Bridging the Gap: Integrating Employability Skills - From Course Syllabi to Classroom Instruction

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ABSTRACT

This study investigates the integration of employability skills into course instruction at a medium-sized university in Vietnam, addressing a critical gap between learning and career preparedness. Using a convergent mixed-methods design, the research analyzes 30 course syllabi through qualitative content analysis and surveys 470 students for quantitative insights. Content analysis showed that objectives and learning outcomes more often signal these skills than do teaching activities or assessments. Personal qualities and problem-solving appear frequently in objectives (43% and 47%, respectively), but rarely in assessments (4% and 20%, respectively). Critical thinking is more often tested than taught, while communication and teamwork are primarily featured in activities (43% and 34%), rather than in stated goals. Time management is almost absent. ANOVA results indicate significant differences in syllabus engagement ($F = 4.394$, $p = .013$), with year 4 students engaging more than year 2 students (Mean Difference = -0.215, $p = .023$). Correlation analysis ($r = .503$, $p < .01$) confirms a link between skill integration and perceived career relevance. No year-level differences emerged in perceived skill integration or teaching effectiveness. Findings highlight misalignments between intended and enacted skill development, underscoring the need for clearer, practice-based syllabus design.

Keywords: course syllabus, skills development, mixed-methods, higher education.

1. Introduction

In today's dynamic and competitive labor market, higher education plays a pivotal role in equipping graduates with the employability skills that organizations increasingly demand. Academic credentials alone are no longer sufficient in complex professional environments that require a broad range of interpersonal and cognitive abilities (Smith et al., 2016; Suleman, 2018). A 2023 PwC Asia-Pacific survey reports that 69 percent of employers prioritize adaptability and flexibility, followed closely by collaboration (67 percent) and critical thinking (66 percent). These findings reaffirm the ongoing global trend of embedding employability skills into university curricula a movement that has been well established over the past few decades (Yorke, 2006; Tomlinson, 2017; PwC, 2023). As universities continue this evolution, they are rethinking course design and delivery to ensure that students develop employability skills, such as communication, teamwork, and problem-solving, through purposeful teaching strategies and assessment practices. Moreover, numerous studies have documented efforts to enhance graduate employability by embedding essential skills into curriculum design and teaching practices (Huq & Gilbert, 2013). While these initiatives highlight the crucial role of educators in aligning learning outcomes with industry needs, implementing them at the course level can be challenging. For example, syllabi often list broad, competency-based outcomes but fail to show how specific class activities or assessments develop those skills (Jackson, 2016). At the same time, instructors report struggling to integrate employability skill development without compromising the depth of their subject matter content (Anthony, 2014).

In the specific context of Vietnam, although many higher education programs now aim to integrate employability skills into their curricula, these competencies often remain unarticulated or underdeveloped in course materials, especially within the rapidly changing landscape of Vietnamese higher education. Course syllabi often fail to emphasize these essential skills. As the foundational document guiding both instruction and assessment, the syllabus plays a critical role in shaping how students engage with employability competencies. When learning objectives, in-class activities, and evaluation tasks are intentionally aligned with clearly defined, transferable outcomes, students are more likely to receive consistent and meaningful support in developing those skills. Although aligning these elements at the course level can be challenging, it remains vital for fostering skill development in a structured and intentional manner (Rana et al., 2023). Thoughtfully designed syllabi, therefore, can serve as a bridge between academic instruction and workplace readiness by explicitly connecting course content with real-world skill requirements.

While studies on the integration of employability skills exist, little research has systematically analyzed course syllabi to assess the development of these skills. To address this gap, our convergent mixed-methods study examines the competencies specified in faculty-designed syllabi. How they're enacted through teaching and learning activities, as well as students' own reflections on their skill growth, at a medium-sized university in the South-Central U.S. We map key employability competencies onto syllabus components, objectives, learning outcomes, classroom activities, and assessment, and then compare this curricular blueprint with students' perceptions of how those activities fostered their skill development. Ultimately, our findings provide Vietnamese educators with an evidence-based guide to designing course syllabi that intentionally cultivate the transferable skills graduates need to succeed in the modern workplac

2. Literature Review

Employability Skills

As global labor markets evolve, and the importance of employability skills becomes more widely recognized, universities face increasing pressure to prepare students with more than just subject-specific knowledge. The ability to adapt, collaborate, and think critically has long been valued by employers, and in recent years, these competencies have received growing attention in educational planning and curriculum design (Smith et al., 2016; Dolce et al., 2020). Institutions are therefore under rising pressure to embed what are often referred to as employability skills or soft or transferable skills into their curricula. These competencies are emphasized as essential not only for immediate career readiness but also for students' long-term professional adaptability and lifelong learning (Ting et al., 2017).

Employability skills are commonly described as broad competencies that cut across disciplines and work environments. Research has consistently identified key attributes such as communication, critical thinking, collaboration, problem-solving, adaptability, and time management as essential for workforce success (Fahimirad et al., 2019; Mainga et al., 2022; Rana et al., 2023). In a LinkedIn-based survey of professionals, Barker (2014) reported that communication was rated as the most critical workplace competency, followed by critical thinking and logical analysis. This sustained emphasis on employability skills is echoed in recent employer surveys across Asia, including PwC's regional findings, which continue to highlight the value of human-centered competencies in today's labor market (PwC, 2023).

Note. Adapted from *Employability Skills Framework*, by U.S. Department of Education, n.d. (https://cte.ed.gov/initiatives/employability-skills-framework). Copyright by the U.S. Department of Education.

Figure 1: Common Framework for Employability Skills

To help institutions and organizations structure the development of these competencies, several established frameworks have emerged. The 21st Century Skills Framework (Binkley et al., 2010) and the U.S. Department of Education's Employability Skills Framework, for example, categorize these skills into interconnected domains such as applied knowledge (e.g., creativity, critical thinking), workplace skills (e.g., communication, collaboration), and personal effectiveness (e.g., accountability, time management). These models offer practical guidance for integrating employability competencies into course design and instructional practices. Building on these conceptual foundations, the present study adopts a framework-based approach to examine how

employability constructs are represented in course syllabi and how students perceive their own development of these skills.

Graduate Employability Skills in the Context of Vietnam

Graduate employability has become a national priority in Vietnam, influencing higher education reforms and institutional strategies (Bui et al., 2019; Tran, 2020; Vu et al., 2022). While universities have taken steps to align academic programs with labor market needs, a noticeable disconnect persists between curricular intentions and employer expectations, particularly in areas such as communication, critical thinking, and teamwork (Tran, 2018a, 2018b).

Truong's (2016) survey of 577 business educators identified communication and accountability as top-priority skills, with teamwork, time management, and presentation skills also ranking highly, while customer service and leadership received less emphasis. These findings also suggest variation in how employability skills are prioritized, which may influence the integration of such competencies into course design, instructional practices, and student learning outcomes.

From the employer perspective, Pham et al. (2018) reported dissatisfaction with graduates' communication, teamwork, and planning abilities, suggesting that traditional, content-heavy curricula may fall short in preparing students for workplace demands. Students have echoed similar concerns: Doan and Le (2017) found that 36.8% of students desired more opportunities to develop skills such as communication and planning, while Tran (2020) documented low confidence in critical thinking and self-management among final-year students. Together, these perspectives underscore the need for more intentional, syllabus-level interventions aimed at developing core employability competencies.

Employability Skills and Course Syllabi

Course syllabi are foundational documents that communicate a course's instructional approach, learning outcomes, and expectations and thus serve as strategic vehicles for embedding employability skills (Slattery & Carlson, 2005; O'Brien et al., 2009). Ludy et al. (2016) emphasize the value of learner-centered syllabi, which shift from listing content to guiding students through meaningful engagement and reflective practice. Such syllabi promote clarity in objectives, task sequencing, and assessment rubrics—elements closely tied to employability development, such as time management and decision-making.

In Vietnam, although most universities require syllabi, they are often underutilized for skill development. As Tran (2018a, 2018b) notes, Vietnamese syllabi often omit these scaffolding details, leaving students uncertain about the skills they are expected to develop.
While international efforts to embed employability into syllabi have gained momentum, empirical research in Vietnam remains limited. To address this gap, the present study examines through both syllabus analysis and student perception surveys how employability constructs are explicitly integrated and experienced in Vietnamese higher-education courses.

Global frameworks, employer surveys, and local studies converge on a core set of competencies, yet the syllabus itself often remains the "missing link" for operationalizing these skills in daily teaching. Drawing on models 21st Century Skills Framework (Binkley et al.,2010) and the U.S.

Department of Education's Employability Skills Framework, and empirical work by Barker (2014), Fahimirad et al. (2019), and Rana et al. (2023), we focus on six key constructs:

- **Communication**: Conveying and receiving information effectively.
- **Teamwork**: Collaborating with peers.
- **Critical thinking**: Evaluating and reasoning through complex problems, manifest in problem-based tasks and higher-order cognitive outcomes.
- **Problem-solving**: Applying knowledge to real-world challenges.
- **Time management**: Planning and meeting deadlines.
- **Personal qualities** (e.g., Accountability and independent learning): Demonstrating responsibility for one's own work and learning process.

By mapping these constructs to syllabus components (objectives, outcomes, teaching methods, assessments) and triangulating with student perceptions, this study builds a conceptual bridge between instructional design and employability outcomes, making integration of career-relevant skills more visible, structured, and actionable in the Vietnamese context.

3. Research Framework

To guide our study, we developed an Employability Integration Framework (Figure 2), which is grounded in both international employability models and empirical research in higher education contexts. The framework comprises three interrelated domains, each connected by bidirectional arrows to illustrate their dynamic interplay:

- **Syllabus Content & Core Employability Skills**
  This domain encompasses formal syllabus components, Course Objectives, Learning Outcomes, and Assessment, that explicitly signal the employability skills targeted by faculty.
- **Teaching–Learning Activities**
  These in-class and out-of-class activities operationalize syllabus content and shape student engagement. Examples include group projects, case studies, simulations, presentations, and reflective journals. Although embedded within syllabi, we treat these activities as a distinct variable: syllabi are coded for planned activities, and students report whether they perceived skill development through them.

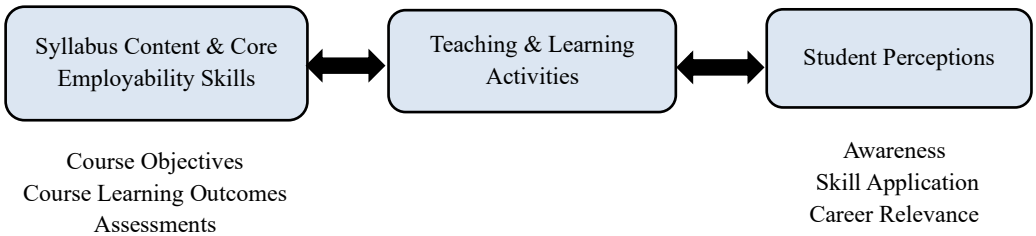

Figure 2: Employability Integration Framework

- **Student Perception**
  This domain captures how students interpret and respond to the employability skills embedded in their coursework. We assess three dimensions:

- **Awareness**: Recognition of skill emphasis in the syllabus.
- **Skill application**: Whether students feel they gained the skill through course activities.
- **Career relevance**: Perceived usefulness of the skill for future employment.

Grounded in the Employability Integration Framework, this study addresses the following research questions:

1. Which employability skills (e.g., communication, teamwork, critical thinking, problem-solving, time management) are explicitly embedded in the course syllabi?
2. How do students from different academic years (2nd, 3rd, and 4th) perceive the integration of those employability skills in their syllabi?
3. How does the clarity of employability skill integration in the syllabus influence students' perceptions of their skill development in the classroom?

4. Methodology

Research Design

This study employs a **co**nvergent mixed-methods design**,** in which qualitative and quantitative data are collected concurrently and analyzed separately before integration (Creswell, 2014; Dawadi et al., 2021). Qualitative content analysis of course syllabi uncovers how faculty embed employability skills; a student survey then captures how those same skills are perceived "on paper" and in practice.

By comparing statistical results with qualitative findings, we triangulate insights to enhance validity and deepen our understanding of alignment (Bowen, 2009; Morgan, 2022). Although direct educator input is not collected, their influence is inferred through the syllabus content.

Instrument Development

We created a ***Perceptions of Employability Skills Questionnaire*** in Vietnamese to capture three dimensions—awareness, skill acquisition, and career relevance—across six target employability skills (communication, teamwork, critical thinking, problem-solving, time management, and personal qualities). The instrument comprises 20 closed-ended items plus demographic questions and three open-ended prompts.

- **Item generation:** Drafted from definitions and examples in the 21st Century Skills Framework (Binkley et al., 2010), the U.S. Department of Education's Employability Skills Framework, and empirical studies (Fahimirad et al., 2019; Mainga et.al., 2022; Rana et al., 2023; Truong, 2016). Each item was worded to reflect how that skill appears in course syllabi.
- **Scale structure:** We used a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to provide respondents with a balanced range of options, allowing for nuanced expression of agreement without overwhelming complexity.
- **Content validity:** The draft of the questionnaire was reviewed by three higher-education quality assurance specialists and two instructional designers for clarity, relevance, and cultural appropriateness. Their feedback led to minor wording refinements to ensure that Vietnamese undergraduates could easily understand the items.

- **Pilot testing:** The pilot test was administered to 25 undergraduates to assess comprehension and timing. No item exceeded an average 10-second read time, and at least 95% of pilot participants rated all items unambiguous.

Data Collection and Analysis

Qualitative Data: Data for this study were collected through syllabus content analysis, following the approach outlined by Bowen (2009), who emphasizes the value of documents in providing contextual information, supplementing data, and verifying findings. This method was selected to examine how employability skills were embedded in course syllabi. A total of 30 syllabi were purposively selected based on Flick's (2018) inclusion criteria: authenticity, representativeness, and meaning. Only syllabi officially approved by department chairs were included. The sample covered general education (8 syllabi, e.g., Philosophy, Mathematics), foundational (8 syllabi, e.g., Microeconomics, Theory of Translation), and specialized courses (14 syllabi, e.g., Strategic Management, Raw Aquatic Materials) to ensure comprehensive representation. The sample size was determined based on the principle of data saturation in qualitative content analysis (Merriam & Tisdell, 2016) to ensure both depth and breadth in analyzing instructional priorities and the integration of employability skills.

Guided by Bowen's (2009) framework, content analysis was employed to identify text elements related to employability skills systematically. This involved examining specific words, phrases, and sentences within key syllabus components, such as course descriptions, objectives, learning outcomes, teaching methods, assessments, assignments, and schedules.

Once the syllabi were collected and initially coded, the data were organized into classifications based on syllabus components and employability skills, allowing for a deeper analysis. Two researchers independently coded all 30 syllabi using *Taguette*, an open-source qualitative analysis tool. A consensus coding process followed, incorporating trustworthiness strategies recommended by Creswell and Poth (2018) and Nowell et al. (2017), including independent coding, reflexive discussion, and audit documentation to ensure analytic rigor and transparency.

Quantitative Data: A quota sampling approach ensured adequate representation from students in years 2, 3, and 4 (120+ participants per year) to capture perspectives from various academic stages. This method, commonly used in educational research (Battaglia, 2011), allows for flexibility while ensuring key subgroups are represented. Participants were selected from diverse disciplines to enhance insight variety, balancing feasibility with meaningful representation for a thorough exploration of students' perceptions on the integration of employability skills.
T
he survey was distributed through course instructors and Student Associations, ensuring broad accessibility. Students were encouraged to participate by completing the questionnaire within the designated timeframe. Conducted between October 25 and November 2024, the study successfully collected 470 valid responses, all of which were included in the analysis. Since the survey was designed with a sequential response format, requiring students to answer each question before proceeding, there were no incomplete or invalid responses.

Statistical Considerations: Given the research questions, ANOVA and correlation analyses were used to compare perceptions across academic years and identify key relationships between syllabus engagement and skill perception.

5. Findings and Discussion

Qualitative Findings: Integration of Employability Skills in Course Syllabi.

Our analysis of 30 undergraduate course syllabi (Table 1) reveals that all six target employability skills personal qualities, problem-solving, critical thinking, communication, teamwork, and time management are represented to varying degrees across four key syllabus components: objectives, learning outcomes, teaching and learning activities, and assessments. Personal qualities appear most frequently in course objectives (43 percent). Still, they are sparsely reflected elsewhere, appearing in only 10 percent of learning outcomes and a mere 4 percent of both teaching activities and assessments. For example, the Political Economics syllabus includes an objective to "foster professional working attitudes," encouraging confidence, discipline, and responsibility; yet it offers little in the way of structured tasks or evaluations to develop these attributes further.

Table 1: Skill–Component Matrix

Skill	Course Objectives (n/30, %)	Learning Outcomes (n/30, %)	Teaching & Learning Activities (n/30, %)	Assessment (n/30, %)
Personal Qualities (Accountability, Independent learning)	(13) 43%	(3) 10%	(1) 4%	(1) 4%
Problem - Solving	(14) 47%	(15) 50%	(10) 34%	(6) 20%
Critical Thinking	(10) 34%	(17) 57%	(9) 30%	(11) 37%
Teamwork	(3) 10%	(2) 7%	(10) 34%	(9) 30%
Communication	(4) 14%	(13) 43%	(13) 43%	(14) 47%
Time Management	(2) 7%	(2) 7%	(2) 7%	0%

Problem-solving is signaled in nearly half of the course objectives (47 percent) and learning outcomes (50 percent), demonstrating instructors' intent to cultivate analytical skills. However, fewer than one-third of syllabi translate this intent into practice: only 34 percent outline specific activities, and just 20 percent incorporate problem-solving into assessments. The Microeconomics syllabus, for instance, emphasizes "equipping learners with the skills to analyze and evaluate management decision-making processes," but provides limited guidance on how students are to practice and be evaluated on that skill.

Critical thinking emerges most consistently in course objectives (34%), learning outcomes (57%), teaching and learning activities (34%), and assessments (37%), suggesting that many instructors both aim for and test analytical reasoning. The Tourism Management syllabus, for example, tasks students with "analyzing and evaluating marketing strategies for restaurant and food-service businesses," yet offers few hands-on activities to build such evaluative skills prior to assessment. Communication skills are emphasized in nearly half of teaching activities (43 percent) and assessments (47 percent), primarily through presentations, written reports, and oral exams, but

are rarely mentioned in course objectives (14 percent). Teamwork follows a similar pattern: present in just 10 percent of objectives and 7 percent of learning outcomes but integrated into 34 percent of activities and 30 percent of assessments, often via collaborative projects and group work activities.

Time management, despite its importance in organizing tasks and meeting deadlines, is virtually absent, being mentioned in only 7 percent of objectives and entirely omitted from assessments. Only two syllabi briefly note the need to plan deadlines, and none provide explicit assignment schedules or grading timelines. This lack of formal structure obscures how students might develop.

Overall, our findings suggest that syllabus objectives and learning outcomes are more reliable indicators of employability skills than are teaching and learning activities or assessments. The almost total neglect of time management in formal evaluation highlights a significant misalignment between intended skill integration and actual practice. By contrast, U.S. syllabi often include detailed assignment schedules and grading criteria, which foster transparency and nurture time-management development. The sparse treatment of time management in our Vietnamese sample echoes prior reports of graduate skills gaps (Tran, 2018a; Pham et al., 2018) and diverges from international employability frameworks (e.g., Binkley et al., 2010; U.S. Department of Education's Employability Skills Framework). These patterns set the stage for our next inquiry: exploring how students themselves perceive their development of these competencies in the classroom.

Quantitative Findings

A total of 470 student responses were analyzed, comprising 196 year 2 students (41.7%), 143 year 3 students (30.4%), and 131 year 4 students (27.9%) across various disciplines at the research site. The ANOVA results (Table 2) reveal differences in students' perceptions and behaviors across different academic years (Year 2, Year 3, and Year 4) regarding syllabus engagement, employability skills, and teaching methods. The Tamhane post-hoc test was conducted to explore further the significant differences identified in the ANOVA results, particularly for the variables "Often read the syllabus before starting a course" and "Gained skills are helpful for future work." The results (Table 3) reveal specific pairwise differences between academic years (Year 2, Year 3, and Year 4), providing deeper insights into the nature of these differences.

Engagement with Course Syllabi: For the item *"Often read the syllabus before starting a course",* the ANOVA result (Table 2) indicates a statistically significant difference ($F = 4.394$, $p = .013$) in how often students read the syllabus before starting a course. This suggests that students in different academic years vary in their engagement with course syllabi. The Post-Hoc Tamhane test was conducted and confirmed the significant difference. The results (Table 3) show that significant differences were found between Year 4 and both Year 2 (Mean Difference = -0.215, $p = 0.023$) and Year 3 (Mean Difference = -0.229, $p = 0.026$). This indicates that Year 4 students are significantly more likely to read the syllabus before starting a course compared to students in Years 2 and 3. The findings suggest that as students progress through their academic journey, they become more proactive in engaging with course materials, possibly due to increased awareness of the importance of aligning their learning with career goals (Kuh et al., 2008). The significant result highlights the importance of encouraging early engagement with syllabi to foster a deeper

understanding of course objectives and expectations. Research by Slattery and Carlson (2005) supports this, noting that students who engage with syllabi early are better equipped to manage their learning and achieve academic success.

Table 2: One-Way ANOVA of Student Perceptions of Employability Skills by Year Level

Items	Between Group Sum of Squares	Within Group Sum of Squares	Total Sum of Squares	Degrees of Freedom (B/W)	Mean Square (Between)	F-value	Significance (p-value)
Often read the syllabus.	4.613	245.142	249.755	2, 467	2.307	4.394	.013*
Employability skills clearly presented in the syllabus	0.644	227.996	228.640	2, 467	0.322	0.660	.517
Teaching activities help understand skill development	0.503	157.644	158.147	2, 467	0.251	0.744	.476
Teaching activities connect to job-required skills	0.052	212.791	212.843	2, 467	0.026	0.057	.945
Skills are clearly integrated into courses	1.214	273.341	274.555	2, 467	0.607	1.037	.355
Teaching methods help develop skills	0.136	37.287	37.423	2, 467	0.068	0.852	.427
Learning activities help apply skills	0.088	291.878	291.966	2, 467	0.044	0.070	.932
Gained skills helpful for future work	29.248	1831.239	1860.487	2, 467	14.624	3.729	.025*

Perceptions of the Gained Skills Helpfulness for Future Work: A significant difference, however, emerged regarding the perception of how helpful the skills gained through courses would be for future work. The ANOVA results showed a statistically significant difference ($p = .025$) in how students from different year levels viewed the usefulness of the skills they acquired. Year 2 students rated the helpfulness of the skills they gained more positively (mean = 3.98) compared to Year 3 students (mean = 3.86) (Table 3), with the difference between Year 2 and Year 3 students being statistically significant (mean difference = -0.541, $p = .045$) (Table 3). However, no significant differences were found between Year 2 and Year 4 students, nor between Year 3 and Year 4 students. This suggests that while Year 2 students perceive the skills they gain as more helpful for future employment, this perception diminishes slightly by Year 3, with Year 4 students' perceptions remaining somewhat neutral.

The variation between Year 2 and Year 3 students may reflect the changing nature of students' academic and professional expectations as they move through their university education. As students progress, they may begin to feel more skeptical or uncertain about the direct applicability of the skills they learn in the classroom to real-world employment situations.

Table 3: **Student Perceptions by Year Level with Post Hoc Comparisons**

Variable	Cohort Comparison	Mean (I)	Mean (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
Often read syllabus	Year 2 (n=196)	3.68 ± 0.73	—	—	—	—	—
	Year 3 (n=143)	3.66 ± 0.74	—	—	—	—	—
	Year 4 (n=131)	3.89 ± 0.69	—	—	—	—	—
	Year 2 vs. Year 4	3.68	3.89	-0.215*	0.080	0.023	[-0.41, -0.02]
	Year 3 vs. Year 4	3.66	3.89	-0.229*	0.087	0.026	[-0.44, -0.02]
Gained skills helpful for future work	Year 2 (n=196)	3.98 ± 0.85	—	—	—	—	—
	Year 3 (n=143)	3.86 ± 0.75	—	—	—	—	—
	Year 4 (n=131)	3.76 ± 0.82	—	—	—	—	—
	Year 2 vs. Year 3	3.98	3.86	0.541*	0		

Notes:

1. **Means (Mean ± SD)** reflect responses on a **5-point Likert scale** (1 = Strongly Disagree, 5 = Strongly Agree).
2. *$p < .05$. Significant differences are marked with an asterisk (**).
3. **Post hoc comparisons** use the Tamhane T2 test.

Perceptions of Employability Skills Integration and Teaching Methods: The ANOVA results (Table 2) reveal a consistent pattern across academic years regarding students' perceptions of employability skills integration and the effectiveness of teaching methods. No significant differences were found in students' perceptions regarding whether employability skills are clearly mentioned in syllabi ($p = .517$), whether teaching and learning activities help in understanding skill development ($p = .476$), or whether skills are integrated into courses ($p = .355$). Similarly, students across all years perceived a disconnect between classroom activities and job-required skills ($p = .945$). They shared similar views on the effectiveness of teaching methods in fostering skill development ($p = .427$). These findings suggest that students generally feel employability skills are not explicitly communicated or effectively integrated into their courses, which aligns with research by Tomlinson (2017) and Bridgstock (2009), who argue that employability skills are often implicit in curricula, making it difficult for students to recognize their relevance to future careers.

The lack of significant differences also highlights a broader issue with the perceived gap between academic activities and the application of real-world skills. Students across all years struggle to see the relevance of classroom activities to their future careers, as noted by Jackson and Wilton (2017). This underscores the need for more experiential learning opportunities, such as internships, simulations, and project-based learning, to bridge this gap. Knight and Yorke (2004) emphasize that employability is not just about possessing skills but also about understanding how to apply them in real-world contexts, which traditional teaching methods often fail to address.

Furthermore, the shared perception of teaching methods' inadequacy in developing skills suggests a need for innovative pedagogical approaches. Bridgstock (2009) and Biggs and Tang (2011) advocate for collaborative learning, technology-enhanced methods, and constructive alignment between learning outcomes, teaching activities, and assessments. These approaches are crucial for fostering skill development and may not be fully realized in current research site practices.

To explore the relationships between variables, particularly for questions that showed no significant differences in the ANOVA, Spearman's correlation analysis was performed (Table 4). The results highlight several significant relationships that complement the ANOVA findings, offering a deeper understanding of how students perceive employability skills, teaching methods, and their connection to future work.

Teaching Methods and Skill Development (Table 4): Perceptions of teaching methods helping develop skills (*Variable 7*) showed weak but significant negative correlations with almost all other variables, including employability skills mentioned in syllabi (*Variable 3*, $r = -.188$, $p < .01$), teaching and learning activities helping understand skill development (*Variable 4*, $r = -.224$, $p < .01$), and skills being integrated into courses (*Variable 6*, $r = -.280$, $p < .01$). This indicates that students who perceive teaching methods as less effective in developing skills are also less likely to recognize the integration of employability skills in their courses. This finding supports the ANOVA result, which showed no significant differences in perceptions of teaching methods across academic years, suggesting a widespread dissatisfaction with traditional teaching approaches. Bridgstock (2009) emphasizes the need for innovative pedagogical methods to address this gap.

Connection between Learning Activities and Employability Skills: The perceived connection between teaching and learning activities and job-required skills (*Variable 5*) showed strong positive correlations with employability skills mentioned in syllabi (*Variable 3*, $r = .503$, $p < .01$), teaching and learning activities helping understand skill development (*Variable 4*, $r = .544$, $p < .01$), and skills being integrated into courses (*Variable 6*, $r = .517$, $p < .01$). This suggests that students who perceive a strong alignment between classroom activities and job-required skills are also more likely to recognize the integration of employability skills in their coursework and how these skills contribute to their professional preparation. This finding aligns with the ANOVA result, which showed no significant differences in perceptions of this connection across academic years, highlighting a consistent need for better alignment between academic activities and workplace requirements (Jackson & Wilton, 2017).

Helpfulness of Gained Skills for Future Work: The perceived most useful skill for future work (*Variable 9*) showed weak but significant negative correlations with several variables, including skills being integrated into courses (*Variable 6*, $r = -.181$, $p < .01$) and classroom activities helping apply skills (*Variable 8*, $r = -.154$, $p < .01$). This suggests that students who prioritize certain skills for future work are less likely to perceive those skills as being effectively integrated or applied in their courses. This could reflect a broader appreciation of multiple skills rather than a singular focus. This finding complements the ANOVA result, which showed significant differences in perceptions of the most useful skill across academic years, indicating evolving skill priorities as students' progress through their studies (Hinchliffe & Jolly, 2011).

Table 4. Spearman's Correlation Matrix: Relationships Between Student Perceptions of Employability Skills and Teaching Methods

#	Variable	1	2	3	4	5	6	7	8	9
1	Year of Study	1								
2	Often read the syllabus	.102*	1							
3	Skills clearly presented in the syllabus	–.012	.288**	1						
4	Activities help understand skill development	–.037	.257**	.495**	1					
5	Activities connect to job-required skills	–.005	.285**	.503**	.544**	1				
6	Skills clearly integrated into courses	.048	.354**	.482**	.467**	.517**	1			
7	Teaching methods help develop skills	–.051	–.137**	–.188**	–.224**	–.214**	–.280**	1		
8	Activities help apply skills	.008	.301**	.349**	.404**	.440**	.461**	–.221**	1	
9	Gained skills helpful for future work	.036	–.119**	–.072	–.073	–.093*	–.181**	.094*	–.154**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation results offer a nuanced understanding of the relationships between the variables examined in the ANOVA. While the ANOVA identified significant differences in syllabus engagement and perceptions of the most useful skill across academic years, the correlation analysis reveals the interconnectedness of these variables. For example, the strong positive correlation between syllabus engagement and perceptions of employability skills integration (*Variables 2 and 3*) supports the ANOVA finding that Year 4 students, who are more likely to read syllabi, also perceive a stronger emphasis on employability skills. Similarly, the weak negative correlations involving teaching methods (*Variable 7*) align with the ANOVA result, which shows no significant differences in perceptions of teaching methods across academic years, suggesting a consistent dissatisfaction with traditional approaches. These findings underscore the need for tailored interventions to address the unique needs of students at different stages of their academic journey and better prepare students for the demands of the modern workforce, as emphasized by Tomlinson (2017) and Bridgstock (2009).

Comparison of Employability Skills Across Courses: The analysis of students' perceptions of employability skills development across course groups (Figure 3), alongside the opportunities for practicing these skills (Figure 4), reveals a cohesive narrative about the strengths and gaps in course instruction. These findings highlight the critical role of intentional course design, practical learning opportunities, and alignment between course objectives and employability outcomes.

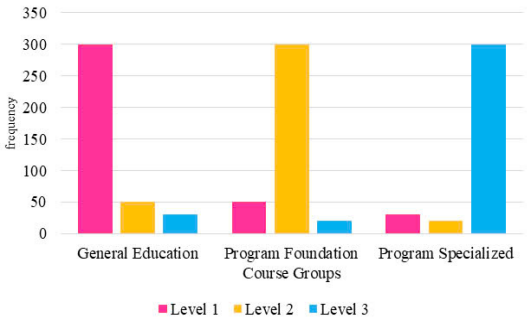

Figure 3: Employability Skills Development Across Course Groups

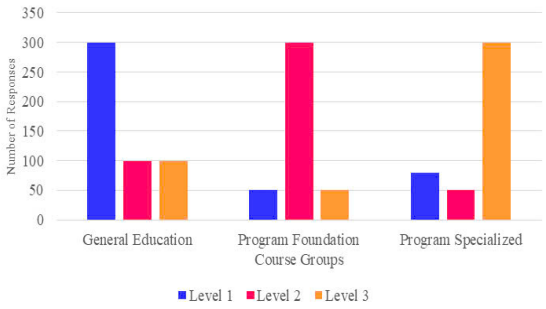

Figure 4: Opportunities for Practicing Employability Skills Across Course Groups

General education courses, designed to provide students with a broad foundational knowledge, were ranked the lowest (Level 1) by students in terms of both employability skill development and opportunities for practice. These courses were perceived as offering limited exposure to career-specific skills due to their theoretical and generalized nature.

Foundation courses, which provide more discipline-specific knowledge than general education courses, received moderate rankings (Level 2) for both skill development and opportunities for practice. Students' perceptions indicate that foundation courses incorporate some hands-on methods, such as problem-solving exercises and analytical tasks. However, these methods are not applied consistently across all courses, which could undermine their effectiveness in fostering employability (Tymon, 2013). Specialized courses, which focus on advanced, discipline-specific competencies, were ranked the highest (Level 3) for both employability skill development and opportunities for practice. Students identified these courses as offering the most targeted and practical learning experiences, often through assignments such as capstone projects, practicums, and research activities. These experiences enable students to engage in authentic tasks that mirror workplace challenges, thereby fostering essential skills such as critical thinking, teamwork, leadership, and adaptability (Jackson, 2016).

Triangulation of Quantitative and Qualitative Insights: Bridging Syllabi, Student Perceptions, and Institutional Practice

In our study of undergraduates' engagement with employability skills, three interwoven patterns emerge when we bring together survey data and syllabus analyses. First, although every syllabus nominally enumerates learning outcomes, often citing teamwork and critical thinking, the document itself seldom captures the full range of classroom activities that bring those skills to life. In practice, instructors deploy peer-review activities, client simulations, and in-class debates that remain "invisible" within the syllabus. Over time, students learn this hidden curriculum: fourth-year students, who read their syllabi significantly more often than their second- and third-year counterparts ($F(2,467)=4.39$, $p=.013$; Year 4 > Year 2,3; $|MD| \approx 0.22$, $p<.05$), have internalized the need to hunt for subtle cues deadlines, weightings, project descriptions that point to unannounced requirements. In contrast, early-year students take the syllabus at face value and engage less eagerly, trusting the document to outline what truly matters.

Second, optimism about the career relevance of course-acquired skills peaks in the second year and softens thereafter. Year 2 students rated the helpfulness of learned skills most highly ($M=3.98 \pm 0.85$),

significantly above Year 3 (adjusted MD=-0.541, p=.045), before settling into a more neutral stance in Year 4. This trajectory aligns with our syllabus review: foundational courses for second-year cohorts offer clearly scaffolded assignments such as case studies, structured reports, and guided problem-solving exercises that make the connection between classroom tasks and professional competencies unmistakable. In upper-level courses, however, many rich learning experiences continue to occur but are often omitted from the formal syllabus. Without explicit rubrics or documented practice opportunities, advanced students may underappreciate the very exercises that, in reality, hone their employability.

Third, students across all years rate the clarity of skill integration and the alignment of teaching activities with workplace requirements as only moderate and crucially, these ratings do not differ by cohort (all $p > .35$). Our document analysis sheds light on this uniformity: although time management, adaptability, and digital literacy surface as critical for today's graduates, they are either omitted or mentioned only in passing within syllabi - an issue also identified in previous studies (Tran, 2018a, 2018b; Pham et al., 2018). For example, only 47 percent of syllabi use group presentations or oral reports to evaluate communication, 30 percent incorporate team-based projects to assess collaboration, and 37 percent include case analyses or problem-solving assignments to gauge critical thinking, while time management is never mentioned. This helps explain why students, regardless of year, perceive a disconnect between what they believe they should practice and what the syllabus makes visible. Without clear outlines of classroom activities, submission deadlines, and grading criteria, students struggle to see how their coursework builds real-world skills.

To bridge this divide, we recommend updating course documents to include succinct overviews of all major teaching-and learning activities, whether foundational case studies or advanced simulations—and explicitly map each to the targeted skills. By making the hidden curriculum visible, we can nurture proactive engagement from the outset, sustain students' confidence in the relevance of skills throughout their program, and ensure that every learner recognizes how classroom experiences build the competencies they will need in their careers.

6. Conclusion and Implications

This study highlights the importance of aligning syllabus design with students' evolving needs and expectations across academic years. While employability skills such as teamwork, communication, and problem-solving are frequently listed as intended learning outcomes, their successful development depends not only on classroom practice but also on how clearly these activities and expectations are communicated to students through course documents. Our findings suggest that students, particularly in their early years, benefit from greater transparency and scaffolding in how syllabi present learning activities and their relevance to professional competencies.

The patterns revealed across survey and syllabus data point to several implications for improving instructional design and student engagement:

1. **Clarify skill development pathways in syllabi.** Beyond stating intended learning outcomes and assignment weights, instructors should provide concise descriptions of how specific assignments (e.g., oral presentations, peer review sessions, simulations) contribute to targeted employability skills. This transparency helps students, especially in earlier years, recognize the purpose behind tasks and connect coursework with career readiness goals.

2. **Encourage early engagement with syllabi.** Since more senior students are better equipped to interpret syllabi, institutions should introduce strategies such as syllabus orientations, brief quizzes, or annotated syllabi to guide students in understanding expectations and skill-building opportunities from the outset of their academic journey.
3. **Diversify teaching methods to reinforce the relevance of skills.** Integrating active learning strategies, such as industry-linked projects, collaborative case studies, and reflective writing, can strengthen students' perception that classroom experiences mirror real-world demands. This approach is especially important given that similar instructional methods are being applied across disciplines, as indicated by the ANOVA results.
4. **Promote discipline-specific clarity.** Despite variations in content, syllabi across fields tend to use a similar format that may downplay field-specific skill sets. Tailoring language and examples to specific disciplines could enhance relevance and engagement for students.

By treating syllabi not just as administrative documents but as tools for signaling learning priorities, instructors and institutions can enhance students' awareness of how course activities contribute to their development of employability skills. Greater intentionality in syllabus design, especially when paired with active teaching practices, can empower students to take ownership of their learning and prepare more confidently for the workplace.

7. Limitations

This study has several limitations. First, since quota sampling is a non-probability method, findings cannot be generalized to all students beyond the study sample with high confidence. Although students from different academic years and disciplines were included, the sample may not fully represent diverse perspectives on the integration of employability skills.
Second, course syllabi were the primary data source for assessing skill integration. While syllabi outline objectives, activities, and assessments, they may not fully capture how these skills are taught in practice. Some instructors may emphasize skill development in ways not explicitly documented in the syllabus.

Finally, the study focused on syllabi from a specific institutional context, limiting comparisons with international practices. While references were made to syllabus structures in American universities, a broader cross-institutional analysis could provide deeper insights into best practices.

8. Recommendations for Future Research

1. **Instructor perspectives**: Examining faculty views on the integration of employability skills can reveal challenges and best practices in embedding these skills.
2. **Teaching strategies**: Investigating the impact of experiential learning, internships, and industry collaborations can offer practical recommendations.
3. **Employer insights**: Assessing employer perspectives on graduate preparedness can inform curriculum improvements and strengthen university-industry collaborations.

Future research in these areas can enhance employability skill development, ensuring graduates are well-prepared for the job market.

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References

Anthony, S. (2014). Integrating soft skills in the curriculum without sacrificing content. *Journal for Academic Excellence*, *2*(4), 1-57.

Barker, B. (2014). Employability skills: Maintaining relevance in marketing education. *The Marketing Review*, *14*(1), 29-48.

Battaglia, M. P. (2011). Nonprobability sampling. *Encyclopedia of Survey Research Methods*, 1, 523-526.

Biggs, J., & Tang, C. (2011). *Teaching for Quality Learning at University*. McGraw-Hill Education.

Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., & Rumble, M. (2010). Draft white paper 1: Defining 21st-century skills. *http://cms.education.gov.il/NR/rdonlyres/19B97225-84B1-4259-B423-4698E1E8171A/115804/defining21stcenturyskills accessed in Kota Kinabalu, Malaysia: April 15, 2015]*.

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, *9*(2), 27–40.

Bui, H. T., Nguyen, H. T., & Cole, D. (2019). Innovate higher education to enhance graduate employability. *England: Routledge*.

Bridgstock, R. (2009). The Graduate Attributes We've Overlooked: Enhancing Graduate Employability through Career Management Skills. *Higher Education Research & Development*, *28*(1), 31-44.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Doan, H. D., & Le, T. T. M. (2017). Study on the influence of employability skills in universities on the relationship with enterprises. *Van Lang University Journal of Scientific* (4), 48-54.

Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-Methods Research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, *2*(2), 25-36.

Dolce, V., Emanuel, F., Cisi, M., & Ghislieri, C. (2020). The soft skills of accounting graduates: Perceptions versus expectations. *Accounting Education*, *29*(1), 57-76.

Fahimirad, M., Nair, P. K., Kotamjani, S. S., Mahdinezhad, M., & Feng, J. B. (2019). Integration and Development of Employability Skills in the Malaysian Higher Education Context: A Review of the Literature. *International Journal of Higher Education*, *8*(6), 26-35.

Flick, U. (2018). *An introduction to qualitative research*. Sage.

Hinchliffe, G. W., & Jolly, A. (2011). Graduate identity and employability. *British Educational Research Journal*, *37*(4), 563-584.

Huq, A., & Gilbert, D. H. (2013). Enhancing graduate employability through work-based learning in social entrepreneurship: A case study. *Education and Training*, *55*(6), 550-572.

Jackson, D. (2016). "Re-conceptualizing graduate employability: The importance of pre-professional identity." *Higher Education Research & Development*, *35*(5), 925–939.

Jackson, D., & Wilton, N. (2017). Perceived employability among undergraduates and the importance of career self-management, work experience, and individual characteristics. *Higher Education Research & Development*, *36*(4), 747-762.

Knight, P. T., & Yorke, M. (2004). *Learning, Curriculum and Employability in Higher Education*. Routledge.

Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2008). *Student success in college: Creating conditions that matter*. Jossey-Bass.

Ludy, M.J., Brackenbury, T., Folkins, J., Peet, S.H., Langendorfer, S.J., & Beining, K. (2016). Student impressions of syllabus design: Engaging versus contractual syllabus. *International Journal for the Scholarship of Teaching and Learning*, *10*(2).

Mainga, W., Daniel, R.M., & Alamil, L. (2022). Perceptions of employability skills of undergraduate business students in a developing country: An exploratory study. *Higher Learning Research Communications*, *12* (1).

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey Bass.

Morgan, H. (2022). Conducting a qualitative document analysis. *The Qualitative Report*, *27*(1), 64-77.

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, *16*(1).

O'Brien, J. G., Millis, B. J., & Cohen, M. W. (2009). *The course syllabus: A learning-centered approach*. John Wiley & Sons.

Pham, T. H., Dao, T. N., & Bui, T. K. N. (2018). Assessing the occupational skills of alumni in accounting at universities in Hanoi. *Science & Technology*, 46, 12-16.

PwC (2023). Asian Pacific workforce hope and fears survey. https://www.pwc.com/gx/en/asia-pacific/hope-and-fears/2023/asia-pacific-hopes-and-fears-survey-2023.pdf

Rana, R., Galligan, L., Fard, R., & McCredie, T. (2023). A novel employability embedding framework for three-year Bachelor's programs. *Journal of Teaching and Learning for Graduate Employability*, *14*(1), 104-118.

Slattery, J. M., & Carlson, J. F. (2005). Preparing an effective syllabus: Current best practices. *College Teaching*, *53*(4), 159–164.

Smith, C., Ferns, S., & Russell, L. (2016). Designing work-integrated learning placements that improve student employability: Six facets of the curriculum that matter. *Asia-Pacific Journal of Cooperative Education*, *17*(2), 197-211.

Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education, 76*(2), 263-278.

Ting, S. H., Marzuki, E., Chuah, K. M., Misieng, J., & Jerome, C. (2017). Employers' views on the importance of English proficiency and communication skills for employability in Malaysia. *Indonesian Journal of Applied Linguistics*, *7*(2), 315-327.

Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education & Training*, 59(4), 338-352

Tran, L. H. N. (2018a). Game of blames: Higher education stakeholders' perceptions of causes of Vietnamese graduates' skills gap. *International Journal of Educational Development*, 62, 302-312.

Tran, L. H. N (2018b). The skills gap of Vietnamese graduates and final-year university students. *Journal of Education and Work*, 31(7-8), 579-594. doi:10.1080/13639080.2018.1559280

Tran, L. H. N. (2020). *Building Soft Skills for Employability: Challenges and Practices in Vietnam*. London: Routledge.

Truong, H. T. T. (2016). *Critical Reflections on the Vital Importance of Soft Skills and the Strategies for the Integration of Essential Soft Skills into the Curriculum of Higher Education Business Institutions in Vietnam*. PhD. Dissertation, 324.

Tumpa, R. J., Skaik, S., Ham, M., & Chaudhry, G. (2023). Enhancing project management graduates' employability through group assessment innovations: An empirical study. *Project Leadership and Society*, *4*, 100084.

Tymon, A. (2013). The student perspective on employability. *Studies in Higher Education*, 38(6), 841–856.

U.S. Department of Education: https://cte.ed.gov/initiatives/employability-skills-framework

Vu, N. T., Nguyen, T. T. T., & Hoang, H. (2022). English-majoring student teachers' response to employability in light of a transition to online learning. *International Journal of Teacher Education and Professional Development (IJTEPD)*, *5*(1), 1-16.

Yorke, M. (2006). *Embedding employability into the curriculum*. Higher Education Academy.