JIRSEA
JOURNAL OF INSTITUTIONAL RESEARCH SOUTH EAST ASIA

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SOUTH EAST ASIAN ASSOCIATION FOR INSTITUTIONAL RESEARCH

Fostering Critical Thinking Via Socratic Dialogue Among Entrepreneurial Development Students In A Malaysian Public University

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FOSTERING CRITICAL THINKING VIA SOCRATIC DIALOGUE AMONG ENTREPRENEURIAL DEVELOPMENT STUDENTS IN A MALAYSIAN PUBLIC UNIVERSITY

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ABSTRACT

Socratic dialogue, characterized by critical questioning and reflective thinking, plays a crucial role in enhancing critical thinking skills. This study examines the process by which Socratic dialogue fosters critical thinking among students in the course of BPME6093 Entrepreneurial Development at Universiti Utara Malaysia Kuala Lumpur Campus. Utilizing a case study research design, the study focused on 10 respondents through a series of focus group discussion conducted over five months. The data collection process was guided by an interview protocol based on a 'Critical Thinking Rubric' specifically designed for the course. Each interview aimed to identify the development of entrepreneurial skills and the enhancement of critical thinking abilities. Thematic analysis of the focus group interview data revealed significant insights into how Socratic dialogue encourages students to question assumptions, evaluate arguments, and articulate their thoughts more coherently. Findings suggest that the iterative process of asking and answering questions in a structured manner enables students to develop a deeper understanding of entrepreneurial concepts and fosters a mind-set conducive to innovation and problem-solving. This research contributes to the existing body of knowledge by highlighting the potential of Socratic dialogue as an effective pedagogical tool in higher education, particularly in the field of entrepreneurial development. The implications of this study emphasize the necessity of incorporating critical thinking frameworks into entrepreneurial education to equip students for the complexities of the business world. The study concludes by offering recommendations for educators to adopt similar strategies, aimed at enhancing both critical thinking and entrepreneurial skills in students.

Keywords: higher education, innovation, problem-solving

1. Introduction

The development of critical thinking skills is a cornerstone of higher education, especially within disciplines that require innovative problem-solving and entrepreneurial acumen. Among various andragogical strategies, Socratic dialogue stands out as a potent method for fostering critical thinking. Critical thinking, often described as the "art of thinking about thinking," involves the ability to analyze and evaluate information, arguments, and evidence systematically. It is a fundamental skill for students, particularly in entrepreneurial education, where the ability to navigate complex business environments and devise innovative solutions is paramount (Facione, 2011). The integration of critical thinking frameworks within the curriculum not only enhances students' analytical capabilities but also prepares them for real-world challenges.

Critical thinking is a cornerstone of entrepreneurial success and innovation, as it equips entrepreneurs with the ability to navigate complex challenges and seize opportunities effectively. The following importance of critical thinking shows why it is vital:

   i. **Problem-Solving**: Entrepreneurs often face unpredictable challenges. Critical thinking enables them to analyze problems, identify root causes, and develop innovative solutions. As Richard Branson aptly said, "Launching a business is essentially an adventure in problem-solving".

   ii. **Decision-Making**: Sound decisions are crucial for entrepreneurial success. Critical thinking helps entrepreneurs evaluate risks, weigh rewards, and make informed choices that align with their goals.

   iii. **Innovation**: Critical thinking fosters creativity by encouraging entrepreneurs to question the status quo, explore new ideas, and develop groundbreaking solutions that address market needs.

   iv. **Adaptability**: In dynamic business environments, adaptability is key. Critical thinking allows entrepreneurs to assess changing circumstances and pivot strategies effectively.

   v. **Resilience**: Entrepreneurs often encounter setbacks. Critical thinking cultivates resilience by enabling them to learn from failures and approach challenges with a strategic mindset.

Additionally, the implications for entrepreneurial development includes:

   i. **Market Analysis**: Entrepreneurs use critical thinking to understand market trends, consumer behavior, and competitive landscapes.

   ii. **Strategic Planning**: It aids in crafting strategies that are both innovative and practical, ensuring long-term growth.

   iii. **Continuous Learning**: Critical thinking promotes reflective inquiry, encouraging entrepreneurs to adapt and improve their approaches over time.

In essence, critical thinking is not just a skill but a framework for envisioning possibilities and driving entrepreneurial success.

Socratic dialogue, rooted in the teachings of Socrates, involves a disciplined questioning process aimed at stimulating critical thinking and illuminating ideas. This method encourages students to question assumptions, evaluate arguments critically, and develop coherent thought processes. According to Paul and Elder (2006), Socratic questioning fosters deep learning by

engaging students in a dialogue that challenges their reasoning and promotes reflective thinking. Previous studies have demonstrated the effectiveness of Socratic dialogue in promoting critical thinking in various educational settings. For instance, Bell and Pape (2012) found that Socratic seminars significantly improved students' critical thinking skills in secondary education. Similarly, the study by Van Vliet et al. (2015) highlighted the role of Socratic dialogue in enhancing critical reflection among medical students. These findings suggest that Socratic dialogue could be equally beneficial in entrepreneurial education, helping students to develop the critical thinking skills necessary for business success.

1.1.   Socratic Dialogue in Action

Socratic questioning, grounded in the dialogic methods of the Greek philosopher Socrates, is a pedagogical approach that fosters critical thinking through disciplined, open-ended inquiry. It is widely used in education to help students clarify concepts, analyze assumptions, and engage deeply with content (Tes Editorial, 2024). Instructors using this method often withhold direct answers, instead prompting students to reflect, explain, and justify their reasoning. This approach cultivates intellectual humility and enhances metacognition, which are crucial for deep learning and the development of lifelong learners (Stauffer, 2023).

Effective implementation of Socratic dialogue involves diverse strategies such as seeking clarification, probing evidence, and exploring consequences. For example, questions like "What do you mean by that?" or "What might be the implications?" are common in classrooms utilizing this method (Baybekov, 2023). Malaysian educational setting found that systematic use of Socratic questioning improved students' critical thinking and writing skills, though some learners initially struggled with confidence and language proficiency. This demonstrates the potential for Socratic questioning to be adapted across cultural and linguistic contexts (Driscoll, 2024).

Overall, Socratic dialogue transforms passive learning into an active, inquiry-based process where students construct understanding through dialogue. This method not only increases engagement and knowledge retention but also helps develop higher-order thinking skills essential for problem-solving and decision-making (Gress, 2023). Educators are thus encouraged to incorporate Socratic dialogue as part of a broader effort to cultivate reflective, independent thinkers who are prepared for complex real-world challenges (Ekeh at al., 2024).

The Learning Rubric Matrix assesses student performance in three areas: Critical Thinking, Entrepreneurship, and Socratic Dialogue. In Critical Thinking, students' progress from struggling to identify problems to deeply analyzing issues and offering insightful conclusions. In Entrepreneurship, students move from limited initiative to generating viable ideas, creating plans, and understanding market needs. In Socratic Dialogue, students evolve from passive participation to actively engaging in deep discussions, asking questions, and encouraging critical thinking. This rubric provides clear expectations for each skill, helping students understand what's needed to excel.

Empirical evidence suggests that Socratic dialogue is an effective method for fostering critical thinking skills:

> (i) **Enhanced Critical Thinking in Language Learners**: A study conducted with English Language Learners (ELLs) demonstrated that the Socratic Method significantly improved their critical thinking skills over a five-week period. The

approach involved structured questioning and discussions, which encouraged learners to analyze, evaluate, and synthesize information.

(ii) **Student-Centered Learning**: Research highlights that the Socratic Method aligns well with student-centered learning approaches, promoting active engagement and deeper understanding. In Malaysia, for instance, educators have found it effective in enhancing critical thinking among students, despite challenges like time constraints and the need for teacher training.

(iii)**Practical Application**: The method's emphasis on dialogue and inquiry helps students develop skills such as problem-solving, logical reasoning, and reflective thinking. These are crucial for navigating complex real-world scenarios.

While the Socratic Method has proven benefits, its success depends on factors like the facilitator's skill in guiding discussions and the learners' willingness to engage actively (Table 1).

Table 1: Development of Postgraduate Assessment Using a Rubric For Critical Thinking and Entrepreneurship Through Socratic Dialogue Model

Criteria	Beginning (1)	Developing (2)	Proficient (3)	Exemplary (4)
Critical Thinking	Struggles to identify problems or make logical conclusions.	Identifies problems but analysis lacks depth or clarity.	Analyzes problems logically with relevant evidence.	Demonstrates deep analysis and insightful conclusions.
Entrepreneurship	Shows limited initiative or understanding of opportunity.	Shows some initiative, but ideas lack feasibility.	Demonstrates viable ideas with planning and resource awareness.	Shows innovation, strong planning, and understands market needs.
Socratic Dialogue	Rarely participates or only gives superficial responses.	Participates but responses lack reasoning or clarity.	Engages with thoughtful responses and relevant questioning.	Leads dialogue with probing questions and encourages deep thinking.

Entrepreneurial education in Malaysian public universities has been gaining momentum as the government emphasizes the importance of nurturing "job creators" rather than "job seekers." Below the overview of its current state, challenges, and opportunities:

Current state includes:

i. **Compulsory Courses**: Entrepreneurship subjects are mandatory for all students in public universities, ensuring widespread exposure to entrepreneurial concepts.
ii. **Practical Learning**: Universities incorporate activities such as seminars, workshops, and entrepreneurship events to provide hands-on experience.
iii. **Government Support**: The Ministry of Higher Education actively promotes entrepreneurship education through policies and funding.

Challenges include:

i. **Resource Constraints**: Limited funding and facilities can hinder the effectiveness of entrepreneurship programs.
ii. **Teaching Methods**: Some educators lack training in innovative teaching methods, which affects the quality of entrepreneurial education.
iii. **Student Engagement**: Encouraging active participation and fostering entrepreneurial mindsets among students remains a challenge.

Opportunities include:

i. **Economic Impact**: Entrepreneurship education can reduce graduate unemployment and boost economic growth.
ii. **Global Collaboration**: Partnerships with international institutions can enhance the quality and scope of entrepreneurial education.
iii. **Innovation and Startups**: Universities can serve as incubators for innovative ideas, providing students with the resources to launch startups.

Malaysian public universities are on the right track, but addressing challenges and leveraging opportunities will be key to maximizing the impact of entrepreneurial education.

In Malaysia, the importance of entrepreneurial education is highlighted by the government's efforts to foster innovation and economic growth. As part of the Malaysia Education Blueprint 2015-2025, there is a strong emphasis on nurturing critical thinking and problem-solving skills among students (Ministry of Education Malaysia, 2015). However, traditional teaching methods in Malaysian universities often emphasize route learning and memorization, which do not adequately prepare students for the dynamic nature of the business world. Entrepreneurial education aims to equip students with the knowledge and skills necessary to create and manage businesses successfully. It involves fostering an entrepreneurial mindset, which includes traits such as innovation, risk-taking, and resilience. Critical thinking is integral to this mindset, as it enables students to analyze market trends, evaluate business opportunities, and develop strategic plans.

Pedagogy and andragogy are two distinct approaches to education, each tailored to different learner profiles and contexts. Here's a breakdown of their differences and implications for entrepreneurial education:

The key factors include:

i. **Learner Profile**:

   a) *Pedagogy*: Focuses on teaching children and adolescents. Learners are typically dependent on the teacher for guidance and knowledge.
   b) *Andragogy*: Designed for adult learners who are self-directed and bring their life experiences into the learning process.

ii. **Teaching Approach**:

   a) *Pedagogy*: Teacher-centered, with structured curricula and external motivators like grades.
   b) *Andragogy*: Learner-centered, emphasizing autonomy, problem-solving, and practical application.

iii. **Motivation**:

   a) *Pedagogy*: Learners are often motivated by external rewards or fear of failure.
   b) *Andragogy*: Adults are driven by intrinsic goals, such as career advancement or personal growth.

iv. **Content Delivery**:

a) *Pedagogy*: Focuses on foundational knowledge and discipline.
b) *Andragogy*: Prioritizes experiential learning and real-world problem-solving.

The implications for entrepreneurial education as follows:

i. **Pedagogy**:
a. Suitable for younger learners who need foundational knowledge about entrepreneurship.
b. Encourages discipline and structured learning, which can be beneficial for understanding basic business concepts.
ii. **Andragogy**:
a. Ideal for adult learners or aspiring entrepreneurs who seek practical skills and strategies.
b. Promotes experiential learning, mentorship, and active engagement, which are crucial for developing entrepreneurial competencies.

Entrepreneurial education often benefits from a blended approach, combining the structured foundation of pedagogy with the experiential and self-directed elements of andragogy. This dual strategy ensures learners of all ages and backgrounds can thrive in entrepreneurial pursuits.

Entrepreneurial education in Malaysian public universities is justified by its significant role in fostering economic growth and reducing unemployment. The Malaysian Ministry of Higher Education has made entrepreneurship subjects compulsory for students in public universities, aiming to produce "job creators" rather than "job seekers". This initiative aligns with the nation's vision of achieving developed status by nurturing entrepreneurial skills and encouraging innovation.

Public universities provide various entrepreneurship activities, such as training programs, seminars, and short courses, which equip students with practical knowledge and experience. These efforts contribute to creating a workforce that is adaptable, innovative, and capable of addressing market demands. Additionally, entrepreneurial education promotes self-reliance and empowers students to explore business opportunities, ultimately enhancing Malaysia's economic resilience.

While challenges persist, such as the need for improved teaching methods and resources, the overall impact of entrepreneurial education in Malaysian public universities underscores its importance in shaping a dynamic and competitive economy.

This study addresses the gap by investigating how Socratic dialogue can be used to enhance critical thinking among entrepreneurial development students at a Malaysian public university. It examines the process by which Socratic dialogue fosters critical thinking among students in the course of BPME6093 Entrepreneurial Development at Universiti Utara Malaysia Kuala Lumpur Campus. Specifically, the research questions for this study are as follows:

1) How do BPME6093 Entrepreneurial Development students perceive the role of Socratic dialogue in facilitating or hindering their critical thinking?

2) To what extent does the Socratic dialogue help develop the students' critical thinking?

1.2. Theoretical Framework

This study draws upon the adult learner's theoretical framework developed by Malcom Knowels (1980) to investigate deeper into how postgraduate students perceive and engage in Socratic Questionings in order to develop critical thinking.

Figure 1: Theoretical Framework for Adult Learners

The development of critical thinking skills is essential in adult education, where learners bring a wealth of experience and prior knowledge to the educational environment. Refer to Figure 1.0 Theoretical framework for adult learners, the theoretical framework of andragogy, developed by Malcolm Knowles, provides a foundational understanding of adult learning principles. This framework, when combined with the methodologies of critical thinking and Socratic questioning, offers a robust approach to enhancing learning outcomes in adult education.

Andragogy, a term popularized by Malcolm Knowles (1980), refers to the art and science of helping adults learn. Knowles posited that adults learn differently from children and therefore require different teaching approaches. His theory is based on several 6 key assumptions about adult learners:

1) Self-Directed Learning: Adults prefer to take responsibility for their own learning. They are autonomous and self-directed, seeking to have a say in their educational journey (Knowles, 1984). This contrasts with the more dependent nature of child learners in pedagogy.

2) Experience as a Resource: Adults bring a diverse array of experiences to the learning process. These experiences serve as a rich resource for learning, as adults tend to draw on their background knowledge and life experiences when encountering new information (Merriam & Bierema, 2014).

3) Readiness to Learn: Adult learners are often ready to learn things that they feel they need to know. Their readiness to learn is closely tied to their social roles and responsibilities, making education more relevant and timely (Knowles et al., 2015).

4) Problem-Centered Learning: Adults are motivated to learn to the extent that they perceive the learning will help them perform tasks or solve problems. They prefer learning that is organized around life situations rather than subject matter units (Tough, 1979).

5) Internal Motivation: While external motivators such as job promotions are influential, adults are primarily driven by internal factors like self-esteem, self-confidence, and personal satisfaction (Knowles, 1984).

Malcolm Knowles (1980) introduced the concept of *andragogy*, which he defined as "the art and science of helping adults learn." This approach emphasizes the unique characteristics and needs of adult learners, distinguishing it from traditional pedagogy, which focuses on teaching children.

These principles have had a profound impact on adult education, shaping teaching methods and curricula to better accommodate the needs of adult learners.

1.3. Socratic Dialogue

Originated by the Greek philosopher Socrates, the Socratic dialogue involves a dynamic exchange between teacher and students, where the teacher persistently poses probing questions to uncover the underlying beliefs that shape the students' views and opinions. Although often misunderstood, this dialectical method of questioning forms the foundation of much of Western pedagogical tradition, dating back to Plato. An extreme depiction of this technique is seen in the character of Dr. Kingsfield, portrayed by John Houseman in the 1973 film "The Paper Chase." In his effort to delve into ethical dilemmas and moral principles, Dr. Kingsfield employs a harsh version of Socratic questioning, subjecting his law students to intense scrutiny and humiliation over the details and implications of legal cases.

Paul and Elder (2006) describe Socratic questioning as a method for examining underlying assumptions, exploring complex ideas, and uncovering hidden values (see Figure 2). Incorporating Socratic questioning into adult education involves several key practices:

1) **Clarification**: Asking questions that help clarify thoughts, such as "What do you mean by that?" or "Can you give me an example?"
2) **Probing Assumptions**: Challenging underlying assumptions with questions like "What are you assuming?" or "How would your position change if this assumption is incorrect?"
3) **Exploring Evidence**: Encouraging the examination of evidence with questions such as "What evidence supports your view?" or "Is there reason to doubt this evidence?"
4) **Examining Consequences**: Considering the implications of ideas by asking "What are the consequences of this idea?" or "What might be the long-term impact?"
5) **Perspectives**: Looking at different perspectives by asking "How would someone who disagrees with you respond?" or "What is an alternative viewpoint?"
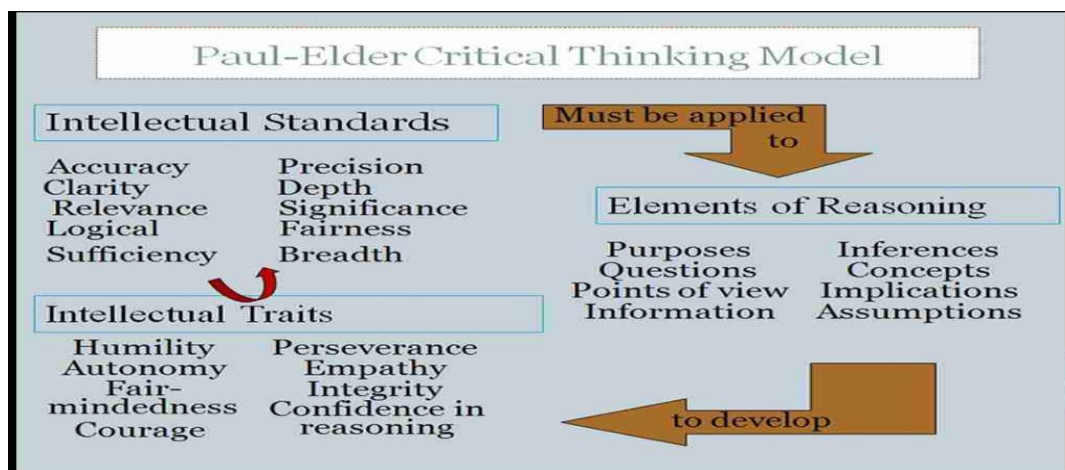
Figure 2: Paul and Elder Critical Thinking Model (Paul & Elder, 2006)

Paul and Elder (2006) emphasize Socratic questioning as a powerful method for critical thinking and intellectual exploration. This approach involves asking deep, probing questions to examine underlying assumptions, uncover hidden values, and explore complex ideas. By challenging the foundations of thought, Socratic questioning encourages individuals to reflect on their beliefs, analyze reasoning, and consider alternative perspectives.

The method is particularly effective in fostering intellectual humility and clarity, as it requires participants to justify their viewpoints and address inconsistencies. Paul and Elder highlight its role in education, where it can be used to develop students' analytical skills and promote thoughtful dialogue. Socratic questioning is not just about finding answers but about cultivating a disciplined and reflective approach to thinking.

Socratic Dialogue is highly effective in fostering critical thinking, as it encourages individuals to engage in reflective and analytical thought processes. This method, rooted in the teachings of Socrates, revolves around asking open-ended questions that challenge assumptions, promote deeper understanding, and stimulate intellectual curiosity.

In educational contexts, Socratic Dialogue has been shown to enhance students' ability to analyze, evaluate, and synthesize information. By engaging in structured conversations, learners are encouraged to articulate their reasoning, identify contradictions in their beliefs, and explore alternative perspectives. This approach not only develops higher-order thinking skills but also nurtures metacognitive abilities, enabling students to evaluate their own thought processes.

Moreover, Socratic Dialogue aligns with modern pedagogical goals, such as student-centered learning and inquiry-based approaches. It has been particularly effective in creating a safe and supportive environment where learners feel empowered to question and collaborate, fostering a growth mindset and independent learning.

However, implementing this method effectively requires skilled facilitation, as educators must master questioning techniques and manage classroom dynamics. Despite these challenges, the benefits of Socratic Dialogue in cultivating critical thinking make it a valuable tool in both academic and professional settings.

1.4.   Critical Thinking

Critical thinking is the process of rationally analysing and attempting to solve problems accurately and efficiently, without relying on guesses and assumptions. This cognitive skill involves a mental process where one must analyse, examine, and scrutinize options based on acquired knowledge to form an opinion or a set of actions. Business leaders use critical thinking to address daily challenges, while students depend on it for their learning processes and research. It involves thinking rationally and clearly, and understanding the connections between opinions and ideas (Steven West, 2017).

To cultivate critical thinkers, educators must provide students with the necessary strategies. This means moving beyond surface-level questions to those that encourage students to delve into their background knowledge and make connections to real-world scenarios, thereby making learning more memorable and meaningful. Critical thinking is a broad term. Researchers believe it involves students effectively identifying, analysing, and evaluating content or skills. In this process, students discover and present compelling reasons to support their answers or thinking. Educators aim to promote the use of 21st-century tools and, importantly, thinking skills. According to Joseph Mathew (2019), some essential skills foundational to critical thinking include: a) Communication and Information skills, b) thinking and Problem-Solving skills, c) Interpersonal and Self- Directional skills and d) Collaboration skills.

1.5.   The Importance of Critical Thinking in Entrepreneurial Success and Innovation

In today's fast-paced and competitive business environment, the success of an entrepreneur depends not only on creativity and passion but also on the ability to think critically. Critical thinking the capacity to analyze situations, make informed decisions, and solve problems systematically—is a fundamental skill that underpins entrepreneurial success and drives innovation (Toxirovna, 2025). It equips entrepreneurs with the tools to navigate uncertainty, recognize opportunities, and create value in dynamic markets.

One of the core aspects of entrepreneurship is problem-solving and decision-making. Entrepreneurs constantly encounter challenges that require immediate attention and thoughtful resolution. Critical thinking enables them to evaluate problems from various angles, consider multiple solutions, and make decisions based on logic and evidence rather than assumptions or emotions (Rathee et al., 2025). This ability to make reasoned choices is essential in reducing errors and maximizing outcomes in high-stakes business scenarios.

Moreover, critical thinking plays a significant role in opportunity recognition. Successful entrepreneurs are those who can identify unmet needs, gaps in the market, or emerging trends before others do. Through careful observation and analytical reasoning, critical thinkers are able to distinguish genuine opportunities from temporary trends or distractions (Rathee et al., 2025). This foresight is crucial in launching innovative products or services that meet real demands and generate long-term value.

In addition, critical thinking is vital for strategic planning. Entrepreneurs must formulate short-term and long-term goals, design strategies to achieve them, and anticipate potential risks and obstacles. Critical thinkers approach planning with a logical and structured mindset, considering both internal and external factors that may affect their business. They are able to

weigh the pros and cons of various strategies and select the ones that align best with their vision and resources (Keelson et al., 2025).

While creativity is often celebrated in entrepreneurship, critical thinking complements and enhances innovation. It helps refine creative ideas by evaluating their feasibility, market potential, and scalability. Entrepreneurs who think critically can take raw concepts and develop them into practical, innovative solutions that address specific problems or needs. This process of refinement ensures that innovation is not just imaginative but also implementable and valuable. Another key area where critical thinking is indispensable is risk management. Entrepreneurs must deal with uncertainty and make decisions that involve financial, operational, and reputational risks. Critical thinkers are better equipped to assess these risks, predict potential outcomes, and develop contingency plans. This thoughtful approach minimizes the impact of failures and increases the chances of long-term success (Rathee et al., 2025).

Furthermore, critical thinking enhances leadership and communication, both of which are essential for managing teams, attracting investors, and engaging customers. Entrepreneurs who think critically are able to articulate their ideas clearly, listen actively to feedback, and resolve conflicts constructively (Keelson et al., 2025). They foster a culture of open dialogue and rational problem-solving, which contributes to a more innovative and productive work environment. Lastly, critical thinking enables entrepreneurs to learn from failure. In the entrepreneurial journey, setbacks are inevitable. However, those who can reflect on their experiences, identify what went wrong, and adapt their strategies accordingly are more likely to grow and succeed. Critical thinkers maintain a growth mind-set and view failures as valuable learning opportunities rather than as permanent setbacks.

In conclusion, critical thinking is an essential skill for any entrepreneur aiming for success and innovation. It empowers individuals to make sound decisions, recognize and seize opportunities, plan strategically, manage risks effectively, and continuously improve through reflection. As the business landscape becomes more complex and competitive, the ability to think critically will remain a vital asset for entrepreneurial growth and innovation.

1.6.   Relating theoretical framework and research questions.

1) How do BPME6093 Entrepreneurial Development students perceive the role of Socratic dialogue in facilitating or hindering their critical thinking?

Within the context of andragogy, it is essential to understand students' perceptions of the Socratic dialogue. Adult learners, such as BPME6093 Entrepreneurial Development students, bring diverse experiences and self-directed learning preferences to the classroom. The Socratic dialogue, with its emphasis on questioning and critical reflection, can either facilitate or hinder their critical thinking depending on how it aligns with these principles. Researching student perceptions can help determine whether the Socratic dialogue complements their learning styles and experiences, thereby enhancing critical thinking, or if it poses challenges to their engagement and cognitive processes.

2) To what extent does the Socratic dialogue help develop students' critical thinking?

Andragogy highlights the importance of active engagement and problem-solving in adult learning. The Socratic dialogue, characterized by its probing questions and reflective

discussions, aligns well with these principles by encouraging learners to critically analyze and synthesize information. By evaluating the extent to which Socratic dialogue impacts students' critical thinking, we can assess its effectiveness in promoting deeper understanding, analytical skills, and the ability to apply knowledge in real-world contexts. This research question aims to measure the tangible benefits of Socratic dialogue in developing critical thinking skills among adult learners.

2. Methodology

2.1. Research Design

The case study research design was chosen for its ability to provide an in-depth understanding of the process by which Socratic dialogue enhances critical thinking skills. This qualitative approach allows for a detailed examination of the experiences and perspectives of the participants, offering rich insights into the effectiveness of Socratic questioning in an educational setting (Yin, 2018).

2.2. Participant Selection

The population for this study consisted of postgraduate students enrolled at the Universiti Utara Malaysia, Kuala Lumpur. Participants were selected using a purposeful sampling technique, with the inclusion criteria being postgraduate students enrolled in Campus in the course of BPME6093 Entrepreneurial Development, year 2023. This method allowed researchers to choose information-rich cases that provided substantial insights pertinent to the study's central inquiry (Yin, 2014). From the eligible cases, 10 out of 12 postgraduate students were selected as the sample for this case study. The exclusion criteria are those who have not completed the 42 hours face-to-face learning process. The demographics of the participants are presented in Table 2. All participants had career backgrounds related to the field of corporate and business working in both the public and private sectors of their respective industries. Their work experience ranged from 5 to 25 years. Pseudonyms were used to ensure the confidentiality of the participants' identities.

Respondents from this study include males and females. About 50 percent male and 50 percent female. Six of them come from the police department, whose roles are executive and non-executive levels. Other respondents' roles are business manager, lawyer, head of department, and chief clerk. Their services in their respective roles range from 5 years to 25 years. Two persons were serviced from 5 to 7 years, four persons were serviced from 11 years to 15 years, and two persons were serviced from 16 years to 25 years.

Table 2: Demographics of Participants

Respondent	Gender	Age	Career background	Years of experience
A	Male	34	Business Manager	11
B	Female	35	Lawyer	11
C	Male	35	Intelligent Officer	10
D	Male	32	Policeman	18
E	Male	29	Policeman	5
F	Female	32	Head of Department	16
I	Female	34	Project Manager	16
J	Female	41	Police Inspector	25
K	Female	29	Chief Clerk	7
L	Male	37	Policeman	15

2.3. Data Collection Procedures

A qualitative approach in studying Socratic questioning is particularly valuable because it captures the nuanced and subjective experiences of participants. By employing methods like interviews, focus groups, or classroom observations, researchers can uncover how Socratic questioning influences learners' thought processes, engagement, and critical thinking development.

This approach allows for a deeper understanding of the contextual factors, such as teaching style, group dynamics, or individual learning preferences, that impact the effectiveness of Socratic questioning. The rich, descriptive data gathered can inform educators on best practices, ultimately enhancing the application of this method in fostering analytical and reflective skills in students.

Data were collected through a series of in-depth, one-on-one interviews conducted over five months. The interview protocol was guided by a 'Critical Thinking Rubric' specifically designed for the course, which included criteria such as clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness (Facione, 2011). The rubric of Critical Thinking was the existing measures developed by School of Business Management, College of Business, Universiti Utara Malaysia. Each interview aimed to identify the development of entrepreneurial skills and the enhancement of critical thinking abilities among the participants.

Using a critical thinking rubric as an existing measure is a solid approach to evaluate and develop students' analytical and reflective skills systematically. These rubrics typically provide clear criteria for assessing critical thinking, such as problem identification, reasoning, evidence evaluation, and logical conclusions. They ensure consistency and objectivity while also highlighting areas for improvement.

In the context of Socratic questioning or qualitative research, such rubrics can serve as a baseline to observe how participants progress in critical thinking abilities. For instance, educators or researchers can compare pre- and post-intervention assessments to measure the impact of Socratic dialogue on students' reasoning skills. This structured framework adds rigor to your study, while still leaving room for qualitative insights into participants' unique experiences and challenges.

The interview protocol consisted of open-ended questions designed to encourage reflective thinking and critical inquiry. Example questions included:

i. "Can you describe a situation during the course where you had to question an assumption?"

ii. "How did engaging in Socratic dialogue influence your ability to evaluate arguments?"

iii. "In what ways did the structured questioning process help you articulate your thoughts more clearly?"

Interviews were recorded and transcribed verbatim to ensure the accuracy of the data. Pseudonyms were used to protect the confidentiality of the participants (Creswell & Poth, 2018).

2.4. Business Model Canvas (BMC)

The Business Model Canvas (BMC) was utilized to cultivate entrepreneurship skills and generate

business ideas. The BMC is a strategic management tool that provides a visual framework for outlining the key components of a business model on a single page. Unlike traditional business plans, which can be extensive and detailed, the BMC simplifies the process of developing and testing a business idea through a concise, visual approach. Alex Osterwalder and Yves Pigneur introduced this method in their book, "Business Model Generation," and has become a vital tool for entrepreneurs seeking to understand and enhance their businesses' competitiveness and viability in their respective markets (Osterwalder & Pigneur, 2010).

Students were tasked with developing a business idea using the BMC template and will be evaluated on their achievement based on the rubric (Table 2). By leveraging Canva's online Business Model Canvas tool, students could create a structured framework to guide their entrepreneurial ventures. This approach is beneficial for various types of businesses, whether a retail store for an online brand or an emerging tech startup. It helps identify the factors that will sustain their business concept's competitiveness over time. Students were encouraged to select a template and customize the text boxes with their data, enabling them to assess their current stage in business development and plan for future growth.

The use of the BMC allows students and researchers to evaluate their progress and strategically refine their business models, ensuring they remain viable and competitive in the marketplace. The BMC's visual format aids in highlighting critical aspects of the business, such as customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structures (Osterwalder & Pigneur, 2010).

The Business Model Canvas (BMC) is a powerful tool for entrepreneurial development classes, as it provides a structured framework for students to conceptualize, design, and analyze business models. Its implementation in such classes has proven effective in enhancing students' entrepreneurial mindset and practical skills.

By using the BMC, students can visually map out key components of a business, such as value propositions, customer segments, revenue streams, and cost structures. This hands-on approach encourages critical thinking, creativity, and problem-solving, enabling students to better understand the complexities of running a business. Additionally, the BMC fosters collaboration and teamwork, as students often work in groups to develop and refine their business ideas.

Studies have shown that incorporating the BMC into entrepreneurship education improves learning outcomes and entrepreneurial intentions. It equips students with the knowledge and confidence to innovate and pursue business opportunities, making them more prepared for the challenges of the entrepreneurial world. Figure 3 summarizes the nine building blocks of a business according to an online source.
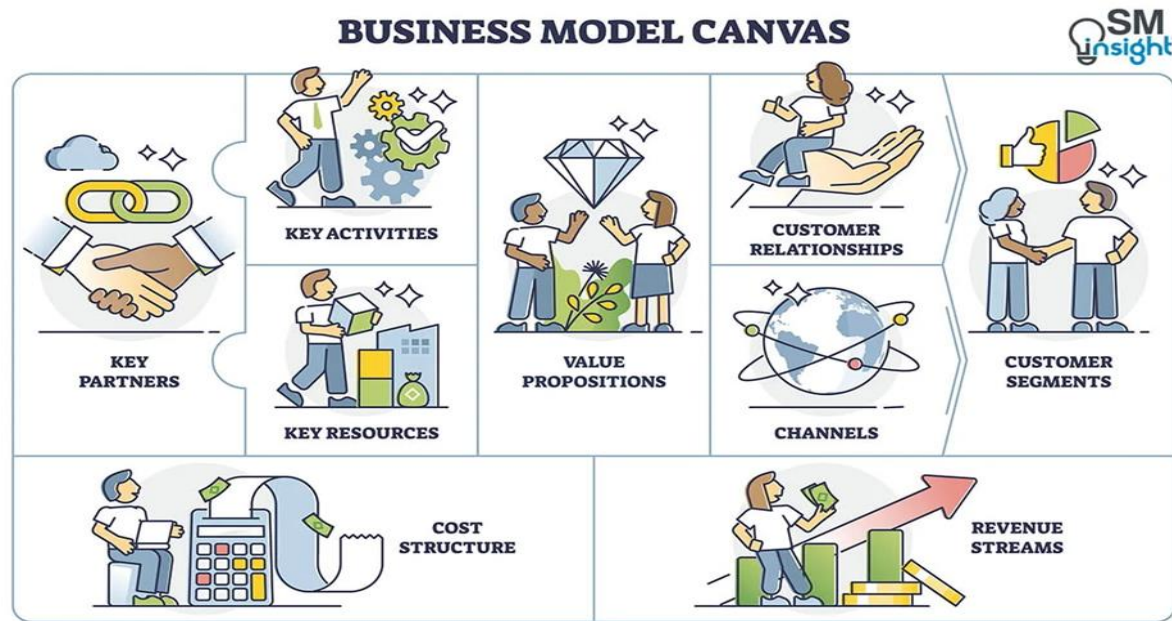
Figure 3: Nine building blocks of a business (Source: Shutterstock)

2.5. Data Analysis

Thematic analysis was employed to analyze the interview data. This method involved identifying, analyzing, and reporting patterns (themes) within the data (Braun & Clarke, 2006). To investigate how the Socratic dialogue fosters critical thinking among BPME6093 Entrepreneurial Development students at a Malaysian public university, we employed thematic analysis to address the following research questions:

1) How do BPME6093 Entrepreneurial Development students perceive the role of Socratic dialogue in facilitating or hindering their critical thinking?

2) To what extent does the Socratic dialogue help develop the students' critical thinking?

We began by transcribing interviews and focus group discussions with students, focusing on their perceptions and experiences with Socratic dialogue. Through familiarization with the data, we identified initial codes relating to students' views on the dialogue's effectiveness, challenges faced, and instances where critical thinking was demonstrated. These codes were then categorized into themes such as "Engagement and Interaction," "Cognitive Challenges," and "Skill Enhancement."

The theme of "Engagement and Interaction" revealed that students valued the dialogic nature of the Socratic Method, noting that it encouraged active participation and deeper reflection. However, the theme of "Cognitive Challenges" highlighted concerns about the difficulty and frustration some students experienced. Finally, the "Skill Enhancement" theme underscored the positive impact of Socratic dialogue on critical thinking development, with students reporting improved analytical skills and better argumentation.

Through this thematic analysis, we provided a nuanced understanding of how Socratic dialogue can both facilitate and hinder critical thinking, offering insights into its application in adult learning contexts.

2.6. Ethical Considerations

Ethical approval was obtained from the university's research ethics committee prior to commencing

the study. Participants were informed about the study's purpose, procedures, and their right to withdraw at any time without penalty. Informed consent was obtained from all participants. In accordance with the Declaration of Helsinki, ethical considerations were strictly followed to ensure the integrity and ethical standards of this study (World Medical Association, 2013). Confidentiality and anonymity were maintained throughout the research process by using pseudonyms and securely storing the data (Babbie, 2016).

3. Findings

The implementation of Socratic Dialogue within Malaysian public universities has fostered a transformative educational experience that extends beyond traditional pedagogical methods. Through this approach, students have not only honed their questioning and reflective thinking skills but have also achieved a deeper understanding of their subject matter. This iterative process of structured questioning has enhanced students' problem-solving abilities, fostering an environment that encourages active participation and critical evaluation of evidence. The following themes illustrate the significant impacts of this dialogue-based approach on the development of critical thinking skills among university students as shown in Table 3.

Table 3: Findings of Focus Group Discussion

Theme	Description	Verbatim
Enhanced Questioning Skills	Students developed the ability to ask deeper, more meaningful questions that probed underlying assumptions.	" I feel challenged by the probing questions, it force me to think deeper to the assumptions that I have deep back seated in my mind"
Increased Reflective Thinking	Participants exhibited a higher level of reflective thinking, considering multiple perspectives and consequences.	" Not all the problem can be solve sequentially, so we start to think divergently and lateral thinking"
Deeper Understanding	The iterative questioning process led to a deeper understanding of subject matter and core concepts.	"We have to do the think aloud in order to answer series of questions, it makes us think a lot. As s result we are more clear what we are thinking about"
Enhanced Problem-Solving Skills	Through structured questioning, students improved their ability to develop logical solutions to problems.	"We need to breakdown from the problems into manageable bits an pieces, solve the problem one by one, some sequentially and some all at once like joining puzzle here an there ."
Engagement and Participation	Increased student engagement and active participation in discussions, fostering a collaborative learning environment.	"Our class room become very interesting not boring, not one way communication, we are adult we don't listen only we have a lot ideas to share from our work experiences, we questions each other"
Critical Evaluation of Evidence	Students became more adept at critically evaluating the validity and reliability of evidence presented.	"I don't take things at surface value, I will check the evidence referring to the primary source"

3.1. Research Question 1: How Do Entrepreneurial Development Students Perceive The Role Of Socratic Dialogue In Facilitating Or Hindering Their Critical Thinking?

3.1.1. Enhanced Questioning Skills

A common theme that emerged most of the participants' sharing is about their liking for Socratic dialogue is that students developed the ability to ask deeper, more meaningful questions that probed underlying assumptions: "*I feel challenged by the probing questions, it forces me to think deeper to the assumptions that I have deep back seated in my mind.*" This is echoed by "*the probing questions compelling me to explore deeper thought, deeply ingrained in my mind. This process forces me to critically examine and reflect on my beliefs, leading to a more profound understanding and thoughtful consideration that shape my viewpoints.*"

3.1.2. Increased Reflective Thinking

The second theme emerged is that participants exhibited a higher level of reflective thinking, considering multiple perspectives and consequences. "Not *all the problem can be solve sequentially, so we start to think divergently and lateral thinking*" …. "*Socratic dialogue fosters creativity and addresses complex challenges more effectively*, it *helps us see multiple ways, not one way solution*"

3.1.3. Deeper Understanding

The iterative questioning process led to a deeper understanding of subject matter and core concepts. "*We have to do the think aloud in order to answer series of questions, it makes us think a lot. As a result we are clearer what we are thinking about*" "

"*It is engaging in think-aloud exercises with a series of questions compels us to reflect deeply, enhancing our clarity and understanding. This process fosters critical thinking, allowing us to clear our thoughts more effectively and gain a better hold of our underlying assumptions and ideas. So, we achieve a more precise and coherent understanding of our thought processes*".

The Socratic Method could help students in gaining more confidence to speak when practising using this method. Effective or good communication skills goes beyond the ability in answering but also to understand the messages communicated to them (Albalawi & Nadeem, 2020).

3.1.4. Engagement and Participation

Another theme which emerged from the thematic analysis in this study is it makes learning experience more interesting. It increased student engagement and active participation in discussions, fostering a collaborative learning environment.

"*Our class room become very interesting not boring, not one way communication, we are adult we don't listen only we have a lot ideas to share from our work experiences, we question each other*"

"We *share experiences, this exchange makes the learning environment stimulating and interactive, allowing us to contribute and learn from one another effectively. It's a dynamic exchange, not merely a one-way dialogue. We are adult learners who knows more we questions more Socratic dialogues really suits us*. "

3.1.5. Critical Evaluation of Evidence

Students became more adept at critically evaluating the validity and reliability of evidence presented. "*I don't take things at surface value, I will check the evidence referring to the primary source*" …

"*Ha ha now even in my personal life when I received WhatsApp message in groups I will evaluate and questioned asking what is the underlying message , is the source authentic or*

just some hoax passed around"

3.2.   Research Question 2: To What Extent Does the Socratic Dialogue Help Develop the Students Critical Thinking?

The initiative to foster critical thinking through Socratic Dialogue at Malaysian public universities has yielded significant insights. By evaluating various dimensions of students' development, we have identified key themes that highlight their progress in creativity, innovation, proactivity, synthesis, and risk tolerance. Each theme has been categorized and assessed on a scale from 1 (Below Basic) to 4 (Advanced), providing a clear picture of the levels achieved by the majority of students as shown in Table 4.

Table 4: Findings of Critical Thinking Rubrics

	1 =Below Basic	2 = Basic	3 = Proficient	4 = Advance	Remarks
Creativity	Trying new ways of doing activities has not even been considered	Activities could be executed differently has been considered	Activities could be executed differently has been outline with some alternatives	Activities could be executed in a different way has been outlined with some alternatives to measure their efficiency.	Majority students achieved level 4
Innovative	No ideas or innovative **solution** have been proposed	Some idea or innovative solution has been proposed but no specific process	Various ideas and solutions has been proposed and outline.	Various ideas and solutions has been proposed and the application process has been clearly outlined.	Majority students achieved level 4
Proactive	Suitable contributions have not been provided	Some suitable contributions have been provided to tackle the problems	Suitable contributions have been provided and some ideas are good enough to tackle problems	Suitable contributions are provided to high quality level and correlated to existing situations and problems	Majority students achieved level 4
Synthesis	New ways to make things have not been identified	A new way of doing things has been identified but lack of pros and cons	Two or more new ways of doing things have been described with some pros and cons	Two or more new ways of doing things are described and all the pros and cons are described	Majority students achieved level 3
Risk Tolerance	No risks and benefits are identified in a limited way	As assessment is carried out to analyze the probability and potential consequences of each risk or benefit	A comprehensive assessment of risks and benefits are carried out	Risk and benefits are prioritized.	Majority students achieved level 3

3.2.1. Creativity

Socratic dialogue significantly enhances students' creativity by encouraging them to consider alternative ways of executing activities. Initially, students may not even contemplate new methods, but through continual questioning and discussion, they begin to recognize the potential for different approaches. At the basic level, they consider that activities could be executed differently. Progressing to proficiency, students not only outline alternative methods but also suggest some options. At the advanced level, they outline multiple alternatives and measure their efficiency. The majority of students achieved the proficient level, demonstrating the dialogue's effectiveness in fostering creative thinking and problem-solving skills.

3.2.2. Innovation

Innovation is another critical area where Socratic dialogue plays a pivotal role. Initially, students may not propose any ideas or innovative solutions. However, as they engage in Socratic questioning, they begin to propose some ideas, even if the processes are not yet clear. At the proficient level, various ideas and solutions are proposed and outlined. At the advanced

level, the application process for these ideas is clearly delineated. The majority of students reached the proficient level, indicating that Socratic dialogue encourages them to think innovatively and develop practical solutions.

3.2.3. Proactivity

Proactivity among students is markedly improved through Socratic dialogue. Initially, students may not provide suitable contributions to tackle problems. As they engage more deeply, they start offering some suitable contributions. At the proficient level, their contributions are good enough to address the problems effectively. At the advanced level, the contributions are of high quality, well-correlated to existing situations and problems. The majority of students achieved the proficient level, showing that Socratic dialogue cultivates a proactive approach to problem-solving and engagement with issues.

3.2.4. Synthesis

Socratic dialogue enhances students' ability to synthesize information and generate new ways of doing things. Initially, they may not identify any new methods. As they progress, they identify new ways but may lack a comprehensive understanding of the pros and cons. At the proficient level, students describe two or more new ways of doing things, including some pros and cons. At the advanced level, they provide a thorough analysis of all pros and cons for multiple new methods. The majority of students reached the proficient level, reflecting the dialogue's role in developing their synthesis and evaluative skills.

3.2.5. Risk Tolerance

The ability to assess and tolerate risk is crucial for critical thinking and decision-making. Initially, students may not identify risks and benefits comprehensively. Through Socratic dialogue, they start to assess the probability and potential consequences of each risk or benefit. At the proficient level, they carry out a comprehensive assessment of risks and benefits. At the advanced level, risks and benefits are prioritized, reflecting a nuanced understanding of their implications. The majority of students achieved the proficient level, indicating that Socratic dialogue enhances their ability to analyze and prioritize risks effectively.

4. Discussion

This study explored two fundamental research questions regarding the role of Socratic dialogue in developing critical thinking among entrepreneurial development students at Universiti Utara Malaysia. The findings shed light on students' perceptions and the extent to which Socratic dialogue enhances their critical thinking skills. The discussion also ties these findings back to Malcolm Knowles' Andragogy Theory, which provides a theoretical framework for understanding adult learning (Knowles, 1980).

The perceptions of students regarding Socratic dialogue are integral to understanding its impact on their critical thinking abilities. According to Knowles' Andragogy Theory, adult learners are self-directed and bring a wealth of experience to the learning environment (Knowles, 1984). This study found that students largely perceive Socratic dialogue as a facilitating tool for developing critical thinking. Through oral defense of their opinions and participation in sustained, free discussion, students are able to develop better self-images, which affects their motivation to learn (Kay & Young, 2010). They appreciated the iterative process of questioning and reflection, which compelled them to examine their assumptions and think more deeply about the concepts discussed.

4.1. BPME6093 Entrepreneurial Development Students Perceive Socratic Dialogue as Both Facilitating Their Critical Thinking

The perceptions of BPME6093 Entrepreneurial Development students regarding the role of Socratic dialogue are multifaceted and provide valuable insights into its effectiveness and challenges in fostering critical thinking. Based on the thematic analysis of the qualitative data, as stated by Schleicher (2012), the 21st century era requires people to think creatively and critically, solve problems skillfully, make important decisions, as well as communicate and collaborate in group activities. Several key themes emerged that highlight students' views on Socratic dialogue:

4.1.1. Engagement and Interaction

Students overwhelmingly appreciated the interactive nature of Socratic dialogue. They reported that the method encouraged active participation, which contrasted with traditional lecture-based approaches where their role was more passive. The questioning technique inherent in Socratic dialogue compelled students to think deeply about the subject matter, articulate their thoughts, and engage in meaningful discussions with their peers. This engagement was perceived as a significant facilitator of critical thinking, as it required them to analyze, evaluate, and synthesize information rather than simply memorizing facts. The method hones the art of effective communication (Yazidi, 2023). When engaging in Socratic dialogue, participants must articulate their thoughts clearly and concisely.

4.1.2. Cognitive Challenges

Despite the positive aspects, students also highlighted several cognitive challenges associated with Socratic dialogue. The constant questioning and requirement to defend their viewpoints often led to feelings of frustration and cognitive overload. Some students found it difficult to keep up with the rapid pace of questioning and felt pressured to provide immediate responses without sufficient time for reflection. The studies showed that students of higher education in Malaysia still have low and moderate levels of critical thinking, which resulted in lower employability (Fadhlullah & Ahmad, 2017). This challenge was particularly pronounced among students who were less confident in their critical thinking abilities or who were not accustomed to this type of interactive learning environment. While these challenges were seen as hindrances, some students acknowledged that overcoming these obstacles ultimately contributed to their cognitive growth and resilience.

4.1.3. Learning Environment

The supportive learning environment created by Socratic dialogue was another theme that emerged from the data. Students valued the sense of community and collaboration fostered by this method. They felt that the open and non-judgmental atmosphere encouraged them to express their ideas freely and learn from their peers' perspectives. This collaborative environment was perceived as a key factor in facilitating critical thinking, as it exposed students to diverse viewpoints and prompted them to critically evaluate their own assumptions and beliefs. The positive effects of using Socratic questioning on students' critical thinking have been reported in many studies (Copelin, 2015; Edwards, 2019).

4.1.4. Relevance to Real-World Applications

Students also perceived Socratic dialogue as highly relevant to their personal and professional development. They noted that the skills developed through this method, such as logical reasoning, effective communication, and problem-solving, were directly applicable to real-world scenarios. This perceived relevance increased their motivation to engage with the material and apply critical thinking

skills beyond the classroom setting. Students appreciated that the Socratic dialogue not only enhanced their academic performance but also prepared them for future entrepreneurial challenges. The Socratic Method serves as a powerful tool for self-discovery and personal growth. By guiding clients through a series of reflective questions, therapists encourage individuals to explore their emotions, beliefs, and motivations. This process of introspection can lead to greater self-awareness, emotional intelligence, and the development of coping strategies (Montazeri, 2022).

4.1.5. Individual Differences

It is important to acknowledge that individual differences played a significant role in shaping students' perceptions of Socratic dialogue. Factors such as prior educational experiences, personality traits, and cultural background influenced how students responded to this method. For instance, students who were more extroverted and confident in their verbal abilities tended to thrive in Socratic dialogue, while introverted students or those with language barriers faced greater challenges. Understanding these individual differences is crucial for tailoring the Socratic dialogue to meet the needs of diverse learners. The Socratic Method places a premium on active listening. Participants must attentively absorb and process each question, responding thoughtfully rather than reflexively. This skill of attentive listening not only facilitates deeper comprehension but also nurtures empathy and respect for diverse perspectives (Dalim, 2022).

4.2. The Socratic Dialogue Significantly Enhances Students' Critical Thinking Skills

The extent to which the Socratic dialogue helps develop students' critical thinking can be assessed through various dimensions, including creativity, innovation, proactivity, synthesis, and risk tolerance. Through oral defense of their opinions and participation in sustained, free discussion, students can develop better self-images, which affects their motivation to learn (Kay & Young, 2010). The thematic analysis provided insights into how the Socratic dialogue influenced each of these dimensions.

4.2.1. Creativity and Innovation

Socratic dialogue was found to stimulate creativity and innovation among students. By engaging in open-ended questioning and exploring multiple perspectives, students were encouraged to think outside the box and generate novel ideas. The method's emphasis on critical inquiry and reflective thinking fostered an environment where students felt empowered to propose innovative solutions and challenge conventional wisdom. This dimension of critical thinking was particularly evident in discussions related to entrepreneurial opportunities and problem-solving scenarios.

4.2.2. Proactivity

The proactive nature of Socratic dialogue required students to take initiative in their learning process. Unlike traditional teaching methods where students passively receive information, Socratic dialogue demanded active engagement and self-directed learning. Students reported that this approach motivated them to take ownership of their education, seek out additional resources, and engage in continuous learning. The development of proactivity was seen as a crucial aspect of critical thinking, as it enabled students to independently evaluate and address complex issues.

4.2.3. Synthesis

The ability to synthesize information from various sources and viewpoints was another critical thinking skill enhanced by Socratic dialogue. Through the iterative process of questioning and discussion, students learned to integrate diverse perspectives, identify underlying patterns, and construct coherent arguments. The method's focus on deep understanding and holistic thinking

allowed students to connect theoretical concepts with practical applications, thereby enriching their overall learning experience.

4.2.4. Risk Tolerance

Socratic dialogue also contributed to developing students' risk tolerance by exposing them to uncertainty and ambiguity. The method encouraged students to take intellectual risks, express controversial opinions, and defend their viewpoints in the face of opposition. This experience helped students build resilience and confidence in handling complex and uncertain situations. The development of risk tolerance was particularly relevant to entrepreneurial education, as it prepared students to navigate the inherent uncertainties and challenges of the business world.

4.2.5. Empirical Evidence

The extent to which Socratic dialogue develops critical thinking was also supported by empirical evidence from student assessments and feedback. Many students reported noticeable improvements in their analytical and reasoning abilities as a result of participating in Socratic dialogue. They demonstrated enhanced skills in identifying logical fallacies, constructing well-supported arguments, and critically evaluating evidence. These improvements were reflected in their academic performance, particularly in assignments and projects that required critical analysis and problem-solving.

4.2.6. Long-Term Impact

While the immediate benefits of Socratic dialogue on critical thinking were evident, the long-term impact of this method requires further investigation. Some students expressed concerns about the sustainability of the skills developed through Socratic dialogue, particularly in contexts where traditional teaching methods predominated. To fully understand the extent of its impact, longitudinal studies are needed to track students' critical thinking development over time and in various learning environments

5. Limitation of the Study

While this study aimed to comprehensively assess the extent to which Socratic dialogue develops students' critical thinking, several limitations must be acknowledged. Firstly, not all dimensions of critical thinking, such as creativity, innovation, pro-activity, synthesis, and risk tolerance, were exhaustively explored. The scope of this research was limited by the available data and the specific context of BPME6093 Entrepreneurial Development students at University Utara Malaysia. As a result, the findings may not fully capture the broader spectrum of critical thinking skills.

Secondly, the study relied on self-reported data from students, which may be subject to bias or inaccuracies in their perceptions and experiences. This reliance on qualitative data, while providing rich insights, also poses challenges in ensuring the objectivity and generalizability of the results. Additionally, the study was conducted within a specific educational and cultural context, which may limit the applicability of the findings to other settings or populations. Further research is needed to explore the impact of Socratic dialogue on critical thinking in diverse contexts and with larger, more varied samples. Implications for Educational Practice

6. Recommendation for Educational Practice

Despite its benefits, the implementation of Socratic dialogue is not without challenges. Some students may struggle with the pace and intensity of questioning, leading to feelings of

frustration and disengagement. To address this, educators should offer additional support and scaffolding for students who face difficulties. Providing clear guidelines and expectations can also help students navigate the demands of Socratic dialogue. Furthermore, recognizing and accommodating individual differences is crucial for ensuring that all students benefit from this method. Tailoring the dialogue to suit diverse learning styles and backgrounds can enhance its effectiveness and inclusivity.

7. Conclusion

In conclusion, the Socratic dialogue plays a significant role in developing critical thinking among BPME6093 Entrepreneurial Development students. Its impact is evident through various dimensions, including creativity, innovation, and proactivity, synthesis, and risk tolerance. While the method presents certain challenges, its benefits in fostering critical thinking and preparing students for real-world applications are substantial. By addressing the identified challenges and incorporating best practices, educators can maximize the potential of Socratic dialogue as a transformative teaching tool in higher education.

Entrepreneurial development students perceive Socratic dialogue as a valuable tool for facilitating critical thinking. The dialogue encourages creativity, innovation, proactivity, synthesis, and risk tolerance—skills essential for entrepreneurial success. Aligning with Knowles' Andragogy Theory, Socratic dialogue supports self-directed learning and practical application, making it an effective pedagogical strategy in higher education. Despite potential challenges, its benefits in developing critical thinking are substantial, highlighting the need for its integration into educational practices.

Acknowledgements

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