied and reproduced by institutional actors. The actors exercised their agency and legitimacy which were supported (or constrained) by the governance structure, to explore institutional holes in order to take advantage in the adoption process or to allocate resources for this process. Hence, the successful

implementation of QA mechanisms may depend on the consistence of institutional isomorphisms, the agreement of institutional logics, and the agency and legitimacy of institutional actors supported (or constrained) by the governance structure, especially in their decision of resource mobilization and allocation.

This study contributes to the empirical application of institutional theory. By gaining insights of how institutional factors interact to shape the practice of QA implementation, it potentially helps provide a scholarly foundation for a better implementation practice in the future. However, it is crucial to bear in mind that the relative influence of the different institutional mechanisms, and the extent to which institutional actors exercise their agency to enact and/or reproduce them, are unique to each case. For this reason, there is no 'one-size-fits-all' formulation for a successful implementation of a system. It requires thorough consideration of the context.

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Where Does Passion Best Thrive? Fostering the Synergy Syndrome in Educational Leadership

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Abstract

While passion permeates aspects of human and organizational operations, there is paucity of empirical studies relative to its synergistic elements that define the nature and essence of care-driven leadership practices. Premised on the need to acknowledge the culture of care-driven leadership in the tertiary education, this paper argues that the role of passion in nurturing a caring educational leader cannot be underestimated. This phenomenological investigation, which subjects a select group of thirteen (13) Filipino academic leaders representing public and private colleges to a semi-structured and in-depth interview, dwells on this central question “How is passion as language of synergy in care-driven leadership practices of select group of educational administrators manifested in nurturing caring ecology and achieving institutional goals?” Through processes of reduction, description, and essence seeking, which were pursued through dendogram, this study has emerged interestingly the so-called “Wheel of Passion”. The wheel is an interesting conceptualization of how passion, as an element of care-driven leadership, is observed and incarnated through the selected administrators’ leadership practices. On the whole, passion is viewed as synergy that drives the educational leaders to continuously create three distinct and closely interwoven ecologies of understanding, learning and continuous improvement and innovations within the institutions. As the spirit that defines leadership extraordinariness, passion is envisioning, engaging, educating, enthusing, expanding and expecting, which, in the final analysis renders every school goal well illuminated, doable, shared, exciting, collaborative and realizable.

Keywords

Wheel of Passion, passion, Filipino administrators, synergy, *ecology*

Introduction

The word “passion” is derived from the Latin *patiore*, which means “to bear”, “to suffer” or “to endure”. Induced by “external agency” (Simpson & Weiner, 1989; Averill, 1980; cited in Cornelius, 1996), passion develops in a leader the tendency of exerting much effort to learn what is not previously known or previously done, assume an attitude towards what has not been achieved and believe what has not been previously convincing (Hansen, 1995). Notably, it serves as a driving force that moves vision into action, turns belief into reality, and sustainable leadership (Davles, 2007). Its dynamics can be best understood from its *teleological* and *ontological* perspectives (Linstead & Brewis, 2007). On one hand, the teleological concept views passion as a powerful and purposive motivation of achieving an end result. The ontological view, on the other hand, considers passion as desire.

Passion is germane in leadership practice. Its existence in the realm of leadership cannot be underestimated (Gilster, 2002). As a force that works on the emotional side of leadership (Bennis & Nanus, 1985), it speaks of the leader’s strong desire to guide his followers with a caring attitude (Gilster, 2002), a view of transforming effort into the attainment of a goal. In essence, passion is the strong desire (emotion) of a leader to guide the subordinates synergistically with care (Baumeister & Bratslavsky, 1999; Gilster, 2002; Krajewsky & Bailey, 1999). Passion is emotion, which originates within the leader through continuous introspection (Radford, 2003) in response to external stimulus. Through passion, leaders can influence subordinates to act mostly, within the constraints of law and order (Walzer, 2002).

In this context, passion represents the contiguous strong inclination (Dunlap, 2007) toward vital and most favored activities (Amiot, Vallerand, & Blanchard, 2006). Potkay (2000), for his part, reiterated that passion has motion that reaches out; hence it serves as the sole motivating force for leaders to be responsible in various human affairs. Passion is a synergistic power that burns the spirit to arrive at desired goals. Strong power and inclination (Amiot, Vallerand, & Blanchard, 2006) enable leaders to overcome hindrances encountered in their way. Hence, it enables leaders to foster their genuine love of sharing their knowledge and skills with followers as well as other people in their network. Passion is palpable, contagious, and attractive (Gibbs, 2005). On the other hand, it may also drive a leader to the point of ruthlessness. It is important to note that driven by such tendency destruction is imminent. Hence, as a good leader, one should be aware of its existence in order that he/she can act in the right direction with positive inner motivation. Genuine love of leadership accentuated with passion sparks excellent output (Goldstein, 2002).

Being passionate does not spare a leader from hindrances. In dealing with obstacles, a passionate leader perceives and takes opportunities as venues for learning. Difficulties are shared in leadership. A passionate leader knows how to make hindrance an opportunity to develop skills and personal attributes such as being resilient, combining toughness with compassion, being self confident but with humility, and also being resistant in order to survive. With such a passionate spirit, the leader demonstrates the qualities of “people willing to embrace hardships rather than shy away from them” (Moxley & Pulley, 2003:18). In other words, a passionate leader understands hardships in the spirit of mission, based on a firm set of values, dreams and pride for professionalism in their work and caring practices to their followers (Noda, 2004).

Cognizant of the fact, dynamic human enterprises in the tertiary levels of education calls for aggressive and the life-giving forces to stimulate people to move and excel. This paper argues that care-driven leadership is fueled by passion where boundaries are viewed as horizons; failures are interpreted as opportunities for learning; and similarities are used as bases in spelling out differences. While passion permeates aspects of human and organizational operations, there is paucity of empirical studies relative to its synergistic elements that define the nature and essence of care-driven leadership practices. Yukl (2008) admitted that leaders who understand complex relationships and the values of synergy within an organization can always find ways of preventing the negative side-effects of an initiative. It is the synergistic power that enables leaders to influence their followers to perform their level best. Their convincing power is demonstrated through concrete actions. Leaders become persistent because they have the keys to successful and sustained leadership, which are anchored on principles, collaboration with people, rendering one’s best performance and in the spirit of perseverance (Thomas, 2005). Passion as synergy is developed in order to achieve excellence (Peters & Austin, 1985). Most importantly with passion the leaders bring the best in themselves and their followers (Bilimoria, 1999). It keeps the leader’s motivational fire burning even during times of disappointment, duress and stress. Clement and Rickard (1992), for their part, maintain that passion keeps commitment alive to things as greater than one’s self. Such general understanding of passion does not spare Andres (1988) in claiming that a passionate leader is *marunong magtrabaho* (knows how to work). This means the leader has the ability to lead with love and care for people in the organization he/she serves. With a passionate heart, the leader works longer and harder in influencing followers, through which such a passionate move is very much encouraged (Wigg, 1995; cited in de Guzman, Custodio, & Garcia, 2007). Driven by the incalculable value of passion in care-driven leadership, this phenomenological study is guided by the following central question: “*How is passion as language of synergy in care-driven leadership practices of select group of educational administrators manifested in nurturing caring ecology and achieving institutional goals?*”

Method

Participants. Selection of participants in this study was based on experiences in the area being researched (Kruger, 1988; Goulding, 2005). The participants were experienced Filipino tertiary academic leaders from six private and state colleges in the Philippines. A total of 13 participants were purposively selected (Creswell, 1998) and subjected to in-depth semi-structured (Patton, 1990) interview to describe as

accurately as possible their experiences on the phenomenon of passion as an element of care-driven leadership. The participants' views and experiences were taken as 'facts', thus their 'experiences are texts to be read'. The phenomenon under inquiry dictates the method (not vice versa) including the type of participants (Hycner, 1999). Since the participants are the primary units in this research, their informed consents were sought prior to interviews (Bailey, 1996; Arksey & Knight, 1999; Street, 1998). Snowball samplings were used in the process of identifying the participants. It is a method of expanding the sample by asking one participant to recommend others for interview (Babbie, 1995; Crabtree & Miller, 1992). The researchers' point of entry into the participant's community was through a *key insider* (Bailey, 1996; Holloway, 1997; and Greig & Taylor, 1999).

Data Gathering Procedure. In-depth phenomenological interviews were conducted which served as the primary data collection (Bogdan & Biklen, 1982). Open-ended questions gave the opportunity for the participants' variations in the sharing of their lived experiences (de Guzman & Tan, 2007). Questions were directed to their experiences, feelings, beliefs and convictions about the theme questions (Welman & Kruger, 1999). Informal or conversational interviews were also conducted (Patton, 1990). The informal manner of interviews was facilitated to help the participants reveal their views further, but how the participants frame and structure their responses were highly regarded.

Interview Procedure. Interviews were conducted personally. After the researchers' have introduced themselves, the nature and purpose of the study were explained to them. Appointments were made to accommodate the most convenient time for the participants. The listening skills of the interviewers were observed and the participants were assured of the confidential nature of their sharing. Hence, pseudo initials and numbers were used for their names and identifications. The name of the institution was also kept confidential. The interviewer explained the limitations of note-taking during the interviews, thus permission of the participants to use the recorder was humbly sought. In this context, the participants were asked to sign an informed consent to participate in the study. However, any unique expressions of the sharing (*emic*) were specifically noted, and such expressions were further clarified in the follow up informal discussions. The participants then were encouraged to elaborate experiences in detail.

Mode of Analysis. The researchers took note of the intentionality of the sharing, thus the concept of 'reality' of the subjects' views was interwoven with their consciousness of it. Analyses consisted of three parts, namely: *reduction*, *description*, and *seeking the essence*. Reduction or *epoché* means setting aside all biases and prejudices of the phenomenon. In other words, it is the suspension of all judgments about what is real (Creswell, 1998). Description refers to understanding the reality of the participants. Essence (*Lebenswelt*) refers to the coding of data into themes, analyzed in order to uncover the central meaning of the phenomenon. The entire process was based on transcribed data (field texts), sorting, categorizations (cool analysis), thematizations (warm analysis) via a *dendogram* or tree design (Faulkner & Sparkes, 1999).

In short, the mode of analyses was made through efforts where the field texts were read and re-read for the researchers to get the feeling and essence of the story. Essences were identified through text analysis. The following activities were further observed: (1) discovering of themes and sub-themes; (2) winnowing themes to a manageable few; (3) building hierarchies of themes or codebooks; and (4) linking themes into theoretical models (Ryan & Bernard, 2003). Following the method of clustering, recommended by Côte, Salmela, Baria, and Russell (1993), field texts were analyzed via a *dendogram* – in which data were grouped into similar themes expressed by the participants. Inductive and deductive methods (Hardy, Gammage, & Hall, 2001) were used to ensure appropriate placement of raw data appropriate themes, hence higher-order themes had to be apparent to be appropriate. In the final analysis, the *dendogram*, as suggested by Faulkner and Sparkes (1999), was reviewed by the second researcher who was not involved in data gathering. The second researcher, a 'critical friend' (Faulkner & Sparkes, 1999), thoroughly examined the data categories, reviewed all the steps in the initial data analysis, followed by vertical and horizontal analyses (Thelwell, Weston, & Greenlees, 2007).

Findings

There is no doubt that successful and effective educational leadership is a by-product of conceptual, technical and human relations skills. However, this study situates leadership practice in the context of a caring ecology. While vision and mission provide sense of direction and commitment to both the leaders and the entire school community, this paper dwells on the transformative spirit of passion that makes an individual leader perform his/her level best and brings out the best in his/her followers. Such passion gives life and meaning to educational leadership and creates an ecology of possibilities. Through constant vertical and horizontal analyses of verbalizations, musings and experiences of a select group of Filipino academic leaders, this study has interestingly surfaced the *Lebenswelt* behind the practice of passion as an element of care-driven leadership. On the whole, passion in this study is viewed as an act of creating synergy as the leader journeys with and for the school. Synergizing, in this study, assumes various forms and describes an ecology where caring partnership best operates vis-à-vis the kind of goals such partnership can achieve. The emerged *Undung and De Guzman's Wheel of Passion* (Figure 1) illustrates graphically how passion is viewed as a never-ending caring move in the realm of school leadership.

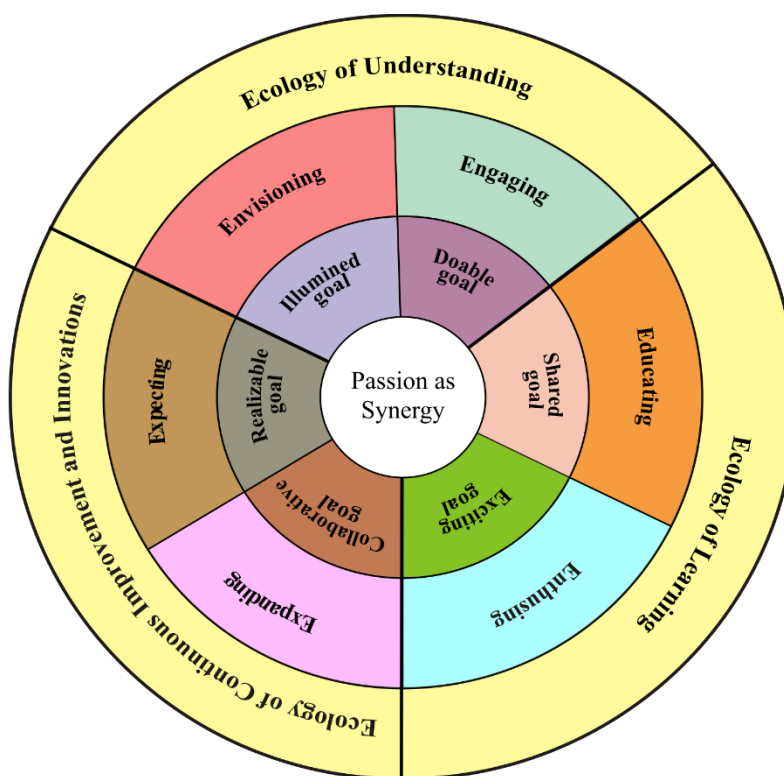


Figure 1. Undung and De Guzman's Wheel of Passion

As findings of this study indicate, in the spirit of caring towards the faculty and students, the passion as an element of care-driven leadership best operates in three interacting leadership caring ecology, namely: (i) ecology of understanding, (ii) ecology of learning; and (iii) ecology of continuous improvement and innovations.

Ecology of Understanding

The power of passion as a synergizing character of educational leadership calls for an ecology of understanding where both leaders and followers are certain of what they are expected to achieve and the *raison d'être* for their existence and working relationship. As shared by the participant administrators: "All of us know and understand that our vision is to be the center of excellence. Even students are part of this endeavor. I always tell my teachers and students that we have to work together in initiating

programs, projects and activities that truly speak of innovation” (5). This ecology invites all educational sectors to see (envisioning) and plan (engaging) things together, thus making the goal of the educational institution more illumined and doable. Envisioning, as a passionate move, challenges academic leaders to bring people together to see horizons and not boundaries as they continue to develop an altruistic attitude toward institutional growth and development. As verbalized by the respondents:

“Our vision is to be Level IV. As we enjoy the Level I Status, everybody in the school looks forward that in the next ten years, we shall then attain the level IV. As to Agency Performance Rating (APR), the highest is outstanding. Right now the institution enjoys a good rating. Hence, we are looking forward in the years to come to make it outstanding. In terms of subleveling, the highest is Level IV. The present level of this institution is Level II. We expect to make it to Level IV” (2);

“My constant prayers to the Holy One, day and night, is for me to help make this institution great and to serve my constituents the best that I can, with love and concern for them” (3);

“I keep on telling my constituents that crucial to institutional image building is the ability to work for what is excellent and desirable”.

It is interesting to note how envisioning is deepened and magnified by the academic leaders’ tendency to observe participative management as they continue to engage the faculty in matters that relate to their field of expertise and interest. However, unless the faculty is deeply involved in program planning and implementation, sense of organizational citizenship can hardly be developed. A number of participant administrators thus articulated:

“I have always been an advocate of the power of working with the faculty. In my strong desire to make everybody counts in the institution, we hold regular meetings for purposes of updating everybody on the status of programs and projects being implemented; such as identifying the strengths and weaknesses of our institutional strategies; and redirecting our efforts for better and more productive outputs. Consulting the faculty has always been an integral part of making everyone an asset and as active partner in my leadership”(2).

“In regard to licensure examinations, I always see to it that both teachers and academic heads are involved as reviewers or project coordinators. Everybody has a role to play in making programs succeed.”

Ecology of Learning

Passion assumes its transformative power as the academic administrators establish an *ecology of learning* within the institution, where every individual is considered as a perennial learner, and where his/her learning process is permeated by continuing encouragement, exposure and role modeling. Learning (*educating*) and enjoying things together (*enthusing*) define educational goal as something shared and exciting. Considering every member of an educational institution a perennial learner is not an easy task.

A passionate leader transforms every institutional activity or task involvement an opportunity to effect learning and self-renewal among the faculty. He/she enables the faculty to personally experience learning through task delegation and participation in professional development activities. Journeying with the faculty is truly a self-giving act of any passionate leader. Such learning spirit is thus collectively expressed:

“As I am about to end my term, I am certain that my teachers and my successor would not find any difficulty in running the institution. I never deprive any one of them of learning the dynamics of educational leadership. In fact, their involvement in various tasks and endeavors of the institution has gradually prepared them to assume leadership. I believe that power is transferable. It has been my strong desire to make everybody in the school a leader in his or her jurisdiction. Making them partners

of educational leadership is itself learning. To lead is to empower each member of the institution. It is only through power sharing where one experiences being a learner as well as a leader."

"As the head of this institution, I believe that my foremost role is to develop my faculty. Empowering them involves identification of their potentials and matching these with appropriate approaches and strategies in order to release their potentials. I always see to it that they are given a well-defined faculty development program that deepens their professional competence. I always look for possible opportunities where they could be exposed to new trends and developments taking place in their fields. While the institution provides training and seminars, one faculty also gets to the experience of being part of national and international conferences. Through these exposures they can also scrutinize their professional self and practice, thus making them more reflective." (6).

The learning ecology needs to be sustained and maintained. As this study indicates, the academic leaders are one and the same in their thinking that enthusing the faculty does not only involve provisions of development structure but also requires continuous role modeling through which the faculty can respond quickly and proactively to their responsibilities. Such expressions are evident in the sharing of their experiences:

"I have the personal conviction that a good leader is a role model. His thinking and behavior influences the way teachers behave in the school. Setting standards requires high expectations. A good leader must first be a follower. I do not impose things on my teachers, which I do not observe personally. As a leader, I give premium to punctuality. I always see to it that I come first before my teachers. Though I have a lot of concerns and activities in the school, I manage to report ahead of time, guided by the proper mindset and direction." (2).

"My long years of teaching have given me enough insights and perspective as to what constitutes good teaching. Though my time is mostly used up by administrative work, I always make sure that I teach a number of courses in order that I am not detached from what my teachers experience in the classroom. I find time to sit down with my teachers and discuss with them my experiences as a classroom teacher and not as an administrator. In this way, we are able to enter each other's turf." (3).

"When you journey with your faculty, things become better and lighter. In this way, they are able to enjoy what they are doing and see their work as a source of joy and learning. When they are assigned certain tasks, they do not procrastinate or cut corners. They do things for the institution due to the learning that goes with it. Being a good example to them in terms of work ethic and attitude is in itself a driving force that makes them zealous about their work and the tasks they do for the institution".

Ecology of Continuous Improvement and Innovations

The true gauge of passion is best evidenced by the kind of fruit it bears. Thus, passionate leaders and followers work together as they foster an *ecology of continuous improvement and innovations*. Through this ecology, the educational community continually engages in the process of *expanding* (doing things together) and *expecting* (strategizing things together) thus rendering every institutional goal collaborative and realizable. Expanding and expecting, as this study shows, are typified by the leader's continuing effort to do more with less, coupled with the sense of altruism and partnership with the faculty. Such tendency renders a passionate leader a man of innovation. Innovating for the institution requires the design of programs, projects and activities that address the felt needs, problems and interest of the institutional service community. As articulated by the respondents:

"Our goal is for our institution to be competitive with other colleges or universities. When I assumed my post, part of my plan was to introduce something that would cater not only to my teachers but also the outside community. A good leader has to be keen on what is going on in his immediate environment. Considering that technology has permeated practically all aspects of human activities, I consider it vital to capitalize on its power without sacrificing institutional goals and objectives. After consultations, research and institutional planning and assessment, we have finally decided to introduce online programs. Interestingly, the Divine Word College of Calapan (DWCC) is the first online graduate school

in Region IVB. I have also opened the PhD program, for the faculty to get the degrees. I would say that had it not been for my partnership with the faculty, I would not be able to identify new program modalities in my institution. I cannot do things alone. They are my strength and my assets. True innovation is a by-product of dynamic partnership with teachers” (2);

“My vision for our institution is to be the only state university in the province offering different curricular programs, in Technology, Education with different majors. My index of dynamic leadership is novelty. I believe that a leader should always be in a continuing state of experimentation. The institution is never a static entity. What makes the institution dynamic is the aggressive and questioning attitude of the leader. My being a leader is an opportunity to question the status quo and to identify new ways of doing things for the entire institution and the community it serves. I believe that the faculty should be regarded as creative partners. Given the chance to be heard and participate they can share novel ideas and strategies”(2).

“I have a strong belief that through the cooperation of my constituents, all of my dreams, all of the goals and the visions of our institution will be realized.”

“I can readily get the cooperation and support of my faculty in all our activities.”

Discussion

Passion as an element of care-driven leadership cannot be underestimated. As the findings of this study shows, passion is not mere emotion or feeling but a transformative and caring element to better effect synergy in the thinking and behavior of the individuals. It occurs within an environment of caring ecological relationships among individuals. As the language of synergy, passion serves as catalyst that inspires both administrators and faculty toward shared goals and responsibility. Passion is inevitably expressed in three distinct but the interweaving context of ecology of understanding, ecology of learning and ecology of continuous improvement and innovations. “Ecology” was first coined by Haeckel in 1866 (Goodland, 1975). It dwells on the continuing equilibrium notion about life in the natural world. Such notion has developed and has kept to date, as this helps administrators interpret the ecology of understanding, ecology of learning, and ecology of continuous improvement and innovations as vital forces geared toward the fostering of individual as well as organizational success.

Passion, as an element of care-driven leadership, thrives best in an ecology of understanding that speaks of the gift of the leader to make every member of the institution develop a common understanding of their being part of the institution and the goal they are expected to attain. Sosik and Dinger (2007) believed that the synergistic power of administrators is measured through their ability to envision with their faculty their future as they initiate and foster change. In facilitating change, administrators and faculty implicitly envision their hopes and fears (Slaughter, 2002) that would come along their way and as they work toward shared goals and purposes. Envisioning is a “specific way of seeing” (Harvey, 1989:5; cited in Castree, 1999:143) a sustainable future (Gaede, 2008), and in perceiving more illumined goals (Behn, 1989). The organization works to achieve a common end. According to de Vries (1996), the ability of the leader to envision makes the school leader charismatic. Undoubtedly, this characteristic leader makes followers perform as expected (Wiessner & Sullivan, 2007). The burden of achieving the vision does not only depend on the leader alone but includes faculty. Passion is created in the spirit of seeing and doing things together. Such spirit fosters oneness and togetherness. Wider perspectives convey effective envisioning processes that require leaders to integrate their self-concepts and personality into the vision (Shamir, Arthur, & House, 1994). Oneness and togetherness widens their perspectives and deepens their understanding of individual and institutional realities.

Envisioning is goal seeking. It is an illumined goal, which calls for a participative atmosphere in which every member is a player. Engaging the faculty in institutional processes and concerns develop a deep sense of commitment. Care-driven leadership calls for the spirit of sharing. When leadership is shared (Drath, McCauley, Palus, van Velsor, O'Connor, & McGuire, 2008) the double-loop transformational process becomes possible (Argyris & Schön, 1974) and efforts collaborate through participatory,

transformation and empowerment (Sylvestre, Cousins, Sundar, Aubry, & Hinsperger, 2008). When followers work toward set of doable goals, they adapt effective ways of motivating and challenging the faculty (de Vries, 1996; Gefen, Ragowsky, & Ridings, 2008). In other words, engaging is taking the faculty to the highest levels of their collective efficacy (Hannah, Avolio, Luthans, & Harms, 2008) relative to their individual and institutional involvement.

Incarnating passion in the realm of leadership calls for the adoption of the ecology of learning. For their part, these academic leaders are expected to exert efforts to help the faculty search for advanced knowledge and skills to be able to cope well with their tasks productively. The learning ecology is a vast and intricate network system and any change in one part affects the rest (Solomon, 2000). The ecology of learning is considered as the instance when the elements of educating and enthusing are experienced and felt throughout the working performance (Huxham & Vangen, 2000) of teachers and the academic leaders. Educating as a process inherent of the learning ecology prompts these leaders to gradually prepare the faculty to assume shared responsibility and accountability through job exposure and constant role modeling. Integrating education into the daily functions of the teacher is a good opportunity for caring in dealing with the change process (Heard, 1999). Helping every individual becomes a constant and perennial learner empowers the faculty to meet risks and uncertainties as meaningful encounters with reality.

Leaders' passionate moves radiate their enthusiasm for learning which allures the faculty to experience the process (Thornton, 2001) and gives them more excitement in achieving the set goals and objectives of the institution, when leaders' enthusiasm for learning becomes contagious, the faculty becomes more self-driven and self-motivated. The act of enthusing is a lived power, which influences the leaders to treat their followers humanely, in ways that human consideration prevails over other material considerations (McDowell, 2001). The enthusing power is created through the effort in helping the followers lead themselves (Manz & Sims, 1987). Followers are equal in nature hence mutual assistance prevails in the process. Treating the faculty as partners (Huxham & Vangen, 2000) in the fraternal spirit (Saini & Budhwar, 2008) enhances the leaders to enthuse the faculty in committing themselves to their given tasks. Role modeling consequently arouses synergy in the working place functioning (Saini & Budhwar, 2008).

True passion transcends leadership practice. In this study the transcendental power of passion is evidenced in leaders' desire for excellence through continuing improvement and innovations. In this ecology, their journey with the faculty enables them to magnify individual and institutional competencies through collaborative undertaking with the faculty with a deep sense of altruism. These leaders are not simply bound by their limitations, but challenged to maximize opportunities in order to realize more innovative actions. Expanding and expecting are the elements of efforts that yield results toward this end. Expanding is an opportunity for administrators to "take the big step" (Hollenbeck & Hall, 2004:261) in exploring a vast range of possibilities by seeing unrecognized previous potentialities (Fox, 1989; cited in Cardon, Zietsm, Saporito, Matherne, & Davis, 2005). It is an effect of their collaboration, which developed among individuals directly and/or indirectly involved in the activities (Alpert & Bechar, 2007). Passionate administrators expect the fruits of their labor to be born from their working together with their faculty. It is the basis for initiating innovations in order to upgrade their knowledge and skills relevant to the demands of time. Setting relevant strategies enables them to achieve their standards as their overall project achievements (Lago, Muccini, & van Vliet, 2009). Working successfully toward this goal is considered fruit of group labor. Strategies are adapted prior to making the fruits of labor. Goals are achieved as expected to realize in the end. Expectations are achieved after relevant strategies are crafted to put things in place. In expecting the best, individuals can strategize continuous engagement in their activities. Expecting results without the full collaboration of the faculty is exercise in futility.

Conclusion

The major aim of this phenomenological study is to capture the essence of passion as it is lived and incarnated in the educational leadership practice of a select group of Filipino academic administrators. Investigating passion through the realm of leadership serves as valuable lens for defining the quality of the leadership that transcends human behavior into what is extraordinary and transformative. While the

findings of this study does not contain a generalizable statement that cuts across various school settings, the *moderatum* or limited generalization (Payne & Williams, 2005) yielded by the individual and collective experiences of the administrators can serve as preliminary backdrops in understanding the essence of passion in educational leadership.

The emerged *Undung and De Guzman's Wheel of Passion* is an interesting conceptualization that administrators can ponder upon as their way of transcending their thinking and practice through synergy. In this study, passion is not only viewed as mere feeling or emotion but a moving human spirit similar to a wheel that sets no boundaries but creates a realm of possibilities. These possibilities are identified and created through the establishment of caring ecology, namely: the ecology of understanding, ecology of learning, and ecology of continuous improvement and innovations. This ecology is prerequisite of the creation of a school organization that operates in the spirit of synergy. The extent to which passion is felt and evidenced in the institution depends, in great measure, on the ability of the educational leader to bring all institutional efforts together, such as thinking, behavior and beliefs in a context of understanding. To be passionate about one's work calls for the ability of the educational leader to have all institutional sectors adapt and share a common understanding of the nature of their work, the philosophy that governs the performance of their tasks and responsibilities, and the expectations that define institutional success. All these are best achieved if the leader adapts a communication system through which everybody is enticed to energize and plan things together. Everyone in the school environment thus becomes part of the change process and is able to deepen his or her institutional citizenship through meaningful participation and active engagement.

Interestingly, this study has surfaced the idea that true passion makes everybody in the educational institution a perennial learner. Such view challenges educational leaders to see programs, projects and activities as fertile areas where one experiences learning and enjoyment. The joy of learning that one's participation and involvement brings is a reward in itself and a means toward renewal and deep sense of commitment. By and large the passion to lead entails role modeling. Through good examples, the leader inspires followers to commit themselves to standards of performance and behavior set in the school organization. When the school leader journeys with his followers, strong partnership develops. Leadership and followership are no longer construed as separate and mutually exclusive entities but meaningful human interactions.

When passion becomes the language of leadership excellence, there is always space for horizons and possibilities. This study dwells clearly on how passion moves educational leaders to do more with less. Such spirit creates an enabling school context which mobilizes everybody toward expansion and systemic school development. The selected tertiary institutions thus become a laboratory for change and innovation and with everybody becoming an avant-garde in his or her own right. Success of any change process and system innovation lies in the quality of partnership the leader establishes in his or her faculty. Faculty members are not mere cogs, as they are integral in the smooth operation of the school system.

On the whole, the role of passion in educational leadership cannot be underestimated or ignored. In a highly complex human organization permeated by technological interventions, there is a felt need to look deeper on the human side of passion. This preliminary investigation invites educationalists and researchers to harness all possible means so much so that a leadership passion index (LPI) could be surfaced. Such index is vital in crafting educational leadership courses and programs that would better prepare school leaders imbued with a caring spirit rooted in passion. In terms of practice, this qualitative study could serve as basis in ascertaining how the passion of a leader is felt and experienced by the faculty, students, and other institutional sectors. Success stories about passion in educational leadership can be captured as a way of informing others of the educational leadership theory. While leadership has been construed from its transactional, transformative, charismatic, contingency, moral and visionary dimension, viewing it from the context of the caring perspective can expectedly open more research possibilities that would create more leadership options and notions.

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An Investigation of the Problems and Obstructions in the Administration of Quality Assurance System in Thailand

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Abstract

Thailand has been promoting the quality of education through various attempts for several decades. Unfortunately, the quality of education has not progress satisfactorily. This research project utilized the grounded theory approach in order to elicit required data from key informants regarding the problems and obstructions faced in the implementation of the quality assurance system of Thailand. Open-ended questionnaire was distributed to administrators and educators in the tertiary education level during September 2015. 687 completed sets of questionnaire were obtained. Most informants reported that, although the system is good, there are still a lot of problems which obstruct the implementation of the system. Most informants agree on similar issues. There is too much unnecessary paperwork. The standards and indicators are rigid and cannot reflect true education quality. There are some problems regarding the quality of the assessors. The informants suggested there is a need to empower education institutions to set their own quality components, standards, and indicators. Education institutions should take care of their own quality and perform self-assessment under the guidance and support from OHEC. ONESQA should perform the role as a neutral body who certify the quality of the institutions.

Keywords

Quality assurance, Higher Education, Thailand

Introduction

Thailand has invested a tremendous amount of national budget in education. The budget for the Education Ministry is normally the highest among all ministries. In 2016, the government approved 517,076 million baht (USD 14,773.6 million) for the Education Ministry (Thai Government, 2016). Several agencies were established in order to develop, support and evaluate the nation's education in accordance to the National Economics and Societal Development Plan and the National Education Plan. In 1972, the government established the Ministry of Higher Education with the aim to promote autonomy among universities in order to have academic freedom in the transference and creation of knowledge (Office of Higher Education Commission, 2017). The Ministry was transformed into the Office of Higher Education Commission (OHEC) in 2003 (Lao, 2015). Moreover, the Office for National Education Standards and Quality Assessment (ONESQA) was established as a public organization on November 3, 2000. ONESQA functions as a public organization in order to be an external and neutral body which performs quality assessment for all levels of education at least once every 5 years (ONESQA, 2014).

In spite of the attempts from all concerned authorities for nearly 50 years, the overall quality of Thai education is still unsatisfactory. This is reflected by the ranking by various international ranking authorities such as the EF English Proficiency Index (EF EPI); Programme for International Student

Assessment (PISA); TIMSS by International Association for the Evaluation of Educational Achievement, IEA Data Processing and Research Center and Lynch School of Education at Boston College; Transparency International organization; Webometrics, Quacquarelli Symonds Limited (QS), and University Ranking by Academic Performance. Thailand's PISA scores in 2012 for scientific, reading and mathematical Literacy were 444 (ranked 49th), 441 (ranked 50th) and 427 (ranked 50th) respectively. The average OECD for scientific literacy was 444, reading literacy was 496 and mathematic literacy was 494 in 2012 (OECD, 2012). In 2015, the scores declined to 421 for science, 409 for reading, and 415 for mathematic literacy (OECD, 2016). The rankings were 54th for science, 57th for reading, and 54th for mathematic literacy respectively out of 72 countries (PISA Thailand, 2016). This put the focus on the education quality assurance system of Thailand. Hence, this research project aimed to investigate the problems and obstructions relating to Thailand's quality assurance system.

Research Objectives

Thailand's OHEC has established a quality assurance system comprising of various 6 components and 25 indicators to assess programs plus 5 components, 13 indicators in the faculty level and 5 components and 13 indicators in the institutional level (Office of the Higher Education Commission, 2015). The office has devised a thorough criteria and measurements in details for all indicators as well as the procedures to assess each components. There are complaints from education institutions and practitioners that the system is difficult to implement. Moreover, the indicators do not reflect the truth or indicate real educational quality. This research project did not aim to discuss the theories of quality education or assessment system whatsoever. This research project aim was to gather the perceptions of practitioners under the current system regarding the implementation of the system. Hence, this project followed the grounded theory tradition (Glaser, 1965; Glaser, B. G. & Strauss, A. L., 1967) by gathering perceptions without imposing structure or theory upon the informants. The aim was to elicit the truth in the QA operation and synthesize into issues which needed attentions from the authority as a beginning stage in search of approaches to solve the problems in Thailand's quality of educational system. Hence, the research objectives were:

- 1 To elicit data from educators regarding the problems and obstructions of Thailand's current quality assurance system.
- 2 To elicit recommendations from educators regarding the preferred roles and duties of concerning bodies in quality assessment process.

Methodology

This research project utilized the qualitative research technique in order to elicit data from key informants. Information was collected inductively and the contents were summarized following the grounded theory approach (Sekaran & Bougie, 2013). The key informants in this research projects were administrators and educators in the tertiary education level in Thailand. Questionnaire was uploaded on the internet and requests were submit to tertiary education networks through emails and Line Application such as the Council of University Presidents of Thailand (CUPT), The Association of Private Higher Education Institutions of Thailand (APHEIT), Rajabhat University network, Rajamangala University network, etc. Data collection was performed during September 2015. 687 completed sets of questionnaire were obtained.

Data collection instrument was an open-ended questionnaire consisted of 6 questions asking about the problems and obstructions in the quality assessment process as well as the preferred roles and duties of relevant bodies. Data were compiled and summarized.

Results and discussion

Four hundred and fifty seven respondents worked in the governmental education institutions. Among the government education institutions 124 worked in the basic education level, 23 in the vocational level, 269 worked in the higher education level, and 41 worked in the informal education level. Two hundred and thirty respondents worked in the private education institutions. For respondents worked in the private education institution, 35 worked in the basic education level, 124 worked in the vocational level, 49 worked in the higher education level, and 22 worked in the informal education level.

Data were summarized and conclusions were drawn grounded on the data (Gravetter & Forzano, 2015). One of the most-mentioned problems is the emphasis on the process more than outcome. Most informants reported that the best indicator of the quality of education is the quality of learners. In this regards, some informants suggested that quality of education should convey quality result which is the learners' achievement and employment after graduation. Some informants put it as

“Education’s objective is to develop learners so that they can earn their living after graduation” and

“Education helps learners to develop their employability.” Hence,

“Quality education means the education system which assist learners to be able to work in the businesses and earn their living.”

Moreover, stakeholders’ satisfaction including the graduates themselves should be observed as well. Some informants suggested that

“Education system should satisfy the national and societal needs” and that

“If learners or stakeholders cannot use what they learn to earn their living, they would become disappointed with the system.”

The administration of curriculum, teaching and learning process, and teachers’ quality are also mentioned. Most informants emphasize the ability of education to enable learners to work and earn their living properly. Education should contribute to the prosperity of the nation.

Almost all informants mention huge amount of relevant paperwork which must be prepared. Unfortunately, these documents do not reflect the real quality of education and some were not used at all. As some informants wrote that

“We have to make up document to answer to the assessors’ requirement, some are not used at all” and

“We have to prepare thousands of pages of documents for the assessors among which they looked at only a few pages.”

A large number of informants emphasized the exaggerated and mandated details of the indicators as well as the rigidity and inflexibility of the indicators.

“Education Institutions have different mission, objectives and contexts but OHEC and ONESQA uses the same set of indicators to measure all.”

“My institution is in the rural area and can never afford to satisfy many indicators mandated by the government, we have to device alternative approaches but these approaches were not approved by the authorities. They do not look at the result”

“They look at numbers as mandated in the book but refuse any other forms of explanation, diversity, or differences”

“Quality is not numbers”

“I do not think that the indicators really indicate quality”

Furthermore, a large number of informants reported that some assessors lack true knowledge and understanding in education administration. Some informants mentioned

“Some assessors are lecturers or technical academicians who do not have experience in managing real education institution hence they have knowledge in their field but lack thorough knowledge in the management of education system and turn to stick on wordings and numbers specified in the quality assurance manual.” In addition,

“I was assessed by lecturers from scientific fields of study but my faculty is Political Science, they do not have any idea about teaching and learning of Political Science.”

Another important issue is about the standards of the assessors. Sometimes the assessors have different interpretations about the wordings in the very same QA manual. Most of them try to interpret the wordings rather than the truth. Some teams of assessor split the indicators among them and turn the assessment into individual assessment rather than team assessment. Many informants reflected that

“OHEC’s and ONESQ assessors should perform different role according to the objectives of each institution but they are doing exactly the same thing only with different sets of indicators”

“Some assessors seem to perform their roles as fussy faultfinders instead of fact finding in order to assist in the development of the quality of education institutions”

This makes the assurance process turned to be a scrutinizing process to catch the institutions’ weak points, no matter how small, in order to improve the numbers rather than to assess and suggests points for development of real quality.

Moreover, some informants said that the system sounds good in the paper but in practice the system delimit rather than support the development of quality and creativity as well as academic freedom as suggested in the objective of OHEC.

In conclusion, the informants reported they faced a lot of difficulties in the current quality assurance system. These problems and obstructions were 1) tremendous amount of document 2) inflexible indicators 3) the focus on process rather than outcome 4) the inappropriate usage of numbers to indicate quality 4) quality standard of the assessors.

Suggestions from the informants

The informants suggested OHEC and ONESQA should stick to their mission and objective. OHEC should act as mentors who provide training, assistance, support, and help education institutions to overcome their problems as an ally, not as an enemy. They need OHEC, as their original affiliation, to help them in the setting up and implementation of a quality system which would result in quality of their institutions. The OHEC’s indicators should be revised.

Institutions should be allowed to develop their own tailor-made sets of indicators based on their mission and vision under the guidance of OHEC. OHEC should acknowledge under-privileged situations of some institutions in order to reflect the truth and improve as needed based on fact rather than imposing a one-

to-all set of indicators. Currently, OHEC and ONESQA are performing the same role under different label. There are still a lot of confusion in these roles especially in the operation level.

ONESQA should assist in the coordination, provide suggestion and enhance the quality improvement focusing on the outcome rather than scrutinizing the process in details. Moreover, ONESQA should be receptive to institutions' needs and requirements.

The informants suggested education institutions to organize the teaching and learning process which focuses on the quality of learner regarding the ability to pursue higher education and employment. In this regards, education institutions should invite stakeholders and the communities to participate in the administration of education system.

Data from this research project is not the conclusion. Next stage of the project will summarize and utilize the collected data as the structure for the forthcoming quantitative data collection stage in order to confirm the generalizability of the results.

Conclusion

Most informants agreed to the current quality assurance system create more problems than benefits. There should be a reform of quality assurance system. The current system involves too much unnecessary paperwork which many of them were not used. The standards and indicators are rigid and do not reflect true education quality. There is a need to empower education institutions to set their own quality components, standards, and indicators. There are a lot of confusion and disagreements regarding the assurance system in the operation level. OHEC should reform the whole quality assurance system. All education institutions need support from OHEC to improve their quality. Moreover, OHEC should empower institutions to take care of their own quality and perform self-assessment under the guidance and support from OHEC. ONESQA should perform the role as a neutral body who certify the quality of the institutions.

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Research on Financial Resources For The Higher Education In Vietnam

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Abstract

In the trend of global integration, the competition in the higher education sector is becoming more and more fierce, leading to a need to improve both the quality of teaching and the facilities. The key for that issue is to exploit efficiently financial resources. However, this exploitation in universities is not really effective, as a consequence, a range of universities have been facing the risk of bankruptcy since they do not have students. Therefore, looking deeply into the financial resources of universities is necessary in this period. We choose the higher education of Vietnam as the scope of our study because the problem of financial resources for this sector is one of headaches of universities and government. In recent years, many Vietnamese universities have had to dissolve or merge due to the inefficient attraction and management of capital. Relating to managing financial resources, there are a host of issues, but in our research, we will focus primarily on the difficulties and solutions to attracting financial resources of Vietnamese universities. Based on an analysis of the data and information about Vietnamese universities collected from official sources such as financial planning division and website of universities, website of General Statistics Office of Vietnam, Ministry of Education and Training, we will identify their main difficulties of attracting financial resources, then give suitable solutions to solve these matters. The result of our research can be useful to managers of Vietnamese universities. This information can help them to recognize the cause of challenges of capital attraction and choose the best method to overcome them. Moreover, our paper can help the government of Vietnam to build policies to support the development of the higher education.

Keywords

Financial Resources, Higher Education, Difficulties.

Introduction

In the trend of international integration, the education plays an important role in creating the competitiveness advantages for nations. However, the developing countries such as Vietnam have to face numerous challenges, especially problems relating to financial resources. In our research, we focus on difficulties in attracting financial resources for higher education in Vietnam and suitable solutions for this matter.

The actual state of financial resources for the higher education in Vietnam and the necessary of enhancing the ability of Vietnamese Universities to attract capital

The necessary of enhancing the ability of Vietnamese Universities to attract capital

In 1993, the Fourth Plenum of the Communist Party Central Committee declared education as a priority sector for national investment in Vietnam, leading to remarkable changes in the quality of workforce in a decade following. For instance, that period witnessed an increase in the percentage of relevant age group taking part in higher education from 2 percent to over 13 percent. In addition, a higher education system including small specialized institutions was turned into leading universities which were larger and more multidisciplinary. In other words, they were more capable to develop progressively a research ability. Then, the event of participation of Vietnam in WTO in 2007 enhanced the requirement for the

quality of employees, and the Government of Vietnam paid attention to that issue. Until the end of 2016, Vietnam had an abundant skilled workforce including 1,715 professors, 9,059 assistant professors and 104,724 masters. Nevertheless, the quantity and the quality seem not to go together. The evidence is that the proportion of skilled employees has climbed, the number of jobs has also rocketed, but the unemployment rate of Vietnam is not improved yet.

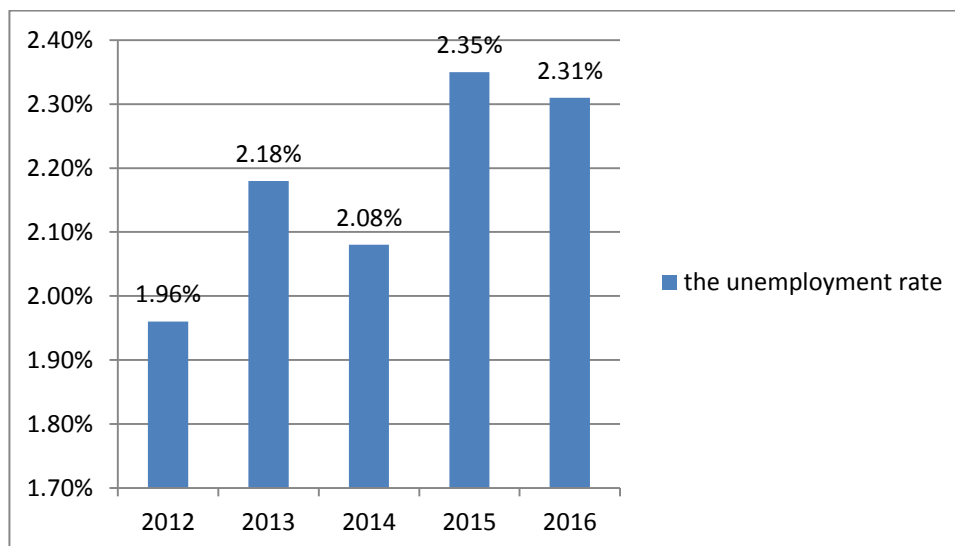


Figure 1: The unemployment rate in Vietnam. Source: General Statistics Office

As can be seen from the Figure 1, the unemployment rate of Vietnam jumped from 2.08 percent to 2.35 percent in 2015 and this proportion decreased negligibly to 2.31 percent in the next year. In fact, it was not high in comparison with other developing countries in Asia (like China, Singapore and Thailand with the unemployment being 4 percent, 2.8 percent and 1 percent respectively), but the headache is that the number of unemployed graduated students is quite great and has had an upward trend in the recent years. In 2010, that number was only 60,000, but it surged to 158,000 in 2013. In the year following, it continued to increase to 162,000 and in the last year, it soared to 225,000 which accounted for 20.3 percent of jobless people. According to a recent research, most of all enterprises in the survey agreed that graduated student could not meet their demand about the skill of job and they had to spend around two years retraining those students. The World Bank evaluated that, currently, the quality of Vietnamese workforce achieved 3.79 out of 10. After the participation of Vietnam in the international economy, the demand of labor market about the workforce quality has been significantly increasing. In addition, the foreign investment in Vietnamese education has rocketed, changing the traditional thinking of universities in Vietnam. Currently, students are customers and it is quality of education that creates the competitiveness capability of institutions. The solution for this problem is to modernize the facilities of universities, spend more money on training lecturers, and focus on researching to find a syllabus suitable for the requirements of companies. However, this solution cannot be completed in a short period, especially it has led to huge costs. That became more difficult when Vietnamese universities cannot rely merely on State Budget like before.

During the last decade, the universities of Vietnam realized a range of changes coming from the adoption of law about higher education autonomy. Before, Vietnamese universities had been tightly managed by The Ministry of Education and Training, their capital for all annual activities had been much provided by State Budget, leading to their thought of relying completely on government. As a result, their competitiveness capability had plunge. Moreover, the trend of integration into the world affected negatively the prospect of higher education development in Vietnam. Nevertheless, that situation has been gradually solved since a Higher Education Reform Agenda (Resolution 14/2005/NQ - CP) adopted a measure which is that higher education institutions will be more financially self-reliant. At that moment, this decision attracted the attention of many people and there was the doubt about the ability to implement it. However, in the “Socio-Economic Development Plan 2006-2010”, the Government confirmed again their determination to renovate financial mechanisms and policies to make institutions more pro-active

and responsible for finance, putting a great pressure on higher education institutions to look for other financial resources in order to enhance their internal strength. However, a host of both public and private universities are facing the risk of bankruptcy due to the lack of capital. According to a recent research of Parliamentary Oversight Delegation, currently, Vietnam has been 15 universities (for example Hanoi Dongdo International University, Hungvuong university, Van Hien university...) needing to be inspected and Government should decide whether to dissolve. Until now, they are renting the places as classrooms instead of establishing their own infrastructure, and the main reason is the shortage of money. In addition, the facilities of a lot of higher education institutions are so meager and rundown that they cannot attract the attention of students. According to the research of Mr. Trinh Xuan Thang, lecturer in the Political Academy Region IV (Can Tho city), 13 percent of Vietnamese universities do not have their own library, and only 39.3 percent of them have e-library. A survey of Ministry of Education and Training also reveals that among 5,572 laboratories, only 22.5 percent of them possess good devices, 19 percent of them have modern machines, 15.5 percent of them can meet the needs of scientific researches and only 1.4 percent of them can achieve the international standard. In other words, the higher education system in Vietnam meets numerous roadblocks to possess enough tools it needs to adapt to the growing and changing needs of an increasingly dynamic economy. Therefore, enhancing the ability of Vietnamese Universities to attract capital is really necessary.

The actual state of financial resources for the higher education in Vietnam

The actual state of financial resources for public universities in Vietnam

In Vietnam, the public higher education system play an important role in enhancing the workforce quality. Each year, the number of students of that system occupies around 87 percent. In other word, those institutions provide the majority of labor to nation. Therefore, developing public universities is a good way for Vietnam in this period. Solid financing is the backbone of a well-functioning public higher education system, but that system of Vietnam these days is facing a range of obstacles related to the financial resource. In fact, public universities have two main resources: State Budget and tuition fees. However, since the decrees about the autonomy of higher education institutions were adopted and the international integration is rapidly occurring, these resources are becoming scarce.

The financial resource for the public higher education institutions come from State Budget.

The greatest financial resource of Vietnamese public universities is provided directly or indirectly by the Government that has paid a lot of attention to develop the national education system at large and the higher education system in particular. The effort to improve the workforce quality is clearly expressed through the data about State expenditure of Vietnam on education in the period from 2009 – 2016.

Table 1: State budget for education and training, 2008-2016. Source: Extracted from Statistical yearbook of Vietnam of General Statistics Office and Ministry of Finance website

Fiscal year	Expenditure for education and training as percentage of GDP (%)	Expenditure on education and training (as % of total state expenditure)
2008	5.9	18.2
2009	3.8	12.35
2010	3.6	12.05
2011	3.6	12.62
2012	3.9	12.99
2013	4.3	14.30
2014	4.4	15.68
2015	4.5	14.86
2016	4.4	14.38

The Table 1 shows that the proportion of expenditure of Government on education and training felt suddenly in 2009 from 18.2 percent to 12.35 percent. Then, this number remained the same at round 12.35 percent in the next 4-year period. From 2013 to 2014, it fluctuated slightly between 14.30 percent and 15.68 percent. Since 2009, the proportion of money that Vietnam spent on education declined remarkably. In fact, compared with other countries, that percentage was not low (US, Singapore and Thailand spent 13 percent, 18 percent and 16 percent of their State budget respectively), however that drop expressed the determination of Government to give the autonomy in finance to education institutions in Vietnam. Genetically, these decisions have brought a range of difficulties to public universities in Vietnam.

The financial resource for the public higher education institutions come from fees.

Tuition fees for public higher education in Vietnam have been prescribed by Government and its level is quite low. Until 2008, each student in any subjects had to pay only VND180,000 (\$US10) per month and this level was frozen for some years. In 2009, Government adopted proposals to differentiate fees between seven fields of study. Then, Government continued to give some other decisions related to changing the level of fees of public universities (such as Decree No. 49/2010 / ND-CP, Joint Circular No. 29/2010/TTLT-BGDDT-BTC-BLDTBXH dated 15/11/2010, and Resolution No. 86/2015ND-CP). After those regulations, the tuition fees of public universities risen gradually.

Table 2: Regulations on tuition fees for Public Universities. Source: Decree No. 49/2010 / ND-CP, Joint Circular No. 29/2010/TTLT-BGDDT-BTC-BLDTBXH dated 15/11/2010, and Resolution No. 86/2015ND-CP

Unit: million dong/month/student

School year Study	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2018	2018- 2020	2020- 2021
1. Social sciences, economics, law, Agriculture and forestry aquatic products	290	355	420	485	550	1,750	1850	2050
2. Natural Sciences, Technology, Sports, Arts, Tourist Hotel.	310	395	480	565	650	2050	2200	2400
3. Medicine and pharmacy	340	455	570	685	800	4400	4600	5050

Table 3: Average tuition fees of universities of some other countries, Source: <https://www.hotcourses.vn/>

Unit: million dong/month/student

No	Country	Average tuition fees of universities
1	England	9,435 – 46,741
2	France	408 – 1,479
3	Finland	12,750 – 25,500
4	Netherlands	12,750 – 19,125
5	Korea	6,700 – 10,000
6	China	5,000 – 6,700

As can be seen from Table 2 and Table 3, in comparison with other countries in the world, the level of tuition fees of universities in Vietnam is low. Although Government regulated the maximum fees so as to help public higher education institutions to maintain their activities, but that regulation is not yet suitable. Since 2014, almost of all universities had have to enhance their level of fees and have tried to seek other financial resources, however their way seem inefficient, resulting to the fact that a lot of them do not want to be financially self-reliant. The measure for that case is to eliminate the regulations of the maximum fees, but Government hesitated about realizing that policy, because its other objectives like the equality, sustainable development, and political peace can be negatively influenced.

The structure of capital in public higher education institutions

The financial resources for Vietnamese universities include: Capital provided by State Budget (funding for recurrent activities, funding for realizing scientist researches, capital construction investment), Non-business revenues (tuition fees, scientist researches, providing services...), and other resources (loan, sponsors...), of which money coming from State Budget and tuition fees occupy the majority of universities capital.

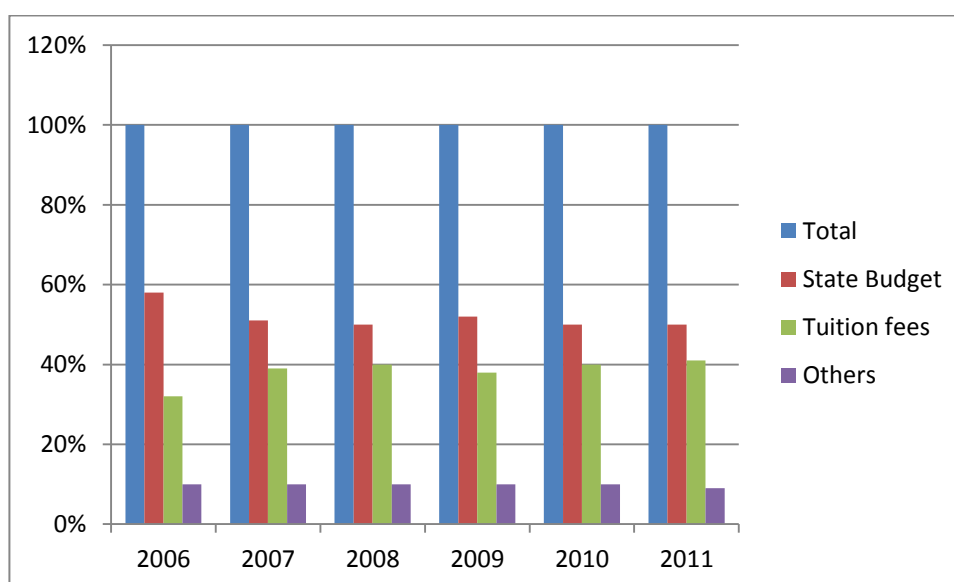


Figure 2: The structure of capital of public universities between 2006 and 2011
Source: The Institute for Research on Educational Development

The bar chart shows that the proportion of State Budget resource in the total capital of public higher education institutions declined gradually over 5 years. Until 2016, that percentage accounted for around 35 percent, whereas the rate of tuition fees have had a upward trend. It is clear that Government is trying to boost universities to be financially self-reliant, but it is really difficult for them to maintain their operations with a low level of tuition fees that are not enough to offset against all their expenses like recurrent activities cost, scientist researches cost and construction investment cost. According to Dr. Nguyen Truong Giang working for Ministry of Finance, the money provided by State Budget and tuition fees can spend only 40 – 50 percent of their costs.

The actual state of financial resources for non-public higher education institutions in Vietnam

In 2016, the number of universities and colleges has been increased to 472. Among these, there were 60 semi-public and people-founded institutions. The figure has shown the development of non-public higher education institutions in Vietnam. The non-public HEIs were not subsidized by the government in the way the public institutions were. Semi-public institutions get some public funds for supplying certain kinds of education services. The semi-public institutions were also given public funds from the

supervising agencies to sustain the infrastructures of these schools. The people-founded institutions have not received any public funds for their activities. Most of their expenses were covered by incomes from tuition fees.

Table 4: Tuition and Fees of all income by kind of institutions, Source: MOET report, 2016

Fiscal Year	Semi-public	People-founded
2014	85.6%	94.2%
2015	85.8%	93.3%
2016	79.3%	93.6%

In general, the percentage of income from tuition fees was increasing in the recent years by all institutions. Tuition fees were making up to 79.3% of semi-public institutions. Besides, tuition fees were making up 93.6% to 94.2% of income of the people-founded universities.

Though the non-public institutions (both semi-public and people-founded) are depending much on the tuition fees and contracts, they have created little incomes from other sources. Research and scientific services are making up only a small proportion of the income by non-public institutions. For semi-public institution is about 2% of all recurrent income, while the people-founded institutions could get only 1.7% of incomes from research and scientific services. Therefore, the non-public institutions have forced to operate at higher efficiency compared to the public institutions. Moreover, the administration and cutting costs help them to achieve this efficiency.

Financing of semi-public institutions in Vietnam

Semi-public institutions are hybrid organization with public ownership of fixed assets and largely private funding and management. There are great differences between Semi-public universities and public institutions in both their sources of revenues and their expenses. For example, in 2016, semi-public universities received \$816 per enrolled student in revenues—only 60 percent of the funds received by public institutions. Government allocated funds constituted 8 percent of total revenues across semi-public institutions as opposed to 69 percent among public universities. On the contrary, these institutions have raised more than 87 percent of their funds though tuition and fees. Semi-public universities also created a higher percentage of their revenues from research related services; and got only one percent of their revenues from gifts and grants.

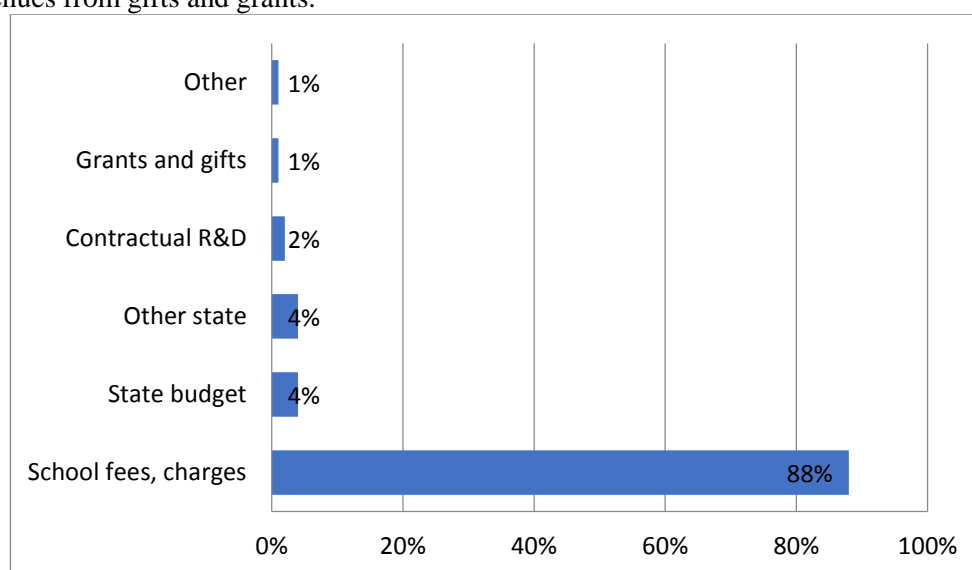


Figure 3: Sources of funds of semi public higher education institutions, 2016
Source: MOET, 2016

Financing of people-founded and private institutions in Vietnam

People-funded and private higher education institutions are totally owned, managed, and funded by the private sector, including nongovernmental organizations, private associations, or private companies. In spite of their ownership and funding structures, people-founded and private institutions' operations have to comply with regulations of MOET.

In term of tuition fee, private universities in Vietnam can be divided into four sections as follows: Section A is the highest group and the two successful universities are FPT and Hoa Sen University. These institutions have a good reputation in Vietnam. Although the tuition fees are high, they still have students. Section A+ is held by the two international schools RMIT and England University. Referring to revenue, RMIT is one of the strongest universities in Vietnam. Section B is the most successful with several schools having a large number of students. Private schools in Section C that want to compete with public schools are in danger. The reason for this situation is that they have to cover huge expenses on infrastructure and ensuring the quality of training. If they do not reform successful, these schools may be closed soon. Institutions in Section D depend on students who are unable to enter public schools but still want to get university degrees; these schools often have low tuition fees. They are now facing critical challenges because they cannot afford to enhance a good quality of education system; most of them have financial problems.

Table 5: Some examples of Vietnamese private HEIs based on the level of tuition fees, Source: MOET

Unit: dong per student

	Name of university	Tuition fee (total programs)	Section
1	RMIT University	600,000,000	A+
2	England University	600,000,000	
3	University of Economics/Finance	300,000,000	A
4	FPT University	250,000,000	
5	Tan Tao University	180,000,000	
6	Hoa Sen University	175,000,000	
7	Saigon International university	175,000,000	
8	Van Lang University	92,000,000	B
9	Easten international university	80,000,000	
10	HCMC university of technology	70,000,000	
11	Van Hien university	40,000,000	C
12	Saigon Technology University	40,000,000	
13	Dai Nam university	40,000,000	
14	Bac Ha university	40,000,000	
15	Phan Thiet university	31,200,000	D
16	Quang Trung university	30,000,000	
17	Kinh Bac university	28,000,000	

Although some people-founded and private institutions have achieved success, non-public education institutions' operation remains weak. This is because these institutions lack a well-developed legal, infrastructure defining, accreditation standards and internal control mechanisms. Despite these problems, according to the recent survey, in 2016, people-founded and private universities accounted for one tenth of enrolments at the higher education institutions. People-founded and private schools are concentrated in social sciences, economics and technology and across relatively richer regions of the Red-River Delta and Southeast. In terms of funding, private and people founded higher education institutions are similar to semi-public institutions. In 2016, people founded and private institutions have raised almost 82 percent of their revenues through tuition and fees, and scientific research related services made up 3

percent (highest among all types of institutions). Revenues per student took up about 95% of revenues generated by public institutions but higher than the revenues generated by semi-public institutions.

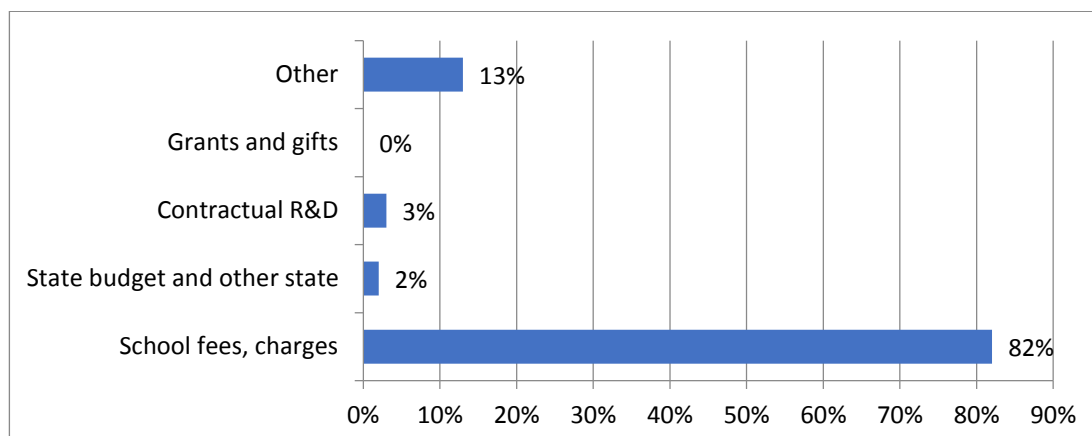


Figure 4: Sources of funds of private higher education institution, 2016
Source: MOET

Financing Higher Education in Vietnam-some challenges

Firstly, the financial resources of Vietnamese HEIs are limited, mainly depending on the State's budget. Moreover, the centrally determined structure of funding is ineffective and counter-productive. The level of funding for Vietnam's higher education is small the current budget has met requirements only modestly. In addition, Vietnam higher education institutions' activities principally depend on school fees, other financial sources only account for small percentage. As the result, many institution suffer from the shortage of financial source for their operations, especially non-public institutions. There are some reasons for this situation: Research and development activities of higher education institutions are quite weak; services activities of schools have not developed and hardly do these school sponsored by private investors or companies.

Secondly, in order to mobilizing more financial resources for higher education, Vietnam need to develop non-public higher education institutions. However, in Vietnam the majority of non-public higher education institutions are now facing numerous difficulties regarding land for location, building infrastructure, facilities and equipment for teaching and learning. Especially, the inequality between public and non-public higher education institutions is enduring. They are still considered to be an external component of the higher education system. Their academic and administrative autonomy and flexibility are quite restricted. They have to follow all of the regulations determined by the Ministry of Education and Training. Administration ally speaking, albeit the fact that they are like public institutions, they have to find on their own all of the financial resources needed for their operations. Hence, it is difficult for non-public institutions to compete with public institutions in enrolling students.

Conclusion and recommendation

In the recent years, Vietnamese higher education sector has developed dramatically, in terms of access and availability, and funds available for higher education service delivery. However, the current centralized structure of higher education funding and inefficient budgeting practices seriously limit the growth potential of the higher education sector in the country. The crucial challenge for higher education institutions is to attract additional funds. To reach the targets set by MOET, HEIs should innovate resource generation mechanisms, promote the development of non-public HEIs, simplify and modernize public funding and budgeting practices. In pursuit of ensuring financial resource for the development of higher education in Vietnam, some actions that should be taken as follows:

- MOET should cooperate with other government agencies for funding and create auxiliary programs for enhancing access to higher education. For instance, paying for counselling,

guidance, and funding or equalization grants for textbooks, or transportation costs contingent income levels.

- Vietnam should innovate the funding model where public funds are linked to actual enrolment levels, and are used to cover basic costs of higher education services. HEIs could create a cost recovery system that shifts the residual costs to the students or to the private sector. The model that is based both on a funding formula and performance contracts should be considered. Another variant of this model consists in building in the funding formula a portion of institutional allocations based on the numbers of students completing and graduating.
- Vietnam should pay attention to public-private partnerships where public funds are allowed to follow students who choose to enrol in private institutions. In reality, many countries in the world have used private education as the quickest way to achieve development in higher education.
- Universities and colleges should increasingly cooperate with private firms in variety of areas from construction and operation of facilities to provision of content, lecturing, mentoring, or tutoring services to improve their services delivery, and free funds for quality-enhancing interventions. Public universities should reduce administrative costs and have a higher available share of funds to attract more good teachers, incorporating private companies in their structure may help them to save administrative costs.
- HEIs should charge fees for special services (for example, examinations, matriculation, boarding or graduation). Additionally, schools can provide some kinds of training services and accept other kinds of fee-paying students (for short training courses, part-time, etc.). In-service students are not subject to admission rations, and their fees could be set at the levels of full cost-recovery. Vietnamese HEIs could create additional non-traditional programs aimed at private sector employees, such as executive MBA programs, or other certificate programs in language education, applied computer sciences, economics or law, and other professional tracks. Certificate and non-degree programs targeting private sector employees could also help enhance the links between colleges and universities, and the private sector. Income from R&D could increase.
- Finally, Vietnamese HEIs should strengthen their relationship with external sponsors to increase the amount of private gifts and donations.

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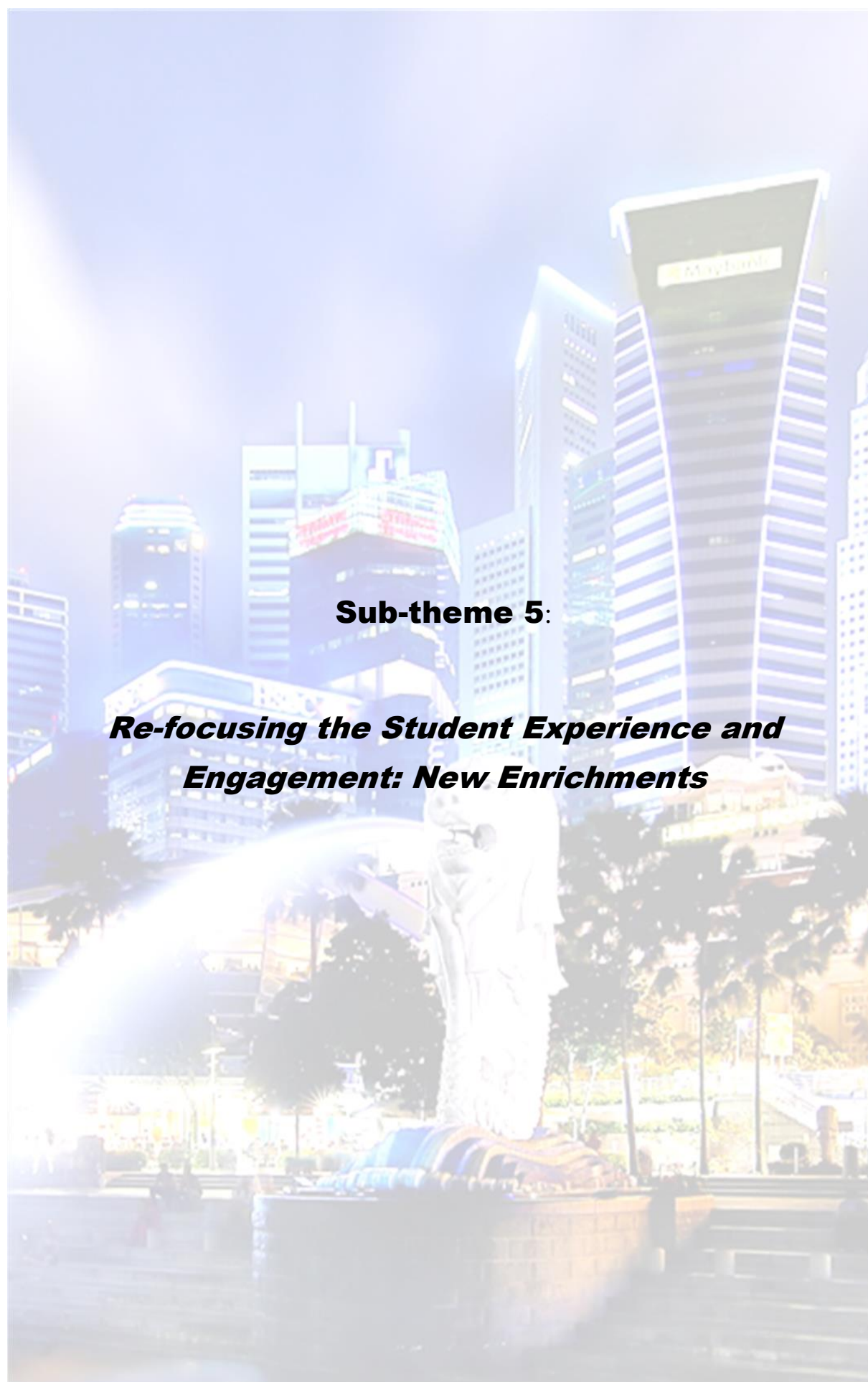
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Sub-theme 5:

***Re-focusing the Student Experience and
Engagement: New Enrichments***

Student Community Engagement as Immersive Learning Experience

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Abstract

Effective learning comes from experiential or immersive learning that allows students to progress from experience, reflection, conceptualization to application. This is anchored in the Kolbian Experiential Learning Theory which states that students can acquire and enhance their knowledge, skills, and attitudes from their engagement in activities outside of the classroom or school. Using a descriptive research design, this paper examines the level of engagement and performance of college students in their community immersion, particularly in various parishes, and the lessons they gained from the services they had rendered. The study covered 300 college students from a comprehensive Catholic university in the Philippines and the data were collected using self-administered questionnaires. These were distributed to and accomplished by students and their respective immersion coordinators who assessed their performance. The major findings of the study reveal that the students generally demonstrated a very high level of engagement and overall performance of their assigned tasks or activities. In fact, no significant difference was noted in the self-assessment of the level of engagement and performance of students compared with the assessment of their immersion coordinators. The community engagement of students revolved around religious, educational, social and environmental activities. The lessons they learned were aligned to the core values of the immersion program such as spirituality, service, community life, moral integrity, and education. The findings were utilized in the enhancement of the community immersion program of the university.

Keywords

Community Immersion, Engagement, Experiential Learning, Service-Learning

Introduction

Effective learning is seen as an integrative process based on a four-stage learning cycle that enables students to progress from experience, reflection, conceptualization to the application (Kolb, 1984). Based from Kolb's Experiential Learning Theory, effective learning happens when students acquire conceptual knowledge from their experiences which can be flexibly applied to different conditions or settings. This experiential or immersive learning enhances engagement of students in the learning process which can help improve their knowledge retention and academic performance (Jang et al., 2010; Conner, 2011; Taylor & Parsons, 2011; Kraft & Dougherty, 2013).

One strategic approach to address and improve student engagement is through service-learning which is commonly referred to as "a form of experiential education" (Jacoby, 1999), "engaged pedagogy" (Kaye, 2010), and experiential learning method (Gaster, 2011). Service-learning facilitates a paradigm shift from traditional teaching and learning approach to an alternative and enriched learning experience (Oracion 2009). It aims "to produce a highly positive educational outcome in terms of deeper professional knowledge, improved life skills, and a better sense of social and civic responsibility of the students involved" (Bodorkós & Pataki, 2009:1123-1131). As teaching-learning pedagogy, it is intentionally designed to link classroom with the "real world" and instruction to community service in order to enrich learning and development of students.

On the other hand, service learning mutually benefits the educational institution, students, and the community. McCann (2013) states that “a collective, defined, and well-organized service learning program within educational institutions could well lead towards new ways of thinking and articulating their role in society. Institutionalized service programmes provide rich ground for the cultivation of good citizenship, relevant education, and purposeful changes within the universities and their partner communities.” Among the many reported positive impact of service learning to students include acquisition of new knowledge, application and enhancement of learned skills, critical thinking, collaboration and communication skills, and personal enrichment along with their specific learning goals (Gaster, 2011; Oracion & Ligutom, 2010).

Given the vital importance of service-learning to the integral human formation of students, the comprehensive Catholic University under study through its Religious Education Program (REP) integrates service-learning opportunities to students through its Community Immersion Program (CIP). As a course requirement, religious education students are required to engage in community immersion in their respective parish or religious communities. The program primarily aims at encouraging students to actively serve there and at the same time apply and enrich the knowledge and skills they learned from their religious education instructions. As an alternative to lecture method in teaching religious education, the program espouses the active engagement of students in various community activities and volunteer services which can enrich their “sense of church” and practice of the core values of the University.

Thus, the primary intent of the paper is to describe and compare the self-assessment of students and the assessment made of them by immersion coordinators on their levels of engagement and over-all performance in the different activities of the parish or religious communities where they were assigned. In other words, the impact of community engagement, which has to be measured by the difference in their pre- and post-immersion assessment, is not the concern of this study. This paper is much interested as to how their levels of engagement and over-all performance significantly differ when they are classified according to gender, religious affiliation, and degree programs. As outputs, lessons gained by the students from engaging in parish activities were documented and the recommendations of the immersion coordinators and students to help improve the community engagement program of the university were considered in the making of policies that ensure not only the quality of learning acquired by students but also their safety as well as of the communities they serve.

Theoretical Framework

The experiential or immersive learning model has been influenced and shaped over time by John Dewey’s concept of experience (1938), Kurt Lewin’s integration of theory and practice (1951), and Jean Piaget’s cognitive development theory (1952) and with more recent contributions by David A. Kolb (1984). But this paper has its fundamental theoretical grounding on what Dewey said about the importance of experience in education in contrast with the traditional classroom teaching method of rote memorization. Because experience is a continuous and dynamic two-way process learning certainly involves both trying and undergoing. The former concerns with individual’s purposeful engagement with the environment while the latter is the consequence of such an experience on the individual. Thus, for Dewey, the experience is at the heart of experiential learning (Dewey, 1916 cited in Ord, 2012).

Similarly, Kolb’s Experiential Learning Theory asserts the central role of experience in the process of learning and development. The theory states that learning is “a process in which knowledge is created through the transformation of experience” (Kolb, 1984 cited in Kolb, Boyatzis & Mainemelis, 1999: 2). Drawing insights from the works of Dewey and Levin, Kolb introduces a cyclical model of learning which consists of four stages: concrete experience (doing an experience), reflective observation (reviewing on the experience), abstract conceptualization (learning from the experience), and active experimentation (trying out what has been learned). Effective learning happens when a learner completely undergoes through the four-stage cycle. In this context, educational activities and materials should be designed to assist and provide all learners the opportunities to effectively learn, grow, and develop from their experiences.

Given the arguments of Dewey and the two other theorists, the claims of the Student Involvement Theory that students learned and developed by becoming involved is strengthened. Student involvement, which refers to the quantity and quality of energy that students invest in their college experience, both academic and non-academic activities along with their interaction with members of the academic community, make service-learning as strategy of making students realize the relevance of their chosen career path (Astin, 1984 cited in Taylor & Kritsonis, 2008). As differentiated from traditional pedagogical approaches, the student involvement theory shifts the focus of the teaching and learning process from subject matter to motivation and behaviour of students. From the standpoint of this theory, the learning process should encourage and increase student involvement in order to take full advantage of the student learning and development in out-of-class experiences.

This is also true with Quality of Effort Theory which proposed that “all learning and development require an investment of time and energy” (Pace, 1984 cited in Taylor & Kritsonis, 2008: 15). For educational programs and processes to be more educative, students need to exert more effort to get involve in them. The theory puts emphasis on student’s responsibility in the learning process. Kuh (1995) concurred that “the more time and energy students expend in educationally purposeful activities, the more they benefit.”

From the aforecited theoretical perspectives, service-learning integrated the components of student engagement, community service and learning experiences (Howard, 1993; Martin, 2001; Gaster, 2011). By connecting classroom and community, service-learning provides various opportunities for student to process, validate, and practice their textbook knowledge with the “real world experiences” (Howard, 1993; McCann, 2013). As a form of civic and social education, students who engage in community volunteer service, will likely engage in volunteer work and similar activities in the future, succeed in school, and stay away from juvenile delinquent behaviors and activities (Spring et al., 2006, 2007).

Methods

Community Immersion Program. Part of the method of the study was to expose first the students to community immersion program in order to assess their levels of engagement and performance in the service learning activities of the Religious Education Department. All second year college students enrolled in religious education courses is required to experience this program which primarily aims at providing them opportunities to put into practice the knowledge and skills they learned in their religious education instruction while at the same time actively serve their particular parish or religious communities. Specifically, the program enables students to get to know more about their parish or religious communities by extending a minimum of 33-hour voluntary service and engaging in different activities of their respective communities.

The program has four core values for students to internalize: education, community life, spirituality, moral integrity, and service. At the beginning of the program, students were oriented about its goals and activities by their respective religious education teachers. They were also provided with endorsement letters addressed to the heads of their respective assigned communities. Each weekend, they reported to their communities and rendered services. The community immersion of students revolved around religious, educational, social and environmental activities. The designated immersion coordinators monitored, supervised, assisted, and evaluated the engagement and performance of students in the community.

Meanwhile, the faculty closely worked with the immersion coordinators to ensure that the objectives of the program were met. They followed-up with students on site and in the classroom about the conduct and progress of their community immersion activities. At the end of the program, the faculty evaluated the community immersion portfolio of students as one of their outputs which documented their community immersion experiences.

Assessment of student community engagement. The study used the descriptive research design to describe and analyze the level of engagement and performance of college students in their community immersion, and the lessons they gained from the services they had rendered. The 300 college students enrolled in religious education courses during Academic Year 2015-2016 from a comprehensive

Catholic University in the Philippines were the respondents of the study. Table 1 shows the profile of the respondents.

Table 1. Distribution of Participating Students

Profile of Students	Number	Percent
<i>Gender</i>		
Male	113	38
Female	187	62
<i>Religious Affiliation</i>		
Catholic	224	75
Non-Catholic	76	25
<i>Degree Programs</i>		
Business and Accountancy	40	13
Engineering	114	38
Medical Technology	40	13
Social Work and Psychology	70	23
Teacher Education	36	12

The study draws on quantitative and qualitative data collected through a self-administered questionnaire used by the University in assessing student's engagement in community immersion program. The questionnaires were distributed to and accomplished by students and their respective immersion coordinators. The questions asked about the profile of students, their level of engagement in the different activities of the community, their level of performance in community immersion, the lessons they obtained from their community immersion, and their suggestions for the improvement of the Community Immersion Program. The level of engagement and performance of students was assessed based on this rating scale: 5= Very High, 4= High, 3= Moderate, 2= Low, and 1=Very Low.

Differences in assessment based on profile of students. The quantitative data were treated and analyzed using descriptive and inferential statistics. The mean (M) scores were used to determine the level of engagement of students in different community activities and their level of performance in community immersion based on their self-assessment and the assessment of their immersion coordinators. These were further differentiated considering the profile of students in terms of gender, religious affiliation and degree programs at 0.05 level of significance. Because the data were not normally distributed based on Kolmogorov-Smirnov and Shapiro-Wilk Tests of Normality, the Mann-Whitney U Test was used to test the difference of their self-assessment according to gender and religious affiliation while the Kruskal-Wallis H Test was used when they were classified according to degree programs. A test of difference was also conducted between the self-assessment of students and their immersion coordinators.

Meanwhile, the recursive textual analysis was employed for the qualitative data to cull out and formulate emerging themes from the responses of the students which described the lessons they gained from their community immersion as well as their recommendations for the enhancement of the program.

Results

Level of community engagement. The following are the major community activities that the students engaged with: Sunday worship, cleaning and greening, music ministry, Bible study, youth ministry, and office work. Generally, when the assessments are combined, the level of engagement of students in various community activities based on their self-assessment and by their immersion coordinators is "very high" (M=4.21). Comparatively, the self- assessment of students is only descriptively "high" (M=4.12) as compared to the rating given by their immersion coordinators which is pegged in "very high" (M=4.29) category.

Table 2. Level of Engagement in Community Activities of Students

Profile of Students	Individual Assessment						Combined Assessment		
	Student			Immersion Coordinator					
	Mean	SD	Remark	Mean	SD	VD	Mean	SD	Remark
Gender									
Male	4.09	.54	High	4.24	.62	Very High	4.16	.49	High
Female	4.14	.50	High	4.32	.60	Very High	4.23	.44	Very High
Total	4.12	.52	High	4.29	.61	Very High	4.21	.46	Very High
Religious Affiliation									
Catholic	4.09	.52	High	4.26	.63	Very High	4.18	.47	High
Non-Catholic	4.20	.50	Very High	4.39	.52	Very High	4.29	.41	Very High
Total	4.12	.52	High	4.29	.61	Very High	4.21	.46	Very High
Degree Programs									
Business and Accountancy	4.03	.55	High	4.30	.69	Very High	4.17	.46	High
Engineering	4.06	.54	High	4.24	.61	Very High	4.15	.49	High
Medical Technology	4.15	.42	High	4.39	.53	Very High	4.27	.38	Very High
Teacher Education	4.18	.41	High	4.30	.56	Very High	4.24	.41	Very High
Social Work and Psychology	4.22	.55	Very High	4.31	.64	Very High	4.26	.46	Very High
Total	4.12	.52	High	4.29	.61	Very High	4.21	.46	Very High

In terms of gender, Table 2 shows that female students rated “very high” their level of community engagement ($M=4.23$) compared to the assessment of male students ($M=4.16$). When compared according to religious affiliation, non-Catholics were assessed to have a “very high” level of engagement ($M=4.21$) compared to Catholics ($M=4.18$). As to degree programs, Medical Technology ($M=4.27$), Teacher Education ($M=4.24$), and Social Work and Psychology ($M=4.26$) students have very high level of engagement compared to students in other programs. But the aforementioned differences in mean scores are only suggestive because the Mann-Whitney and Kruskal Wallis test results indicate no statistically significant differences in their level of engagement in various community activities when they are classified by profile. The p values of the tests are greater than 0.05 based on the assessment of students and their immersion coordinators, respectively: gender (0.38 and 0.10), religious affiliation (0.10 and 0.18) and degree programs (0.19 and 0.08). Meanwhile, as a whole, there is a significant difference between the self-assessment of students and those of their immersion coordinators ($U=36603.00$, $p=0.000$). The latter rated higher the level of engagement of students.

Level of performance in community immersion. The findings in Table 3 show the levels of performance of students in the community immersion program based on their self-assessment ($M=3.81$), their immersion coordinators ($M=4.10$) and combined assessments (3.95) then compared according to gender, religious affiliation and degree programs. Similarly, the aforementioned differences in their level of performance in the community immersion program are only suggestive because no statistically significant differences were noted between groups of students. Based on individual assessment of students and the immersion coordinators, their respective assessment have p values greater than 0.05

according to gender (0.51 and 0.24), religious affiliation (0.05 and 0.17) and degree programs (0.74 and 0.81). Generally, they have a generally high assessment in their community immersion performance. Similar with their level of engagement, the immersion coordinators rated higher the level of performance of students in community immersion ($U=34631.00, p=0.000$).

Table 3. Level of Performance of Students in Community Immersion Program

Profile of Students	Individual Assessment						Combined Assessment		
	Student			Community Coordinator					
	Mean	SD	Remark	Mean	SD	Remark	Mean	SD	Remark
Gender									
Male	3.78	.62	High	4.03	.74	High	3.90	.53	High
Female	3.83	.55	High	4.15	.68	High	3.99	.49	High
Total	3.81	.58	High	4.10	.70	High	3.95	.51	High
Religious Affiliation									
Catholic	3.77	.58	High	4.06	.72	High	3.92	.51	High
Non-Catholic	3.91	.57	High	4.20	.65	Very High	4.05	.50	High
Total	3.81	.58	High	4.10	.70	High	3.95	.51	High
Degree Programs									
Business and Accountancy	3.85	.66	High	4.03	.83	High	3.94	.59	High
Engineering	3.75	.59	High	4.06	.71	High	3.91	.53	High
Medical Technology	3.77	.48	High	4.18	.59	High	3.98	.37	High
Teacher Education	3.89	.52	High	4.19	.67	High	4.04	.50	High
Social Work and Psychology	3.84	.61	High	4.10	.71	High	3.97	.50	High
Total	3.81	.58	High	4.10	.70	High	3.95	.51	High

Lessons gained by students. The students shared common lessons they learned from community immersion and these are examined here within the core values of the program: education, community life, spirituality, moral integrity, and service.

Education from community experience. They claimed that their experiences helped them to appreciate the importance of Sunday worship and to actively participate in it. This enriched their knowledge about God and the church communities; taught them to manage their time to complete the requirement; and helped them to practice values of perseverance, patience, commitment, and gratitude. Some students learned how to read and understand the Bible through bible study and sharing and even to sing and play musical instruments. Furthermore, they developed a positive outlook in life by interacting with people and coping with the challenges of the community immersion program.

Sense of community life. Student learning revolved around fostering relationships. It ranges from mere interaction with other church's members to gaining friends and finally to being able to work with others in a team. These also made them learn the value of being part of community and respect other people.

Spirituality and moral integrity. The activity had revived the spiritual life of students through their attendance in Sunday worship again. For those who are already attending Sunday worship, they became more active, conscious, and participative. They appreciated more their membership with the church which developed better their relationship with God. Serving the church strengthened their faith and made them value the importance of prayer in their lives.

Service beyond academic requirement. The participation of students in various church programs and activities made them value service to the church and other people. Serving enhances their faith and made them actively take part in church activities again without counting the cost. Service came in the form of sharing their talents like singing and dancing as well as dedicating their time in cleaning and greening the church and helping in office works among others. The activity further taught them responsibility and commitment to fulfill assigned tasks.

As a whole, the engagement of students in immersion activities developed and manifested not only the program core values but also the university graduate attributes in them. Remarkably, the students mentioned several times that revival and strengthening of their spiritual life, serving the church, and working with people as a team among other things were the significant lessons they gained. Interestingly, majority of the students expressed their intention to continue serving their communities even after the program.

Recommendations for program improvement. The recommendations of students and immersion coordinators include orientation of the different ministries they were expected to take part in as well as about the parishes or communities they have to work with. The students also wanted to start serving the University church first before they are sent out. Moreover, students should be involved already in immersion activities as early as their first year in college. Others would want that they be allowed to continue serving a parish they had worked with or to serve the nearest parish.

In terms of the implementation, they suggested closer monitoring from the teachers through surprise visits and requiring the signature of coordinators for their attendance. They likewise would want to have their experiences processed and presented through video during class discussion and reflection sessions. Some suggested to have the immersion program done in summer while others requested to have more time in the community. But several students would prefer to give more emphasis on assisting the Sunday worship.

The immersion coordinators agreed with the suggestions of students with regard to having orientations and closer monitoring. They likewise supported the idea of having more time for community immersion. They added that the host parish should be provided with specific information like the goal of the activity so they will be able to assist the students better. Confession, in particular, was encouraged to be part of the activities for Catholic students. In general, they said that the program should continue because it enhances the spiritual life of the students.

Discussion

So what do the high levels of engagement and performance in community immersion of students mean? The level of community engagement of students affirms and demonstrates the service-orientedness of students of this Catholic University (Madrigal, 2017) as shown in their engagement in various ministries and volunteer services of their respective host communities. Notwithstanding the profile of students, community engagement experiences generally offered them myriad of opportunities to enhance their academic learning and acquire new knowledge and lifelong learning and life skills while serving their communities (see also Howard, 1993; Martin, 2001; Oracion, 2010; Gaster, 2011). Guided by Kolb's model of learning, students involved were given the opportunity to experience the different ministries or volunteer services in their respective parishes. Subsequently, they reflected on their actual experiences and articulated the lessons they learned from those experiences. More significantly, these lessons will capacitate them to assume their responsibilities in the church and the society in general.

This study confirms the link between religious belief or observance and individual's engagement in volunteer activities or services. In this context, service is seen more as "a calling to which one responds to care for others, serve communities, and work diligently for the well-being of both, with a sense of purpose not rooted in self-interest but one that transcends mortal experience" (Cnaan, Kasternakis & Wineburg, 1993, p. 33-51). Likewise, performing volunteerism or being altruistic is connected with one's intrinsic religious orientation (Bernt, 1989; Hansen, Vandenberg & Patterson, 1995)

Also, the findings suggests that students who pursued service-oriented degree programs are more engaged in service-learning activities such as the case of students in the Medical Technology, Teacher Education and Social Work and Psychology programs. Dioso (2017) explains that academic training and orientation affect the interest and engagement of students in programs and activities of the school. Hence, the more students find meaningful connection between academic course learning and their

community service experiences, the more they will be interested to engage and learn more while serving (see also Howard, 1993; Martin, 2001).

Furthermore, the high level performance of students in community immersion program indicates that the successful implementation of the community immersion program facilitated the realization of its service and learning goals. As a Catholic University, the program has been instrumental to the enrichment and development of the academic, spiritual, social, and civic life of students (Howard, 1993; Martin, 2001; Gaster, 2011; Oracion & Ligutom, 2010) as evidenced by the lessons gained by students from their community experience.

In addition, the lack of significant difference in the self-assessment of students and assessment of immersion coordinators of the students' overall engagement and performance in the community immersion program shows the concurrence between the experience of the students involved and the observation of immersion coordinators. Since the two groups generally gave high assessment ratings, this means that they share common appreciation of the fundamental purpose and conduct of the program.

Equally important, the recommendations of students and immersion coordinators point to critical areas of the program that the Religious Education Department should focus on in order to effectively promote, sustain, and integrate student community service-learning experience into the university academic program. These areas include appropriate community engagement orientation for students and immersion coordinators, proper student community placement, faculty supervision and monitoring support, and ongoing assessment of the program (see also Howard, 1993; Martin, 2001; Gaster, 2011).

Conclusion

Service-learning is indeed an effective pedagogical approach and model to promote and enhance student community engagement. The high ratings given by students and immersion coordinators imply that the community immersion program is able to integrate the components of community service and academic learning. The experiences of students in working with the parish facilitate application of classroom learning, practice of institutional core values embedded in the program, development of lifelong learning skills, revival and strengthening of spirituality, and education in civic and social responsibility.

For a more successful implementation of community immersion program, the following recommendations are given: faculty to conduct a comprehensive orientation for students and coordinators about the ministries as basis of community activities, faculty and immersion coordinators to observe the proper selection and placement of students in the community service, the department to create a systematic monitoring of students' community engagement, and the department to develop an effective program evaluation procedure to ensure achievement of learning goals and continuous improvement of the program.

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The Student Services in De La Salle University-Dasmariñas As Perceived by Its Students

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Abstract

The quality of the students' life on campus is dependent on the provision of certain conditions that will allow the students' maximum learning and total development. These conditions are ensured through the different student services that a university offers to its students. Nonetheless, these student services should be continuously and systematically evaluated, and the evaluation results should be used as guide in changing school policies and improving academic programs and services. This study addressed the need to assess how effectively the student services initiatives in De La Salle University-Dasmariñas (DLSU-D) were able to meet the students' expectations. It was conducted among 10,783 undergraduate students of DLSU-D through a survey questionnaire of 45 items using the student portal. The students were asked to rate their agreement to the given statements along three areas: campus climate, general services and student services. The overall average rating of the respondents was 2.8920 and was assigned an index value of 1,000. This value was used as the base to scale all the responses across all categories to simplify data interpretation. From the three areas surveyed, campus climate got the highest rating (1,032.44), followed by student services (994.76) and general services (988.63). The results of this study will help the university administrators come up with revised policies on how to further improve the services it renders so that its students' stay in campus will be meaningful while achieving their holistic development.

Keywords

Student services, Campus climate, General services, Holistic development

Introduction

De La Salle University-Dasmariñas (DLSU-D) is a tertiary institution in the province of Cavite, Philippines that "offers relevant, responsive, and community-oriented academic programs" to cater to the needs of the young people in the province and the nearby communities, who are preparing to become functional and productive professionals. Since the University commits to "transform itself into a caring community guided by Gospel values with a fervent spirit of service, love for learning, and excellence through holistic formation of its members," it offers several student services to ensure the students' total development (DLSU-D Vision-Mission).

A review of literature shows the importance of student services or otherwise known as student affairs. It is normally focused on helping students get what they deserve: the best university experience possible ("Student Services", University of St. Andrews Website). Likewise, it advances student development and learning, fosters community engagement, promotes diversity, inclusion and respect, and empowers students to thrive ("Student Affairs," Stanford University Website).

Student services is generally considered an integral part of the school community. Students are provided with a wide variety of support staff and structures catering for students' differing well-being needs. It has a vital role in improving student attendance, addressing behavioral expectations within the school and improving students' academic performance ("Student Services", Safety Bay Senior High School Website).

Karkouti (2015) suggested the creation of efficient student services that are focused on its necessities, in order to provide the required support for academic activity and stimulate personal, social, cultural and cognitive development.

Through the years, student affairs professionals have always been concerned with the development of the "whole student" or a student's intellectual capacity and achievement, emotional make-up, physical condition, social relationships, vocational aptitudes and skills, moral and religious values, economic resources, and aesthetic appreciations. Although the activities of student affairs have changed over time, the basic tenets of helping students reach their full potential and attending to them as human beings – not simply those in need of intellectual training – has remained constant (Wilson, 2002).

Shumaker and Wood (2016) disclosed that institutionally offered student services (e.g., academic advising, career counseling, personal counseling, and educational planning) are available in community colleges to help students with the transition into post-secondary education and obtain academic success.

As a whole, student services program include, but is not limited to guidance and counseling services, psychological services, visiting teacher and school social work services, career services, group conflict resolution services, and health services ("Safe Schools Committee," Arkansas Department of Education Website).

Wilson (2002) cited that student affairs provides services which may include academic support services, academic advising, admissions, alcohol and drug education programs, career services, campus ministries, community service and service learning, counseling, financial aid, food services, fraternities and sororities, health centers, housing and residence life, multicultural programs, orientation, recreational sports, student activities, student discipline, and wellness programs.

Similarly, Robinson-Wright and Smith (2002) stated that the functions typically associated with student services include admissions and recruitment, retention, international student services, counseling, testing, orientation, career services, student activities, disability services, financial aid, and athletics. They also emphasized that the most common administrative philosophy is to enhance and support students' experiences, from initial enrollment through graduation.

Lizotte (2015) mentioned that in general, student support services covers a very wide-range of services including, but are not limited to athletics, student government, counseling, clubs and organizations, fraternity and sorority life, student leadership, and spiritual life. All of these support services help to enhance the overall student experience. He also underscores the fact that understanding the support services available to students and how to access them can make all the difference in their academic career and help them to achieve their goals. The students have to remember that they are not alone and there are resources available to them.

In spite of the importance of student services to the holistic development of students, it is sad to note the findings of Bateson (2008) that services for students still play a marginal part in determining institutional priorities and in influencing the service provision and culture in four public universities in Europe. Because of this, the author suggested a model of integrated student services, based upon the actual experience of the Central European University, but defined and analyzed against the context of the region. She also anticipated the reform in this area and the integration of student services as part of the university core.

From these literature, it can be concluded that the quality of the students' life on campus is dependent on the provision of certain conditions that will allow the students' maximum learning and holistic development. These conditions are guaranteed through the different student services that a university offers to its students.

To ensure that tertiary institutions provide the best student services to their students, they have done the evaluation of students' perceptions via student satisfaction surveys. These assessments form part of "a

continuing and systematic evaluation of the effectiveness of student services” with the end in view that the “evaluation results should be utilized by administrators, faculty and Student Services staff” as a guide when making “changes in school policies, academic programs and services” (PAASCU). This forms part of evidence-based decision-making.

In July 2015, the first in a series of meetings by the Task Group on Student Support Services was held to outline the steps needed to properly assess how effectively DLSU-D’s student services initiatives were able to meet the students’ expectations. After benchmarking with existing survey instruments (Southwestern Community College Student Satisfaction Survey, 2013; Noel-Levitz Student Satisfaction Inventory, 1994; Oakland University Student Satisfaction Survey, 2013; Leonardo da Vinci Student Satisfaction Questionnaire, 2005; Crafton Hills College Student Satisfaction Survey, 2012), the committee was able to come-up with a Student Satisfaction Survey that was eventually administered to all undergraduate students of the university.

Prior to actual survey rollout, a pretest was conducted (sample size = 61) to ascertain the reliability of possible responses to the survey instrument. As the survey was divided into three separate areas, the questions in each section were tested and all sections exhibited good reliability ($\alpha_1=.8226$; $\alpha_2=.9139$; $\alpha_3=.9154$).

It is in this premise that this study on the perceptions of the students on the Student Services offered in DLSU-D was made.

Specifically, the following questions were answered:

1. What are the perceptions of the students on the Student Services offered in DLSU-D along these areas: (a) campus climate, (b) general services, and (c) student services?
2. Are there significant differences in the perceptions of the students when they are grouped according to: (a) gender, (b) year level, and (c) college affiliation?
3. What can the University administration do to further improve its Student Services?

This research was descriptive in nature and made use of inferences derived from the survey results. The respondents were undergraduate students of DLSU-D who were asked to answer the survey tool through their students’ portal. They were asked to rate their agreement on the given 45 statements along three areas (campus climate [10], general services [23] and student services [12]) using the rating 1 – strongly disagree, 2 – disagree, 3 – agree, and 4 – strongly agree.

Each respondent’s responses were duly tallied and at the end of the period, a total of 12,498 undergraduate completed the survey. Prior to final data processing, initial data cleaning was needed: students who did not vary their responses per item were identified (1 – 486; 2 – 115; 3 – 1,009; 4 – 1,229). Of the 2,839 potentially problematic responses, the respondents comprising the upper and lower end responses were eliminated. The final number of valid respondents were 10,783 (86.28% total response rate).

To better analyze the survey responses, mean responses per item were tallied. Furthermore, the average response per area was computed. Finally, the overall average response of all respondents across all items was computed (2.8920) and was assigned an index value of 1,000. This value was used as the base to scale all the responses across all categories to simplify data interpretation.

The results were likewise sorted across colleges, gender and year levels to determine if the variability of responses was significant (ANOVA).

Results and Discussion

Problem 1. What are the perceptions of the students on the Student Services offered in DLSU-D along these areas: (a) campus climate, (b) general services, and (c) student services?

The index value for each item in the Student Satisfaction Survey is presented in Table 1. Except for Item Q1 (STRONGLY AGREE), the index value of all the items indicate that the respondents AGREE with the statements (actual average responses are between 2.75 and 3.25).

Table 1. Student Satisfaction Survey items and corresponding overall index values

Item	Campus Climate	Index
Q1	I am proud to tell others that I am a Lasallian student.	1,135.87
Q2	I generally know what is happening on campus.	959.63
Q3	I feel a sense of belongingness at DLSU-D.	1,027.33
Q4	I am given opportunities to participate in campus activities.	1,001.96
Q5	I am able to experience intellectual growth and moral enrichment.	1,043.65
Q6	I receive quality instruction in most of my classes.	1,012.29
Q7	I am treated with respect by administrators, faculty and staff.	1,021.33
Q8	I get immediate assistance whenever I need it.	960.79
Q9	I feel safe when I am on campus.	1,083.67
Q10	I find the campus favorable for learning.	1,077.86
Overall		1,032.44

Item	General Services	Index
Q11	The admission process is student-friendly.	956.52
Q12	The staff of the Center for Student Admissions are accommodating.	972.94
Q13	The enrollment process is efficient.	922.79
Q14	The Registrar's Office maintains academic records well and promptly releases documents.	976.50
Q15	The tuition and fees payment processes are efficient.	939.17
Q16	There are various tuition and fees payment modes and mediums.	980.00
Q17	The classrooms are comfortable and equipped with technology for learning.	994.36
Q18	The online learning environment (Schoolbook) effectively complements classroom instruction.	996.03
Q19	The laboratories are adequate, well-equipped and accessible.	996.70
Q20	The university website is accessible and easy to navigate.	996.67
Q21	The web-based services are user-friendly.	998.79
Q22	The library resources and services are adequate.	1,023.64
Q23	The library staff are helpful and approachable.	996.45
Q24	The sports and recreational facilities are accessible, sufficient and well-maintained.	998.56
Q25	The cafeteria premises are clean and comfortable.	966.37
Q26	There is an adequate selection of food available at the cafeteria.	971.40
Q27	The university clinic is accessible.	1,015.53
Q28	The university clinic staff are competent.	1,009.30
Q29	The campus security measures are strictly implemented.	1,001.19
Q30	The university is capable of responding to emergencies.	1,009.98
Q31	The policies on waste and traffic management, and smoking on campus are enforced.	1,016.84
Q32	The offices are open during hours which are convenient for students.	988.78
Q33	The buildings and campus grounds are well maintained.	1,009.98
Overall		988.63

Item	Student Services	Index
Q34	The student orientation helps students adjust to college life.	993.01
Q35	The Student Handbook provides helpful information about campus life.	1,008.76
Q36	The student support personnel are accommodating and efficient.	995.45
Q37	Students can get involved in a variety of campus organizations.	1,010.52
Q38	Activities for students are sufficient, well-scheduled and planned.	979.74
Q39	Leadership and skills-specific trainings and seminars are made available for students.	997.98
Q40	The University Student Council represents the interests of students.	978.58
Q41	Students have the opportunity to avail of guidance and counseling services.	1,004.72
Q42	A variety of varsity teams cater to students' athletic interests.	995.13
Q43	The student publications are timely and informative.	998.98
Q44	The student disciplinary procedures are just and fair.	979.84
Q45	There are adequate services to help students decide on their career.	994.43
Overall		994.76

For the area of Campus Climate, Q1 had the highest index value. The index value of all the other items were above the base ($>1,000$), except for Q2 and Q8. The value for Q2 may be an indication that students perceive that more information should be provided to them about what is happening in campus or it may indicate their lack of awareness. The value for Q8, on the other hand, raises a concern that students perceive that more "immediate assistance" should be available to them. This may be remedied by better information campaigns.

The area of General Services received the lowest overall index value. Worth noting is the students perceived concern of the enrolment process (Q13) and tuition and payment process (Q15). Investments made in the university library (Q22) are clearly noticed by the respondents. The university clinic has likewise been well received (Q27), along with existing policies on traffic and waste management, along with the smoking ban (Q31).

On the area of Student Services, the respondents have shown an appreciation of the varied student organizations in campus they can be involved in (Q37). They likewise indicate appreciation of the usefulness of their Student Handbook (Q35) along with the guidance and counselling services they can avail of (Q41).

Problem 2. Are there significant differences in the perceptions of the students when they are grouped according to: (a) gender, (b) year level, and (c) college affiliation?

Grouping the responses into various categories provides some useful insights on the responses made by the students. Table 2 presents the average response of the students per area sorted by gender. The average responses of females were noticeably higher than those from the male respondents. There is insignificant variation in the overall responses of males and females along with their response for the general services area ($p > .05$).

Table 2. Index Values per Area grouped by Gender

Gender	<i>M</i>	<i>F</i>	
<i>Sample Size</i>	4,475	6,308	<i>p-value</i>
Campus Climate	1,022.98	1,039.15	0.0005
General Services	987.39	989.51	0.6295
Student Services	988.32	999.33	0.0192
Overall	995.54	1,003.16	0.0621

Table 3 presents the average response of the students per area sorted by year level. The average responses of freshmen are the highest among all year levels across areas; a noticeable decline in the rating for sophomores and juniors is clear. Surprisingly, fourth year students have a higher average rating than juniors. Fifth year students have the lowest average rating. There is insignificant variation in the responses of students in all year levels across areas ($p > .05$).

Table 3. Index Values per Area grouped by Year Level

Year	1	2	3	4	5	
<i>Sample Size</i>	<i>2,951</i>	<i>2,985</i>	<i>2,387</i>	<i>2,077</i>	<i>383</i>	<i>p-value</i>
Campus Climate	1,022.11	1,037.68	1,020.02	1,058.39	1,007.81	0.0000
General Services	1,007.54	995.36	964.25	990.65	931.43	0.0000
Student Services	1,008.88	999.58	974.41	999.85	947.73	0.0000
Average	1,011.13	1,005.89	979.36	1,008.16	952.75	0.0000

Table 4 presents the average response of the students per area sorted by college. Students from COED and CBAA received the highest average rating, while students from CEAT and CCJE had the lowest average rating. There is insignificant variation in the responses of students in all colleges across areas ($p > .05$).

Table 4. Index Values per Area grouped by College

College	CBAA	CEAT	COED	CCJE	CTHM	CSCS	CLAC	
<i>Sample Size</i>	<i>2,767</i>	<i>2,833</i>	<i>504</i>	<i>171</i>	<i>1,245</i>	<i>1,719</i>	<i>1,544</i>	<i>p-value</i>
Campus Climate	1,051.29	1,011.61	1,069.92	998.91	1,018.03	1,033.81	1,038.43	0.0000
General Services	1,004.75	968.27	1,019.14	963.39	982.99	994.69	987.74	0.0000
Student Services	1,016.63	973.65	1,013.55	964.37	994.17	996.16	990.47	0.0000
Overall	1,018.26	979.34	1,028.93	971.55	993.76	1,003.77	999.73	0.0000

Problem 3. What can the University administration do to further improve its Student Services?

Looking at the itemized responses in more detail, and confirming the responses with a Focus Group Discussion (FGD) with upperclassmen students, the following points for improvement were discerned:

1. Students in general are now as well informed about what is happening in campus as we think they should have been already given the many technological advances (Q2). Information sent via Facebook or email appears to not directly increase their perceived level of awareness. More traditional mediums may be continued, i.e. banners, streamers, printed write-ups. Similarly, sms-blast notifications would be a viable alternative, and the continued use of existing public announcement (PA) systems.
2. The university may want to clearly make a stand on issues; there appears to be no clear advocacy that the students can relate to (Q3).
3. Although a significant number of student organizations exist in campus sponsoring various activities (Q37), students are reluctant to participate in these activities because of the cost or entrance fee they have to pay. More varied activities related to clear volunteer-work and social concern initiatives may be a step forward. Schedule conflicts are likewise an issue as the activities may overlap with their classes (Q38). Some events are not aligned with the students' interests, while poor publicity also hinders some students from being able to participate in events they would have wanted to attend—they learn about the event after the fact (Q4).
4. Students tend to also relate receiving “immediate assistance” (Q8) to potential problem they encounter in the course of their student life: enrollment (Q13), assessment of fees and payment

- process (Q15), the need to validate payment made even if the payment is done in the university cashier (Q16).
5. Although the university provides a favorable learning environments, lack of sufficient areas to stay in between classes does become a hindrance (Q10).
 6. For some students, the need arises to be more accommodating in providing information relating to the admission process (Q11). Similarly, the admission staff tends to take longer than needed especially when they get distracted (Q12).
 7. Handling of documents and records by the Registrar's Office staff is likewise an issue of concern (Q14).
 8. Students believe that classrooms are technologically equipped enough. Nonetheless, tables and chairs need to be constantly checked and maintained (Q17 and Q33). Similar concerns on maintenance of the computer laboratory (Q19) and sports facilities (Q24) abound.
 9. The use of online learning platforms is deemed positive by students. Nonetheless, slow connectivity to the host site becomes a concern (Q18).
 10. Though the university website is a great source of information for students, information at times tend to be irregularly updated (Q20).
 11. Students feel that web-based services can still be enhanced (Q21), i.e. online job requests.
 12. Expansion of existing cafeteria facilities are deemed necessary (Q26), especially in terms of the dinner area. Issues relating to cleanliness were also raised (Q25).
 13. Though existing security procedures are deemed appropriate, having CCTV cameras along the hallways of buildings and common areas and the proper use of metal detectors and scanners along with the use of the turnstile for entering and exiting the campus are ways to enhance existing practices (Q29).
 14. Students raised the concern of having offices open on Saturdays, even just half-day (Q32).
 15. Improvements in the student orientation program are also necessary (Q34).
 16. Though student support staff are deemed friendly, further branding initiatives are appropriate (Q36).
 17. All students should be given more opportunities to participate in leadership and skills-specific trainings (Q39).
 18. Discipline procedures have to be further enhanced and improved (Q44).
 19. The University Student Council has to become more involved. Branding is an issue.

Conclusions and Recommendations

The research results indicate that various areas need to be further enhanced to raise the perceived benefits received by students during their stay in DLSU-D. University administrators may use the survey results for their planning efforts to enact policies that would improve the overall student experience.

A more detailed breakdown of the survey results could be done by looking at the itemized responses per college and year level. Subsequent administration of the same survey instrument at the close of AY 2017-2018 and a comparison of the year level results may help determine whether improvements in existing student services facilities were felt by the students.

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Making Literature Happen: Transforming the Literature Classroom

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Abstract

Research has pointed out that quality teaching in higher education tends to necessarily be student-centered. Teaching literature to learners requires that teachers be creative, innovative, and resourceful. Letting students do hands-on activities make them respond powerfully to the literary texts. This reflective study aimed to make literature happen by transforming the literature classroom through an engaging strategy that will vivify students' everyday experiences not only as commonplace phenomena but also transcending metaphors that could make them appreciate literature. The participants of this study were the 172 students enrolled in Philippine literature class. They were tasked to read the poem, *Fruit Salad* by Jaime An Lim. As part of student activity, the students were made to brainstorm on what they are going to do in making fruit salad. The selection of the ingredients was based on the groups' choices. As soon as they have presented their ingredients, guide questions were given. They figured out strategies to come up with the expected final output. Some of the highlights of the study ushered students' comprehension and learning in poetry as well as taught them practical skills that will make them ready in their future work.

Keywords

Teaching literature, transforming, fruit salad, reflective teaching

Introduction

Teaching literature to learners requires teachers to be creative, innovative, and resourceful. Literature can enhance critical thinking skills through the reading of literary texts. With the teachers' appropriate strategies in teaching literature, the students, as they read, may appreciate and experience empathy as well as other feelings, through the literary texts. Senechal (2011) states that students need to know how teachers should guide them toward making good inferences about a particular text. This is one scenario that leads to apathy in studying literature because teachers "fail to emphasize the importance and value of analytical reading of literature" (Senechal, 2011; in Aggabao & Guiab, 2014).

Literature teachers have the capacity in this regard, to cultivate the students' love and interest for literature. Their passion in teaching the subject, which is naturally articulated and expressed through their methodologies and approaches, has the power to influence the students' interest and perception of life. Needless to say, it is the teacher's call to create and to promote a positive learning environment for the students' experience to literature learning become meaningful and pleasurable rather than scary and intimidating for they have felt the complexity of the chosen literary texts.

In like manner, students respond powerfully to literature, specifically on poetry, when they are given the opportunity to engage in it inside the literature classroom. More so, if students learn to experience how poetry is done, they develop and hone their critical thinking and writing skills.

In my experience as a literature teacher, I make it a point to discover ways on how my students will appreciate poetry in particular, and literature in general. Most of the time, letting students do hands-on activities make them respond powerfully to the memorable poems, stories, and essays. At the same time, these engage them into the teaching-learning situation required in a particular lesson.

In the education landscape, there is a need for the students to make sense of what they are learning. Thus,

creative expressions must be coupled with activities that will fully empower them in their learning activities. Literature teachers are also tasked to teach their students how to write, read, and understand any text. Poetry can give students a healthy outlet for gushing emotions. Reading aloud original poetry in class, while also doing it alongside other poetry related activities, is the core of this investigation.

The Problem

This paper aimed to make literature happen by transforming the literature classroom through employing an engaging strategy for students and to vivify their everyday experiences not only as commonplace phenomena but transcending metaphors that could make them appreciate literature.

Specifically, this sought answers to the following questions:

1. What strategy was explored to engage students with poetry?
2. What were students' experiences of the activity in the teaching of poetry?
3. What have students learned from the hands-on experience in the teaching of poetry?

Theoretical Framework

This study is anchored on the theory of reflective practice or reflective teaching. In 1983, the concept of reflective teaching was introduced by Donald Schon, although its strategies have already been discussed by its proponents – John Dewey, Jean Piaget, and Carl Jung (Rhinehart Neas, 2015).

Reflection is also about interpreting one's suppositions (and practices), by looking at our own perspectives from those of others, and by subjecting own assumptions to critical review (Alvesson & Sköldberg, 2000). It should be apparent that reflective research involves at least two levels: (1) researching and (2) paying much attention to own theoretical suppositions about practices—"careful interpretation and reflection" (p. 5)—often interpretation is limited and occurs after data collection and categorization in the research process; whereas reflection is seldom mentioned and usually limited to conclusions, limitations of the study, and technical matters.

Reflection is firstly aimed at a heightened awareness of theoretical suppositions, of language and of pre-understanding; but secondly aimed at the innermost psyche of practitioners, of narrative and of the context. Reflective research is about systematic reflection on numerous levels—an "interpretation of interpretation" (p. 6). The process of reflective research comprises the (re)construction of reality in which practitioners perform, through critical interpretation and reflection (Alvesson & Sköldberg, 2000). Moreover, these authors also state that reflection involves thinking about the prevailing conditions and the way in which underlying theory, cultural values, and political perspectives impacts on interaction. "Reflection is difficult" (p. 245), because it requires pondering about premises of thoughts.

Figure 1 shows the theoretical framework.

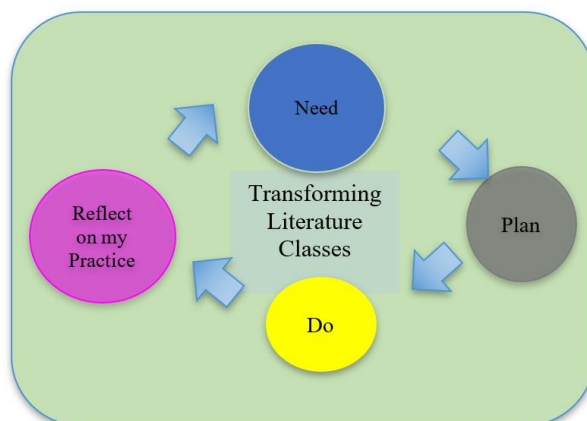


Figure 1. The Reflective Teaching Approach

Conceptual Framework

This investigation presupposes that learning is possible in the presence of teacher creativity and resourcefulness. This study transformed the literature classroom through students' engagement in realistic activities in the learning of poetry.

Figure 2 shows the schematic presentation of the study.

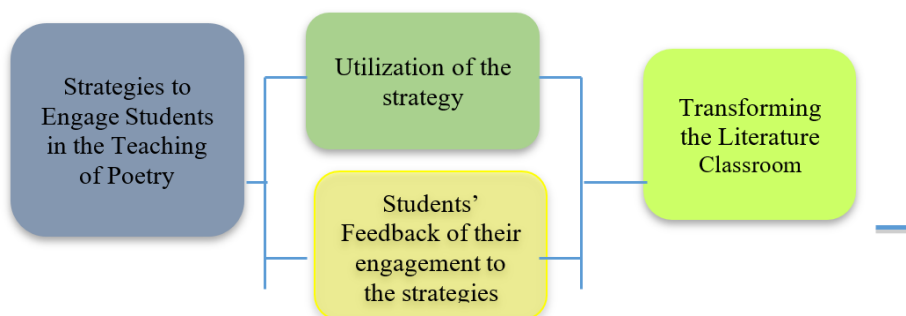


Figure 2. The Schematic Presentation of the Study

Significance of the Study

This study can be significant in these respects:

1. Showcase strategies that can promote effective learning in literature classes with focus on how students can actively engage in poetry classes.
2. Promote more student engagement in the teaching of literature.
3. Teachers of literature will also explore other possibilities in the teaching of poetry.

Methodology

The Research Design. This study utilized the reflective practice research method as shown in Figure 3 below. The first step is Reflect on the current actions. This initiates the study as the researcher discovers the need why the study is conducted. Second, raise a Question. In other words, plan what actions should be done and what questions should be raised. Third, Plan to seek answers. Fourth, do Fieldwork. In here, the researcher also takes an active role in the observation, analysis and reflection in order to come up with new actions when needed.

The venue of this study is the researcher's literature classroom.

Figure 3 has the research methodology.

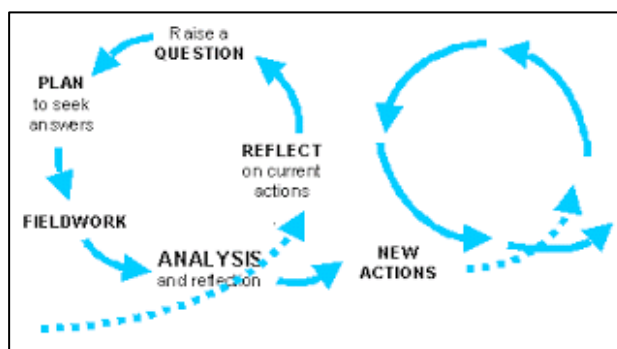


Figure 3. The Research Methodology

The Participants. There were four (4) sections utilized in this investigation. A total of 172 students took

part in the study. They were grouped and were tasked to brainstorm on the poem, Fruit Salad by Jaime An Lim, as this would be discussed in class.

Research Procedure: the Hands-on Experience

The literature class focused on the Poem, Fruit Salad by Jaime An Lim. The researcher has decided to do a hands-on activity prior to the presentation of the poem. As part of student activity, the students were made to brainstorm on what they are going to do in the making of the fruit salad. They were previously assigned to bring their ingredients for the hands-on experience. The selection of the ingredients was based on the groups' choices. As soon as they have presented their ingredients, students were provided guide questions to follow along the course of the activity. Students themselves should figure out strategies to come up with the expected final output. The allotted time is one hour. After the preparation of the fruit salad, the researcher invited tasters, including the researcher herself, to validate and give judgments in terms of food presentation and taste. Then, the poem, fruit salad was taken up the next session. After the lesson, the researcher evaluated whether the students learned from the hands-on experience by utilizing the grounded theory through codes.

Results and Discussion

Strategy Explored to Engage Students with Poetry

The strategy used by the literature teacher is for the students to have hands-on experience in preparing fruit salad. This is a student activity as a preparatory part of the poetry class on the poem, Fruit Salad by Jaime An Lim. The students were assigned to bring the ingredients in making fruit salad. They would brainstorm on the possible ingredients they want to include in their salad and make a final decision on what to bring to class. Then, they are going to bring all the ingredients the next meeting. Below are the group outputs on the strategy utilized. The groups had their own version of the fruit salad based on their collaborative decision.



Figure 4. The Hands-on Strategy Utilized in the Teaching of Poetry

Experience is comprehension (Forbes, 2015). When kids taste, touch, hear, and smell the story, it gets up off the page and becomes more real to them. They *get it*. Participating in characters' experiences, handling interesting items, simulating actions, creating objects, dining on food, cooking on a menu, etc.,

are ways of bringing the world up close. When kids experience a story firsthand, it is easier for them to relate to the characters, and understand the impact of time and place. The hands-on activity reinforced their learning of literature as it motivated them to the lesson.

Students' Experience of the Activity in the Teaching of Literature

After the activity, the students were asked about their experience of doing the fruit salad hands-on activity. Three codes emerged out of the responses generated from the students. The themes were cognitive, affective, and transformative. Figure 5 shows that learning was basically holistic based on the codes as cognitive, affective, and transformative.

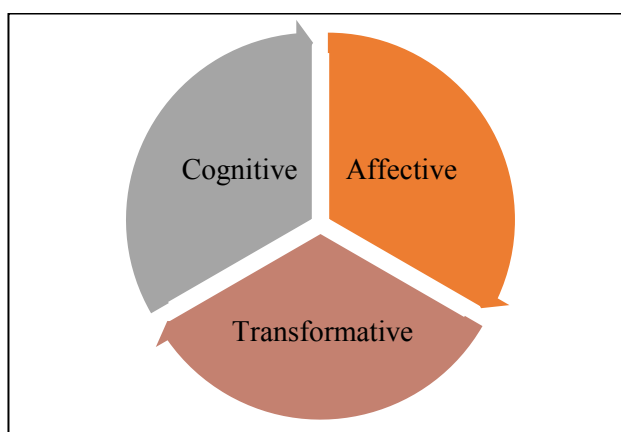


Figure 5. Students' Experience in Learning Literature

Cognitive (Responses of students)	Affective (Responses of students)	Transformative (Responses of students)
<ul style="list-style-type: none"> 1) informative 2) educational 3) application of mom's skills in preparing fruit salad 4) test of our culinary skill 	<ul style="list-style-type: none"> 1) excited to taste what we have done 2) excited for the "first time" to prepare fruit salad excited about how it will look like 3) excited about eating, as well as messy but fun. 	<ul style="list-style-type: none"> 1) the activity was heartwarming and a bonding time, 2) a great experience 3) bliss 4) unforgettable 5) challenging 6) it was our expression of creativity 7) it was great and delicious, because it was prepared with love and passion 8) it developed our ability to work together despite our differences

In totality, students find delight in doing their work together. They have translated what an Augustinian is supposed to be: a person of virtue and science (knowledge).

In activities like this one done in the classroom, students are able to appreciate that when they work together, they will be able to achieve what they want. And above all, planning is needed in any activity or endeavor. No amount of success can be measured when one is using a scheme or having a goal in order to get things done. Also, students point out that without planning, cooperation, and teamwork, the outcome may not be what the group wants to achieve.

Lessons Learned from the Hands-On Experience in the Teaching of Poetry

The enjoyment that the students had during the activity was priceless. Their experiences of the activity vis-à-vis the poem, Fruit Salad, were processed after both activities have been accomplished in a couple

of days' work. Through the coding process, the researcher categorized students learning into three levels: knowledge, skills, and values.

Knowledge was achieved in a sense that the students were able to have an opportunity to discuss and relate the meaning of the poem as well as see the meaning of a poem at a different perspective. They also developed the ability to appreciate poetry and it enhanced their creativity.

Secondly, they learned skills. These skills ranged from collaboration, planning, and ingenuity; they practiced the art of being thrifty. And on the lighter side, one student highlighted that she learned how to prepare fruit salad when in fact, she did not know how to do it before the activity.

Then, students highlighted the values that they learned from the activity. They stressed that they learned teamwork, perseverance, patience, and being thrifty. Equating their lives with the poem helped them realized how one can shape his/her own life based on his/her own choices. For instance, one's success in life is based on how one tackles the different circumstances or challenges he/she encounters. That is, like the different ingredients in the fruit salad, there are some that are sweet, sour, etc. based on one's selection of ingredients. Like life, students shared that their own goals, planning, hard work, and choice of friends, shape their lives.

Figure 5 shows the lessons learned from the poem, Fruit Salad by Jaime An Lim.

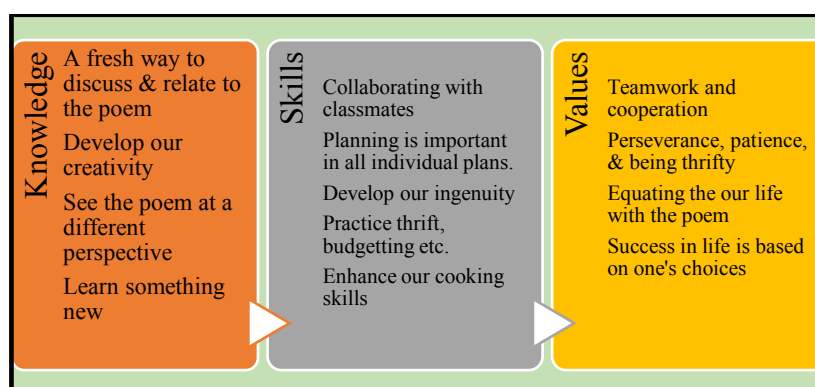


Figure 6. *What Students Learned from the Strategy*

Findings

Based on the results generated from the study, the findings were:

1. The hands-on experience utilized was the preparation of the fruit salad as part of the poetry class. The hands-on experience also ushered students' comprehension and learning in poetry.
2. Three codes or themes emerged out of the responses generated from the students as cognitive, affective, and transformative as learning derived from the strategy.
3. Three levels emerged as learning generated from the hands-on experience in the teaching of poetry: knowledge, skills, and values.

Conclusions

1. Experience aided learning and comprehension. Not only this, but students also find the strategy innovative and enjoyable.
2. Having the students do something while at the same time learning makes literature classes more enjoyable and productive as this paved into cognitive, affective, and transformative learning possible.
3. Holistic learning is evidently achieved as students learn in three dimensions not to mention how such strategy made them go beyond the tangible implications of the lesson; but more so, they were able to critically analyze the literary text at a more substantial perspective.

Recommendations

As majority of the papers fall short of perfection, this study would like to recommend that:

1. Teachers of literature have to continuously look into ways that may make the teaching of poetry more enjoyable to students regardless of their level.
2. Teaching literature should reflect and cater to students' needs – social, moral, or physical. Therefore when teachers teach, they always have to look into the nature of the students and examine the level of their performance or ability. This way, they will have the opportunity to achieve their goals at the end of the term.
3. Literature teachers should know their subject matter, never cease to develop appropriate instructional materials, and be conscious of students' learning behavior. This way, they can address what a student needs in the context of literature teaching and learning.
4. Other studies can also be conducted in terms of literature teaching and learning.

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The Study on Application of Big Data Analysis to Improve Student Employability: Teaching Modes as Antecedent Variables

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Abstract

In recent years, students learning outcomes have become the focus of attention of higher education institutions (HEIs). Many HEIs are committed to stimulating students' learning motivation, improving their learning environment, improving their teaching methods and learning incentives so that students can increase their learning. And thus improve learning outcomes. However, how to measure the effectiveness of student learning has also become a common problem for scholars to discuss, there are scholars that the use of core competency indicators, soft skills and hard skills, awareness, feelings and skills to enhance, etc., are likely to understand the effectiveness of student learning index. But in the pursuit of learning at the same time, students employability is also what all higher education institutions should focus on upgrading the project, because a high degree of student learning outcomes can represent a high degree of employability of students, this part has to be clarified; Moreover, of the students from the HEIs after graduation to find the right job and good performance in the workplace, the majority will be attributed to the success of HEIs' education, leaving the HEIs has a better reputation. Therefore, this study will explore the cultivation and improvement of employability, and join the teacher's teaching level and students to prepare their own ability to understand the variables in the role of student's employability.

Keywords

Pedagogy for employability; problem-based teaching mode; absorptive capacity; student employability.

Introduction

Higher education and its function of human resource development play decisive roles as the foundation of national economic development (Choi & Rhee, 2014). According to statistics of Ministry of Education, the quantity of Taiwan higher educational institutes (HEIs) had reached up to 166 by 2014, which demonstrated that the intensive HEIs have approached to saturation and the education pattern has gradually transferred from elite education to mass education (Teow, 1984; Taylor, Webber & Jacobs, 2013). Although the policy reform of higher education has provided more education opportunities for students, it also gave rise to many education problems like low teaching quality and competitiveness, which further turned to the latent problems of Taiwan higher education development (Marginson, 2011; Shin & Harman, 2009). Recent studies on HEIs have pointed out that student learning outcomes (LOs) can be significantly improved through teaching quality improvement, course setting reform and resource and equipment optimization (Maringe and Sing 2014; Pike et al. 2011, 2012).

However, if viewed from the perspective of the job market and the flow of talent, there are few studies to explore the link between student learning and student employment. Students have developed a lot of skills and abilities in tertiary institutions, showing a high degree of learning. But the final return to the job market, students must face brutal and severe view, if the higher employability may be in the

workplace career development. At this point back to a problem, a high degree of employability may have a high degree of learning outcomes, but a high degree of learning effectiveness can derive a high degree of employability, if students will eventually return to the job market, so college should pay attention to student employment of the training, rather than the improvement of student learning effectiveness. Therefore, how to cultivate students employability is one of the motivations for this study.

In recent years, the most of studies have investigated various issues on employability and have raised the attentions from worldwide governments and scholars. It includes the development of students' cultivation for employment and the enhancement of employees' ability and so forth. De Vos, De Hauw and Van der Heijden (2011) have indicated that employability refers to the individual's acquisition of knowledge, skills and other characteristics in order to meet the needs of employers and exert professional potential. As employability related issues may differ in specific research situation and research design, the research results and contributions may also diverse. It has been pointed out in researches that employability related issues can be divided into two categories. The first category is to examine the influence of the factors of the organizations and the individual on employability from the employee's perspective (Cuyper, Bernhard-Oettel, Berntson, De Witte, & Alarco, 2008). The second

category is to examine the influence of the factors of the university and the individual on employability from the student's perspective (Bridgstock, 2009). Students should develop knowledge and expertise at the university level and apply them to a diverse workplace to respond to employers' employment requirements for future employees. Crossman and Clarke (2010) emphasizes the link and effectiveness of higher education and students employability, which will affect the satisfaction of employers and graduating alumni (Bridgstock, 2009). After all, through the performance of students to increase the visibility of HEIs or HEIs' characteristics, which able to improve the employability, or to be clarified. Become the focus of university care and investment (Avramenko, 2012; Franz, 2008; Hennemann & Liefner, 2010); that is, students may facilitate in the workplace trends, career exploration, career planning, career development, ethical values and work attitude, and even employability to develop, through the provision of relevant courses and teaching teachers to reduce the gap between learning and employment. Since teacher's positive inspiration and guidance can improve students employability and influence their improvement in learning motivation, input and effectiveness (Robinson, Lloyd, & Rowe, 2008), teachers' teaching activities are the key to students employability. Through the well-defined employability teaching activities to promote students' positive attitude towards learning, to cultivate their employment conditions, which referred as second research motivation of this study.

In addition to employment-oriented teaching activities, there are many important learning models that train students employability. Scholars have pointed out that explorative learning and exploitative learning are important teacher teaching models. Through the application of learning, students can learn more about the real world and analyze the students' solutions to the problem. Achieve higher student learning outcomes. Among them, problem-based learning (PBL) will help students to invest in learning situations, from the process of solving the problem, the acquisition of relevant resources / information search ability to obtain new knowledge to plan the solution strategy, thereby enhancing its learning effectiveness (Chang, Jong And "Huang, 2012), as the basis for students' future development employability. Although problem-based teaching mode is mostly used in the study of students in medical disciplines, but rarely used in different areas, employability for the general research topics. If the problem-based teaching mode applied to students employability, then contribute to the theoretical and practical contributions, but also be our third research motivation.

However, the majority of motivational scholars believe that the inherent motivation of students and the characteristics of the pre-prepared will be more important than the external attribution which has a strong impact on the results of the above-mentioned factors that promote students employability. Zimmerman (2002) points out that self-regulated learning (self-regulated learning) in the retrospective literature that the contemporary learning theory for learners to explain the individual differences, from the emphasis on the ability of learners to prepare the difference, towards a dynamic understanding of learning, and increasingly emphasis on the establishment of learners self-adjustment ability. Among them, the intrinsic motivation of learners plays a key role in influencing how learners introduce their own mental resources and how to interpret environmental information. In other words, the process of student knowledge processing, that is, how students will acquire acquired knowledge and information into the future needs

of individuals to enter the workplace to develop their adaptability to environmental changes and requirements of employability. As Fabrizio (2009) emphasizes connectness, students should have a degree of knowledge transformation method to facilitate knowledge learning, digestion, transfer and application to demonstrate knowledge efficiency. As the past research rarely explores students' absorption, digestion and knowledge transfer issues, especially the absorptive capacity in student learning. Therefore, this study will be absorptive capacity as external stimulus - internal digestion - an important intermediary in the behavior of variables, to understand its role in the model mediator, is the study of the four motives.

In the past, most of the related studies on students employability was mostly database or qualitative research. In the related literature, most of the students were still surveying the database, and their spatial and temporal background and the current employment market situation were still in part. Re-develop the new questionnaire to explore the formation of students employability and training, from which to collect relevant information and understand the students in the teaching model and internal absorptive capacity on the change process. In addition to the issuance of questionnaires, the students will also be in-depth interviews with the students who are graduating, in addition to effectively enhancing the verification of the results of the study, but also from the systematic approach to make up for the lack of research in the past, to explore the external teacher's teaching activity to stimulate the impact on the employability of internal absorptive capacity. The results of the study can provide the direction and important meaning of the higher education institutions in the process of thinking about the nature of education.

Literature Review and Hypotheses Development

Students Employability (SE)

In recent years, employability related researches have been gradually concerned by scholars. Through designing research situations and research methods and integrating theoretical and practical analysis, the meaning of employability and the causality between employability and other factors were studied (Avramenko, 2012; Hennemann & Liefner, 2010). Van der Heijde and Van der Heijden (2006) have argued that employability is the individual's appropriate application of competence and continuous acquisition and creation of essential work skills in order to accomplish all the tasks and adapt to internal and external labor market changes (De Cuyper, Bernhard-Oettel, Berntson, DeWitte, & Alarco, 2008; Fugate et al., 2004; Van Dam, 2004). Therefore, McQuaid and Lindsay (2005) have proposed that in addition to the influence of basic education on employability, factors like personal conditions, interpersonal relation and external factors that cannot be acquired in higher education should also be considered.

Hennemann and Liefner (2010) developed the graduate employability training process, summed up a comprehensive impact factors structure, to explain the capacity, capability and competence to develop employability in the process of playing an important element, as shown in Figure 2 The Hennemann and Liefner (2010) distinguish between "capacity", "capability" and "competence", and define "capacity" as the individual's confidence in an uncertain environment, learning from experience; "capability" is the essence of future orientation, can be regarded as the basic effect of interactive learning process; "competence" refers to the learners have full confidence, ability to show in a wide range of diverse situations, and continuous (Brown & McCartney, 2004; Hart, Bowden, & Watters, 1999; Hennemann & Liefner, 2010). Nygaard et al. (2008) argues that student education should include knowledge, skills and abilities in university education, with the ability to cover personal and social backgrounds (Kellermann, 2007), the use of knowledge and skills through reflection.

On the other hand, the constituent elements of employability should take into account factors such as national conditions culture, industrial development and population structure. The Department of Education (Australia, 2006) puts forward the "employability skills framework" Into eight, including communication skills, teamwork ability, problem solving ability, original and entrepreneurial ability, planning and organization ability, self-management ability, autonomous learning and scientific and technological ability. Pan and Lee (2011) surveyed the flow of HEIs graduates in Taiwan according to the employability scale developed by Andrews and Higson (2008), which suggested that employability should cover the general ability for work, professional ability for work, attitude at work career planning

and confidence. This study takes into account the employability classification of Pan and Lee (2011) as a measure of students employability.

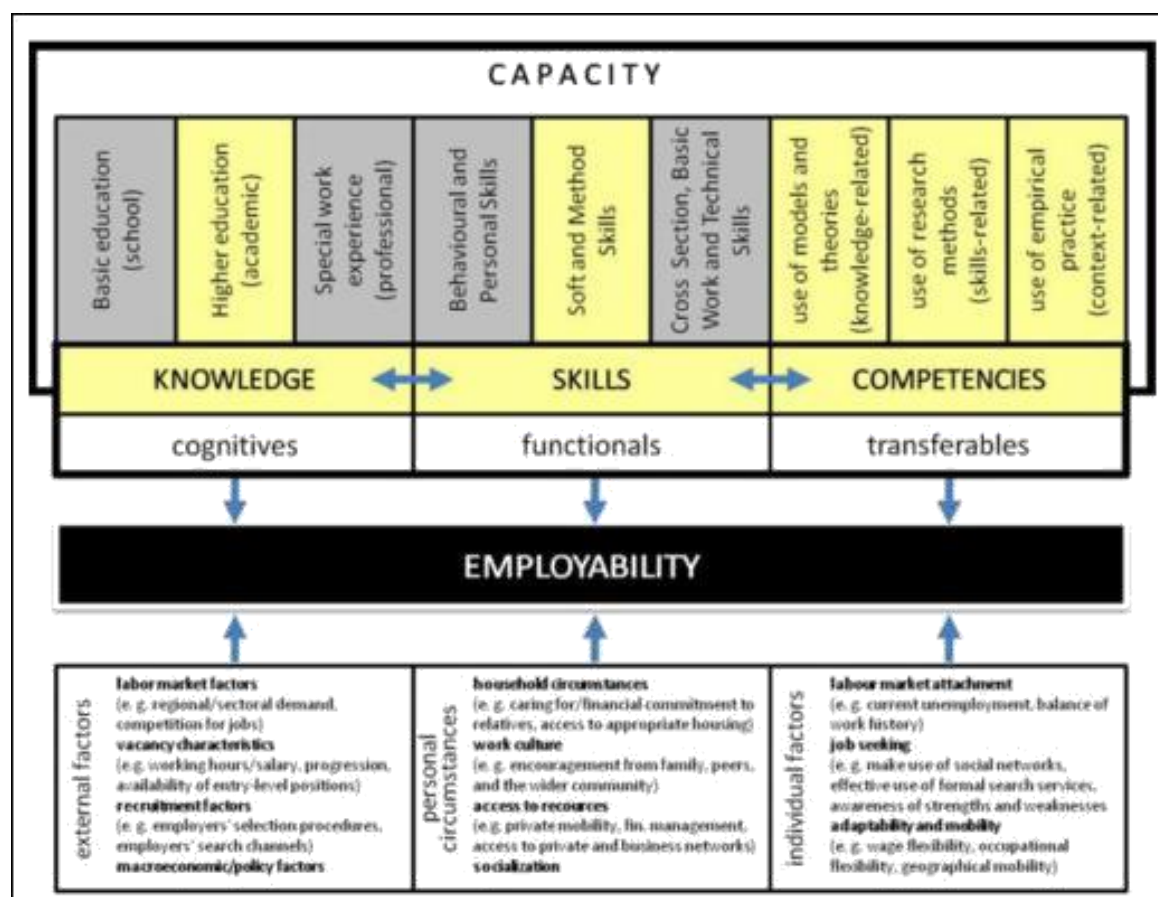


Figure 1 Comprehensive framework of employability-influencing factors for university graduates
Source: Hannemann, S., & Liefner, I. (2010). Employability of German Geography Graduates: The Mismatch between Knowledge Acquired and Competences Required. *Journal of Geography in Higher Education*, 34(2), p. 219

Pedagogy for Employability (PE)

In the studies of student learning, scholars are continually exploring learning outcomes based on a large number of known knowledge, construction updates, richer understanding and discussion, especially through the observation of other people's behavior, the learners began to try to complete a specific task required knowledge base (Oleson & Hora, 2014). Therefore, in the process of inspiring students' learning orientation and engagement, teachers should turn from passive, teacher-oriented teaching methods to active, learner-centered activity design, and commit to bringing students to a deeper understanding, so they can apply real-life examples to different situations (Tagg, 2003). In addition, the university has a high degree of contact and cooperation with the industry, and should learn to acquire the knowledge and skills of employment before they enter the workplace (Corbett, 2005; Unruh, Lachman, & Pawlina, 2008). Therefore, teachers should inspire students to learn orientation and input process, should be from the passive, teacher-led teaching method, into active, learner-centered activities designed, and promised to learn the students to a deeper understanding and meaning. So that students can apply the real-life paradigm of learning in different contexts (Lave & Wegner, 1991; Tagg, 2003).

YYorke (2006) mentions in Pedagogy for employability that the close correlation between higher education and the national economy has been accepted by governments around the world and reflects the importance of human capital perspectives (Becker, 1975). Reich (2001) and Reed (2002) also emphasize the economic benefits of creativity, entrepreneurship and entrepreneurship in the workplace, showing that economic development not only contains the quality of the factors, but also presents a series

of skills Development context. Therefore, the concept of entrepreneurial spirit into higher education, to improve the discipline of the face, but also to meet the students on the development of a series of employment skills, understanding, quality and positioning expectations.

Therefore, employment-oriented curriculum design and learning activities will meet the current concerns of students employment issues, and shows that employment-oriented teaching activities and professional disciplines to learn the relationship between each other, rather than a substitute. Yorke and Knight (2004) focus on teaching activities, but also put the employability embedded in curriculum design, providing teachers with the ability to effectively adjust the curriculum structure and improve it to provide better practice for pedagogy for employability. However, there are few studies to provide a clear measure of employment-oriented teaching activities; Yorke (2006) proposed several design employment-oriented teaching activities should pay attention to the principle of this study in order to clearly explore the employment-oriented teaching activities. As a measure of this study, including Analysing case-study material; Annotating a bibliography rather than writing 'yet another essay'; Writing critical commentaries, or reviews, perhaps in the style of a particular kind of publication; Summarising complex material into a short briefing paper or executive summary; Constructing criteria against which a performance might be judged; In-tray exercises, perhaps under time-constraint; Presenting a case, and being prepared to justify it; Role-playing; Group problem-solving, including attention to the group dynamics of teamwork; Surveying the public's perceptions, such as in collecting oral history data or consumer preferences.

In addition to the social soft skills and hard skills, it also includes the psychological cognition and attitude of job seekers. Therefore, teachers should use internal and external inducements to guide students to cultivate their own employment conditions (Bogler et Al., 2013). As the general ability and professional ability to represent the students' external learning output and academic performance, in order to meet these conditions, students need to have a high degree of learning satisfaction; that is, when students are satisfied with the learning situation, better able to have good academic performance or Learning outcomes (Bogler et al., 2013), as the basis for the development of employability. Students study in the context of education, teachers can design specific courses and implementation programs through teaching content, teaching methods, attitudes and teacher-student interaction (Corbett, 2005; Hmelo-Silver, Duncan, & Chinn, 2007). Therefore, the study of employment-oriented teaching activities, the establishment of practical experience based on the application of educational context, to explore the relationship between teaching activities and employability, the results should help schools and their teachers to understand the most appropriate curriculum planning and activities The Based on the above, the present study proposes the following hypotheses:

H1: Pedagogy for Employability will positively correlate to student's absorptive capacity.

H2: Pedagogy for Employability will positively correlate to student's employability.

Problem-based teaching mode (PBTM)

Problem-based teaching mode is a kind of learning mode which has been paid close attention to in recent years. The model emphasizes the teaching of students as the main body, and divides the learning process into five stages: "asking questions - establishing hypothesis - collecting information - arguing hypothesis - summary". It is also learning to be placed in a complex but meaningful problem situation, through the team to work together to solve the problem, learn from the knowledge behind the problem, and then form a problem-solving knowledge and develop self-learning ability (McGrath, Comfrot, & Luo, 2006).

In the past, the students have also used the teaching model of problem-based teaching mode to improve the students' Exploring knowledge (Chang et al., 2012). The study suggests that problem-based teaching mode has: (1) student-centered learning patterns; (2) teacher-led, small-scale student groups are easier to carry out; (3) teachers play the role of assistants or guides; (5) the discovery of the problem is an important key to gaining knowledge and solving the problem; and (6) through the self-guided learning to obtain the required information more than the necessary information in the process of learning, the actual problem in any preparation phase or before learning has occurred; (Chang et al., 2012; Hmelo-Silver et al., 2007). In other words, problem-based teaching mode is a student's learning needs derived

from a guided decision-making model. Through the strategies of inquiry, collaboration and reflection, we can strengthen the degree of active participation and make it have the knowledge and the practical skills.

Previous studies show that the positive effects of all learning opportunities on individuals lead to their ability to produce performance and enhance their self-efficacy (Zhao, Seibert, & Hills, 2005). Moreover, in order to reflect the impact of self-efficacy, students develop long-term appropriate learning experience, will affect the environmental opportunities under the action (challenge) and personal ability (skills) subjective assessment; that is, when students perceive activities with a high degree of learning challenges And knowledge requirements, will enhance their individual input to the challenges of learning resources and the degree, and then get the appropriate learning experience. Therefore, the design of all kinds of learning activities in addition to taking into account the internal incentives, but also should encourage students to explore the process of knowledge to find the meaning of learning to shape its long-term learning goals (Delle Fave & Massimini, 2005), and predict personal future career orientation (Bassi, Steca, Delle Fave, & Caprara, 2006).

In the context of study, students perceive self-efficacy can influence their academic interests, learning motivation, emotional management, cognitive ability and achievement growth (Bandura et al., 1996; Bandura, 1997), and self-efficacy on individual performance in follow-up And self-practice, there is a strong intermediary effect (Lent & Brown, 2006). Dunlap (2005) found that problem-based teaching mode helps students acquire the expertise and skills needed in the workplace; but the knowledge can improve learning outcomes, but without self-efficacy as a prerequisite, It is difficult to highlight. Therefore, the teaching strategy of problem-based teaching mode should emphasize the short-term and long-term goal setting, and give feedback to the student's learning performance as the source of learning and improve the information, and thus enhance its self-efficacy, so this study put forward hypothesis 3:

H3: Problem-based teaching mode will positively correlate to student's absorptive capacity.

Finally, problem-based teaching mode is helpful to improve students' interest in learning and professional application, and its relationship with students employability is that the use of problem-based teaching mode can enhance students' capabilities (Martin, West, & Bill, 2008; Spronken-Smith, 2005), in the face of practical problems, such as critical analysis, problem solving and reflection, in the form of appropriate learning attitudes and higher levels of thinking skills. Duncan and Al-Nakeeb (2006) have confirmed that students who have accepted the problem-based teaching pattern will change their learning motives, attitudes and behaviors so as to enhance their critical thinking, learning autonomy and employment-related competencies. Therefore, this study proposes hypothesis 4:

H4: Problem-based teaching mode will positively correlate to student's employability.

Absorptive Capacity (AC)

Cohen and Levinthal proposed the concept of absorptive capacity in 1990, which defines the absorptive capacity for "enterprises have the ability to identify new values, acquire external knowledge, digest and absorb and apply this knowledge to business purposes". In other words, the organization's absorptive capacity is composed of three sets of capacity facets, including communication with the external environment, organizational knowledge level and experience, knowledge structure diversity and overlapping three sub-facets.

In the study of Nieto and Quevedo (2005), the definition of absorptive capacity, combined with Cohen and Levinthal (1990) and Fiol and Marjorie (1985), developed four facets as a measure of absorptive capacity, including communication with external environments, Organizational knowledge level and experience, knowledge structure diversity and overlap and strategic positioning. Therefore, the organization has an excellent absorptive capacity when the organization has the ability to absorb new knowledge and convert it into a product, process, or system. This kind of absorptive capacity is based on both knowledge and development of new knowledge and to promote the transfer of new knowledge. Specifically, the savings of the organization's own capabilities will determine how the organization applies, integrates, and even develops its core competencies (Blois, 1999). Because of the strong

absorptive capacity will let the organization have the idea of learning, even in the process of alliance or enterprise resource planning, absorptive capacity is the implementation of knowledge transfer (Wang et al., 2007), if the organization has a high degree of Absorptive capacity, then the transfer of organizational knowledge will be quite effective (Boynton et al., 1994).

In contrast to the measurement of absorptive capacity, Zahra and George (2002) have shown that absorptive capacity is the organization's rules and procedures, which are achieved by acquisition, assimilation, transformation and exploitation. This process will produce a dynamic organizational potential. The Tripsas (1997) study clearly states that the absorptive capacity is mainly for the identification and acquisition of external knowledge, and Zahra and George (2002) proposed the concept of similarities.

Personal knowledge of assimilation refers to the individual in their daily work and processes, for their own external knowledge of the analysis, interpretation and understanding of the ability (Szulanski, 1996). Zahra and George (2002) argue that knowledge assimilation includes interpretation, comprehension, and learning. From the point of view of external knowledge, Szulanski (1996) argues that external knowledge has a considerable relationship with the context in which it is located; in other words, the use of external knowledge in different contexts will differ in value and meaning. And thus enhance the understanding, digestion and replication of the difficulty of knowledge. When the value of knowledge depends on the existing complementary assets, will make the knowledge more difficult to understand, and difficult to be applied.

Personal knowledge transformation ability refers to the individual will be old, has been digested knowledge and new knowledge combined ability, that is, through their own knowledge of the new, delete or a new perspective to interpret the original knowledge. The transformation of knowledge comes from identifying two incompatible knowledge, combining it and presenting it in new forms. Knowledge transfer capabilities can enhance the organization's ability to gain insight into business opportunities (Smith and DeGregorio, 2002), help identify new opportunities, redefine the organization's industry, and revise the organization's competitive strategy in the industry (Christensen, Suarez and Utterback, 1998). Such as business transactions and computer technology, the two incompatible knowledge, the network industry will combine these two kinds of knowledge to a new form of e-commerce presented, known as the conversion of knowledge.

Personal knowledge exploitation means that the individual transforms the knowledge that is transformed into the organization's operation or innovation to revise, extend, and expand the existing competencies (Zahra and George, 2002). In the absorptive capacity proposed by Cohen and Levinthal (1990), emphasis is placed on the application of organizational knowledge, Zahra and George (2002) argue that if the organization uses constructive, systematic and sequential knowledge in operational operations, Individuals in the organization continue to produce new products, services, systems, processes, knowledge, and new organizational hierarchies. Zahra and George (2002) also suggest that the use of knowledge encompasses the use of both the use and the implementation of knowledge, the use of knowledge, the value of knowledge in the organization of the use of knowledge, that the use of knowledge within the organization Can bring the greatest value to the organization, and to use, provide, mosaic and sales to illustrate the four ways of using knowledge.

Employability is composed of knowledge, technology, and diversity (Hannemann & Liefner, 2010). In the context of higher education, students who do not have the knowledge and ability to absorb knowledge, even if the information passed by teachers is enriched to use the knowledge. In other words, students with sufficient absorptive capacity will communicate and share knowledge about the connotation of knowledge through common interest and language, and then acquire valuable knowledge (Cadiz et al., 2009; Wenger, 1998) Employability has a positive impact. Nor, Nor, Daud and Hisham (2012) also found that learning absorptive capacity is good for students, means that they

have a good pre-prepared knowledge and academic performance; they can effectively transfer knowledge and application of knowledge, so to enhance their academic achievement, and thus promote the development of individual employability. According to the above description, this study deduces the following assumptions:

H5: students' absorptive capacity will positively correlate to employability.

Methodology

Research framework

Based on the above research motivations and the importance of the research glimpse of the studies, this study summarizes the related research of students employability in the past. In order to understand the correlation between variables, we deduce the following research structure as Figure 2:

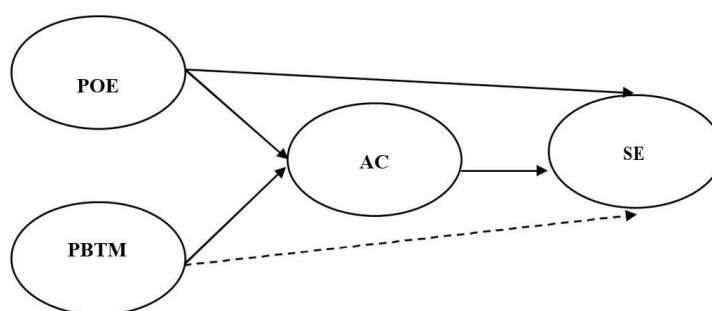


Figure 2. Research Framework

Variable measure

Employability is a kind of social psychological constructs which includes subjective and objective aspects (De Vos et al., 2011). It can help employees to respond to the demands of the employment environment and to adjust their own characteristics, behaviors, cognitions and emotions, and thus to maintain their adaptability and flexibility in the workplace. In order to learn about employees' cognition of employability, this study includes the "General ability for work (GAW)"(8 items), "Professional ability for work (PAW)"(4 items), "Attitude at work (AW)"(3 items) and "Career planning and confidence (CPC)"(3 items) that were summarized from the researches of Australian Ministry of Education (2006) and the variable measurement of Pan and Lee (2011). The contents cover 18 subjects, including expression and communication, time management, leadership, innovation, team work, native language, foreign language, stability and pressure resistance, professional knowledge and skill, computer literacy, application of theory to work, problem finding and solving, learning desire, plasticity, understanding of professional ethics, understanding and planning of individual career development, understanding of environment and development of industries, and job search and self-promotion.

In the "problem-based teaching mode" section, the study is defined as "a student-centered, guided teaching strategy that shares knowledge and resolves problems through group learning processes to enhance their problem-solving skills." In this study, the scale of problem-based teaching mode was developed using Chen, Lee, Lee, Wang, Lin and Yang (2006) and Chang et al. (2012), including "knowledge sharing (KS) (3 items)" and "problem solving (PS) (3 items)" to measure students' awareness of problem-based teaching mode.

In the Pedagogy for Employability section, this study is defined as "teaching programs that are committed to fostering students' ability to enter the workplace in the future." In this study, the teaching items proposed by Pegg, Walldock, Hendy-Lsaac and Lawton (2012) were converted into a measurable scale to measure the perceived level of pedagogy for employability.

In the "absorptive capacity" section, in order to understand the degree of awareness of the absorptive capacity of the student, this study defines the absorptive capacity system to identify the new knowledge by identifying (the identification and filtering of valuable information), digesting (transforming new knowledge into usable knowledge) and the application (using knowledge) of the process, into the knowledge available. The questionnaire was designed using Cadiz, Sawyer and Griffith (2009), including assessment (3 items), assimilation (3 items) and application (3 items).

Sampling

This study proposed a framework to explore the correlations and development mode of PBL, POE, AC and SE. It sampled from all Taiwanese HEIs, including public and private, vocational and general ones. This study also incorporates teaching funding support from MOE of Taiwan as a sampling condition, as HEIs who obtain such funds are recognized as providing quality teaching.

This study selected 16 Taiwanese HEIs and sent 1,000 questionnaires to them. After simple random sampling, a total of 563 questionnaires were returned, for an effective response rate of 56.3%. Since freshmen were not familiar with the learning environment, all participants in this study were sophomores, junior and senior students. Excluding 10 invalid questionnaires, the study obtained 553 valid ones and 56.6% were from female.

Analysis and Results

Sample structure

In order to understand the degree of consciousness of the students in the different grades, the study draws out 237 questionnaires and extracts 20 cases of invalid questionnaires. The effective recovery rate was 92%. Among the 217 questionnaires, 80 were first grade freshmen, 50 were second graders, 53 were third graders and 34 were fourth graders. Of the sexes, 64% were female and 36% were male students.

Reliability and Validity

This study adopted SEM for the analysis. All scales were reliable, with composite reliabilities ranging from .82 to .95, all of which exceeded the benchmark of .70. Table 1 shows the reliability for each scale and factor loadings for each item. Confirmatory factor analysis (CFA) was examined with LISREL 8.54 to verify the convergent and discriminant construct validities of the scales (Anderson & Gerbing, 1988). Hair, Balck, Babin, Anderson, and Tatham (2006) recommended that convergent validity be assessed using three indicators: (1) standardized factor loading higher than .70; (2) Average Variance Extracted (AVE) above .50; and (3) Composite Reliability (CR) above .70. The evaluation standard for discriminant validity is the square root of AVE for one dimension should be greater than the correlation coefficient with any other dimension(s). Table 1 shows that all three criteria were met, except for the slightly lower AVEs of role identity, integrative learning and cognitive gains. The correlation coefficients of the dimensions were all less than the square root of AVEs, suggesting that each had good discriminant validity.

Table 1. Measurement

	1	2	3	4	5	6	7	8	9	10
1.GAW	.69									
2.PAW	.840**	.80								
3.AW	.789**	.762**	.79							
4.CPC	.786**	.762**	.757**	.83						
5.PE	.687**	.650**	.678**	.700**	.81					
6. Assessment	.584**	.563**	.468**	.473**	.557**	.94				
7. Assimilation	.500**	.525**	.425**	.428**	.543**	.854**	.88			
8. Application	.564**	.523**	.459**	.456**	.627**	.868**	.869**	.89		
9. KS	.533**	.522**	.489**	.485**	.553**	.742**	.717**	.737**	.91	
10.PS	.479**	.482**	.414**	.395**	.559**	.775**	.818**	.819**	.819**	.88
Means	5.67	5.58	5.65	5.46	5.51	5.61	5.86	5.62	5.32	5.85
SD	1.22	1.34	1.33	1.54	1.35	1.68	1.80	1.73	1.85	1.76
Cronbach's α	.87	.88	.82	.86	.95	.93	.91	.92	.93	.91
AVE	.47	.64	.63	.68	.65	.88	.78	.80	.82	.77
CR	.88	.88	.83	.87	.95	.93	.92	.92	.93	.91

Examining fit indexes of structural model

In this study, the modality of the model was verified by SEM, and the model was used to evaluate the model with the seven indicators (Jöreskog & Sörbom, 1993). Results As shown in Table 3, the modality of this model should be acceptable.

Table 2. Fit indexes result of structural model

Index	Standard	Results
χ^2 /degree	< 3.00	2.259
goodness of fit index, GFI	> 0.8	0.892
adjusted goodness of fit index, AGFI	> 0.8	0.838
root mean square error of approximation, RMSEA	< 0.08	0.084
normed fit index, NFI	> 0.9	0.945
comparative fit index, CFI	> 0.9	0.968
incremental fit index, IFI	> 0.9	0.968

Hypotheses Testing

The study verified relationship among constructs via structural equation modelling (SEM). For constructs with a higher-order factor structure (organizational tensions) which are formative in nature, Lee and Cadogan (2013) suggested that research should avoid developing and assessing a model containing a direct link from the antecedent variable to the aggregate endogenous variable. Therefore,

the author reduced the number of parameters to be estimated following the partial aggregation method (Little, Cunningham, Shahar, & Widaman, 2002). Structural model showed as following in Figure 3.

H1 and H2 stated that pedagogy for employability positively affects students' absorptive capacity and employability. Figure 3 shows that pedagogy for employability ($t=1.794, p<0.1$; $t=8.824, p<0.001$) has significantly positive influences on students' absorptive capacity and employability, which supports H1 and H2. It shows that the higher the degree of instructional activity of the teacher, the student will be able to improve the students' absorptive capacity and employability. Furthermore, this study further deduces that the problem-based teaching mode has a positive effect on the absorptive capacity and employability; results show that problem-based teaching mode ($t = 13.213, p < 0.001$; $t = -0.732, p > 0.1$) has It is helpful to teach students to provide problem-oriented teaching activities to help improve the students absorptive capacity. ($t = 1.690, p < 0.1$) has significantly positive effects on employability, which support H5, which means that the higher degree of student absorptive capacity. Its employment capacity is relatively positive with the upgrade.

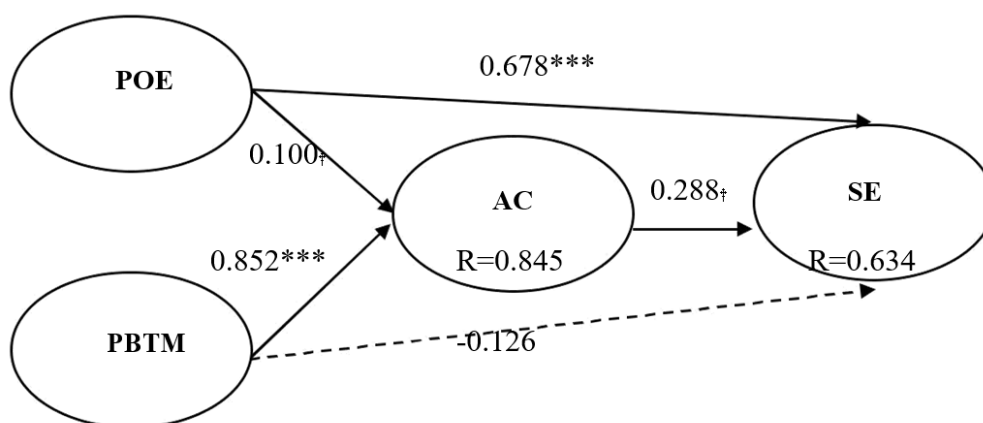


Figure 3. Path analysis

Discussion and Implication

The depth of the program to explore the curriculum and teaching related literature, to better understand the concept of students employability, nature and meaning. In the past, the research on the employability of the relevant students was reviewed, and the focus was on the level of the employment ability of the enterprises. The research on the employment ability of the higher education institutions through the teachers' unique employment-oriented teaching curriculum was less. Therefore, the project is expected to explore this area, combined with the curriculum and teaching and "external stimulus - internal attribution - behavior" model, looking forward to the academic performance of students in academic research can inject more theoretical inventions. Based on the curriculum and teaching point of view, the students 'view of learning, discuss the formation of students employability, synthesize the theoretical view, form the systematic structure of this project to explore students' employability, combined with different theoretical points, To explore the source of the formation of students' employability, so that the structure of the ability to form a more complete.

This study found that employment-oriented teaching activities have a positive impact on the student absorptive capacity and students employability. This result means that teachers should incorporate the competency needed to develop their future employment when they are designing the course content and teaching model. At present, the proportion of Taiwan's higher education institutions with employment thinking is still low. Many teachers still maintain the pattern and style of curriculum design and teaching activities. They are still quite familiar with the link between industries. At present, most universities are beginning to transform and strengthen. There is a strong recognition of the links between industries, but there is no clear understanding of how to carry out classroom turnover and conditions for the promotion of teachers' employment-oriented teaching activities. This study suggests that teachers should understand the conditions and standards in the design of curricula and teaching activities in order to help teachers to successfully flip the classroom while cultivating students with important employability.

Furthermore, another interesting finding is that problem-oriented teaching activities do not have a significant effect on the students employability, even for negative associations, but for the students absorptive capacity has a strong positive effect, that students absorptive capacity in problem- Based teaching mode and students employability play an important intermediary role. Problem-oriented teaching activities focus on the students can effectively use their own knowledge to solve the problem, and from the problem-solving to absorb their own knowledge content, if the problem-solving teaching activities failed to allow students to absorb knowledge, it may lead to **Students** are difficult to integrate into the teaching situation, and even into the future can use the employment skills. Therefore, this study suggests that teachers should reflect on the learning space and time in the course of designing curriculum and teaching activities so that students can rethink the elements of the problem-solving process, further digest, convert, absorb and understand its application model.

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The Model of Organization and Personnel Management Autonomy at Vietnam National University Hanoi – Situation and Challenges

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Abstract

An institution of higher autonomy is the key to the reforms to diversify and effectively mobilize mutual resources in higher education at Vietnam National University, Hanoi (VNU). At present, the Vietnamese Government has issued some guidelines to grant more autonomous power to higher education institutions. Vietnam National University, Hanoi is moving toward an autonomous system to maximize the utilization of its resources to train high quality human resources for the nation. The autonomy of organization and personnel management is the prerequisite for a university to implement its autonomy mechanism and to be socially responsible for its training, scientific research, and technology transfer activities. During such empowerment, both objective and subjective factors should be seriously considered to develop effective implementing methods that fit each university's socioeconomic situation and particular characteristics.

Keywords

Higher education, autonomy at VNU; autonomy model, personnel management at Vietnam National University, Hanoi

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Introduction

University autonomy is viewed as the trend for development. Autonomy gives universities the motivation to renovate for more efficiency, diversified training activities and better competitiveness among higher education institutions. Therefore, a globally common trend is the gradual shift from a state control model to a more autonomous model, from state control to state supervision (Hoa, 2014). Over the years, autonomy situation in higher education in Vietnam has improved largely. The whole universities system, once run as one single big university under the tight control of the government via the Ministry of Education and Training, was gradually given autonomous power as found in the government's legal documents. The universities operate under an autonomy mechanism, have full legal person status and deciding power and are responsible for their own training and research activities as well as organizational, personnel and financial issues.

The granting of autonomous power to VNU's members and subordinate units aims to foster more effective operations and fulfill social demand. And the institution of higher autonomy is the key factor in the reforms to diversify and efficiently utilize the mutual resources of Vietnam National University, Hanoi.

Vietnam in granting autonomous power to universities

Recently, Vietnamese government has paid special attention to the issue of university autonomy and has endeavored to create a legal framework for the autonomous power of higher education institutions, to ensure the supervising and monitoring role of the community and to enhance the role of various communities and public organizations, especially professional associations, in supervising the quality of undergraduate education. However, such autonomous power has yet to take effect due to the inconsistency and incompleteness of the government's policies and regulations. Higher education institutions still long for more autonomy, especially in financial management, organization, personnel, enrollment, equipping and facility, etc.

On February 14th 2015, the Government issued Decree No. 16/2015/NĐ-CP governing the autonomy mechanism of public institutions (Decree 16/2015). The Decree has timely met the demand for renovation and development of public administrative activities in the socialist-oriented market economy. The Decree governs the operation and financial management of public administrative institutions towards granting them more autonomy and self-responsibility power and encouraging capable institutions to have higher autonomy.

Autonomy at Vietnam National University, Hanoi

VNU's organization

VNU has three administrative management levels, including:

- 1) The VNU, handles annual goals and plans by the Government, has legal status and possesses an official seal incorporating the national emblem. The director and associate directors of VNU are appointed and discharged by the Prime Minister.
- 2) Member universities, research institutes; departments; training, science, and technology research centers, service units for training, science and technology researching under the VNU as VNU's subordinate units. They have independent legal status, official seals, and separate bank accounts.
- 3) Departments and research divisions and equivalents under member universities, research institutes and service units.

VNU operates under a highly autonomous & self-responsible mechanism. It works directly with ministries and ministerial and governmental agencies as well as provincial people's committees on issues relevant to its operation and development. The VNU's member universities and research institutes are training and/or research units with high autonomy and have full legal person status as provided by the Law on Education, Law on Higher Education and Law on Science and Technology.

On November 17th 2013, the Government issued Decree No 186/2013/NĐ-CP on the National Universities. According to Article 2 of this Decree, the National University is a post-secondary education institution that consists of member universities and research institutes in various fields and is organized as two-tier to train undergraduates, masters, and doctors. It is a high-quality, multidisciplinary,

Personnel management at VNU

Since its establishment in 1993, VNU's working staff has increased rapidly in both quantities and quality. By the end of 2016, VNU had more than 4,000 staffs, including 1,941 lecturers (37% of whom are professors and associate professors, 58% doctors and doctors of science), 87 People's Teachers and nearly 200 Meritorious Teachers. These are top figures among the universities nationwide. (VNU report, 2016)

To manage the staffs and particularly the lecturers, VNU has a system of personnel-related management documents to administer and guide its staff members and lecturer recruitment, employment, remuneration, training, upgrading and evaluating activities as well as in salary and social insurance policies.

VNU empowers its member universities and research institutes to have autonomy in personnel management and in the formulation and implementation of their operation plans, only the outcome of which is reported to the VNU for approval. VNU only manages staffs of senior lecturer and equivalent scale while major lecturers and equivalents downwards are managed by the rectors/directors of the respective member university/institutes. Regarding subordinate units, VNU approves their reports of the personal scheme before such schemes are implemented by the units.

Organization and personal autonomy at VNU

(i) At member universities and research institutes

Member universities and research institutes develop their own organizational development strategies and report back to the VNU director for comments and reviews before such strategies are issued by the respective rector/directors. Basing on the strategy, the rector/director issues regulations on the organization and operation or function and responsibilities of the units within such university/institute and reports to the VNU director for information. VNU member universities/institutes are to report to the VNU director their plans to implement their organizational and personnel tasks such as formation, dissolution of subordinate units, recruitment and employment, training policy, appointment, evaluation, reward and penalties of staffs, etc. Only then the universities/ institutes can carry out the relevant procedures and only the outcome is to be reported to the VNU President.

(ii) At faculties, training, science, and technology research centers and service units

Upon the proposals of the faculties, training, science, and technology research centers and service units (hereinafter referred to as units) the VNU approves the units' strategic development plans and issues the regulations on the unit's organization and operation. Basing on these, the units develop plans to implement their organizational and personal tasks (formation, dissolution of subordinate units, recruitment and employment, training policy, appointment, evaluation, reward and penalties of staffs, etc.) and report to the VNU President for approval before implementation. Upon completion of the relevant procedures, the units report to the VNU President of the outcome for a final decision.

Survey of the implementation of organizational and personal autonomy at VNU

Survey method

The author surveyed the situation of organizational and personal autonomy through questionnaires to 256 staffs currently working at 18 member and subordinate units of VNU. SPSS software is used for analyzing this data.

Introduction of survey sample

To understand more about the awareness and expectations of VNU staffs in the implementation of organizational and personal autonomy, we surveyed 256 staffs currently working at VNU's member universities, research institutes and faculties, of which 106 are males (equaling 41.41%) and 150 are female (58.59%). (See Figure No.1)

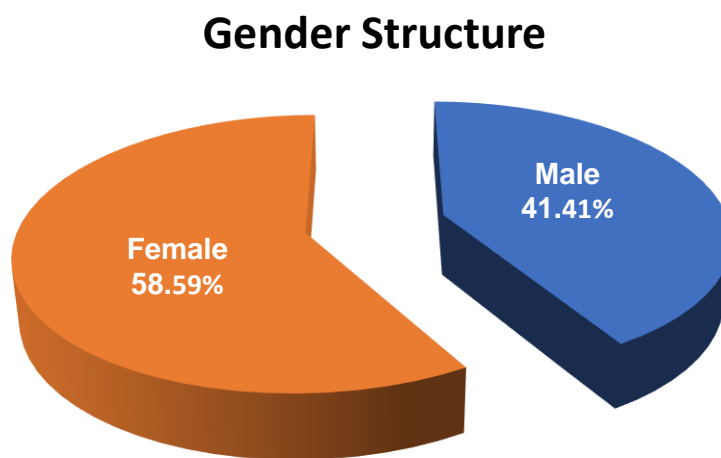


Figure 1: Gender Structure of the Survey Sample

Working positions of the 256 surveyed staffs are as follows: 74 managerial staffs (28.91%); 75 departmental and divisional staffs (29.30%); 87 lecturers (33.98%); 4 technicians (1.56%); 16 researchers (6.25%). (See Figure No.2)

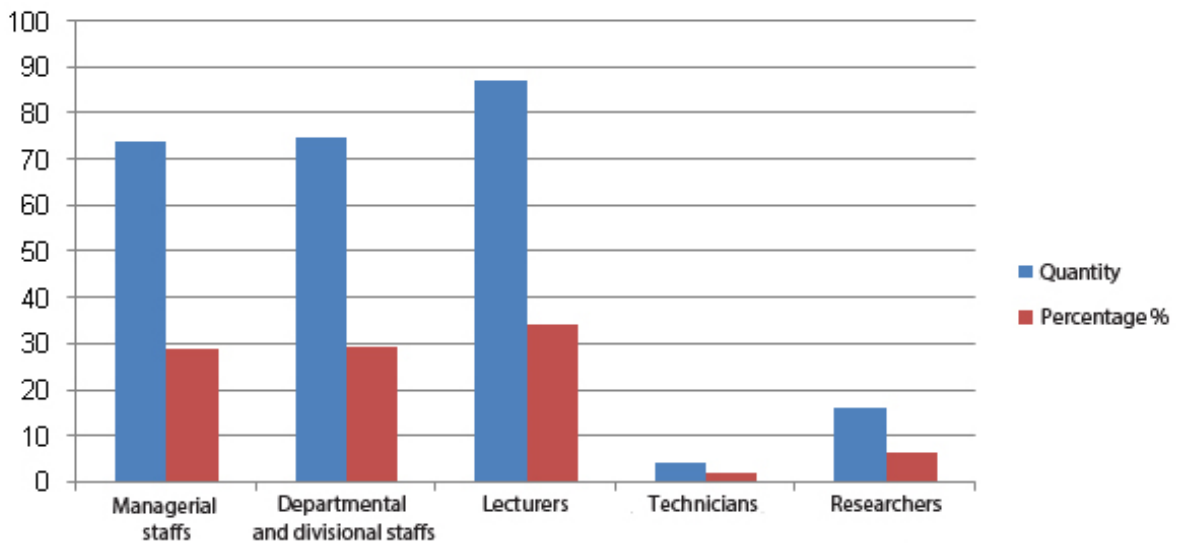


Figure 2: Working Positions of the Surveyed Staffs

Educational qualifications of the surveyed staffs are as follows: 116 doctors (equaling 45.31%); 105 masters (41.02%); 35 bachelors (12.11%), 4 of whom are medical doctors (1.56%). (See Figure 3)

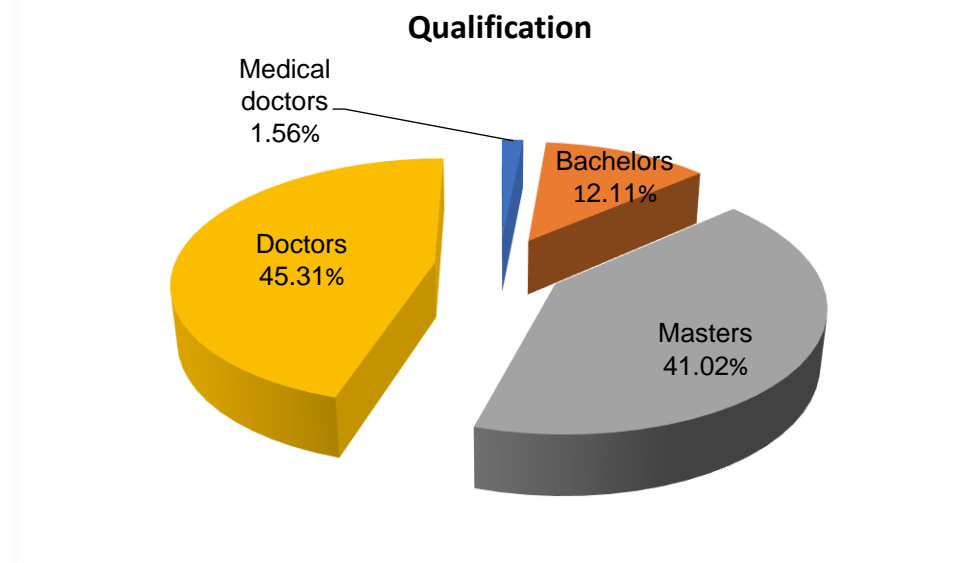


Figure 3: Qualification of the Surveyed Staffs

Content and outcome of the survey

a) Regarding the power and criteria to appoint rectors/directors of VNU member universities /research institutes, 178 out of 256 surveyed staffs (equaling 69.53%) replied that the power and criteria to select rectors/directors of VNU member universities/research institutes should be proposed by the respective universities/research institutes to the VNUPresident, who considers such proposals and signs the appointing decision; 70 staffs (27.34%) replied that such power and criteria should be completely decided internally within the unit and 08 staffs (accounting for 3.13%) opted to leave the power to the VNUPresident. The above figures show that the majority of the surveyed staffs do not see the necessity

of VNU granting complete autonomy to its subordinate units in the formulation of criteria to select sectors/directors of such units. (See Table 1)

Table 1: Power and Criteria to Appoint Rectors /Directors

Power and criteria to appoint rector/director should be	Quantity	Percentage (%)
Decided within the unit	70	27.34
Proposed by the unit and decided by VNU	178	69.53
Decided by VNU	8	3.13
Total	256	100.00

A further question was asked to clarify the reasons why the majority of the surveyed staff opted for VNU not giving full autonomy to its members in deciding the criteria to appoint rectors/directors. 49% of the answers agreed with objectivity reason while 24% disagreed and 27% were uncertain. (See Figure No. 4).

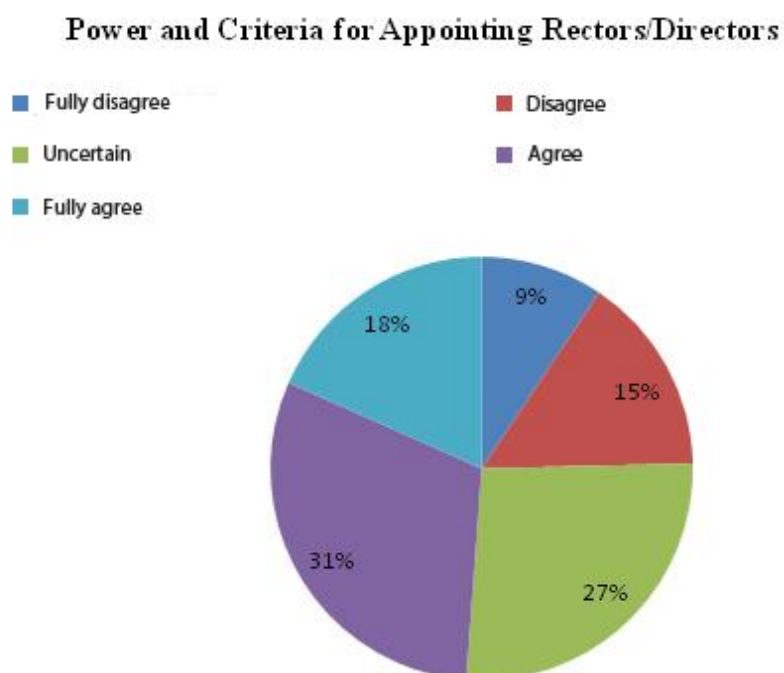


Figure 4: Power and Criteria to Appoint Rectors/Directors

So, despite the desire to be given more autonomy for their university/institute, the staffs still want a higher management level (namely the VNU) to appoint their rectors/directors. This is to ensure objectivity and the appointment of those who are influential, have good connections within the VNU and are capable of cooperating in training and scientific research with advanced universities in Region, the world.

b) Regarding recruitment and appointment of staffs in VNU's subordinate and member units, 125 out of 256 surveyed staffs (equaling 48.83%) agreed that all positions should be decided within the respective unit while 131 staffs (51.17%) said that certain positions should be decided by the VNU.

However, 100% of the surveyed staffs agreed that VNU should not decide all positions in its subordinate and member units. (See Table 2)

Table 2: Recruitment and Appointment of Staffs

Recruitment and appointment of staffs in the units should	Quantity	Percentage (%)
Be decided by the units for all positions	125	48.83
Be decided by VNU for some positions	131	51.17
Be decided by VNU for all positions	0	0.00
Total	256	100.00

As the result of the above survey, most staff expect the university to decide on their own positions and appoint them, except for some positions with high academic qualifications (such as professors, associate professors or over-aged scientists who are still in good health for teaching and researching).

149 out of 256 surveyed staffs (equaling 58.2%) agreed that the recruiting and appointing criteria should be decided by the units. (See Table 3)

Table 3: Staff Recruitment and Appointment Criteria

Recruitment and appointment criteria in the units should	Quantity	Percentage (%)
Be decided by the units	149	58.20
Be decided by VNU	58	22.66
Be decided by the government	49	19.14
Total	256	100.00

On the level of agreement with the statement on the pros and cons of unit autonomy in staff recruitment and appointment, the results are as follows:

84% of the surveyed staff agreed that recruitment and appointment of unit staff should be decided within the respective units for maximum staff employment efficiency, only 6% disagreed with unit autonomy in this respect (10% were uncertain). (See Figure 5)

**Recruitment and Appointment of unit staff should be decided
within the respective units for maximum staff employment efficiency**

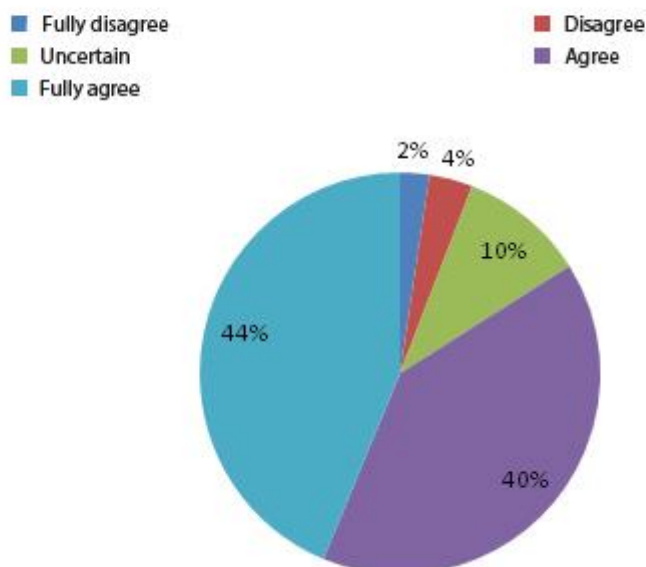


Figure 5: Agreement with the Statement on the Pros and Cons of Unit Autonomy in Staff Recruitment and Appointment

c) Regarding the authority to issue unit regulations, 138 staffs (equaling 53.91%) agreed that the units may have full power in issuing its internal regulations; 115 staffs (44.92%) thought that the units should propose the regulations to VNU for its decision and 03 staffs (1.17%) believed that VNU should have full power in issuing the regulations for its members and subordinate units. (See Table No.4)

Table 4: Authority to Issue Unit Regulations

Unit regulations should	Quantity	Percentage (%)
Be issued by the units without limitation	138	53.91
Be proposed by the units and decided by VNU	115	44.92
Be wholly issued by VNU	3	1.17
Total	256	100.00

Nearly 50% of the surveyed staffs still want the VNU to issue managerial documents. We believe this is because the existing system of governmental legal documents governing graduate education is numerous and difficult to apply. As such, the member universities/institutes still need to rely on VNU to establish a favorable and open legal framework for autonomy in developing their own organization.

d) Staff salary

On question about the agreement of the surveyed staffs to the statement that VNU units should be authorized to decide salary for their staffs to ensure equality, 214 out of 256 (equaling 84%) agreed and completely agreed to authorize full autonomy to the units in staff salary, only 16 (accounting for 6%) disagreed or completely disagreed (while 10% were uncertain). (See Figure 6) The result shows that the payment of salary to the staff must accompany task and responsibility allocation and must be done

equally and fairly among the staffs. Therefore, the head of the units should be the one who decides salary payment basing on each staff's performance, capability and products.

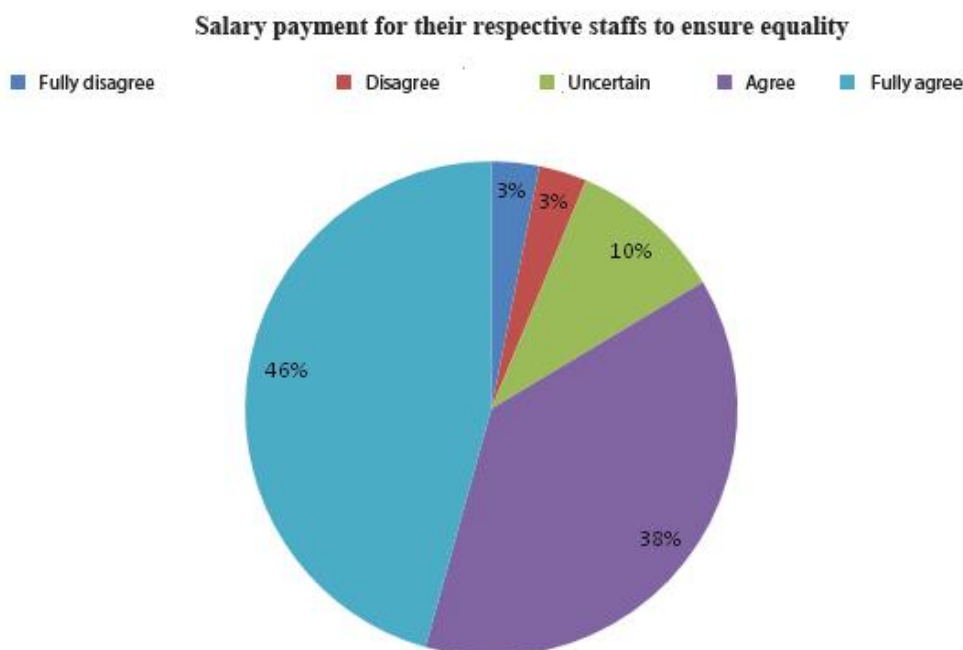


Figure 6: Level of Agreement with Granting Unit Autonomy in Staff Salary Payment

Remarks

a) Tasks should be reviewed and classified, considering the level of impacts on the units/individuals to make the final decision on granting autonomy to the respective unit or staff. As for tasks wherein autonomy is agreed upon by most of the surveyed staffs, unit autonomy should be considered (following planned itinerary). Regarding tasks that are not yet agreed by the majority, increasing understanding of the policy to grant unit autonomy is needed, resources support to the units to carry out their tasks should be continued and evaluation of the units' autonomy capacity should be done annually to develop an appropriate itinerary for empowering unit autonomy.

b) When considering granting autonomous power to VNU's members, priority should be given to setting up a system of managerial documents that is sufficient, open and favorable to the scientists who are teaching and researching there. A focus of such a system should be on the documents on organization and personnel management.

c) VNU has substantially empowered member universities/institutes and subordinate units in the recruitment, employment, and appointment of staffs, except some leading positions. However, for flexibility in employing the existing staffs, a set of criteria to evaluate the level of task completion per job title should be developed. Basing on that, the leaders of the unit can evaluate and arrange jobs suitable to each staff. This is the starting point for effective employment of the human resource at VNU's member universities/institutes and subordinate units when these are granted with autonomous power.

d) When granted with autonomous power, VNU's member universities/institutes and subordinate units must develop a mechanism for paying salary and extra earnings basing on the evaluation of the staff's capability, tasks performance, and final products.

e) As some surveyed staffs are not fully aware of the issue (i.e. the percentage of staffs being uncertain with the questions), more propagation is required to provide sufficient information and to improve VNU units' staff awareness of the importance and inevitability of unit autonomy in the current socio-economic context.

Some challenges to VNU unit autonomy and the reasons thereof

Challenges to organizational autonomy

- VNU's members and subordinate units still lack pro-activeness in realizing adjustment, restructuring and organizational structure development. Some units have not issued all the required internal regulations and still rely on VNU's overall regulations...
- The units' self-responsibility is not satisfactory and the cooperation in task implementation is sometimes inefficient, which leads to certain shortcomings and limitations during the implementation of unit autonomy.

Challenges to personal autonomy

- The recruitment and termination of employment contract must comply with the Labor Code and the Law on Public Administrative Staff, which inherently limits the role of university directors (e.g. Over-aged working, appointment of non-public staff as managers, etc. are not allowed);
- Rectors/Unit directors are not allowed to develop their own units' salary scale but to comply with the common scale issued by the Ministry of Internal Affairs. The current mechanism of salary payment is still on the three-year term (i.e. pay rise every 3 years), which is yet to base on employees' capability and productivity.
- Rectors are not allowed to approve scientists' eligibleness to confer the titles of Professors and Associate Professors. Neither are they entitled to dismiss these titles when the scientists fail to accomplish their tasks.
- Staff policies for the staffs are difficult to implement due to the in comprehensive policies of the government and the delays of guiding documents.

Reasons

- Objective reasons: State budget is increasingly restrictive and public capital mobilization is limited while VNU units' facilities and infrastructure in Hanoi inner city area do not meet their operational requirements and the scope of training and scientific research development as construction progress of VNU's new premises in Hoa Lac is slow.
- Subjective reasons: The training institutions would like more freedom as a result of autonomy, while still require the safeness of state budget funding, thus want to maintain both forms. Meanwhile, VNU's units are different in terms of condition and capacity to realize autonomy rights. As such, the university needs to review the actual situation and categorizes its units to decide the appropriate level of autonomous power to be granted to the units. Training units with highly popular programs such as University of Economics and Business, University of Engineering and Technology, International School, School of Business may find it much easier to realize autonomy than such units as University of Science and university of Social Sciences and Humanities, which require more state budget funding for training and basic science research. Moreover, the deployment of autonomy rights of the units has not been effective;

they focus mostly on autonomy of training and tuition fee, while little attention is paid to strategic and long-term investment to bring about significant and sustainable resources in the future, such as adjustment and restructure of the organization, development of high-quality human resources or research and development of new scientific and technological areas and training programs.

Recommendations on organization and personnel management model to promote autonomy in VNU

Basing on the review of the survey result and the analysis of some major challenges to the organization and personal autonomy in VNU, the author would like to recommend the following:

- *Firstly*, to disseminate information about the government's and the Party's policies on education and training, science and technology among the staffs and particularly the scientists to improve their awareness, to take advantage of the opportunity, to promote the role of VNU and to make full use of the preferences given by the Government, relevant agencies and Hanoi city. Meanwhile, democracy within the organization should be promoted, and the modeling and pioneering role of its staffs and students should be emphasized to build a strong and bonding community.
- *Secondly*, to develop a comprehensive system of management documents to cover all relevant sectors, which forms the basis to increase decentralization to implementing units while ensuring VNU's examining and supervising power.
- *Thirdly*, to enhance flexible and connecting organizational structure and to build sufficient and qualified working staffs at the member units are the key to success. VNU should consider granting organization and personal autonomous power to its members gradually and appropriately and creating high connectivity among VNU as well as within each unit. For the members to overcome difficulties once they are granted with autonomous power, VNU should review, evaluate and categorize the members to continue structured investment into the units that are still having difficulties with quality requirements such as those of human power, facilities, budget, etc.
- *Fourthly*, to develop a model of training and research that is flexible and focuses on professional activities (training, researching, services, etc.) and to increase the application of information technology in management to minimize the number of administrative focal points and to support personnel management efficiently.
- *Fifthly*, to exploit all resources, first and foremost the human resource, to promote the research and renovation potential and desire of VNU scientists and managerial staffs, the cooperation resource within and outside VNU in order to attract the cooperation of other experts, to diversify the financial resources and to attract investment into infrastructural facilities and to promote cooperation.
- *Sixthly*, to develop a set of criteria to evaluate staff's professional capability at each working position. Basing on that, members can carry out staff evaluation bi-annually or annually. The result of such evaluation will be the basis for the unit leaders to assign tasks and responsibilities and to evaluate the level of task completion of each staff as well as the whole unit.
- *Seventhly*, to apply current policies and regulations smartly and to consider decentralization to effectively utilize government funding, to avoid widespread investment and losses at intermediate steps; to develop a mechanism of paying salary and extra earnings to the working staffs and the scientists basing on the evaluation of their capability and performance.

- *Eighthly*, to develop policies to attract outstanding Vietnamese expatriates and overseas students to teach and research at VNU's key laboratories.

- *Ninthly*, to connect to and cooperate with advanced universities in Asia and over the world to exchange scholars and develop the scientific resources.

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