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BEYOND LECTURES: INSIGHTS FROM BUSINESS DISCIPLINES (REFLECTIONS, TRANSFORMATIONS, AND THE HUMAN SIDE OF TEACHING)

FACULTY OF BUSINESS AND MANAGEMENT
UiTM CAWANGAN JOHOR

Beyond Lectures: Insights from Business Discipline-

(Reflections, Transformations, and the Human Side of Teaching)

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PREFACE

This second book of Beyond Lectures: Insights from Business Disciplines (Reflections, Transformations, and the Human Side of Teaching) continues the journey initiated in the previous volume, bringing together reflections and experiences from educators within the Faculty of Business and Management, UiTM Johor Branch.

In today's evolving educational landscape, pedagogical process extends far beyond the delivery of lectures. Educators navigate diverse learning environments, technological shifts, and the changing expectations of students. The chapters in this volume highlight these experiences, offering insights into the reflective and transformative aspects of teaching across business disciplines.

More importantly, this book reflects the voices of academics who are committed to sharing knowledge, experiences, and perspectives that shape meaningful learning. It also continues to support the development of a sustainable writing culture among educators.

On behalf of the editorial team, I extend my sincere appreciation to all authors, reviewers, and the Faculty of Business and Management, UiTM Johor Branch, for their invaluable support to the publication of this book. It is our hope that this volume will serve as an insightful reference for students, educators, and practitioners alike.

DR. AZILA JAINI
Chief Editor
Research and Publication Unit
Faculty of Business and Management
UiTM Cawangan Johor
2026

FOREWORD

It is a pleasure to introduce the second book of Beyond Lectures: Insights from Business Disciplines (Reflections, Transformations, and the Human Side of Teaching).

This publication reflects the continued commitment of the Faculty of Business and Management, UiTM Johor Branch, in nurturing scholarly engagement and reflective teaching practices. The chapters presented in this volume capture the diverse experiences of educators who continuously adapt and evolve in response to the changing landscape of higher education.

Beyond academic discourse, the reflections shared in this book highlight the human dimension of teaching as well as the dedication, adaptability, and passion that shape meaningful learning experiences for students.

I commend the editorial team and all contributors for their dedication in bringing this publication to fruition. May this book continue to inspire educators to share their insights and contribute to the advancement of teaching and learning in business education.

CIK NURUL HAIDA JOHAN
Head of School
Faculty of Business and Management
UiTM Cawangan Johor
2026

ACKNOWLEDGEMENT

The editorial team would like to express its sincere appreciation to all individuals who have contributed to the publication of this second volume of Beyond Lectures: Insights from Business Disciplines.

We extend our gratitude to the contributing authors for sharing their valuable reflections and experiences, as well as to the reviewers for their constructive feedback that has helped enhance the quality of this publication.

Our appreciation also goes to the Research and Publication Unit, Faculty of Business and Management, UiTM Johor Branch, for their continuous support and encouragement throughout the publication process.

It is our hope that this book will benefit students, academicians, and practitioners, and continue to promote knowledge sharing and reflective practice in business education.

AI Usage Note:
Some portions of this book were developed with the assistance of AI tools to help generate ideas and structure content. All final revisions, interpretations, and creative decisions are entirely the author's own.

DR. AZILA JAINI
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2026

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Introduction

According to the Malaymail (2025), a total of 5,272 youths aged 34 and under have been declared bankrupt, representing 14.94 per cent of cases recorded between 2020 and 2025. The main cause of bankruptcy in 2024 was personal loans, which were driven by over-borrowing and high debt-to-income ratios. Borrowers need to practice proper financial management and responsible borrowing to ensure that a personal loan improves, rather than worsens, their financial situation.

Besides that, the cost of living in Malaysia continues to rise due to inflation, housing costs, transportation expenses, and fluctuations in food prices. This increasing financial pressure encourages individuals and households to seek additional sources of income to sustain their standard of living. In response to these challenges, many people have begun exploring alternative financial strategies beyond traditional employment, particularly developing passive income streams. Passive income is earnings generated with minimal continuous effort after the initial investment of time, capital, or expertise. In the Malaysian context, the growing accessibility of digital platforms and investment tools, especially in the stock market, has made passive income opportunities more attainable for a wider segment of the population. It is very important to improve lifestyle and achieve financial freedom among Malaysians. The government also always supports citizens by increasing the minimum salary from RM1500 to RM1700, to improve the quality of life for low-income workers, rising living costs, and reducing poverty. This policy aims to boost consumer spending, increase labour productivity, and ensure fair compensation for workers with limited bargaining power.

Furthermore, advances in financial technology and online trading platforms have simplified access to market information, analytical tools, and automated trading systems. This situation enables individuals to apply analytical approaches, including technical analysis, to make more informed investment decisions in generating passive income. By identifying price patterns, market trends, momentum indicators, and an appropriate investment strategy, investors can develop systematic strategies that support consistent returns over time. Consistency in making a profit in the stock market can lead an individual to achieve wealth growth in the future.

Integrating financial knowledge, particularly technical analysis, into everyday financial decision-making may provide individuals with practical tools to identify market opportunities and build sustainable passive income streams. This approach not only helps individuals manage rising living costs but also promotes greater financial literacy, long-term wealth accumulation, and financial resilience in an increasingly uncertain economic environment.

Technical analysis among UITM students

Firstly, in Universiti Teknologi MARA (UiTM), students are introduced to technical analysis through two key courses, namely FIN562 and INV556. These courses are designed to provide students with both theoretical understanding and practical exposure to the application of technical analysis, especially in the domestic stock market, so that students can become familiar with companies listed on Bursa Malaysia. FIN562 and INV556 focus on the fundamental concepts and analytical foundations of technical analysis. The courses introduce students to the theoretical bases that explain how market prices move and how investor psychology and market sentiment influence price movements. Through this theoretical grounding, students develop an understanding of how historical price data can be analysed to

anticipate potential future prices. This is important to ensure they have the right knowledge before making any investment decisions.

In addition, the courses also emphasise important analytical tools widely used by investors and traders worldwide. One of the core topics covered is support and resistance, which helps students identify price levels in buying or selling pressure tends to develop. Understanding these levels enables students to identify potential entry and exit points in the stock market that can minimize risk while maximizing possible returns. The courses also explore chart patterns, such as trend formations with continuation or reversal, that provide breakout signals about possible market directions. The breakout price pattern will give a better entry price with the projection of future price movement. At the same time, students are introduced to various technical indicators, including momentum indicators, trend-following indicators, and oscillators such as Moving Average, Stochastic, Relative Strength Index, Moving Average Convergence Divergence, Rate of Change, and Ichimoku Cloud. These indicators help students interpret market trends, identify overbought or oversold conditions, and confirm potential trading signals. By learning how to combine multiple indicators with price and volume analysis, students can develop more systematic and informed investment strategies.

FIN562 and INV556 aim to equip students with practical technical analysis skills that can be applied in the real-world, particularly in stock markets. The courses aim to bridge the gap between theoretical knowledge and practical application by exposing students to investment strategies that are commonly used by investors and market analysts. Through this approach, students are encouraged to move beyond conceptual understanding and develop the ability to interpret stock prices systematically with an appropriate strategy.

To reinforce the practical learning component, the courses include an assessment that requires students to analyse a company's performance, identify a buy signal from the chart, and practice it in mock trading. In other words, students are expected to evaluate the company's market behaviour and analyse its stock price movement using technical analysis tools. The assessment also requires students to identify potential buy signals from price charts by applying concepts such as support and resistance levels, trend analysis, and technical indicators for their investment strategy. Following the identification of potential trading signals, students are then required to implement their analysis in a simulated or mock trading environment. This activity allows them to test their investment decisions without the financial risk of real trading, as they practice with virtual money. Through mock trading exercises, students gain practical experience in executing trades, monitoring price movements, and evaluating the outcomes of their investment strategies, since any catalyst or sentiment will also affect their portfolio. The lecturer will evaluate every transaction through the trading journal, considering the trader's trading plan and ranking in mock trading. Ranking will be determined based on the games scheduled at the beginning of the semester.
The combination of assignments and simulated trading activities provides students with experiential learning opportunities that strengthen their understanding of how technical analysis functions in actual market conditions. It also encourages students to develop discipline and follow the trading plan. It is very important for students to avoid keeping stocks that have already hit stop losses and hoping the stock price will rebound later.

Secondly, another technical analysis assessment is conducted via a webinar, which invites industry speakers to share their knowledge on the technical topic with students. It will give the student an opportunity to be exposed to the current situation happening in the stock markets. This activity is designed to complement classroom learning by exposing students to practical insights and real-world experiences from professionals actively involved in the stock market. During the webinar, invited speakers share perspectives on how technical analysis is applied in real trading environments, including the strategies market practitioners use to interpret market trends and manage investment decisions. The webinar serves as an important platform for knowledge exchange between academia and industry. By inviting speakers from relevant

financial institutions, students gain a deeper understanding of how theoretical concepts discussed in class are applied in professional practice. Industry speakers often share current market observations, trading experiences, and practical techniques used in analysing stock market movements. This exposure enables students to relate academic knowledge to the evolving conditions of the stock markets and enhances their awareness of current developments affecting investor behaviour and market performance.

Furthermore, the webinar exposes students to the latest developments in the stock market. Industry practitioners may discuss current market directions, macroeconomic factors influencing stock prices, and the challenges faced by investors in volatile market conditions. Through these discussions, students develop a broader perspective on how external economic factors, investor sentiment, and global financial developments influence stock market dynamics.

In addition to organising a webinar, students are also given the option to arrange an academic visit to institutions related to the stock market industry. These institutions may include organisations such as Bursa Malaysia or investment banks that are actively involved in capital market activities. Academic visits provide students with first-hand exposure to the operational environment of financial institutions, allowing them to observe how trading, market regulation, and investment services are conducted in practice. Both the webinar and academic visit activities aim to enhance experiential learning by bridging the gap between theoretical knowledge and industry practice. By interacting with market professionals and observing institutional operations, students can strengthen their understanding of technical analysis in the broader context of real-world financial markets. This experience not only improves their analytical capabilities but also increases their awareness of potential career pathways within the financial and investment industry.

Thirdly, at Universiti Teknologi MARA (UiTM) Johor, students could learn and practice technical analysis in a specialised trading room sponsored by CIMB Investment Bank. The establishment of this trading room reflects a collaboration between academia and the financial industry to enhance practical learning in investment and financial markets. The trading room is equipped with technological facilities and market information systems that simulate a professional trading environment. Within this setting, students can access real-time market data, financial news, stock price movements, and charting software commonly used by market analysts and traders. This environment enables students to observe market behaviour and apply technical analysis tools in a setting that closely resembles an actual trading floor. Through the trading room, students can practise analysing stock charts, identify trends, and detect trading signals using various technical indicators. The facility allows them to conduct market analysis more effectively by visualising price patterns, monitoring market volatility, and interpreting indicators to support investment decisions. This hands-on exposure enhances students' ability to apply the technical analysis concepts learned in courses such as FIN562 and INV556.

In addition, the trading room encourages experiential learning by allowing students to simulate trading activities and test their analytical strategies in a controlled environment. By engaging in simulated trading exercises, students gain experience in evaluating potential investment opportunities, executing trading decisions, and monitoring the outcomes of their strategies. This process helps students understand the practical challenges and decision-making processes involved in stock market participation. The trading room sponsored by CIMB Investment Bank serves as an important learning platform that bridges theoretical knowledge and practical application. It enables students to develop confidence in using technical analysis tools while gaining exposure to the operational dynamics of financial markets. Such experiential learning opportunities play a significant role in preparing students for future careers in investment, financial analysis, and capital market-related professions.

Lastly, students benefit from learning under the guidance of experienced lecturers who possess both academic expertise and practical exposure to the stock market. At Universiti Teknologi MARA, many lecturers who teach courses such as FIN562 and INV556 actively engage with stock markets, enabling them to incorporate practical insights into their teaching. Their involvement in stock market activities allows them to illustrate theoretical concepts with real-life examples, making the learning process more relevant and meaningful for students. These lecturers play an important role in translating complex technical analysis concepts into practical applications that students can understand and apply. By sharing their own experiences in analysing market trends, interpreting chart patterns, and making investment decisions, lecturers help students gain a clearer perspective on how technical analysis operates in real trading environments. This practical exposure encourages students to think critically about market behaviour and enhances their ability to interpret financial data effectively.

In addition, many lecturers continually improve their expertise by attending professional development programmes, workshops, and specialised training sessions on technical analysis. These training initiatives enable lecturers to stay up to date with the latest analytical tools, trading strategies, and technological developments in modern financial markets. By keeping themselves informed about current market practices, lecturers ensure that the knowledge delivered in the classroom remains relevant to industry developments. The knowledge and skills gained from these training programmes are subsequently integrated into teaching materials, lectures, and classroom discussions. As a result, students benefit from up-to-date insights and practical techniques that reflect current market practices rather than purely theoretical perspectives. This continuous knowledge transfer strengthens the quality of instruction and enhances students' learning experience. With the guidance of a lecturer, students can develop stronger analytical skills and a deeper understanding of how technical analysis can be applied in the stock market to support informed, disciplined investment decision-making.

Conclusion

In conclusion, strengthening financial knowledge among young people is an important step toward addressing youth bankruptcy. One key area of financial literacy that can contribute to this objective is understanding technical analysis in financial markets. By equipping students to interpret market trends, analyse price movements, and make informed investment decisions, technical analysis can serve as a practical tool that prepares them for real financial challenges after graduation. For many young individuals entering the workforce, financial responsibilities such as education loans, living expenses, and personal financial commitments can create significant economic pressure. Without adequate financial knowledge and planning skills, these pressures may increase the risk of poor financial decisions that could eventually lead to financial distress or bankruptcy. Therefore, exposure to investment knowledge during university education plays an important role in shaping responsible financial behaviour among students.

Learning technical analysis equips students with analytical skills to evaluate investment opportunities more systematically and with greater discipline. Rather than relying on speculation or informal advice, students who understand market analysis can assess potential risks and returns before making investment decisions. Furthermore, acquiring knowledge of investment strategies may enable students to explore opportunities to generate passive income in the future. Passive income streams, such as returns from stock investments, dividend-paying securities, or other financial instruments, can complement their primary income from employment. Having additional income sources can improve financial stability and help young individuals manage the rising cost of living more effectively.

Ultimately, early exposure to investment knowledge, including technical analysis, can help develop financially responsible graduates. By integrating financial literacy with practical investment skills, educational institutions can better prepare students to navigate financial markets, manage personal wealth, and build sustainable income sources. Such preparation not only supports individual financial well-being but also contributes to broader economic stability by reducing the likelihood of financial vulnerability among the younger generation.

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INNOVATIVE TEACHING STRATEGIES: TRANSFORMING HIGHER EDUCATION IN PREPARING GEN-Z FOR FUTURE WORKFORCE DEMANDS

Yuslizawati Mohd Yusoff, Khairunnisa Rahman

Introduction

Generation Z or pronounced as Gen-Z being defined as individuals born between the mid-1990s and early 2010s, has grown up in a highly digital and interconnected environment. Their familiarity with technology, preference for interactive learning and demand for practical knowledge have significantly reshaped expectations within educational settings (Seemiller & Grace, 2016). Higher education institutions are increasingly challenged to prepare students for a rapidly evolving and technology-driven workforce. As Gen-Z enters universities worldwide, educators must reconsider traditional teaching approaches to better meet the needs of this new generation of learners. However, many universities still rely heavily on lecture-based instruction, which often emphasizes passive learning and memorization rather than the development of critical workplace skills.

In response to these challenges, higher education institutions are increasingly adopting innovative teaching strategies to enhance student engagement and better prepare graduates for future workforce demands. Some of the approaches such as student-centred learning, technology-enhanced education and experiential learning have proven effective in developing essential competencies among the university students such as problem-solving, collaboration, creativity and adaptability. These competencies are widely recognized as crucial for success in the twenty-first-century workforce (World Economic Forum, 2023). Therefore, transforming higher education through innovative teaching strategies is very essential to ensure that Gen-Z students are adequately equipped to navigate the complexities of modern professional environments.

Generation Z Learners

Generation Z students are often described as digital natives who have grown up with smartphones, social media and instant access to information. Instantly, they are highly comfortable with digital technology and prefer learning environments that incorporate multimedia content, interactive activities and online collaboration tools (Prensky, 2001; Seemiller & Grace, 2016).

In addition to their technological fluency, Gen-Z students tend to value practical and career-oriented learning experiences. They are particularly motivated when they can see clear connections between academic knowledge and real-world applications. According to Deloitte (2022), young learners increasingly prioritize skill development, employability, and career readiness when evaluating educational experiences. This expectation places significant pressure on universities to ensure that their academic programs are aligned with industry needs and workforce trends.

Furthermore, Gen-Z learners often exhibit shorter attention spans due to their constant exposure to digital media. Consequently, traditional long lectures may not effectively sustain their engagement. Instead, teaching methods that involve active participation, interactive technologies, and collaborative activities are more likely to capture their attention and enhance knowledge retention. By recognizing the related characteristics of Gen-Z allows educators to design learning environments that are both engaging and relevant to the needs of modern students.

Student-Centred and Active Learning Approaches

One of the most effective ways to address the learning preferences of Gen- Z is through the adoption of student-centred and active learning approaches. Student-centred learning shifts the focus from instructor-led knowledge delivery to active student participation and engagement. In this model, students take greater responsibility for their learning by engaging in discussions, collaborative problem-solving, and independent inquiry.

Problem-based learning (PBL) and project-based learning are particularly valuable approaches within this framework. These methods require students to analyse real-world problems, conduct research, collaborate with peers, and propose practical solutions. Through this process, students develop essential workplace competencies such as critical thinking, communication, teamwork, and decision-making (Hmelo-Silver, 2004).

Freeman et al. (2014) found that students in active learning environments performed better academically and were less likely to fail compared to those in traditional lecture-based classes. These findings highlight the importance of incorporating interactive learning methods that encourage students to engage deeply with course content rather than passively receiving information. Research has demonstrated that active learning strategies significantly improve student performance and engagement in higher education.

By adopting student-centered pedagogies, universities can cultivate a more dynamic and collaborative learning environment that prepares Gen-Z students to handle complex challenges in the workplace.

Integration of Digital Technologies in Teaching

Technology integration is another critical component of innovative teaching in higher education. Given Gen-Z's familiarity with digital tools, incorporating technology into the learning process can significantly enhance engagement and accessibility. Digital platforms such as learning management systems, online discussion forums, and collaborative software enable students to access resources, communicate with peers, and participate in learning activities beyond the traditional classroom setting.

Blended learning and flipped classroom models are particularly effective technology-enhances of a teaching strategy. In a flipped classroom, students shall be able to review instructional materials such as recorded lectures, readings, or videos before attending class. Classroom time is then dedicated to interactive discussions, problem-solving activities, and collaborative learning exercises (Bishop & Verleger, 2013). This approach encourages deeper engagement with course content and allows instructors to provide more personalized support.

Furthermore, emerging technologies such as virtual simulations, artificial intelligence, and digital learning analytics are transforming educational practices. These technologies allow educators to create immersive learning experiences and provide personalized feedback that supports individual learning needs. As digital transformation continues to shape the modern workplace, integrating technology into higher education also helps students develop the digital literacy skills necessary for future careers.

Experiential Learning and Industry Collaboration

Experiential learning is another essential strategy for preparing Gen-Z students for workforce demands. Experiential learning emphasizes learning through practical experience and reflection that enable students to apply theoretical knowledge in real-world contexts. This shall include the service learning, internships, simulations and industry-based projects.

According to Kolb (1984), experiential learning enhances knowledge retention because students actively engage with the learning process through experience and reflection. By

participating in practical activities, students develop valuable skills such as problem-solving, adaptability and professional communication.

Collaboration between universities and industry partners also plays a crucial role in enhancing workforce readiness. Industry partnerships can provide students with opportunities to work on real business challenges, interact with professionals, and gain insights into workplace expectations. These experiences not only strengthen students' employability but also ensure that academic curriculum remains relevant to industry needs.

As global industries continue to evolve due to technological advancements and economic changes, experiential learning initiatives help link the gap between academic knowledge and professional practice.

Conclusion

The emergence of Gen-Z in higher education has created both challenges and opportunities for educators. Traditional teaching methods that rely heavily on lectures and passive learning are increasingly insufficient to engage digital-native learners or prepare them for the demands of modern workplaces. To address these challenges, higher education institutions must embrace innovative teaching strategies that align with the learning preferences and career aspirations of Gen-Z students.

Student-centred learning approaches, technology-enhanced education and experiential learning opportunities provide effective pathways for developing critical competencies such as creativity, collaboration, problem-solving and digital literacy. These competencies are essential for navigating the complexities of the twenty-first-century workforce.

Finally, transforming higher education through innovative teaching strategies will not only enhance student engagement and academic success but also ensure that graduates are equipped with the knowledge, skills and adaptability required to thrive in a rapidly changing global economy.

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GAMIFICATION IN BLENDED LEARNING: A REFLECTIVE CASE FROM INV537

Nurulashikin Romli, Tan Yan Ling, Jannah Munirah Mohd Noor

Introduction

Higher education in Malaysia is undergoing structural transformation driven by national reform agendas and global educational commitments. The Malaysia Education Blueprint 2015–2025 (Higher Education) emphasizes pedagogical innovation, digital integration, and the cultivation of self-directed learners capable of functioning within complex economic environments (Ministry of Education Malaysia, 2015). Globally, Sustainable Development Goal 4 and subsequent policy discourse reinforce the need for inclusive, quality education supported by responsible digital governance (UNESCO, 2021).

Despite these ambitions, digital transformation in higher education frequently remains technological rather than structural. Institutions adopt platforms and online tools without recalibrating motivational systems, assessment logic, or governance mechanisms that shape engagement. In blended learning environments, autonomy is often presumed rather than engineered. Without structured accountability, such autonomy may result in uneven participation and superficial engagement.

This challenge is particularly salient in capital market education, where students must integrate ethics and professionalism within regulatory frameworks. Professional conduct in regulated financial environments requires compliance discipline, transparency, and accountable decision-making. Pedagogy in this domain must therefore simulate structured accountability rather than rely solely on conceptual instruction.

As the appointed resource person for INV537, a blended capital market course, the objective was not merely digital delivery but the construction of a motivational architecture aligned with regulatory logic. This chapter presents a reflective case study of a gamified incentive system designed to engineer structured digital autonomy. The intervention positions gamification not as entertainment, but as a performance economy governed by ethical safeguards and professional discipline.

Theoretical Framework

The gamified incentive architecture implemented in INV537 was conceptually anchored in Self-Determination Theory and principles of incentive alignment within ethically governed systems. These theoretical foundations structured the transformation of blended learning autonomy into a calibrated and accountable performance system within a capital market education context. The conceptual integration between theoretical foundations, gamified mechanisms, governance constraints, and intended professional outcomes is illustrated in Figure 1.

Self-Determination Theory posits that sustained and internalized motivation develops when three fundamental psychological needs are supported within structured environments, namely autonomy, competence, and relatedness (Deci & Ryan, 2000). Empirical syntheses of gamified learning environments demonstrate that motivational gains are most durable when these psychological needs are embedded within coherent system architecture rather than layered superficially onto digital platforms (Sailer & Homner, 2020).

Within INV537, autonomy was operationalized as a regulated agency rather than unrestricted independence. Students were granted structured discretion through early submission opportunities, calibrated redemption decisions, and bounded revision mechanisms. These features allowed the exercise of judgment within clearly defined academic parameters. As conceptualized in Figure 1, autonomy support was embedded within governance boundaries,

reflecting the regulated discretion characteristic of capital market environments in which professional decision-making operates within statutory and supervisory constraints.

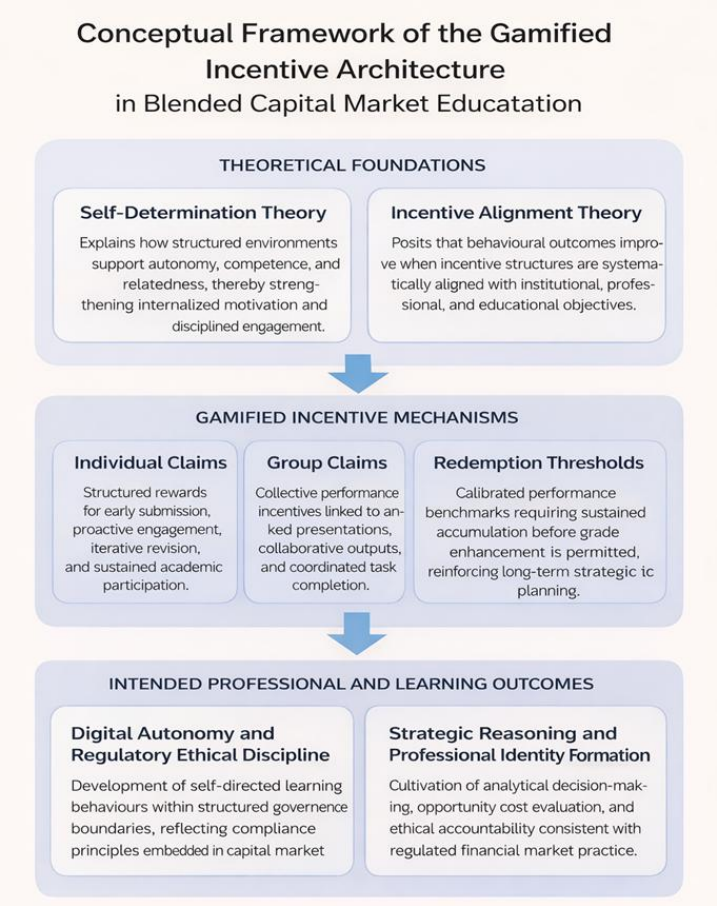

Figure 1: Conceptual Framework of the Gamified Incentive Architecture in Blended Regulatory Framework in Capital Market Education
Source: Authors' illustration

Competence was cultivated through distributed formative assessments implemented consistently from Week 2 through Week 11. Weekly digital tasks, including scenario-based quizzes, infographic construction, mind mapping exercises, podcast production, simulations, and structured discussions, functioned as continuous feedback mechanisms. Visible point accumulation and iterative performance monitoring strengthened students' perception of progress while bounded revision preserved academic integrity. In line with motivational theory, competence was reinforced not through competition alone but through structured opportunities for incremental improvement (Deci & Ryan, 2000; Sailer & Homner, 2020).

Relatedness was operationalized through collaborative performance structures embedded within group claims. Ranked presentations, pooled point accumulation, and collective redemption thresholds required coordinated effort and shared accountability. Self-Determination Theory maintains that relatedness strengthens internal motivation when individuals experience meaningful participation within structured communities (Deci & Ryan, 2000). Within capital market education, such collective accountability mirrors professional realities in regulated financial institutions, where compliance responsibilities are embedded in team-based governance systems.

Beyond motivational psychology, the architecture incorporated governance safeguards consistent with contemporary discussions on ethical digital systems (Awasthi, 2023). Incentive alignment within educational environments, like regulated financial markets, requires bounded reward structures to prevent opportunistic behaviour and preserve integrity. Accordingly, the gamified reward economy in INV537 incorporated a governance cap limiting its contribution to a fixed proportion of coursework allocation. Redemption thresholds required sustained accumulation rather than episodic participation, and revision mechanisms were structured within predefined limits. As illustrated in Figure 1, these constraints ensured that motivational incentives reinforced academic rigor rather than distort grading standards.

Gamification in this intervention was therefore conceptualized as behavioural alignment within an ethically governed performance economy rather than as entertainment enhancement. When embedded within structured governance systems, gamified mechanisms can cultivate disciplined autonomy and strategic reasoning aligned with professional accountability (Sailer & Homner, 2020; Awasthi, 2023). Through the interaction of theoretical foundations, gamified mechanisms, and governance constraints, as presented in Figure 1, the architecture operationalized regulated autonomy and ethical discipline consistent with compliance principles in capital market education.

Methodology / Approach

This study employed a reflective case study design examining a structured gamified intervention implemented within a blended capital market course (INV537). The intervention was conducted in Semester 20254 across two cohorts, JBA2513A (n = 28) and JBA2513B (n = 32), yielding a total of sixty students. The inclusion of two independently administered classes enabled internal pattern replication, strengthening structural validity beyond single-cohort observation.

The gamified architecture operated longitudinally from Week 2 to Week 12, with distributed tasks implemented weekly. This duration was intentionally designed to observe sustained behavioural engagement beyond short-term novelty effects. All weekly scores, cumulative point accumulation, submission timing, revision claims, and redemption decisions were systematically recorded in centralized spreadsheets that functioned as transparent performance ledgers accessible to students throughout the semester.

Digital learning activities were centralized through Padlet, which functioned as a unified learning hub integrating instructional materials, task instructions, submission links, and cumulative performance updates (see Figure 2). This centralized structure minimized platform fragmentation and reinforced coherence between learning outcomes and assessment architecture.

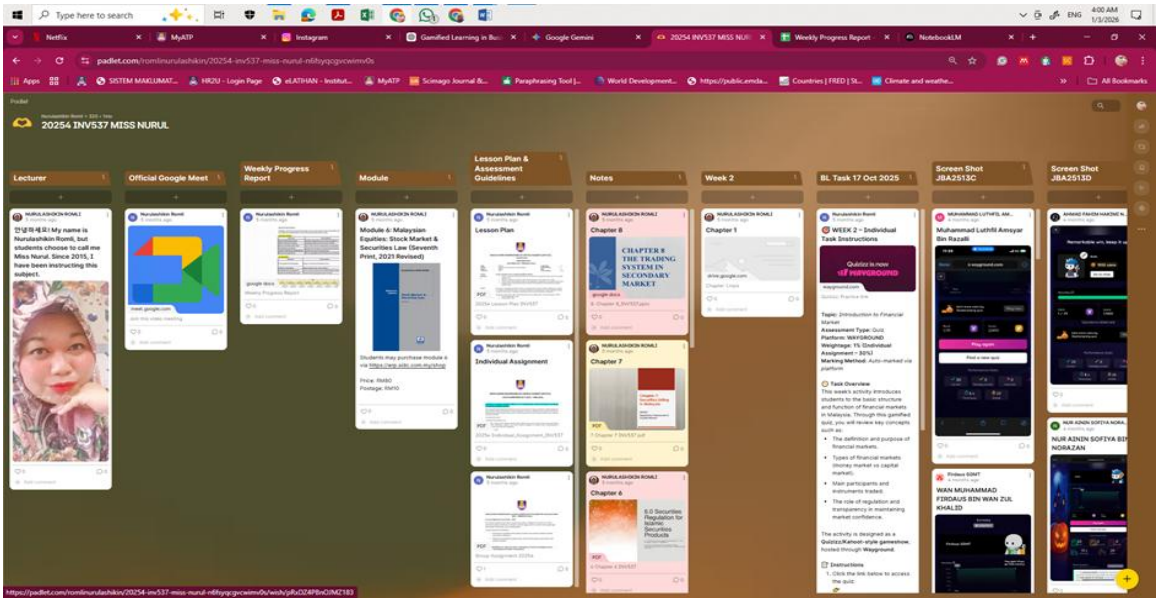

Figure 2: Centralized Digital Learning Hub for INV537
Source: Authors' personal collection

Students completed distributed activities from Week 2 to Week 12, including scenario-based analytical quizzes, infographic development, mind mapping exercises, GameShow simulations, structured discussions, and podcast production. These activities collectively accounted for thirty percent of the overall course grade, with a maximum cumulative allocation of 1100 performance points. The structural configuration of the incentive system, consisting of individual claims, group claims, redemption thresholds, and governance limits, is presented in Figure 3.

Individual Claim			Group Claim		
Reward	**Description**	**Points**	**Reward**	**Description**	**Points**
Early Submission Bonus	Submit assignments earlier than deadline (1–7 days).	900	Turn-Based Presentation	Bonus for group presentation turn.	1st = 1200
Early Access to Content	Complete optional early-access activity.	700			2nd = 1000
Homework Extension Pass	Get 2 extra days for submission (no penalty).	700			3rd = 900
Re-game Assignment	Re-do a gamified quiz/Wordwall and resubmit.	700	Video Presentation	High-quality group video project.	4900
Pop-Up Reward Boxes	Hidden/secret task revealed during semester.	700	Re-do Report Assignment	Re-do a group report and resubmit.	5000
Small Grade Bump (Individual)	Redeem for grade improvement.	1000 = +1%	Small Grade Bump (Group)	Redeem for group grade improvement.	5100 = +2%

Figure 3: Structure of the Gamified Incentive Architecture in INV537
Source: Authors' personal collection

Each task was explicitly aligned with course learning outcomes, particularly the integration of ethics and professionalism within capital market regulatory frameworks. For podcast assignments, students submitted audio outputs through Podbean links to ensure traceable and auditable documentation. Figure 4 presents a representative example of the Week 8 rubric-based assessment applied to class JBA2513A, demonstrating criterion-referenced evaluation of conceptual accuracy, ethical reasoning, professional articulation, and technical clarity.

To strengthen analytical interpretation, cumulative point accumulation was operationalised as a behavioural proxy for sustained engagement. Performance exceeding ninety percent of the 1100-point allocation was interpreted as evidence of consistent weekly participation, as high accumulation required distributed task completion rather than reliance on isolated high-stakes performance. Submission timing patterns were also monitored to assess temporal discipline, with progressive redistribution toward earlier submissions interpreted as responsiveness to incentive calibration.

WEEK 8 PODCASTING SERIES 2

No	Matrix	Nama	PodBEAN Link	Introduction – Includes name, ID, and clear opening statement	Overall Understanding – Explains why SC investigates and	Understanding of Enforcement Categories – General knowledge of all 4 types	Understanding of Breach Categories – Shows general awareness of all 9 types	Top 3 Breaches – Accurate explanation of the three highest categories	Least Reported Breach – Clear explanation of the lowest category	Reflection and Insight – Lessons learned on ethics and compliance	Recommendation for Future – Student proposes realistic, thoughtful recommendation	Creativity and Engagement – Confident, expressive, and engaging	Technical Quality – Clear audio, ≤7 minutes, minimal noise	Total Score: ___/50	100
1			https://drive.google.com/file/d/10HqOEkxxq_ngk8aqbtEtN	5	5	5	5	5	5	5	5	5	4	49	9
2			https://www.podbean.com/ep/pb-jzmzu-19e65f0	5	5	5	5	5	5	5	5	5	4	49	9
3			https://www.podbean.com/ei/pb-djib9-19e80e3	5	5	5	5	5	5	5	5	5	4	49	9
4			https://www.podbean.com/ei/pb-um99j-19e8560	5	5	5	5	5	5	5	5	4	4	48	9
5			https://www.podbean.com/ei/pb-idz96-19e8917	5	5	5	5	5	5	5	5	5	4	49	9
6			https://www.podbean.com/eas/pb-x6px6-19e896d	5	5	5	5	5	5	5	5	5	4	49	9
7			https://www.podbean.com/ei/pb-3kt26-19e4432	5	5	5	5	5	5	5	5	4	5	49	9
8			https://www.podbean.com/ep/pb-fzke5-19e65c1	5	5	5	5	5	5	5	5	5	4	49	9
9			https://www.podbean.com/media/share/pb-srcbr-19e9d11	5	5	5	5	5	5	5	5	4	5	49	9
10			https://www.podbean.com/ei/pb-i3npb-19e54fe	5	5	5	5	5	5	5	5	4	4	48	9
11			https://www.podbean.com/eas/pb-cy5ux-19e49c5	5	5	5	5	5	5	5	5	4	5	49	9
12			https://www.podbean.com/eas/pb-ukp3i-19e8736	5	5	5	5	5	5	5	5	4	5	49	9
13			https://www.podbean.com/ei/pb-gupcn-19e253f	5	5	5	5	5	5	5	5	5	5	50	10
14			https://www.podbean.com/ei/pb-2ipyh-19e4333	5	5	5	5	5	5	5	5	5	5	50	10
15			https://www.podbean.com/eas/pb-h3cg8-19e8968	5	5	5	5	5	5	5	5	4	5	49	9
16			https://www.podbean.com/ei/pb-46esr-19e80d3	5	5	5	5	5	5	5	5	5	5	50	10
17			https://www.podbean.com/ew/pb-8wr69-19e4bcc	5	5	5	5	5	5	5	5	4	5	49	9
18			https://www.podbean.com/ea/pb-ptg99-19e44ac	5	5	5	5	5	5	5	5	3	5	48	9
19			https://www.podbean.com/ei/pb-cisju-19e80d6	5	5	5	5	5	5	5	5	3	5	48	9
20			https://www.podbean.com/media/share/pb-pmv7p-19e8a	5	5	5	5	5	5	5	5	5	4	49	9
21			https://www.podbean.com/eas/pb-c3hzk-19e25b5	5	5	5	5	5	5	5	5	5	5	50	10
22			https://www.podbean.com/ei/pb-ye24m-19e80da	5	5	5	5	5	5	5	5	5	4	49	9
23			https://www.podbean.com/eas/pb-d2cbu-19e21de	5	5	5	5	5	5	5	5	5	5	50	10
24			https://www.podbean.com/eas/pb-kkrat-19e6586	5	5	5	5	5	5	5	5	4	4	48	9
25			https://www.podbean.com/media/share/pb-85aad-19e859	5	5	5	5	5	5	5	5	4	5	49	9
26			https://www.podbean.com/ei/pb-vaabq-19e873a	5	5	5	5	5	5	5	5	5	5	50	10
27			https://www.podbean.com/ei/pb-kn7yn-19e419d	5	5	5	5	5	5	5	5	5	4	49	9
28			https://www.podbean.com/eas/pb-xhr7k-19e6d6a	5	5	5	5	5	5	5	5	4	4	48	9

Figure 4: Week 8 podcast rubric-based assessment for Class JBA2513A
Source: Authors' personal collection

The longitudinal distribution of weekly performance and cumulative accumulation for Cohort JBA2513A is presented in Figure 5. Unlike the single-week illustration in Figure 4, Figure 5 provides a comprehensive view of engagement trends across the intervention period, demonstrating sustained participation rather than episodic deadline-driven concentration. The incentive architecture comprised interconnected individual and group-based mechanisms operating within calibrated governance boundaries. Individual claims rewarded early submission and structured revision within predefined limits, while group claims incentivized collaborative performance. Accumulated points were redeemable for calibrated grade increments subject to sustained accumulation thresholds rather than isolated high performance.

Bil	No Pelajar	Nama	WEEK																						Total point obtained	30%
			2		3		4		5		6		7		8		9		10		11		12			
			Quizizz		Scenario Quiz		Infographic		Mind Mapping		Game Show		Podcast		Podcast		Podcast		Infographic		Game Show		Online Meeting			
			100	1%	100	1%	100	2%	100	2%	100	2%	100	5%	100	5%	100	5%	100	2%	100	2%	100	3%	1100	
1			65	0.65	100	1	100	2	100	2	50	1.0	92	4.6	98	4.9	98	4.9	95.71	1.91	93	1.86	96	2.88	988	27.7
2			100	1	100	1	100	2	100	2	100	2.0	96	4.8	98	4.9	100	5	100	2.00	99	1.98	100	3	1093	29.7
3			95	0.95	100	1	50	1	90	1.8	74	1.5	100	5	98	4.9	100	5	100	2.00	80	1.61	80	2.4	968	27.1
4			95	0.95	50	0.5	100	2	70	1.4	65	1.3	96	4.8	96	4.8	100	5	71.71	1.43	91	1.83	96	2.88	931	26.9
5			100	1	100	1	100	2	100	2	100	2.0	100	5	98	4.9	98	4.9	100	2.00	100	2.00	100	3	1096	29.8
6			100	1	100	1	100	2	100	2	100	2.0	96	4.8	98	4.9	100	5	100	2.00	100	2.00	100	3	1094	29.7
7			100	1	100	1	100	2	100	2	100	2.0	96	4.8	98	4.9	98	4.9	100	2.00	100	2.00	100	3	1092	29.6
8			90	0.9	100	1	100	2	100	2	88	1.8	100	5	98	4.9	96	4.8	95.71	1.91	100	2.00	96	2.88	1064	29.2
9			0	0	95	0.95	95	1.9	100	2	84	1.7	96	4.8	98	4.9	0	0	100	2.00	76	1.53	96	2.88	840	22.6
10			100	1	100	1	100	2	100	2	100	2.0	98	4.9	96	4.8	98	4.9	100	2.00	100	2.00	96	2.88	1088	29.5
11			100	1	100	1	100	2	100	2	100	2.0	100	5	98	4.9	100	5	100	2.00	100	2.00	80	2.4	1078	29.3
12			100	1	100	1	100	2	100	2	12	0.2	100	5	98	4.9	100	5	100	2.00	50	1.00	80	2.4	940	26.5
13			100	1	100	1	100	2	100	2	100	2.0	100	5	100	5	100	5	100	2.00	100	2.00	100	3	1100	30.0
14			100	1	100	1	100	2	100	2	100	2.0	98	4.9	100	5	100	5	100	2.00	100	2.00	100	3	1098	29.9
15			100	1	100	1	100	2	100	2	100	2.0	100	5	98	4.9	98	4.9	100	2.00	100	2.00	100	3	1096	29.8
16			90	0.9	95	0.95	100	2	100	2	79	1.6	100	5	100	5	100	5	100	2.00	82	1.64	80	2.4	1026	28.5
17			100	1	100	1	100	2	100	2	74	1.5	98	4.9	98	4.9	98	4.9	100	2.00	95	1.90	100	3	1063	29.1
18			100	1	100	1	100	2	100	2	85	1.7	94	4.7	96	4.8	98	4.9	100	2.00	82	1.63	96	2.88	1050	28.6
19			97	0.97	95	0.95	100	2	90	1.8	77	1.5	98	4.9	96	4.8	98	4.9	100	2.00	88	1.77	80	2.4	1019	28.0
20			75	0.75	100	1	100	2	85	1.7	81	1.6	96	4.8	98	4.9	100	5	100	2.00	96	1.92	100	3	1031	28.7
21			87	0.87	100	1	100	2	90	1.8	100	2.0	100	5	100	5	100	5	92.00	1.84	100	2.00	96	2.88	1065	29.4
22			100	1	100	1	100	2	100	2	100	2.0	100	5	98	4.9	100	5	100	2.00	100	2.00	80	2.4	1078	29.3
23			100	1	100	1	100	2	100	2	100	2.0	96	4.8	100	5	100	5	100	2.00	100	2.00	80	2.4	1076	29.2
24			95	0.95	100	1	100	2	100	2	86	1.7	92	4.6	96	4.8	96	4.8	90.00	1.80	77	1.54	80	2.4	1012	27.6
25			90	0.9	100	1	100	2	90	1.8	79	1.6	94	4.7	98	4.9	98	4.9	100	2.00	89	1.77	80	2.4	1018	28.0
26			100	1	100	1	100	2	100	2	100	2.0	96	4.8	100	5	100	5	100	2.00	100	2.00	100	3	1096	29.8
27			80	0.8	100	1	100	2	100	2	100	2.0	98	4.9	98	4.9	98	4.9	100	2.00	100	2.00	96	2.88	1070	29.4
28			95	0.95	100	1	100	2	100	2	78	1.6	100	5	96	4.8	98	4.9	100	2.00	86	1.73	80	2.4	1033	28.3

Figure 5: Weekly performance distribution and cumulative points for JBA2513A (Week 2–Week 12)
Source: Authors' personal collection

Ethical governance safeguards were embedded throughout the system. Gamified rewards were capped at thirty percent of coursework allocation to prevent grade distortion. Redemption and revision mechanisms were bound to preserve academic integrity. This governance configuration parallels regulatory supervision within Malaysian capital markets, overseen by the Securities Commission Malaysia under legislative frameworks such as the Capital Markets

and Services Act 2007 and the Financial Services Act 2013. By situating incentive maximization within clearly defined compliance boundaries, the methodological design integrated behavioural architecture, longitudinal documentation, and governance discipline, positioning gamification as structured professional conditioning rather than superficial motivational enhancement.

Results / Findings

The quantitative performance patterns across both cohorts demonstrate sustained and structured engagement throughout the intervention period from Week 2 to Week 12. As presented in Table 1, more than eighty percent of students in each cohort accumulated above ninety percent of the available coursework points allocated to the gamified component. In class JBA2513A, comprising twenty-eight students, the highest recorded score reached the full 1100-point allocation, while the lowest score was 840 points. In class JBA2513B, consisting of thirty-two students, the highest recorded score was 1098 points and the lowest 802 points. The distribution summarized in Table 1 indicates that the majority of students consistently achieved near-maximum accumulation within the thirty percent coursework component. No significant performance polarization was observed between high and mid-range performers, suggesting reduced disengagement risk among moderate achievers. The replication of this pattern across two independently administered blended classes strengthens the inference that the observed outcomes were structurally embedded within the incentive architecture rather than attributable to cohort-specific dynamics or isolated high-performing individuals.

Class	Total Students	% Above 90%	Highest Score	Lowest Score
JBA2513A	28	>80%	1100	840
JBA2513B	32	>80%	1098	802

Table 1: Summary of Performance Distribution Across Classes

Beyond cumulative score distribution, observable behavioural shifts were evident across the instructional period. Early submission incentives reduced deadline clustering, with an increasing proportion of submissions occurring several days prior to official deadlines. This redistribution of effort reflects enhanced temporal discipline and proactive engagement rather than reactive compliance.

The structured revision mechanism further influenced engagement patterns. Weekly assessments were increasingly approached as iterative performance opportunities rather than terminal evaluations. Revision claims were strategically utilized to strengthen cumulative standing, indicating forward-planning behaviour embedded within the incentive structure.

Strategic reasoning also became visible in classroom discourse. Students discussed redemption thresholds, cumulative accumulation strategies, and opportunity costs associated with early versus delayed point redemption. Such exchanges demonstrate engagement not only with course content but also with the internal logic of the performance system itself.

Collectively, the quantitative distribution patterns and behavioural observations indicate that the gamified incentive architecture contributed to performance consistency, reduced disengagement risk, and strengthened behavioural alignment within the blended learning environment.

Conclusion

This reflective case demonstrates that gamification in blended learning can function as a structured performance architecture rather than a superficial motivational overlay. When incentive mechanisms are deliberately calibrated and embedded within governance boundaries, digital autonomy becomes regulated agency rather than unmonitored independence. Across two cohorts comprising sixty students, the architecture produced

sustained engagement, reduced performance polarization, improved temporal discipline, and observable strategic reasoning aligned with professional accountability.

The findings suggest that gamified systems in higher education should be designed around three core principles. First, incentive structures must be longitudinal rather than episodic, requiring sustained accumulation to prevent short-term gaming behaviour. Second, reward mechanisms must operate within clearly defined governance caps to preserve assessment integrity and avoid grade distortion. Third, revision and redemption pathways should be bounded but strategic, encouraging iterative improvement while maintaining academic rigor.

For professional disciplines, particularly those operating within regulatory environments, pedagogical design should simulate compliance-based decision contexts. Embedding motivational systems within transparent and rule-based architectures enables students to internalize disciplined autonomy consistent with industry expectations. Gamification, therefore, should not be framed as entertainment enhancement but as behavioural alignment within an ethically governed learning economy.

Future implementations may extend this governance-informed model to other professional programs where accountability, ethical reasoning, and performance calibration must coexist. By prioritizing structural design over technological novelty, institutions can transform blended learning environments into sustainable systems of disciplined engagement rather than fragmented digital experiences.

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REFLECTION ON TRANSFORMING QUANTITATIVE LEARNING THROUGH SCENARIO-BASED GROUP CASE STUDIES

Sharazad Haris, Wan Mohd Farid Wan Zakaria, Norashikin Ismail

Introduction

In many classrooms, quantitative subjects are often approached as technical territory: structured, exact, and centred on arriving at the correct answer. Yet behind this technical surface is a very human experience of learning. For many students, the difficulty is not only the formula itself, but the fear of getting it wrong, the hesitation to speak, and the tendency to struggle alone. Over time, these patterns invite reflection on whether the issue lies only in the subject matter or also in how learning is organised around it. This writing grew from that reflection. It considers how one assessment was redesigned to make room for discussion, shared reasoning, and mutual support among students. In doing so, it offers a reflection on what happened when a subject often seen as rigid and intimidating was approached as a collaborative learning experience.

The Challenge of Teaching Quantitative Subjects

This observation is based on years of teaching quantitative courses, particularly in fields like finance and investment. This reflection focuses on the Analysis and Valuation of Fixed-income Securities, one of the courses offered to final-year students in the Diploma in Investment Analysis. This course is heavily focused on formulas, calculations and structured problem-solving, which can be intimidating to some. There is a common and stressful belief that this subject is rigid, where answers are either correct or wrong. This creates a mental block in which students see the work as a series of hurdles to jump over rather than a body of knowledge to explore.

Repišti (2016) noted that in tertiary education, teaching quantitative subjects, such as statistics, faces challenges including students' performance and motivation, anxiety caused by complexity, low self-efficacy, and a lack of prior knowledge and skills from high school. This study suggested several alternative pedagogical approaches to shift students' focus from memorisation to active contextual understanding.

Previously, greater weightage was given to Individual problem-solving assessments. This type of assessment can measure basic knowledge and technical ability, but does not necessarily foster deep conceptual understanding. Some students memorised procedures without fully understanding why a particular method was used, while some struggled silently.

Due to this, it is imperative to shift the focus (a) from solely relying on didactic learning to incorporating peer learning, (b) from mimicking the formula and following routine steps to fully grasping the underlying logic, and (c) from viewing the subject as an isolated uphill battle to embracing it as a shared intellectual challenge.

Scenario-Based Collaborative Group Case Studies

For this course, a collaborative group case study has recently been introduced and implemented. This case study is built around scenario-based problems for selected chapters in the syllabus, specifically those that are quite heavy on formulas and computation.

Unlike the standard numerical exercises typical of final examinations, the case study questions focus on contextual application and higher-order analysis. The questions were structured to be solved in stages, starting from (a) understanding the scenario given in that particular question, (b) identifying the problems, (c) identifying the underlying and relevant concepts, (d) determining and applying the appropriate method for that particular question, (e) crunching

the numbers or performing the calculations and finally (f) deciding and providing justification for the decision made.

Solving the questions requires more than just technical ability. The students must brainstorm together to interpret the given scenario, recall what they have learnt, and relate theory to practice, truly understand the problem and the solution, so that they will be able to defend their reasoning and conclude, decide, and justify their conclusions.

The Power of Peer Learning

The implementation of scenario-based collaborative case studies encourages students to fully understand the body of knowledge and make defensible decisions rather than just memorising and crunching numbers. Another advantage of incorporating this assessment into this course is the emergence of peer teaching and learning, a shift away from teacher-led instruction.

The case study questions set usually comprises six to eight questions, each built with a different scenario. In practice, three questions are discussed and resolved within the allocated class hour, allowing the instructor to monitor the discussion. In contrast, the remaining questions are discussed and completed outside the classroom.

Rather than splitting the work into isolated individual tasks, students are encouraged to engage with each problem collectively and arrive at a solution through group discussion. This approach appears to support the development of peer teaching and peer learning. Classroom observations show that (a) stronger students often take the initiative to explain concepts to their group members, and (b) the group members actively debate on the most suitable approach and the formulas that should be applied to solve the problems.

This active and proactive interaction indicates a constructive learning process. Peer explanation, delivered in language that fellow students may relate to, may at times be more effective than a formal lecture. It has also been observed that they can challenge and correct each other's reasoning during discussions. As a result, individual confusion has now been successfully replaced by (a) learning from each other and (b) collective problem-solving.

A study by Thongkorn and Cojorn (2025) has also highlighted the benefits of collaborative problem solving (CPS), peer learning, and group activities, such as solving complex problems, integrating soft skills, constructing knowledge, and enhancing students' communication and engagement (to name a few). True to that, we have also observed that soft skills like communication, analytical skills and heightened confidence in articulating ideas through discussion are naturally fostered in the process.

In addition to the benefits listed above, this collaborative case-study approach also builds empathy and collective responsibility among the group members. On top of that, students learnt to be better listeners and to respect differing ideas. This is in line with the study done by Walusa and Qhosola-Mahlomaholo (2026). It is noted that through such exercises and practice, students are better able to share knowledge with one another, improve active listening skills, and build stronger empathy. Students learnt to appreciate diverse viewpoints and cultivate a culture of respect and cooperation. In short, with group dynamics, the classroom atmosphere becomes more engaged, interactive, and supportive.

Collaborative Group Case Study and Academic Performance

The effectiveness of collaborative case studies as an assessment tool is evident in the noticeable improvements in students' academic performance on the final examination. These case study exercises functioned as active revision sessions that reinforced knowledge and strengthened students' confidence. The discussion, the debated method, and the justified discussion conducted during the exercise have contributed to a strong level of conceptual clarity. Their ease in communicating with each other and the peer-learning habits developed

during these activities appeared to carry over, continuing through the subsequent assessments and the final exam. As a result, improved academic performance as reflected in their final exam scores.

Conclusion

This reflection suggests that meaningful improvement in teaching does not always require major curriculum change, but can begin with rethinking how students engage with the subject. This transformation in class practice has created an avenue for students to discuss, debate, and work through the problems collectively. It offers stronger engagement in quantitative subjects and a better, more supportive, and interactive classroom environment. This experience shows that deeper learning is more likely to happen when students are allowed to share ideas, test their understanding and learn from one another.

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THE IMPORTANCE OF PROJECT-BASED LEARNING IN UNDERSTANDING MANAGEMENT THEORIES THROUGH REAL-LIFE APPLICATIONS: UITM JOHOR CASE STUDY

Muruga Chinniah, Nur Adilah Hj Saud, Mazlina Ismail

Introduction

The issue of pollution caused by solid waste is becoming increasingly serious due to low awareness of recycling and poor waste management practices. Improper disposal of waste pollutes the environment and negatively affects community health. Initiatives that promote recycling awareness are therefore crucial for environmental sustainability and community well-being.

Recognizing this, UiTM Johor Branch, Segamat Campus organized the program "Think Before You Throw, Let's Recycle". The initiative aims to increase awareness of recycling practices while giving students the opportunity to apply management theories learned in the Principles and Practice of Management **(**MGT420) course. Through this program, students strengthen their management skills and contribute directly to environmental sustainability.

Meanwhile, the program "Think Before You Throw, Let's Recycle" aims to increase awareness of recycling practices as a way to protect the environment, reduce pollution, and cultivate a sense of responsibility towards the surroundings. Overall, the program also provides an opportunity for students to apply the management theories learned in the MGT420 course**,** particularly in the aspects of planning and implementing projects**.**

Figure 1: Students and lecturer actively collecting recyclable materials.
(Source: Author's personal collection)

Applying management skills (POLC – Planning, Organizing, Leading, and Controlling) in project implementation through Project-Based Learning (PBL) helps students understand management theories through real-life applications. This approach also supports the achievement of CLO3 for Principles and Practice of Management **(**MGT420) while aligning with Sustainable Development Goal (SDG) 12: Responsible Consumption and Production**,** by promoting responsible practices that reduce environmental impact from waste and materials.

Project-Based Learning in Management Education

Project-Based Learning (PBL) is a student-centered approach that emphasizes learning through real-life projects, enabling students to connect theory with practice. Instead of purely theoretical learning, students engage in projects that solve authentic problems, fostering critical thinking, problem-solving, and teamwork (Amiri, 2025).In the context of MGT420, the recycling awareness program serves as an ideal PBL example. Students actively plan, organize, lead, and control a project that addresses a real campus waste and recycle problem. This hands-on experience helps them understand management concepts more deeply and see the direct impact of their actions.

Application of POLC Management Skills

Planning: Students design the project objectives, set timelines, allocate resources, and strategize awareness campaigns for recycling. Proper planning ensures the program's effectiveness and aligns with the goals of SDG 12: Responsible Consumption and Production.

Organizing: Students assign roles and responsibilities, coordinate teams, and manage resources efficiently. Effective organization ensures smooth execution and engagement of campus participants.

Leading: Leadership skills are honed as students motivate team members, communicate with the campus community, and guide participants in adopting sustainable practices.

Controlling: Students monitor progress, assess outcomes, and make adjustments where necessary. Evaluating the effectiveness of the awareness campaign ensures the project meets its objectives and maximizes environmental impact.

Through POLC, students experience firsthand how management functions operate in real-life contexts, bridging the gap between theory and practice (Handayani & Haeruddin, 2024).

Figure 2: Visual diagram showing how POLC skills link to project tasks and SDG 12 outcomes.

Literature Review: Project-Based Learning in Higher Education (2020–2026)

Project-Based Learning (PBL) has gained significant attention in higher education as an effective teaching approach that connects theoretical knowledge with practical application. PBL is a student-centered learning method where students actively engage in projects that address real-world problems. This approach encourages students to construct knowledge through experience, collaboration, and problem-solving activities. According to Amiri (2025), PBL bridges the gap between theory and practice by allowing students to work on authentic tasks that require the application of academic concepts in real-life contexts.

In recent years, many universities have adopted PBL to enhance students' practical skills and career readiness. Handayani and Haeruddin (2024) reported that integrating project-based learning in higher education significantly improves students' practical competencies, communication skills, teamwork, and problem-solving abilities. Their study also revealed that students who participated in PBL activities demonstrated higher levels of job readiness and adaptability to workplace demands.

Zhang, X., et al. (2023) indicates that PBL improves students' learning outcomes and higher-order thinking skills. A meta-analysis conducted by researchers in 2023 found that project-based learning significantly enhances students' academic performance compared with traditional teaching approaches. The study also concluded that PBL effectively develops critical thinking, creativity, and collaboration skills, which are essential competencies in the 21st-century workforce.

Furthermore, PBL encourages independent learning and active participation among university students. A study published in 2025, according to Rahman, A., et al. (2025), highlighted that PBL contributes to students' learning independence by engaging them in activities such as project planning, scheduling, monitoring progress, and evaluating results. These processes help students develop responsibility and self-management skills while completing their projects.

Another important benefit of project-based learning is its ability to cultivate innovation and entrepreneurial competencies among students. Wang, Han, and Zhao (2024) explained that PBL allows students to develop innovative thinking and practical skills by engaging in collaborative projects that simulate real-world challenges. The approach encourages students to experiment with ideas, design solutions, and present their outcomes, which ultimately strengthens their problem-solving capabilities.

In addition, recent research highlights the importance of integrating real-world collaboration industry or community collaboration to significantly enhance students' future readiness and professional competencies. Through such projects, students gain hands-on experience that prepares them for the complexities of modern workplaces (Naseer et al., 2025).

Overall, researchers consistently demonstrate that project-based learning is a powerful pedagogical strategy in higher education. It not only strengthens students' understanding of theoretical knowledge but also enables them to apply management concepts in real-life situations. In courses such as Principles and Practice of Management (MGT420), PBL allows students to practice management functions such as planning, organizing, leading, and controlling while managing real projects like recycling awareness campaigns. As a result, students develop both academic knowledge and practical skills that are essential for their professional and social responsibilities.

Conclusion

Project-Based Learning is a powerful pedagogical strategy for teaching management concepts. The “Think Before You Throw, Let’s Recycle” program at UiTM Segamat illustrates how students can apply POLC skills to real-life projects that have tangible environmental and social impact. Supported by recent literature (2020–2026), PBL enhances students’ understanding of theoretical knowledge, develops essential skills, and fosters environmental awareness, aligning academic objectives with SDG 12: Responsible Consumption and Production. Students strengthen their understanding of management theories and apply POLC skills in a practical setting.

During the planning stage, students learned how to set project objectives, prepare activity schedules, and plan recycling awareness activities. In the organizing stage, they worked together by dividing tasks and coordinating responsibilities among team members. Through the leading process, students practiced communication and leadership skills while motivating their team and engaging with the campus community. Meanwhile, the controlling stage helped students monitor project progress and evaluate the success of the program. Overall, students felt that project-based learning made management theories more practical and easier to understand, while students improved teamwork, leadership, communication, and problem-solving abilities.

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EXPERIENTIAL FINANCIAL EDUCATION THROUGH SULAM: BRIDGING FINANCIAL THEORY AND PRACTICE IN COMMUNITY ENGAGEMENT

Syamsyul Samsudin, Nik Nur Shafika Mustafa

Introduction

Project Komuniti Bijak Pelaburan was introduced in response to the persistent issue of Bumiputera equity ownership, which has yet to reach the 30 percent target set since the New Economic Policy (Malaysia) (NEP) in 1970 and reinforced under the Shared Prosperity Vision 2030 (SPV 2030). Additionally, many Bumiputera individuals are still hesitant and lack sufficient knowledge about equity investment. As a result, many community members have become victims of investment scams. Therefore, this program focuses on transferring knowledge related to financial literacy and stock investment to the community.

The project is conducted online (e-SULAM) over three months and involves participants from communities across Malaysia. The participants come from diverse backgrounds, including the B40 group, single mothers, factory workers, homemakers, private sector employees, government employees, and retirees. Throughout the program, participants are trained using five main modules.

At the end of the program, the community participants are "handed over" to the industry partner, CGS International Securities Malaysia Sdn. Bhd., where they are assisted in opening investment accounts free of charge and placed under the guidance of a licensed dealer's representative. This enables them to begin making real investments in the equity market.

Many of the trained participants have successfully generated additional income through stock investments. It is hoped that this initiative will contribute to increasing the percentage of Bumiputera investors in the Malaysian equity market. The program also supports Sustainable Development Goal 4: Quality Education.

Mapping of CLOs and PLOs with the SULAM Project

CLO 4: Execute fundamental skills, technical skills and various trading strategies through community base project (SULAM).

PLO 4 (A5):

Interpersonal skills refer to a range of skills, including interactive communications, the organisations; networking with people of different cultures; as well as social skills with different people in diverse learning and working communities as well as other groups locally and internationally.

For CLO 4, this course aims for students to **"apply" all the knowledge of fundamental analysis, technical analysis, and various trading strategies** they have learned by teaching it to the community in a "knowledge transfer" session. The SULAM Project achieves the CLO 4 objective when, during community sessions, students do not merely present theory—they actively use their fundamental and technical knowledge to teach and guide the community through practical activities such as trading simulations, strategy discussions, and collaborative learning. Through this hands-on and collaborative approach, students integrate fundamental analysis, technical analysis, and trading strategies into community sessions, reinforcing real-world learning. This not only strengthens their own knowledge but also provides direct benefits to the community through free training, knowledge sharing, and practical simulations via the Bursa Market Place platform.

These knowledge transfer sessions are conducted online (e-SULAM) over nearly three months, covering five main modules. This CLO is assessed with a 30% weighting using the

Gibbs Reflection Model. The achievement of PLO 4 can be observed when students demonstrate effective interaction, emotional intelligence, and professional, ethical teamwork while executing the SULAM Project.

Project Implementation

The implementation of this project was conducted online over a period of three months. Each group of students, consisting of four members, was responsible for delivering **knowledge transfer sessions** to two community participants. The knowledge transfer activities were structured around five main modules throughout the program. An opening ceremony was held prior to the start of the program to officially launch the initiative, while a closing ceremony was organized at the end of the program to mark its completion.

Figure 1: Photos of Student Groups and Community Participants
(Sources: Author's Personal Collection)

Impact of the SULAM project on students aligned with MQF 2024

Impact on the Community

1. **Generating additional income**

Community members trained in this program can begin investing safely and wisely. Returns from stock price appreciation or dividends have the potential to provide stable passive income, easing living costs and improving members' quality of life. Many participants in the program have successfully generated additional monthly income ranging from RM 1,000 to RM 3,000.

2. **Raising awareness of legitimate investment**

The project also educates participants about legal and compliant investment practices, including Shariah-compliant options, risk management, diversification, and understanding eligible market instruments. This knowledge helps the community avoid scams, Ponzi schemes, fraudulent investments, and unlicensed investment activities, fostering a culture of

safe and responsible investing. Investment scams are currently widespread in Malaysia, affecting many people.

Bil	Education for Sustainable Development (ESD) Competency	Impact on Students
1.	Systems Thinking	Students learn to see the bigger picture, understanding how community issues connect with national policies, fostering a holistic approach to real-world problems.
2.	Anticipatory & Strategic Thinking	Students plan the three-month project and anticipate risks, developing strategies to maximize project impact.
3.	Normative (Values & Ethics)	Students make ethical decisions, such as scheduling community sessions considerately, respecting participants' commitments.
4.	Strategic	Students design and implement effective actions and strategies to ensure successful project execution.
5.	Collaboration	The project promotes cross-disciplinary teamwork, allowing students to interact with diverse peers and contribute meaningfully to group efforts.
6.	Critical Thinking	Students critically analyse community data, respond to questions, and objectively evaluate solutions to identify the best course of action.
7.	Self-Awareness	Through Gibbs Model reflection, students recognize their strengths and values, supporting personal growth and professional development.
8.	Integrated Problem-Solving	Students integrate knowledge from multiple areas (technical and fundamental analysis) to develop sound investment strategies under volatile market conditions.

Table 1: Impact of ESD Competencies on Students According to MQF 2024 Guidelines

3. Networking and industry mentorship

Through the project, community participants gain access to credible industry advice. CGS International Securities Malaysia (CGS CIMB) assists the community in opening legitimate investment accounts for free and provides mentorship for those who wish to make real investments in the Malaysian equity market. These relationships help strengthen the credibility of new investors and support their ongoing development in equity market investing.

4. Reducing investment risk and fraud

Training focused on financial literacy and recognizing investment scams helps participants avoid fraud. This builds their confidence to enter the stock market safely and competitively. In the long term, it creates more knowledgeable, responsible, and ethical investors, reducing the negative social implications associated with illegal or fraudulent investments.

Conclusion

The project supports Sustainable Development Goal 4: Quality Education by providing relevant and accessible financial education to the community. Conducted online over three months, the program offers training and mentoring in stock investment and financial literacy, helping participants develop a basic understanding of equity investment and its associated risks. The program adopts a practical and effective curriculum consisting of five main modules: fundamentals of stock investment, fundamental and technical analysis, procedures for

opening an investment account, risk management, and ethical/ESG investing. In addition, the community-based training approach encourages knowledge sharing and collaborative learning among participants, particularly within the Bumiputera community. Through mentorship and collaboration with the industry partner CGS International Securities Malaysia Sdn. Bhd., participants gain direct exposure to real-world investment practices. This initiative not only strengthens financial literacy within the community but also empowers individuals to participate more confidently and responsibly in the equity market.

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TIKTOKPRENEUR LAB BMC MODEL: AN EXPERIENTIAL DIGITAL ENTREPRENEURSHIP MODEL FOR ENT300 THROUGH AFFILIATE MARKETING INNOVATION

Jannah Munirah Mohd Noor, Nurulashikin Romli, Tan Yan Ling

Introduction

Digital transformation has fundamentally altered entrepreneurship practice and education. Social commerce platforms, particularly TikTok, have evolved into ecosystems that enable algorithm-driven product visibility, peer-to-peer promotion, and affiliate marketing, creating low-barrier opportunities for youth entrepreneurship (Li & Ku, 2023; Wong & Lee, 2024).

Traditional entrepreneurship education often relies on simulations, business plans, or campus-based booth sales that are insufficient for contemporary digital business realities (Rahman & Ismail, 2023). These models fail to provide students with real-time market exposure, risk-free income generation, and data-driven strategic decision-making.

The TikTokPreneur Lab bridges this gap by embedding experiential learning into real social commerce campaigns. Furthermore, by integrating CosMo 2.0 principles, the model promotes inclusive entrepreneurship, empowering B40 students and persons with disabilities (PWD) through accessible digital platforms.

This study aims to:
Conceptualize TikTokPreneur Lab as an experiential digital entrepreneurship ecosystem integrated with CosMo 2.0.

- Examine its implementation methodology and measurable outcomes.
- Assess its educational, commercial, and community impact.
- Propose a conceptual framework linking experiential learning, affiliate marketing, and inclusive entrepreneurship.
- Provide insights for scalable replication in higher education contexts.

Literature Review

Digital entrepreneurship encompasses opportunity recognition, resource leveraging, and value creation enabled by digital platforms (Nambisan et al., 2023). Social commerce integrates social media with e-commerce, enhancing trust through peer interaction and user-generated content (Huang & Benyoucef, 2023). Short-form video platforms like TikTok create highly discoverable environments where content-driven affiliate promotion drives rapid revenue generation (Zhang & Lou, 2024).

Gen Z consumers demonstrate high responsiveness to authentic, micro-influencer-driven content, making TikTok affiliate networks particularly effective for student entrepreneurs (Chen, 2024). Affiliate marketing reduces traditional barriers, requiring no inventory, logistics management, or capital-intensive investment, while providing tangible performance-based earnings (Kumar & Shah, 2023).

Experiential learning remains a foundational theoretical lens in entrepreneurship education, particularly within digitally mediated environments. Rooted in Kolb's (1984) Experiential Learning Theory (ELT), learning is conceptualized as a cyclical and transformative process comprising four interrelated stages: Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation. Rather than positioning learners as passive recipients of knowledge, ELT emphasizes active engagement, reflective inquiry, and iterative improvement. In digital entrepreneurship contexts, this cycle becomes even more dynamic due to the availability of real-time data, platform analytics, and immediate market feedback.

Figure 1: Conceptual Framework for Tiktokpreneur Lab in blended with Entrepreneurship Module in subject ENT300 (Source: Author's Illustration)

The TikTokPreneur Lab operationalizes this pedagogical framework by embedding the ELT cycle within structured affiliate marketing campaigns. Students are not merely designing theoretical business models; rather, they execute live social commerce strategies, monitor engagement analytics, and iteratively refine content for improved conversion outcomes. This integration transforms ENT300 from a conventional entrepreneurship course into a real-time digital business laboratory.

In summary, experiential learning within digital entrepreneurship pedagogy represents a critical shift from static knowledge acquisition toward data-driven, action-oriented, and reflective entrepreneurial competence development. TikTokPreneur Lab exemplifies this shift by translating Kolb's theoretical framework into measurable commercial practice within a scalable social commerce ecosystem.

Methodology

This study adopted a case-based experiential research design to evaluate TikTokPreneur Lab as a pedagogical intervention embedded within the ENT300 course, examining its operationalization, commercial outcomes, and student learning development over a one-month implementation period (18 October–18 November) involving 180 students organized into 32 groups. Each group engaged in structured digital entrepreneurship activities, including selecting affiliate products from TikTok Shop, developing content and marketing strategies, applying Business Model Canvas and marketing mix principles, and executing as well as monitoring live affiliate campaigns through platform analytics. Based on the Figure 2 illustrate the data were collected through multiple sources to ensure triangulation, including TikTok Shop performance dashboards (sales, click-through rates, engagement metrics), verified revenue records, platform recognitions (5-star TikTok Impact rating and 120 Yellow Bags awards), comparative sales data against traditional campus-based booth commercialization, and student reflective journals documenting experiential learning processes. Quantitative analysis focused on total revenue generation, conversion rates, and percentage growth, while qualitative thematic analysis examined skill acquisition, entrepreneurial self-efficacy, strategic adaptability, and digital analytics competency. This integrated methodological approach enabled a comprehensive assessment of both commercial viability and pedagogical effectiveness within a real-time social commerce environment.

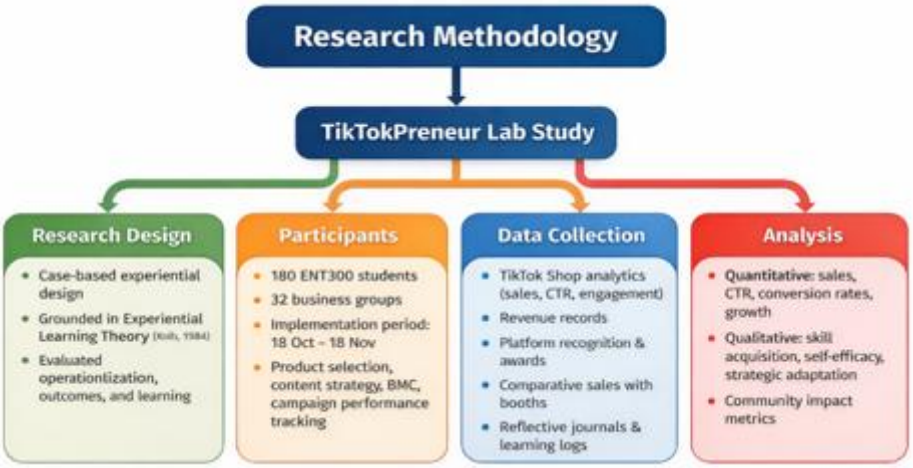

Figure 2: Research methodology and data Collection for Tiktokpreneur Lab (Source: Author's Illustration)

Experiential Learning Implications

This study utilised a case-based experiential research design to assess TikTokPreneur Lab as a pedagogical intervention within the ENT300 course, analysing its implementation, commercial outcomes, and student learning progress over a one-month period (18 October–18 November) with 180 students divided into 32 groups. Each group participated in organized digital entrepreneurship tasks, such as choosing affiliate products from TikTok Shop, coming up with content and marketing plans, using the Business Model Canvas and marketing mix principles, and keeping an eye on and managing live affiliate campaigns through platform analytics. To make sure the data was accurate, it was gathered from a number of different sources. These included TikTok Shop performance dashboards (sales, click-through rates, and engagement metrics), verified revenue records, platform accolades (a 5-star TikTok Impact rating and 120 Yellow Bags awards), comparative sales data against traditional campus-based booth commercialisation, and student reflective journals that recorded experiential learning processes. Quantitative analysis concentrated on overall revenue generation, conversion rates, and percentage growth, whereas qualitative thematic analysis investigated skill development, entrepreneurial self-efficacy, strategic adaptability, and proficiency in digital analytics. Based on Figure 4, this combined analytical method made it possible to fully evaluate both the economic viability and the educational effectiveness of a real-time social commerce setting.

Pedagogical and Theoretical Significance

This study's findings offer robust empirical evidence endorsing TikTokPreneur Lab as a performance-oriented, experiential digital entrepreneurship framework. The quantifiable financial results and noted student involvement demonstrate numerous significant educational and theoretical consequences. Initially, social commerce platforms like TikTok may function as dynamic entrepreneurship laboratories, allowing students to convert theoretical business principles into practical market strategy. Secondly, digital affiliate marketing provides a low-capital, low-risk entry point for student entrepreneurs, enabling involvement irrespective of previous resources or social capital. Thirdly, engagement intensity, which can be measured by how often material is created, how many interactions there are, and how quickly algorithms respond, is strongly related to business results. This shows how important it is to try new things and make decisions that can change over time. Fourth, systematic digital experimentation fosters the cultivation of entrepreneurial competencies, encompassing digital analytics literacy, strategic thinking, content optimisation, and self-efficacy. The TikTokPreneur Lab integrates theoretical entrepreneurial education with practical market implementation, enhancing the pedagogical significance of modern curriculum by illustrating that immersive,

platform-based learning can provide quantifiable economic and educational results. These data highlight the possibility of using social commerce and affiliate marketing in higher education as a pedagogical instrument and a scalable innovation for student empowerment.

Conclusion

The analysis confirms that the TikTokPreneur Lab is not merely an instructional innovation but a financially measurable entrepreneurial intervention. Performance variations across groups highlight the importance of strategic engagement, LIVE commerce utilization, and product diversification.

Overall, the initiative demonstrates that experiential digital entrepreneurship models can produce tangible economic outcomes within structured academic settings, thereby reinforcing the effectiveness of integrating affiliate-based social commerce into entrepreneurship education.

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CAN MARKETING LESSONS GO BEYOND THE CLASSROOM?

Nur Auni Afifah Abdul Karim, Azila Jaini, Sharmin Baba

Introduction

Digital marketing is commonly taught within formal classroom settings, where emphasis is placed on concepts, frameworks, and digital tools such as social media platforms, content strategies, and online customer engagement. These approaches provide students with essential theoretical foundations; however, they often remain confined to simulated contexts that do not fully reflect the complexities of real-world digital marketing practice. Although students are generally familiar with digital platforms in their everyday lives, this familiarity does not necessarily translate into the ability to apply marketing principles strategically, ethically, and purposefully in authentic situations.

This observation prompted critical reflection on our own teaching practices as a digital marketing educator. While students were able to articulate digital marketing concepts accurately in assessments and classroom discussions, many struggled to adapt these concepts when faced with real audiences, organisational constraints, and community needs. Recent study also emphasises that digital marketing pedagogy should incorporate experiential and applied learning elements to strengthen students' strategic thinking (Alalwan, 2021). The gap between conceptual understanding and practical application is also faced by Higher Education (HE) to increase the graduates' employability while developing good skills in facing life competencies (Eimer & Bohndick, 2023). Consequently, this reflection led to a central pedagogical question: Can digital marketing lessons go beyond the classroom?

In response, a Service-Learning Malaysia–University for Society (SULAM) project was incorporated into a digital marketing course, allowing students to engage directly with community partners and apply digital marketing concepts in real-life contexts. Through this experiential and community-based learning approach, students were required to analyse audience needs, design digital content, and implement marketing strategies that were both contextually relevant and socially responsible. Service-learning has been widely recognised as an effective pedagogical approach that enhances students' critical thinking, civic responsibility, and ability to connect academic knowledge with real-world challenges (Chika-James et al., 2025).

The integration of the SULAM project also transformed our role as an educator. Rather than functioning primarily as a transmitter of knowledge, I adopted the role of a facilitator and mentor, guiding students through reflective practice, problem-solving, and ethical decision-making. This experience highlighted the emotional and relational dimensions of teaching, particularly as students navigated uncertainty, collaboration, and accountability in authentic learning environments. Through these reflections, this topic explores how extending digital marketing education beyond the classroom through service-learning can humanise the learning process and contribute to the holistic development of both students and educators.

From Theory to Community Practice

Although the SULAM project was part of the course requirement, what made it meaningful was the way students slowly changed how they saw themselves in the learning process. In this project, they were not the ones managing the social media accounts directly. Instead, they acted as guides and advisors to real food and beverage SMEs. Their role was to analyse the businesses' current digital presence and suggest improvements across platforms such as TikTok, Instagram, Facebook, and WhatsApp Business. This advisory position required them to move beyond completing tasks for marks and begin thinking like responsible consultants.

At the beginning, many students still viewed digital marketing mainly through a technical lens, focusing on creating attractive visuals, using trending audio, or applying creative video editing techniques. Their early conversations revolved around aesthetics and viral potential rather than strategic direction. However, once they started speaking directly with business owners,

their perspective gradually shifted. They realised that strategy must come before execution. Before suggesting content ideas, they needed to understand who the target audience was, what made the business different from competitors, and how the brand was currently perceived by customers. They had to consider whether their proposed content aligned with the business identity and long-term goals. Explaining their ideas to SME owners required more than creativity; it demanded clarity, logical reasoning, and confidence in their recommendations.

The advisory nature of the project also encouraged students to conduct more careful observation and analysis. Rather than immediately proposing changes, they first examined the businesses' posting frequency, engagement levels, tone of communication, and visual consistency. Some groups compared competitors' digital presence to identify gaps or opportunities. This analytical stage pushed them to apply theoretical concepts such as segmentation, positioning, and content strategy in a more structured manner. This shift reflects broader discussions that digital and social media marketing education must move beyond technical skill development and emphasise strategic integration and value creation in real contexts (Dwivedi et al., 2021).

Working with real entrepreneurs further exposed students to realities that are rarely discussed in textbooks. Some business owners had limited time to focus on digital marketing due to daily operational demands. Others were unfamiliar with platform algorithms or unsure how to interpret engagement metrics. In certain cases, business owners were hesitant to experiment with new approaches because they were comfortable with existing routines. Students therefore had to adjust their recommendations according to these constraints. They learned to simplify marketing terminology, communicate patiently, and offer step-by-step guidance rather than overwhelming suggestions. Instead of presenting idealistic strategies, they began proposing realistic, achievable improvements.

As the weeks progressed, I noticed a visible shift in their discussions and presentation style. Instead of suggesting generic ideas, they began asking more thoughtful and specific questions. They debated among themselves about the suitability of certain platforms for particular target segments. They justified their recommendations using observations and simple data rather than personal preferences. Their confidence improved, especially when they realised that business owners were genuinely listening to their suggestions. Even though they were not directly executing the campaigns, guiding a real business made them feel accountable for the outcomes. That sense of responsibility encouraged deeper thinking and stronger ownership of their learning.

Through this experience, digital marketing gradually became more than just a subject to pass or a collection of tools to master. It became something connected to real livelihoods, real customers, and real consequences. Students began to understand that behind every post, caption, or video lies a broader intention to communicate value, build relationships, and sustain a business. Watching this change unfold reinforced our belief that learning truly expands when students are placed in authentic situations that require them to think critically, adapt to real constraints, and engage meaningfully beyond the classroom walls.

When Teaching Changed Us

While we were observing this transformation in our students, we slowly realised that the experience was also reshaping us as an educator. As they navigated uncertainty, negotiated ideas with business owners and refined their strategies, we found ourselves reflecting on our own assumptions about teaching digital marketing. The SULAM project did not only expand their learning boundaries; it quietly challenged ours as well. Watching them step into advisory roles made us reconsider what it truly means to facilitate learning rather than simply deliver content. It was at this point that we began to recognise that the shift was not happening only within our students, but within us too.

Teaching through SULAM also made us more aware of the emotional dimension of learning. When students shared that business owners appreciated their suggestions or began

implementing small improvements based on their advice, we could see a sense of pride in them. At the same time, we felt a responsibility to ensure that the guidance they provided was thoughtful and ethical as their recommendations could influence real business decisions. This experience required us to listen more, mentor more intentionally and allow students space to think independently rather than depending on direct instructions.

One moment that remains particularly meaningful to us occurred during the SULAM showcase session. Among the five groups, one group decided to go beyond the basic requirement of providing strategic recommendations. Although their role was primarily advisory, they prepared a sample advertisement concept for the SME to help visualise how their strategy could be executed. Their creativity was truly beyond our expectation. The video concept, messaging and overall presentation reflected not only strong technical skills but also a clear understanding of the brand's identity and target audience.
When the group was later announced as the first-place winner for the DGM541 course during the SULAM closing ceremony, it felt like more than just an academic achievement. It was a reflection of their growth; from students who initially questioned their ideas to individuals capable of presenting structured, confident, and creative strategies. Watching them receive the recognition reinforced our belief that when learning extends beyond classroom boundaries, students often discover capabilities they did not realise they possessed. It also reminded us that digital marketing education is not merely about understanding platforms and trends, but about nurturing strategic thinking, creativity and professional confidence.

Challenges Along the Way
While the SULAM experience was meaningful and rewarding, it was not without its challenges. Integrating real businesses into a structured academic timeline introduced a level of unpredictability that could not always be anticipated. Unlike classroom-based assignments where expectations and outcomes are controlled, working with SMEs meant adjusting to their schedules, availability, and operational priorities. Some business owners were highly responsive and enthusiastic, while others took longer to reply due to the demands of running their daily operations. These differences occasionally affected students' momentum and required flexibility in managing deadlines and expectations.
Another challenge emerged within the student groups themselves. Although each group was assigned equal responsibilities, not all members displayed the same level of confidence when communicating with business owners. Some students were comfortable presenting their ideas and leading discussions, while others preferred to remain in the background. Encouraging quieter students to participate more actively required gentle guidance and reassurance. This observation aligns with recent literature suggesting that service-learning initiatives require structured guidance and reflective facilitation to ensure meaningful and balanced student participation (Salam et al., 2019).

There were also instances where students' proposed strategies, though creative and well-structured, did not fully align with the realities faced by the SMEs. Budget limitations, time constraints, and technical skills of the business owners influenced what could realistically be implemented. These moments sometimes led to frustration, particularly when students felt their ideas were strong but not fully adopted. However, such situations became valuable learning experiences. Students began to understand that effective digital marketing is not about imposing ideal solutions, but about adapting strategies to fit practical circumstances. They learned to compromise, simplify, and prioritise.

From our perspective as a lecturer, balancing guidance and independence was another delicate challenge. It was tempting at times to step in and offer direct solutions when students seemed uncertain. However, I had to consciously remind ourselves that the purpose of SULAM was to allow students to navigate complexity and develop their own judgement. Allowing them to experience small setbacks and rethink their strategies was part of the learning process. This required patience and trust in their capability to grow.

Time management was also an ongoing consideration. Coordinating meetings between students and business owners within a six-week period demanded careful planning. Students had to juggle other academic responsibilities, while SMEs operated according to their own schedules. Ensuring that meaningful engagement occurred within a limited timeframe required continuous monitoring and encouragement. These logistical aspects, although less visible in the final presentations, formed a significant part of the learning journey.

Reflecting on these challenges has deepened our appreciation of community-based learning. It reminded us that authentic education is rarely smooth or perfectly structured. Instead, it involves negotiation, adaptation and reflection. The imperfections and uncertainties did not weaken the SULAM experience; rather, they made it more realistic and meaningful. Through these moments, both our students and we learned that growth often happens in situations that are slightly uncomfortable, yet deeply transformative.

Conclusion

The SULAM experience reaffirmed our belief that digital marketing lessons can indeed go beyond the classroom. When students are given the opportunity to engage with real businesses, their learning becomes more intentional, responsible, and reflective. They begin to see digital marketing not merely as a subject to pass, but as a strategic tool that can influence real decisions and real livelihoods.

For us, this experience also reshaped our understanding of teaching. It reminded us that effective education is not solely about delivering content, but about creating spaces where students can explore, question and grow. The classroom does not have to be limited to four walls; it can extend into communities, conversations, and authentic challenges that stimulate deeper thinking.

Ultimately, digital marketing education becomes meaningful when it connects theory with people. Through SULAM, both our students and we experienced learning that was dynamic, collaborative and human. In that sense, the question is no longer whether digital marketing lessons can go beyond the classroom but how often we are willing to allow them to do so.

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FROM FUNDAMENTALS OF MARKETING TO DIGITAL STRATEGY: REFLECTIVE LESSONS FOR IMPACTFUL TEACHING IN A DIGITAL AGE

Muhamad Khodri Kholib Jati, Suzana Hassan, Oswald Timothy Edward

Teaching as an Integrated and Human Centred Practice

Teaching in higher education is not simply an act of delivering content. It is an intellectual, relational, and developmental endeavour through which students are guided towards disciplinary understanding, professional readiness, and a stronger sense of self as future practitioners. In marketing education, this responsibility has become even more significant as digital transformation continues to reshape markets, communication, consumer behaviour, and business decision making. Marketing educators are therefore expected not only to teach established concepts, but also to ensure that these concepts remain meaningful within rapidly changing social and technological contexts (Grewal et al., 2025; Walter, 2024).

In reflecting on our experience teaching MKT243 and DGM551, we have come to regard these courses not as separate instructional spaces, but as connected points along a pedagogical continuum. MKT243 provides the conceptual and analytical foundations on which DGM551 builds more advanced, strategic, and digitally oriented forms of thinking. This progression reflects a wider need in marketing education. Students must first understand the logic of marketing before they can engage meaningfully with the pace, complexity, and data rich nature of digital strategy. The classroom thus becomes a space in which foundational theory is translated into applied understanding, and where reflective pedagogy supports sustained student engagement, intellectual growth, and professional formation (Li et al., 2023; Walter, 2024).

From Foundational Knowledge to Applied Thinking: Lessons from MKT243

Our earlier experience teaching MKT243 placed strong emphasis on clarity, structure, and conceptual mastery. Core topics such as needs and wants, segmentation, targeting, positioning, consumer behaviour, and the marketing mix remain essential because they provide students with the vocabulary, frameworks, and mental models needed to understand how markets function. These principles continue to form the intellectual architecture of marketing education. At the same time, experience has repeatedly shown that conceptual familiarity does not necessarily develop into strategic understanding. Students may be able to define terms accurately yet still struggle to think like marketers. Many initially reduce marketing to advertising, selling, or social media promotion, without recognising its broader role in value creation, customer understanding, and strategic decision making. This gap between conceptual recall and applied reasoning highlights a central pedagogical challenge, namely, helping students move beyond memorisation towards authentic interpretive and analytical competence. This challenge has reinforced the importance of contextualised teaching. In MKT243, theory becomes more meaningful when it is connected to familiar brands, services, consumer experiences, and local business contexts. Segmentation is more readily understood when students can identify actual customer groups. Positioning becomes clearer when linked to real brand promises.

Discussions of product or service strategy gain greater relevance when grounded in the markets students encounter in everyday life. Such contextualisation enables students to see marketing not as a collection of isolated definitions, but as a practical and strategic discipline embedded in real commercial settings. Authentic learning activities are equally important. Tasks such as brand analyses, mini case evaluations, market observations, and group-based problem solving deepen conceptual learning because they require students to interpret, apply, and justify marketing decisions. These activities also strengthen broader capabilities associated with employability, including communication, teamwork, analytical reasoning, and

problem solving, all of which continue to be highly valued in contemporary workplaces (Li et al., 2023; Tushar & Sooraksa, 2023). In this sense, MKT243 functions not only as an introductory academic course, but also as an early platform for professional thinking.

Reflective Teaching as a Basis for Pedagogical Growth

One of the most important lessons from our teaching journey is that effective instruction requires continuous reflection. Reflective teaching is not merely retrospective contemplation. Rather, it is a disciplined pedagogical practice through which educators examine what supports learning, what limits participation, and how teaching may be refined in response to students' needs and changing conditions. This form of reflection is especially important in higher education, where student diversity, technological change, and shifting expectations demand ongoing pedagogical responsiveness. Research likewise indicates that reflective teaching is positively associated with stronger work engagement, greater professional commitment, and improved teaching quality among university instructors (Li et al., 2023). In practical terms, reflective teaching has led me to move beyond a predominantly lecture based approach towards more participative and dialogic forms of learning. Presentations, guided discussions, brand critiques, mini cases, collaborative tasks, and peer interaction have become increasingly important components of our teaching practice.

These strategies encourage students to articulate ideas, test interpretations, question assumptions, and engage more actively with the content. Instead of positioning students as passive recipients of information, participative learning allows them to become active contributors to the construction of understanding. Reflection has also deepened our sensitivity to the human dimensions of learning. Students differ in confidence, preparedness, pace of learning, communication style, and prior exposure to the subject. Some require greater structure, whereas others benefit from exploratory discussion and independent inquiry. A reflective stance therefore calls for attentiveness not only to instructional technique, but also to classroom climate. Encouragement, empathy, timely feedback, and appropriate academic challenge all contribute to a learning environment in which students feel able to participate meaningfully without compromising standards. This relational and human centred aspect of teaching is especially important in contemporary learning environments shaped by digital mediation, post pandemic shifts, and new forms of student vulnerability and disengagement (Walter, 2024).

Extending the Pedagogical Continuum: From MKT243 to DGM551

If MKT243 establishes the conceptual foundations of marketing, DGM551 extends that foundation into a more complex and strategically demanding terrain. The transition between these two courses is pedagogically significant because it marks a movement from understanding marketing principles in general terms to examining how those principles operate within fast moving, technology enabled, and data rich environments. Students often enter DGM551 with a degree of comfort in using digital platforms, yet familiarity with digital tools does not automatically lead to strategic competence. Being a user of digital media is not the same as being able to plan, justify, and evaluate digital marketing decisions. In DGM551, students are therefore challenged to move from digital consumption to strategic analysis. They must learn how to assess digital channels, formulate coherent campaign objectives, develop audience relevant messages, and evaluate performance in relation to broader business goals. This progression requires a more critical and disciplined understanding of digital marketing practice, one that is grounded in strategy rather than trend imitation or habitual posting (Grewal et al., 2025). Teaching DGM551 has reinforced the importance of preserving core marketing logic even as technology evolves. Digital pedagogy should not displace foundational principles. Rather, it should extend them. Students need to understand that digital tactics are not ends in themselves, but tools that should serve clearly defined objectives, consumer needs, and organisational priorities. A strategically meaningful digital education, therefore, is one that balances conceptual continuity with adaptive thinking and prepares students to

engage intelligently with emerging platforms, technologies, and market expectations (Grewal et al., 2025; Walter, 2024).

Artificial Intelligence, Pedagogy, and Professional Judgment

One of the most significant developments in higher education today is the growing presence of artificial intelligence (AI) in teaching, learning, and professional practice. AI is no longer a peripheral issue. It is becoming a practical reality that both educators and students must learn to navigate with discernment. Recent scholarship has highlighted the increasing integration of AI in higher education while also identifying concerns related to faculty readiness, self-efficacy, ethical use, and professional development needs (Mah & Groß, 2024). At the same time, work on AI literacy underlines the importance of critical thinking, prompt awareness, and responsible evaluation of AI generated outputs in educational settings (Walter, 2024). Within marketing education, AI presents both opportunities and tensions. On the one hand, it can improve efficiency, support brainstorming, facilitate access to information, and enable more personalised forms of learning.

On the other hand, it raises serious questions about originality, authenticity, overreliance, and the erosion of critical judgment. For this reason, AI should neither be treated as a threat to be rejected outright nor embraced uncritically as an educational shortcut. It should instead be approached as a professional tool that requires ethical reasoning, contextual judgment, and disciplined use (Mah & Groß, 2024; Walter, 2024). From a pedagogical perspective, this means that students must be guided to develop AI literacy as part of their broader professional competence. They should understand not only how AI tool's function, but also when their use is appropriate, how to interrogate their outputs, and what ethical responsibilities accompany their use in academic and professional settings. This requires assessment and learning activities that do not simply permit AI use, but instead require students to evaluate accuracy, relevance, bias, strategic alignment, and ethical implications critically. Such an approach preserves rigour while acknowledging the realities of an increasingly AI infused workplace.

Implications for Teaching Practice: Design, Judgment, And Employability

A central implication of these reflections is that teaching marketing is ultimately about cultivating judgment, not merely delivering information. Students must be encouraged to ask substantive questions. Does this tactic support a meaningful objective? Is the message appropriate for the intended audience? Are the available data sufficient to justify the recommendation? Have ethical concerns been adequately considered? Questions of this nature move learning beyond surface level activity and towards professional reasoning. To foster such judgment, teaching design must include authentic and intellectually demanding tasks. Campaign critiques, strategic presentations, team projects, and problem-solving exercises allow students to rehearse the forms of thinking expected in professional practice.

Through these tasks, students learn to justify decisions, negotiate ideas with others, interpret evidence, and reflect on the implications of their recommendations. These experiences are pedagogically rich, but they also align with the employability agenda by developing communication, collaboration, adaptability, and critical thinking. Employers consistently value these qualities, even though concerns remain regarding graduates' readiness for the realities of contemporary work (Tushar & Sooraksa, 2023). The relationship between MKT243 and DGM551 is especially important in this regard. Together, these courses show that employability is not built through isolated skills training alone, but through a coherent educational journey in which theory, practice, reflection, and professional identity develop progressively. Foundational knowledge must therefore be taught in ways that anticipate later application, while advanced strategic teaching must remain connected to its conceptual roots.

The Human Dimension of Marketing Education

An equally important lesson from reflective practice is that effective teaching must remain attentive to the human realities of learning. Marketing education is not concerned solely with

producing technically competent graduates. It is also concerned with nurturing confidence, resilience, ethical awareness, and a sense of professional possibility. Students enter the classroom with diverse strengths, anxieties, expectations, and experiences, and these differences shape how they participate, interpret feedback, and respond to challenges.

A human centred pedagogical approach does not imply reduced rigour. On the contrary, it involves creating conditions in which students can engage more fully with demanding learning. A classroom that balances challenge with encouragement, structure with dialogue, and accountability with empathy is better positioned to support sustained participation and intellectual growth. In technology enhanced environments, where students' academic identities may intersect with issues of visibility, self-presentation, and uncertainty, such a climate becomes even more important (Walter, 2024). Thoughtful attention to classroom relationships, feedback practices, and psychological safety can therefore make a meaningful difference to student engagement and self-efficacy.

Towards a Holistic and Future Ready Model of Marketing Education

As a conclusion, reflecting across MKT243 and DGM551 has reinforced our conviction that impactful marketing education must be intellectually rigorous, professionally relevant, technologically responsive, and profoundly human. It must equip students with strong conceptual foundations while progressively developing their ability to interpret markets, understand consumers, think strategically, and engage responsibly with digital transformation. Just as importantly, it must cultivate the wider qualities required of future professionals, including communication, collaboration, ethical awareness, adaptability, and reflective judgment. In an era shaped by technological acceleration, AI integration, and changing professional expectations, the role of the educators are not diminished but deepened. Teaching must continue to bridge theory and practice, preserve the integrity of disciplinary thinking, and support students as they grow into capable and ethically aware practitioners. Across both foundational and advanced courses, the aim is not simply to help students perform well in assessments, but to prepare them to enter an increasingly complex professional environment with discernment, confidence, and purpose (Grewal et al., 2025; Mah & Groß, 2024; Tushar & Sooraksa, 2023; Walter, 2024).

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ETHICAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION: BALANCING INNOVATION AND ACADEMIC INTEGRITY

Norhasniza Mohd Hasan Abdullah, Tay Bee Hoong, Masitah Omar

Introduction

Artificial Intelligence (AI), officially founded as a research field in 1956 by John McCarthy at the Dartmouth Conference held at Dartmouth College. Over the decades, AI is transforming higher education at an unparalleled rate. What began as experimental educational software has evolved into sophisticated systems. The public release of generative AI tools such as ChatGPT by OpenAI and Gemini by Google DeepMind signified a pivotal moment in educational contexts. In contrast to previous AI systems that were limited to narrow tasks, current AI can generate essays, summarize research, produce computer code, and simulate academic dialogue. Therefore, universities around the world are rethinking traditional teaching models, assessment strategies, and even the position of faculty in response to AI-driven tools. Rather than simply digitizing education, AI is fundamentally transforming how knowledge is delivered, consumed, and assessed.

Higher education institutions have reacted with a mixture of enthusiasm and concern. AI offers adaptive learning environments, automated administrative efficiency, and enhanced research capacity (Holmes et al., 2019). Nevertheless, it concurrently violates established conventions around authorship, academic integrity, intellectual labour, and equity (Perkins, 2023).

In the field of education, ethical inquiry must go beyond technological capability to examine how AI affects student development, institutional responsibility, and epistemic integrity. This article aims to provide a comprehensive analysis of the ethical challenges posed by AI in higher education, specifically with academic integrity. It will delve into the various ways AI can both enhance and undermine the educational experience. Subsequently, the paper will propose a comprehensive method to address these difficulties, calling for a balanced strategy that promotes innovation while strictly maintaining ethical norms and academic integrity. By exploring these critical dimensions, this article seeks to contribute to a more informed and proactive discourse on the responsible integration of AI within the academic field.

The Transformative Potential of AI in Higher Education

AI presents a myriad of opportunities to improve and streamline various aspects of higher education, promising a more efficient, tailored, and engaging learning environment. AI-powered adaptive learning platforms can tailor educational content and pace to individual student needs, providing customized learning paths based on performance, learning styles, and prior knowledge. This customization can lead to improved student engagement, better comprehension, and higher retention rates. Intelligent tutoring systems, for instance, can offer immediate feedback and targeted support, acting as virtual mentors that guide students through complex subjects.

Besides students, educators also gain benefits from the AI technologies. For example, AI systems can automate the assessment of specific assignment kinds, including multiple-choice questions, short responses, and essays, thus allowing them to concentrate on more intricate pedagogical responsibilities. Beyond mere scoring, AI can deliver instant, constructive feedback to students, highlighting areas for improvement and recommending resources for further study. This rapid feedback loop can significantly accelerate the learning process and allow students to refine their understanding more effectively.

In addition, AI assists educators in composing their academic journal articles. In academic research, AI systems can aid in literature reviews, data analysis, pattern identification, and

hypothesis formulation. They can process vast amounts of information much faster than humans, identifying connections and insights that might otherwise be overlooked. This capability can accelerate scientific discovery, enhance the rigor of research, and support interdisciplinary collaborations.

Furthermore, AI can optimize administrative procedures at higher education institutions. This encompasses duties including student enrolment, course scheduling, resource allocation, and predictive analytics for student success and retention. By automating common administrative tasks, AI can diminish operating expenses and enable personnel to concentrate on more strategic initiatives and direct student support.

Ethical Challenges of AI in Higher Education

Despite its transformative capability, the integration of AI into higher education leads to a complex web of ethical challenges that require careful consideration. These challenges often intersect, creating a nuanced landscape that universities must navigate to ensure responsible and equitable AI adoption.

The foremost and much debated ethical issue is academic integrity. The expansion of generative AI technologies has led to unparalleled chances for academic dishonesty, jeopardizing the integrity of scholarly work. Generative AI can produce sophisticated text, code, and various forms of content that are often indistinguishable from human-generated work. This capability facilitates students' submission of AI-generated assignments as their own, circumventing the learning process and compromising the cultivation of essential abilities. The ease of access to such tools can lead to an increase in plagiarism and other forms of dishonesty, thus, making it challenging for educators to accurately assess student understanding and effort.

Besides that, an excessive reliance on AI tools can diminish students' opportunities to engage in critical thinking, problem-solving, and creative expression. If students consistently rely on AI to complete their assignments, they may not develop the analytical and creative skills that are significant to higher education. This may result in a superficial understanding of subjects and a diminished capacity for independent intellectual inquiry.

In response to the rise of AI-generated content, universities have adopted AI detection technologies. Nonetheless, these instruments are often imperfect and can produce false positives, unfairly accusing students of misconduct. Furthermore, some AI identification technologies have been shown to exhibit biases, particularly against non-native English speakers or those with unique writing styles, exacerbating existing disparities in evaluation. This creates a dilemma where the solution to one problem introduces another, potentially penalizing innocent students.

AI systems are trained on extensive datasets, and if these datasets reflect prevailing societal biases, the AI models will inevitably perpetuate and even amplify those biases. This may lead to significant inequities in educational outcomes. AI algorithms can unintentionally discriminate against selected demographic groups. For example, an AI-powered admissions system trained on historical data could favour applicants from privileged backgrounds, thus perpetuating existing disparities in access to higher education. Similarly, AI grading systems can perpetuate biases present in the training data, leading to inequitable evaluations for students from underrepresented groups. As noted, AI detection tools can disproportionately affect non-native English speakers. Beyond this, adaptive learning platforms, while offering personalization, can also learn from biased data, potentially hindering the academic growth of students from marginalized communities. The digital divide is also a concern, as access to advanced AI tools and the digital literacy required to use them effectively may not be uniformly

distributed among students, exacerbating the disparity between the privileged and the underserved.

Balancing Innovation and Academic Integrity: A Comprehensive Framework

Addressing the ethical challenges of AI in higher education demands a thoughtful and comprehensive strategy that carefully balances the pursuit of innovation with the unwavering commitment to academic integrity. Strong and transparent institutional policies are the keystone of responsible AI integration. These policies should address the ethical use of AI by students, faculty, and administrators, granting clear expectations and consequences. Institutions must formulate clear acceptable use policies for AI tools, differentiating between real academic assistance and academic dishonesty. These policies should be consistently revised to align the rapid evolution of AI technologies. They should specify when and how AI tools can be used for assignments, research, and other academic activities, and clearly define what constitutes AI-assisted plagiarism or cheating. Policies should mandate transparency in the use of AI systems, particularly those involved in assessment or decision-making processes that affect students. Institutions should strive for explainable AI where possible and provide mechanisms for students to challenge AI-generated outcomes. Clear lines of accountability for AI system failures or biased outputs must also be established.

The integration of AI requires a reassessment of pedagogical approaches, evaluation methods, and curriculum development to foster AI literacy and mitigate risks to academic integrity. Educators must move away from conventional assessment methods that are easily circumvented by generative AI. This involves designing assessments that force higher order thinking, critical analysis, creativity, and application of knowledge in novel contexts. Instead of banning AI, institutions should concentrate on developing AI literacy among students and faculty. This includes understanding how AI works, its capabilities and limitations, its ethical implications, and how to apply it as an instrument for learning and research. Curricula should incorporate discussions on AI ethics, bias, and the societal impact of AI, preparing students to be informed and responsible digital citizens. Curricula should increasingly emphasize uniquely human skills that AI cannot imitate, such as creativity, critical thinking, emotional intelligence, complex problem-solving, and ethical reasoning. These skills will be vital in an AI-augmented workforce and are focal to the mission of higher education.

Although AI presents challenges, technological solutions can contribute to sustaining academic integrity and supporting ethical AI use. Beyond simple AI detection, advanced tools may help recognize patterns indicative of AI generated content or assist in verifying authorship. Nevertheless, these tools must be used with caution, acknowledging their limitations and possibility for bias, and always as part of a broader human-led investigative process. For high-stakes assessments, institutions may need to explore secure digital environments that limit access to external tools, including generative AI. This could involve proctoring software or locked-down browser environments, though these also raise privacy concerns that must be carefully managed. Learning Management Systems (LMS) and other educational technologies can be integrated with AI tools in ways that promote ethical use. For instance, AI-powered writing assistants can be used to provide feedback on grammar and style, thus, helping students to improve their writing without generating content for them. The key is to integrate AI as a supportive tool rather than substitute for learning.

Confronting the ethical challenges of AI requires continuous dialogue, education, and collaboration among all stakeholders within the higher education sector. Educators need comprehensive training on how AI works, its implications for their disciplines, and strategies for integrating it ethically into their teaching and assessment practices. This includes workshops on redesigning assignments, identifying AI misuse, and fostering AI literacy among students. Professional development should also encompass the ethical considerations of using AI in research and administrative tasks. Students require clear guidance and education on the ethical use of AI. This can be achieved through orientation programs, dedicated

workshops, and explicit discussions within courses. Emphasizing the value of academic integrity and the long-term benefit of genuine learning is essential. Students should be empowered to understand the ethical implications of their AI use and to make responsible choices. Creating forums for ongoing dialogue among students, faculty, administrators, and AI developers is crucial. These discussions can help shape institutional policies, share best practices, and foster a collective understanding of the evolving ethical landscape. A community-wide approach ensures that AI integration is a shared responsibility and that diverse perspectives are considered.

Conclusion

The integration of Artificial Intelligence into higher education presents a significant opportunity to innovate and enhance the learning experience. Nonetheless, this transformative potential is inextricably linked to substantial ethical challenges, specifically concerning academic integrity, bias, and the human element of education. Navigating this complex landscape requires a thoughtful, proactive, and ethically grounded approach.

This article has argued for a comprehensive framework that balances AI innovation with academic integrity by establishing clear institutional policies, pedagogical adjustments, strategic technological solutions, and continuous dialogue and training. By embracing acceptable use policies, redesigning assessments to promote higher-order thinking, fostering AI literacy, and prioritizing human connection, institutions can leverage the advantages of AI while preserving their fundamental values.

The future of higher education in an AI-driven world depends on our collective ability to engage with these technologies responsibly. The issue is not whether to accept AI, but how to do so in a manner that upholds ethical standards, promotes equitable outcomes, and prepares students for a future where human ingenuity and ethical reasoning remain paramount. Through sustained effort and collaboration, higher education can ensure that AI serves as a powerful tool for enlightenment, rather than a threat to its fundamental mission.

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INTEGRATING TECHNOLOGY AND ARTIFICIAL INTELLIGENCE IN TEACHING BUSINESS STUDENTS

Dalila Abu Bakar, Nur Auni Afifah Abdul Karim, Nor Zubaidah Nor Albashri, Noor Insyirah Mohsin.

Transition in learning

Traditional lecture-based teaching methods are gradually giving way to more interactive, technology-supported approaches that emphasize experiential learning, problem-solving, and data-driven decision-making. The integration of technological tools, such as statistical software, financial modelling platforms, and AI-based analytical systems, enables students to interact with real-world data and simulate business scenarios that reflect industry practices. Thus, teaching strategies for business analytics and financial modelling must evolve to reflect this digital transformation.

In the context of higher education, particularly at public universities, lecturers are increasingly expected to adopt innovative pedagogical methods that incorporate digital tools while maintaining academic rigour and critical thinking. Teachers can create more dynamic learning environments by using artificial intelligence and advanced analytics platforms in the classroom. Students are no longer passive recipients of knowledge; instead, they actively participate in the learning process through data exploration, model development, and technological experimentation.

Nowadays, universities are required to equip students not only with theoretical knowledge but also with technological competencies that align with evolving industry demands in IR4.0. The integration of technology and artificial intelligence (AI) into teaching practices has become essential, making them highly compatible with technological innovation in pedagogy.

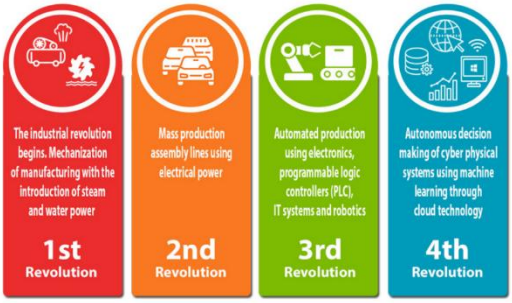

Figure 1: Industrial revolution

The Evolving Role of Technology in Business Education

The integration of technology in my subjects, FIN534 (Business Analytics and Financial Modelling) and FIN659 (Quantitative Research Method), has fundamentally reshaped how knowledge is delivered, accessed, and applied. In these subjects, technological advancements have transformed both curriculum design and instructional practices. As industries become increasingly data-driven, universities must prepare graduates who are capable of interpreting large datasets, developing predictive models, and making strategic decisions based on analytical insights.

FIN534, in particular, is rooted in the application of statistical techniques and data visualization tools to analyze complex business data. Figure 2 shows statistical software, such as Power BI and Tableau, spreadsheets for modelling techniques, and simulation tools to evaluate financial performance and investment decisions. These disciplines demand a learning environment where students can interact directly with data and technological tools.

These software assist students in understanding patterns within large datasets, identifying predictive relationships, and automating repetitive analytical processes. It allows my students to perform exploratory data analyses, generate visualizations, and interpret statistical relationships more efficiently.

The integration of technology into teaching practices supports a shift from theoretical instruction toward applied learning. Instead of solely learning formulas or conceptual frameworks, students are encouraged to build models, test hypotheses, and analyze real-world datasets that they can extract from Data Stream and Kaggle for learning purposes. Employers highly value this approach, as it fosters more profound understanding and develops practical skills.

From a teacher's perspective, it gives me opportunities to create more interactive and personalized learning experiences. I can analyze student performance data, identify areas where students struggle, and provide targeted feedback. Such systems enable me to monitor learning progress and adjust teaching strategies accordingly.

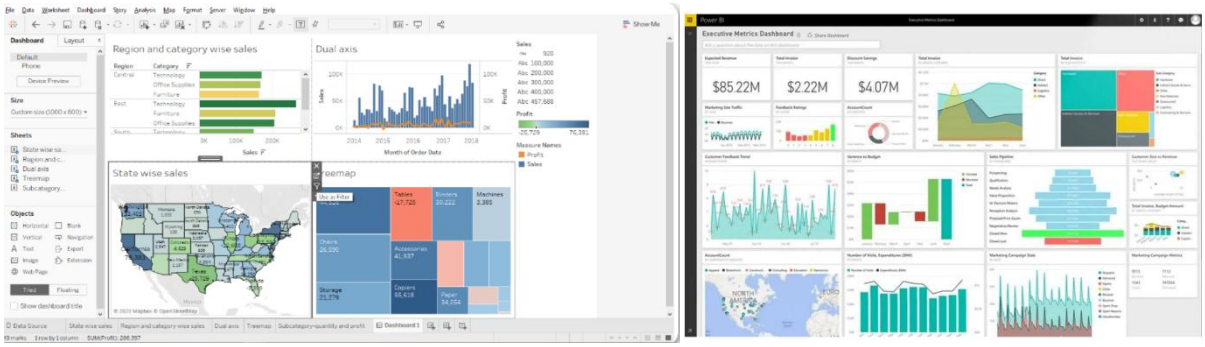

Figure 2: Dashboard in Tableau and Power BI

Technology also enables collaborative and interactive learning experiences. These platforms shaped students to work in teams, share datasets, and develop analytical models collectively and continue working on projects outside the classroom environment. Technological integration enhances accessibility to learning resources. Students can access online datasets, financial databases, interactive dashboards, and analytical software that provide opportunities for independent exploration. These tools encourage curiosity and foster a culture of self-directed learning.

Integrating Technology in Business Analytics Teaching

FIN534 and FIN659 are required for technological integration because the discipline is inherently data-centric. In practice, the integration of technology begins with the selection of appropriate analytical tools that align with course objectives. Commonly used platforms include spreadsheets, statistical software (SPSS, EVIEW, STATA, and Python), and data visualization tools.

Technology also facilitates visualizing analytical results. Data visualization tools enable students to transform numerical outputs into graphs, dashboards, and interactive visualizations, allowing patterns and trends to be interpreted more easily, as illustrated in Figure 3. Visual analytics encourages students to think critically about how information can be communicated effectively to decision-makers.

Figure 3: Student Excel Dashboard in Excel

Another important aspect of technological integration is the use of simulation exercises. Business analytics students can be tasked with developing predictive models that simulate various business scenarios. For instance, students might analyze historical data to forecast demand or evaluate the impact of pricing strategies on revenue. These exercises allow students to experience how analytical insights can inform managerial decisions.

Collaborative digital platforms also play an important role in business analytics education. Students can work together on shared datasets, develop group-based analytical reports, and present their findings using digital dashboards or presentation software. Such activities promote teamwork and communication skills alongside technical competencies.

Pedagogical Benefits of Technological Integration

The integration of technology in teaching offers numerous pedagogical benefits that enhance both teaching effectiveness and student learning outcomes. One of the most significant advantages is the promotion of active learning. When students interact directly with analytical tools and datasets, they become active participants in the learning process rather than passive recipients of information.

Technology also enhances student engagement. Interactive dashboards, simulations, and analytical software create a dynamic learning environment that encourages exploration and experimentation. Students are more likely to remain motivated when they can see the practical applications of theoretical concepts.

Another key benefit is the development of employability skills. Employers nowadays seek graduates who possess both analytical competencies and technological proficiency. By incorporating technology into coursework, universities prepare students for professional roles that require data analysis, financial modelling, and digital literacy. Studies in educational technology indicate that digital tools can improve learning outcomes and facilitate deeper comprehension rather than functioning solely as supplementary resources (Laurillard, 2012).

Maintaining the Human Dimension of Teaching

Despite the growing role of technology in education, the human dimension of teaching remains essential, such as mentorship, guidance, and interpersonal interaction that cannot be fully replicated by digital systems. I perceive technology as a supportive tool that makes teaching more dynamic and engaging, while still preserving the essential role of the lecturer in guiding the learning process.

In teaching these two courses, I view my role as helping students interpret analytical results and relate them to broader business contexts. While technology is capable of generating analytical outputs, I guide students in questioning the results, engaging in critical discussions, and reflecting on their practical implications.

I believe that maintaining a balance between technological innovation and human interaction is essential to ensure that learning remains meaningful and intellectually engaging. As noted by scholars in educational technology, the most effective digital learning environments are those that combine technological tools with strong pedagogical design and human guidance (Selwyn, 2016).

Conclusion

The integration of technology into my teaching has transformed the way these subjects can be delivered in class. By incorporating digital tools into my teaching practice, I have been able to create a more dynamic learning environment that better prepares students for the increasingly data-driven nature of modern business.

I have observed that the use of technology encourages more active learning and significantly improves student engagement in the classroom. When students work directly with analytical tools and real datasets, they become more involved in the learning process and develop a clearer understanding of how theoretical concepts can be applied in practice. At the same time, I recognise that incorporating technology in teaching also requires careful consideration. Students possess varying levels of technological proficiency, and there is always the risk that overreliance on automated tools may weaken their ability to think critically about analytical processes and results. Therefore, ethical awareness, responsible use of AI (ChatGPT and Gemini), and strong conceptual understanding must remain integral components of the learning process.

From my perspective, the successful integration of technology in teaching requires a balanced approach. Digital tools and AI applications have the potential to significantly improve the learning experience, but they should serve as a complement to sound pedagogical practices, not as a replacement. As a lecturer, it is still my job to help students understand analytical results, question their assumptions, and link technical outputs to larger business contexts.

As higher education continues to evolve in response to rapid digital transformation, I believe that integrating technology and AI into teaching will become increasingly important. By adopting these tools thoughtfully and strategically, I aim to move beyond traditional lecture-based instruction and foster a learning environment that is not only technologically enriched but also focused on critical thinking, ethical awareness, and meaningful human interaction.

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EDUCATING THE HEAD, HEART AND HAND: A LISTENING PEDAGOGY FOR THE AI ERA

Ahmad Syahmi Ahmad Fadzil, Nor Zubaidah Nor Albashri

Introduction

In the rapidly evolving landscape of higher education, the traditional lecture model is facing an unprecedented existential challenge. As we move toward 2030, the "Business Discipline" finds itself at a crossroads between technological efficiency and human-centric value. The contemporary student, a digital native immersed in a constant stream of social media algorithms, is increasingly prone to information overload, a state where the sheer volume of data outpaces the cognitive and emotional capacity to process it. Simultaneously, the integration of Generative Artificial Intelligence (GenAI) has introduced a "shortcut culture" in learning. While AI can synthesize data and generate reports in seconds, it lacks the biological and psychological depth required for Deep Listening.

The current pedagogical crisis is not a lack of information, but a deficit of presence. Students are increasingly adept at "Head-only" learning, a transactional mode of education where AI acts as a surrogate for thought, bypassing the struggle of critical inquiry. This reliance on technological shortcuts honors the "result" but ignores the "process," leading to a fragmentation of the human element in education. To counter this, we must pivot toward a Listening Pedagogy. This is not merely the act of hearing a lecture; it is a holistic engagement that honors the Head, Heart, and Hand (Sipos et al., 2008).

As highlighted in the recent AACSB International (2025) report, "What Skills Will Future Business Graduates Need?", the market is shifting its premium from technical domain expertise, which is increasingly automated, to "durable skills" such as empathy, ethical discernment, and active listening. Business education must, therefore, transcend the "beyond lectures" mandate by fostering environments where students learn to "feel" the implications of their decisions. This article argues that by reclaiming the human side of teaching through listening pedagogy, we prepare graduates not just to be efficient operators of AI, but to be leaders who can navigate the complexities of a human-driven global economy.

The instructor must shift from a "content deliverer" to a "listening architect." In this pedagogical model, the instructor's role is to model the very human elements of empathy, presence, and discernment that students are currently outsourcing to algorithms. This transformation requires the instructor to inhabit the 3H (Head, Heart, and Hand) framework as a mentor, shaping the student not through what is told, but through how the student is heard. Figure 1 depicts the power of listening pedagogy through the heart, the head, and the hand.

The Theoretical Landscape of Listening Pedagogy

Listening pedagogy represents a fundamental shift from a "logic of transmission" to a "logic of relation". Historically, Western higher education has been dominated by *logocentrism*, the prioritization of the spoken and written word as the primary vehicles of power and knowledge, which often relegates listening to a passive, secondary role of silence. However, contemporary theory reimagines listening as an active, transformative force. This is rooted in the "dialogic" approach of Freire (1970), who criticized the "banking model" of education where information is merely deposited into passive students. In contrast, a listening pedagogy fosters a "pedagogy of witness," where the educator and learner engage in a mutual exchange that validates the student's lived experience and critical agency.

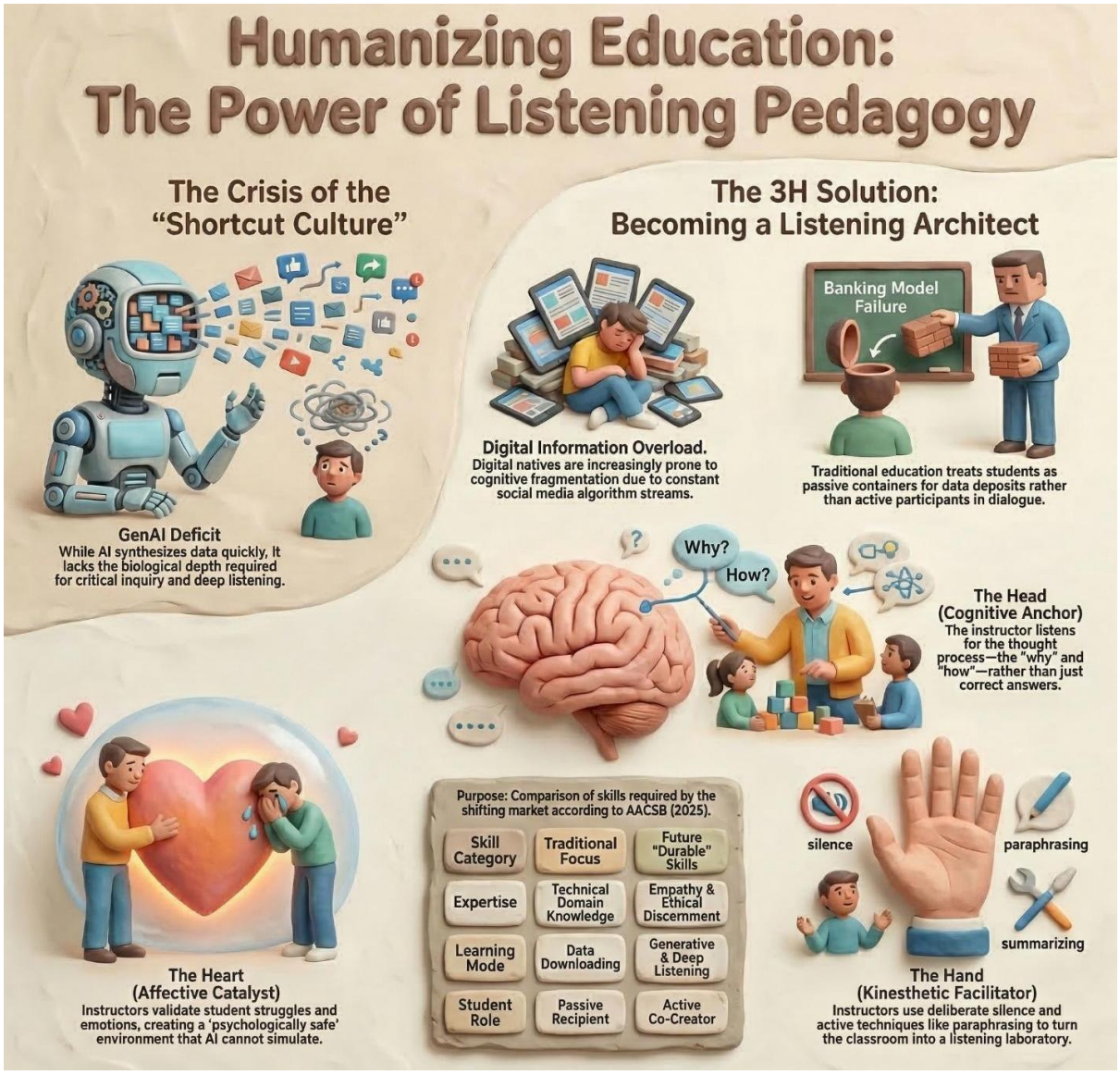

Figure 1: The 3H solution: becoming a listening architect
(Source: Authors)

Further grounding is found in the work of Rogers (1951), who posited that "empathic listening" is a prerequisite for psychological growth and authentic learning. In the context of business education, this theory suggests that the classroom should be a site of "receptive attention," allowing students to move beyond the aggressive advocacy often taught in competitive disciplines. This is supported by Scharmer's (2016) Theory U, which identifies "Deep Listening" as a move away from "downloading" habitual data toward "generative listening", a state where the listener is open to being changed by the encounter. For the modern student, this theoretical grounding provides the necessary resistance against the "echo chambers" of social media and the reductive, result-oriented nature of Artificial Intelligence (AI), offering a framework for genuine intellectual and emotional resonance (Sipos et al., 2008).

Instructor and Listening Pedagogy

a) The Instructor as the Cognitive Anchor (The Head)

From the side of the instructor, Cognitive Listening involves a move away from the "Sage on the Stage" toward a "Critical Mirror." In a classroom saturated with AI-generated responses, the instructor must listen for the *process* of student thought rather than just the correctness of the output. When an instructor listens critically to a student's contribution, they are probing for

the "why" and the "how," effectively disrupting the "shortcut culture." By reflecting the nuances, contradictions, or ethical gaps in a student's argument, the instructor forces a transition from Level 1 (Downloading) to Level 2 (Factual) listening. This cognitive engagement signals to the student that their unique human perspective is more valuable than a polished, AI-synthesized answer, thereby reinforcing the high-level analytical skills mandated by AACSB International (2025).

b) The Instructor as the Affective Catalyst (The Heart)

The "Heart" of the instructor is perhaps the most potent antidote to the isolation of social media and the sterility of digital interfaces. Affective Listening by the instructor involves "honoring the human element" by validating the student's struggle with information overload. When an instructor listens to a student's hesitation, frustration, or sudden spark of interest, they create a "psychologically safe" environment that AI cannot simulate. This is the "feeling" of education; it is the moment a student realizes they are being seen as a developing professional, not just a data point. By modeling this heart-centered presence, the instructor teaches the student that leadership in the business world is fundamentally a relational endeavor, grounded in the ability to sense and respond to the human condition.

c) The Instructor as the Kinesthetic Facilitator (The Hand)

Finally, the Hand represents the instructor's active role in structuring the classroom as a "Listening Laboratory." This is the practical work of "holding space." Instead of filling every silence with a slide or a lecture, the instructor deliberately uses silence and "Active Listening" techniques such as paraphrasing, mirroring, and generative questioning to pull the student into the center of the learning experience. By physically moving through the space and engaging in real-time, unscripted dialogue, the instructor demonstrates that business is a "contact sport" of ideas. This "Hand" approach shapes the student by forcing them into the "doing" of communication, ensuring that the skills they graduate with are not just theoretical, but are "durable" habits of engagement that will serve them long after the current AI models have become obsolete.

d) The Student as a Co-Creator in the Listening Classroom

In a listening-centered pedagogy, the student is not merely a passive receiver of knowledge but an active co-creator of meaning. While the instructor models cognitive, affective, and kinesthetic listening, the learning environment becomes transformative only when students likewise engage in reciprocal listening practices. This perspective draws heavily from Freire's (1970) emphasis on dialogic learning, in which the learner participates as an equal partner in the educational encounter, breaking away from the hierarchical "banking model" that positions students as empty vessels. When students are invited to listen to one another to viewpoints, uncertainties, and emerging ideas they develop intellectual humility, a trait increasingly critical in an AI-driven world where certainty is often simulated rather than earned.

Co-creation also aligns with Rogers' (1951) conception of authentic learning, which occurs when individuals become open to experience rather than defensively protecting preconceived assumptions. In the modern business classroom, where social media and algorithmic feeds often trap students in echo chambers, structured peer listening activities challenge them to encounter differences constructively. Through collaborative sense-making, students learn not only what to think but how to think together, an essential capacity for future leaders navigating complex, multicultural business environments.

Therefore, positioning students as co-creators reinforces the "Hand" dimension of the 3H model by engaging them in the practice of dialogic engagement, not merely the theory. Listening becomes a shared responsibility, a distributed act of presence that transforms the classroom into a participatory learning community. In this way, listening pedagogy becomes more than an instructional technique; it becomes a democratic practice that shapes students into empathetic, discerning professionals capable of leading human-centered organizations.

Barriers to Implementing Listening Pedagogy

While the promise of listening pedagogy is transformative, its implementation within higher education, particularly in business disciplines, faces several structural and cultural barriers. One of the most pervasive constraints is the dominance of the traditional “banking model” of education, which Freire (1970) critiques as a system where knowledge is deposited into passive learners rather than co-constructed through dialogue. This model remains heavily embedded in lecture-based teaching, institutional expectations, and curriculum designs that prioritize coverage over connection. As a result, educators often struggle to create dialogic spaces where genuine listening can occur.

A second barrier arises from the emotional and psychological demands placed on instructors. Rogers (1951) emphasizes that empathic listening requires authenticity, presence, and unconditional positive regard, qualities that demand time, energy, and emotional labour. Many instructors, particularly those managing large classrooms, competing for workloads, and research expectations, may find it challenging to sustain the deep relational engagement required. Without institutional recognition or professional development focused on affective listening, educators may default to more transactional teaching modes.

Additionally, the digital attention economy has reshaped how students engage with learning. Immersed in algorithm-driven feeds, students often bring fragmented attention patterns and reduced tolerance for reflective silence into classroom conditions that directly oppose the contemplative nature of listening pedagogy. This creates a mismatch between the sustained, reciprocal listening required for meaningful dialogue and the fast-paced, surface-level consumption encouraged by digital platforms.

Finally, assessment structures in many business programs continue to privilege measurable output exams, presentations, and standardized tasks that disproportionately develop the Head while neglecting the Heart and Hand. These forms of evaluation reward polished performance rather than authentic presence, curiosity, or embodied engagement. Even when more reflective assessments are introduced, the growing reliance on AI allows students to bypass the internal struggle and emotional labor that genuine reflection requires. As a result, the “reflective work” often remains cognitive in appearance but hollow in experience.

Until assessments are re-designed to cultivate all three dimensions of cognitive discernment (Head), emotional attunement (Heart), and participatory, dialogic practice (Hand), listening pedagogy will remain peripheral rather than transformational. True reform demands assessments that cannot be outsourced to algorithms: peer-listening encounters, dialogic circles, experiential reflections, and collaborative meaning-making processes that require students to show up fully as thinking, feeling, and acting human beings.

Conclusion: Reinforcing the Human Sanctuary in Business Education

As we look toward the future of higher education in 2030, the "Business Discipline" must decide whether it will become a factory for algorithmic optimization or a sanctuary for human development. The proliferation of social media and the ubiquity of Generative AI have created a "shortcut culture" that prioritizes the "Head" at the expense of the "Heart" and the "Hand." This information overload has not made students more informed; rather, it has made them more fragmented, distancing them from the visceral, emotional, and ethical realities of their chosen profession. To counter this, listening pedagogy offers more than just a communication skill; it offers a way to honor the human element by requiring presence in an age of distraction. By moving beyond the lecture and into the "relational space" of deep listening, we provide students with the "feeling" of education—an experience that is felt in the heart, processed in the head, and enacted through the hand.

The shift toward a listening-centered classroom is a direct response to the AACSB International (2025) mandate for durable, human-led skills. When instructors pivot from content delivery to active, empathic facilitation, they model the very leadership qualities that

future business graduates will need to navigate a tech-saturated world. This pedagogy ensures that students do not simply "download" information but "present" new possibilities. It transforms the classroom into a laboratory for empathy, where the "Human Side of Teaching" becomes the primary competitive advantage for the graduate. Ultimately, honoring the human element means recognizing that while AI can simulate a response, only a human can truly listen. By anchoring business education in the 3H framework, we ensure that our students graduate not as efficient processors of data, but as compassionate, discerning leaders who understand that the heart of business is, and always will be, the human connection.

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DOES AI ENHANCE STUDENTS' THINKING?

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Introduction

Artificial intelligence, or AI, is a powerful machine that programs a human thinking model and design to automatically and comprehensively learn and gather huge amounts of data and information worldwide. AI manages to interpret all data and tailor them to the users' needs as well as quickly understand human needs as a whole. Nowadays, the advancement of AI has become a part of our lives, especially in mobile apps, computer software, and Internet searches that already blend in with our daily routine. The fundamental ideas of the AI concept have been researched since the early 50s and then grown dramatically, in line with the advancement of the Internet (Luckin, 2016). The technological breakthroughs of AI tools have impacted most human transactions across various sectors, including technology, science, medicine, decoration and landscaping, communication, and education.

The transformative shift of Artificial Intelligent (AI) tools in education has become more prominent nowadays. The usage of AI tools has been widely accepted by many educational sectors worldwide as well as in Malaysia. For example, according to Berita Harian, the government has allocated RM50 million in 2025 to support Malaysia's research universities in the usage of AI in many areas, specifically in medical and semiconductor research (Rosli, 2024). This allocation showed that the Malaysian government really supports the usage of AI to ensure that education in Malaysia is competitively ready to achieve global technological advancement in the future.

AI Tools in Education

Today, most pedagogical activities in any education centre are supported with diverse AI tools. There is no doubt that AI tools successfully assist the teachers' skills in creating effective and interesting teaching materials. The syllabus becomes more insightful with interesting images, videos and live content, making the teachers also become more excited in designing their teaching activities. AI tools not only enhance the creative teaching skills; however, they save more time in preparing the teaching materials while ensuring all contents are relevant from time to time. For example, in my class, I did use AI tools in most of my teaching delivery. The AI tools, for example ChatGPT and Gemini, help me in designing simple images and editing the content in a shorter time, and surprisingly I manage to deliver my teaching video with an AI voice that is tailored to my syllabus. The class becomes more alive and interesting when all tools are being integrated. The gamification class also became more interesting due to AI tools assisting me in designing the quizzes and questions in a short period of time according to the syllabus I delivered in class. Furthermore, AI tools also assist me in analysing the students' performance, creating in-depth analysis for each student and giving me more ideas on how to respond to the students dynamically. The teaching delivery becomes more personalised, innovative and more fun. Everything becomes easier, faster and more effective with AI tools. One thing that I need to do is "Ask the AI"!

The assistance of AI is not only beneficial to the lecturers; however, students also gain many advantages. As for students, AI tools become their free tutor. Anything they cannot understand in class, they can "ask the AI". With the right prompt to ask any question, AI tools manage to explain everything in a simple manner with an immediate response. Interestingly, if the students are facing a difficulty in terms of language, AI tools can give a thorough discussion in their own language. How fun is that? The process of learning becomes easier since they can rely on AI tools to give them deeper explanations regarding their subjects as well as take notes in online classes. Besides, AI tools also assist them in giving more ideas in problem-solving projects and give better solutions in completing their assessment.

All these advantages are able to increase the lecturers' and students' performance in pedagogy sessions and definitely enhance the quality of education. Comprehensive learning can increase students' engagement, fostering a positive learning culture in the class. With a lot of time saved in a pedagogy session, it provides more chances for students to explore more in-depth learning regarding their syllabus.

AI Challenges in Education System

Despite all advantages, excessive dependence on the usage of AI tools can lead to huge disaster for students' academic development and their performances. The students lost their integrity in completing their assessment reports. For the students who misused the AI assistance, they were able to complete the reports within 5 minutes of prompt typing, and later, AI did the rest. For example, we all know that AI can give full text on any topic and extend the topic in full paragraphs based on the prompts inserted by students. Then, within a few minutes, a full report will be generated by AI tools and complete the students' project without any hustle. This strategy will lead to no critical thinking, analysis and reading by students. As a result, this situation will cause the students to never try to understand the project's requirements, and no critical thinking will be assessed, totally affecting the quality of their works as well as making them never understand what the project is all about. The students will put no effort into doing any research or filtering any information given by the AI and will result in submitting a low-quality report, definitely affecting their integrity as students.

This is the most challenging situation faced by lecturers at the moment. Excessive reliance on AI tools is definitely against universities' ethics, rules and regulations. As supported by recent news, academic integrity may be affected when students do not put any effort into understanding concepts, critically analyse project issues and evaluate the accuracy of data generated by AI tools (Siti Nasarah, 2026). This scenario also happens in my class, where my students submit their assignments with 100 per cent AI-generated text. The university rules and regulations give good support in AI usage to support students' teaching and learning activities; however, they do not totally depend on it. Basically, AI tools generate massive datasets from many sources, such as books, online articles, and any other information that is available online. Thus, when students type several prompts in AI tools, the results of automated text will be generated within a few seconds, covering huge datasets that may not be closely related to the niche of students' projects. What is actually happening is AI can also generate fabricated references, sometimes referred to as "hallucinated citations". The system attempts to produce text that resembles academic writing; it may create references that look realistic but do not actually exist. Students who rely on these references without verifying them may unknowingly include incorrect citations in their reports, which can affect the credibility of their work.

Additionally, AI tools also can create a mistake while interpreting the prompts given by the students. This may happen especially when the students also do not know how to create accurate prompts to instruct the AI what is actually needed for their project. Thus, AI tools will give huge explanations and generate hallucinated content based on what they've received from the prompts. The results generated are far from the actual context of the project, and if students submit such work without proper evaluation, the quality of the submission will be very poor. Here, the lecturers may easily trace the usage of AI tools due to general discussion from a bigger context which may not exactly discuss the topic of the project in detail or give incorrect citations given by AI. Heavy reliance on AI tools will cause the students to be unable to narrow down the scope of the project generated by AI tools, and this thing will certainly be realised by the lecturers.

Besides reading the AI-generated report, most universities already subscribe to computer software for plagiarism and AI detection. For example, in my university, Turnitin is the software subscribed to by my university that provides comprehensive analysis on the originality of the

report submitted by the students. This powerful software is able to check for any plagiarism and compares the submitted report with existing sources from huge databases such as online work, journals, reports, research papers and any published works. Therefore, with the help of Turnitin, it makes the process of checking the originality of works easier and directly maintains the integrity of an author. This will limit the students from relying heavily on internet sources and any AI tools while writing the project reports. Moreover, by analysing text and comparing it with a large database of academic sources, Turnitin helps educators evaluate the originality of their students' work while encouraging proper referencing practices.

How to Use AI Ethically?

The usage of AI tools in teaching and learning activities is encouraged by our government as well as education administrators. However, being highly dependent on it will affect the accuracy of data gathered by AI. The hallucination in AI is very serious because it can mislead students' understanding and definitely affect their understanding of certain topics. Thus, how do we use AI ethically?

First, students must understand that AI tools generate information from multiple sources whether it is legit or not. Thus, makes AI a supporting tool rather than solely dependent on it. Read the issue in other sources such as books, article journals and other valid sources first and then ask AI to summarize the content. With this method, AI can give justification based on those selected legit content rather than exploring massive data from the Internet. This way can assist the students in understanding the matter easily without having any false data.

Furthermore, keying in the right and specific prompts is vital. It is because specific prompts can prevent AI from hallucinating. Sometimes AI will generate incorrect facts or create several references that do not exist. This is really dangerous because it leads to misunderstanding of the information. Therefore, students need to verify AI content before taking it into their assessments. False information and fake references are serious matters that affect students' integrity. Thus, students really need to cross-check the information with reliable academic sources such as journal articles, books, and credible websites. Besides, discussing the findings with the lecturers can assist the students to filter that information. These processes not only ensure the accuracy of the information; however, they also strengthen students' research and critical evaluation skills.

Finally, high awareness of students' ethics, integrity and responsibility is very important while using AI tools. The usage of AI is not a shortcut in completing a report. It is only a supporting tool to expand students' ideas and allow them to critically evaluate those AI suggestions. Thus, understanding the topics is really important before accepting the AI suggestion. Ethical awareness helps students recognise the importance of producing original work and avoiding practices that may lead to plagiarism or academic misconduct. By maintaining strong ethical values and academic integrity, students can ensure that the use of AI tools contributes positively to their learning process rather than undermining the purpose of education.

Conclusion

In conclusion, Artificial Intelligence (AI) provides massive advantages in our education system. The advancement of AI tools in pedagogy enhances both lecturers' and students' creativity. The process of teaching and learning becomes more advanced and interesting and extends students' capabilities in designing their assessments and encourages them to be more flexible in gathering information from various sources. The process of teaching and learning becomes more engaging and not restricted to lectures, books and class only. AI tools create many advanced pedagogy activities, including gamification and designing interesting content, images and videos within a short period of time. However, the ease of using AI has been misused by many students nowadays. High dependence on AI tools without proper verification of AI content will lead to false data due to AI hallucination. This issue can affect their integrity as university students. Proper usage of AI is crucial to avoid high plagiarism and false data

delivered by AI. By adopting ethical practices in AI usage, students definitely can benefit from it and advance their thinking with AI assistance. The depth of knowledge can be gathered more quickly and efficiently, which gives students more opportunities to explore the information and expand their understanding of various courses. The role of lecturers is really important to ensure students know their barriers and limits when using AI tools. Therefore, AI tools are really helpful and positively enhance students' thinking when they are used in the right way.

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TEACHING ECONOMICS IN THE AGE OF AI

Nur Fatihah Shaari, Mohd Azim Sardan, Bazri Abu Bakar

Introduction

Recently, artificial intelligence (AI) has become a famous tool in everything, especially in education. ChatGPT, Gemini is an example of AI tools commonly used in education, progressively influencing the production, accessibility, and analysis of information. This transformation prompts significant enquiries for economics educators regarding the content of teaching and the methodologies employed in the classroom. Economics education needs to adapt the use of AI, to provide students with the analytical and critical thinking skills essential for comprehending contemporary economies influenced by digital technologies.

Based on the observations, most of the students are extremely dependent on AI tools. Students are increasingly utilising AI-based platforms for assistance with explanations, summarising academic materials, and designing research. Even though these technologies offer significant support for learning, it also creates new challenges in terms of academic integrity, critical thinking, and methodological rigour among students.

Thus, this article will explain the importance, sharing of experiences and the challenges in teaching economics, in the era of AI, and it also helps educators to modify their teaching strategies to become more meaningful learning in class. This article will also demonstrate the responsible integration of AI into economics education, ensuring the preservation of the discipline's intellectual foundations. In the Malaysian higher education context, educators face the challenge of balancing technological innovation with the necessity of fostering a robust conceptual understanding among students. This is especially pertinent given the swift advancements in AI and their implications for economic theories and practices.

The Relevance of AI in Economics Education

Following the worldwide current update, Artificial intelligence (AI) has become an important tool for economic transformation. Not only in education, however in economic activities, top management decisions including digital platforms, financial technologies, and automated decision-making systems, generated significantly with AI algorithms. Thus, it is essential not only for educators but also for students to link the interplay between technology and key economic concepts, including productivity, labour markets, market structure, and economic policy.

Nowadays, students can explore and benefit from AI in learning, especially when taking Malaysian economics courses, which can provide an insight into the discourse on economic transformation. Malaysia's development strategies are placing greater emphasis on the digital economy, innovation, and the adoption of technology. The Digital Economy Blueprint (MyDIGITAL) underscores the critical role of digital technologies in fostering economic growth and enhancing competitiveness.

In class, students can use AI as a tool to do a classroom discussion, connect the economic issues, including employment, automation, and the future of work, related to syllabus. Mostly, students have a difficulty to imagine Malaysia's transition from an agriculture-based economy to a knowledge-based economy, making students often enquiry about the potential impacts of AI on job opportunities and productivity from the transition. The discussions indicate that students possess an awareness of technological disruptions and show a strong desire to link economic theory with current developments. Thus, using AI for discussion, linking economics education effectively with theoretical concepts and practical economic challenges provide an idea to students, to explore Malaysia's economy before and after independence. They can easily prompt AI to prepare a story timeline with pictures, which suit their understanding.

Teaching Malaysian Economics to Diploma Students in the AI Era

The use of AI in class can simplify the economic concepts, while also emphasising their significance to national development. AI technologies have impacted teaching methods and student learning behaviours, resulting in more interactive and personalised educational experiences that address the unique needs of each student.

Enhancing Classroom Engagement

As known, AI provides a lot of benefits to users, such as its ability to enhance student learning outside of traditional classroom settings. Most of the university students use AI methods to gain clearer explanations of economic concepts such as inflation, unemployment, and fiscal policy. These tools can support students who encounter difficulties with technical terminology or understanding when referring to journal articles. Students sometimes accept AI-generated explanations without critically checking their accuracy and reliability. As a result, a method used in class encourages students to compare AI-generated explanations with textbook definitions and lecture materials. As a result, students develop the capacity to critically evaluate information sources rather than relying solely on AI. However, the lecturer will not allow students to only depend on one source of information such as AI. They also need to clarify all the AI's information with the textbook and journal articles, which were created by scholars.

Connecting AI with Economic Development

For lecturers, AI improves the teaching of Malaysian economics by linking technological advancements to economic policies. Malaysia's progress in Industry 4.0 and digital transformation provides tangible examples for analysing economic growth and productivity. When discussing economic growth, lecturers often emphasise the importance of AI and digital technology in fostering innovation, entrepreneurship, and improvements in productivity. Students can use AI to analyse how the adoption of technology influences labour demand, skill requirements, and the distribution of income. These discussions help students recognise that economics extends beyond theory; it is closely connected to legislative choices and technological developments that will shape their future careers.

Teaching Research Methodology to PhD Students in the AI Era

The AI platform not only can be used by undergraduate students; however, it can also be used by a postgraduate student, who can provide an instruction of research methodology for PhD students. Postgraduate students are increasingly utilising AI tools to assist with literature reviews, data analysis, and academic writing for their thesis. However, students need to remember, "you can use AI as a tool to prepare your thesis, but please use it in a correct way, which is to get the idea and create your own words before you publish".

AI and Literature Review

When preparing a proposal or thesis, literature review is an important part and will be critically reviewed by examiners as it provides a justification of theories and variables used in research. AI tools can assist researchers in identifying certain articles, summarising findings, and organising academic sources. In research methodology classes, students are encouraged to utilize AI-assisted tools for the preliminary exploration of research topics. However, students must remember that AI-generated can only summaries, and it cannot substitute or replace the original academic articles. Grasping research design, theoretical frameworks, and empirical methods necessitates active involvement with academic literature.

Students are tasked with exercises that involve comparing AI-generated summaries to the original research papers to strengthen this principle. This approach enables individuals to identify possible oversimplifications and enhance their analytical reading abilities.

AI and Research Design

For PhD students, AI tools can help them in suggesting research ideas, choose appropriate methodologies, and identify the relevant data analysis method. For example, AI can recommend which quantitative techniques to be used in research, such as the type of regression analysis, or qualitative methods, like thematic analysis, depending on the research topic. However, to rely on AI for methodological decisions may reduce the researcher's understanding of research design principles. Thus, the teaching method in the classroom emphasises that AI should serve as a supportive tool rather than a decision-making authority. Students should consistently justify their methodological choices through theoretical reasoning and clearly defined research objectives. In research technique courses, students are encouraged to assess how well AI-generated recommendations align with established research methods and the objectives of their studies.

Academic Integrity and Responsible AI Use

Even though Ai provides a lot of benefits to users, it still has its challenges to maintain academic integrity. AI-generated can produce a knowledgeable paragraph that appears academically in an easier way. This technology risks fostering an over-reliance on AI-generated content among students, potentially hindering their ability to develop independent arguments. Students emphasised the importance of transparency and the ethical application of AI in academic pursuits to address this challenge. Students are supposed to use AI tools for generating new ideas or improving their language skills only, not copy and paste exactly from an AI-generated system. Additionally, they should demonstrate their own critical analysis and intellectual input. Assessment techniques have been adapted to prioritise research reasoning, methodological clarity, and the originality of ideas, moving beyond a focus on textual output. This approach ensures that students not only utilise AI technologies but also engage critically with the subject matter and produce unique insights.

The Changing Role of the Economics Educator

The use of AI in teaching has significantly changed the responsibility of the lecturer. Lecturers mostly play an important role as knowledge providers to students through lectures, textbooks, and classroom discussions (Khakpaki, 2025; Mary & Joyce, 2024). Recently, in the era of AI, students can easily access the information using digital platforms and AI-driven tools. The role of the lecturer is shifting from merely delivering information to facilitating learning, fostering critical thinking, and promoting responsible technology use. Economics lecturers must adapt their teaching strategies to facilitate the continued development of students' analytical and conceptual foundations. Instead of viewing AI technologies as competitors, educators can utilize these tools to improve learning outcomes while helping students develop critical interpretation and evaluation skills for information.

In conjunction with the educational system, lecturers act as a provider, providing information and practical advice to students. Students in class totally depend on the lecturer and only with textbooks, as they are not trying to find information from other sources. Thus, the existence of AI systems helps not only students in class but also lecturers to have more information and reflect it to the real situation (Weidmann, 2024). Changes in education methods can provide more explanation among students. As an economic lecturer, promotes an environment where students are encouraged to challenge assumptions, analyse real-world economic issues, and apply theoretical concepts to practical scenarios. Classroom discussions, case studies, and problem-based learning activities play a crucial role in facilitating active engagement with economic concepts among students (Kenedy, 2024). For instance, in the context of Malaysian economic policies, students may be encouraged to examine government initiatives, including digital economy strategies and industrial transformation programmes. AI tools can provide students with background information; however, it remains essential for them to apply the economic frameworks acquired in class to interpret the implications of the policies.

AI tools promote the adoption of more interactive teaching methods among educators. Instructors have the ability to design activities that encourage collaborative efforts among students, fostering debate and problem-solving skills rather than solely delivering lectures. Students may be tasked with utilising AI tools to produce economic explanations, followed by a critique grounded in established economic theories. This activity positions AI as a collaborative learning partner instead of merely a tool for expediting assignment completion. Methods of interactive learning, including simulations, policy debates, and group projects, are vital components of economics education (Lubbe et al., 2025; Kenedy, 2024). Automated systems struggle to replicate the analytical skills fostered by these activities in students.

In addition to providing academic instruction, educators serve an essential mentoring function. Students in the AI-driven educational landscape may experience uncertainty in balancing technological support with their own independent learning efforts. Instructors can support students by sharing their experiences, fostering curiosity, and highlighting the significance of intellectual integrity (Hudon et al., 2024). Mentorship plays a crucial role in fostering students' confidence in their analytical skills, encouraging them to minimise their dependence on technological tools. Mentorship plays a crucial role in economics education, as students are being equipped for positions that will impact economic policy, business decisions, and research advancement.

Challenges of Integrating AI in Economics Education

Using AI in teaching will help educators to improve their teaching skills, however embedded AI in teaching will also give challenges especially when integrating economics with AI. One of the challenges faced by educators is to maintain the academic rigour, fairness, and critical thinking skills among students and lecturers themselves. Both lecturers and students need to use AI in the right way, get an idea from AI and create their own words. Our experiences in the classroom with diploma and postgraduate students highlight the necessity for caution regarding several aspects when integrating AI into economics education.

However, the most critical issue when using AI is that students may become overly dependent on AI tools. Students might depend on AI tools to do their assignment for explanation, analysis, and essays, which will reduce their ability of critical thinking skills. Critical reasoning is essential in economics education for understanding complex relationships, such as causality, trade-offs, and the implications of policy decisions. Excessive reliance on AI-generated responses may lead students to accept these answers uncritically, without examining the underlying assumptions or evaluating the robustness of the arguments presented. This may hinder their ability to independently apply economic concepts. In my experience teaching diploma students, based on observation, students tend to copy and paste AI-generated explanations for economic concepts without fully understanding the concept and meaning of the task. They also sometimes prompt AI to explain the terms of inflation or fiscal policy without accurately reflecting the context of Malaysia's economy. This shows the significance of instructing students to use AI as a supportive tool for their learning, rather than viewing it as a substitute for the learning process.

A significant issue is upholding academic integrity. AI-generated text can produce well-organised academic writing in a matter of seconds, making it challenging to distinguish between genuine student submissions and content created by AI. This matter holds particular significance in research methods courses. Doctoral students must formulate innovative research concepts, conduct critical literature evaluations, and provide methodological rationales. Excessive reliance on AI-generated content by students can lead to a deficiency in originality and authenticity in their research. Educators may need to modify their assessment methods to address this issue. In addition to written assignments, teachers can provide students with opportunities for presentations, oral exams, research proposals, and reflective discussions. These formats require students to articulate their reasoning and the processes behind their studies. Such methods encourage students to demonstrate genuine

comprehension of the material rather than merely submitting refined AI-generated assignments.

AI technologies can provide useful explanations and suggestions; however, they may not always be accurate or contextually appropriate. AI systems generate responses by identifying patterns in data rather than demonstrating a genuine understanding of economic theories or policy frameworks. Students may not consistently recognise these boundaries. AI-generated economic explanations may oversimplify complex theories or provide outdated and generalised knowledge that is not applicable to Malaysia's economy. One of the responsibilities of educators is to guide students in developing critical thinking skills regarding information generated by AI. Encouraging students to compare AI-generated responses with academic sources such as textbooks, journal articles, and official publications can enhance their ability to verify and validate information.

A significant issue with the integration of AI in education is the unequal access to digital resources among individuals. Certain students lack equal access to high-speed internet, sophisticated software, or digital devices. Students from low-income families may face challenges in fully utilising AI tools due to technological barriers. The digital divide may hinder certain students' ability to study effectively and achieve academic success. Consequently, educational institutions must ensure that the integration of technology does not inadvertently disadvantage any groups of students. Providing institutions with access to digital resources, training sessions, and technical assistance can effectively address these disparities.

The effective integration of AI in education largely depends on the readiness of educators. Numerous educators may lack familiarity with AI tools or may be uncertain about their effective integration into lessons. Insufficient training may lead teachers to avoid using AI altogether or struggle to instruct students on its responsible use. Programs for professional development, workshops, and collaborative learning opportunities among educators can greatly improve digital literacy among lecturers. It took me some time to understand how to effectively integrate AI technologies into classroom discussions and research guidance. Support from the institution and the sharing of expertise among colleagues can significantly simplify this procedure.

It is essential to ensure that students continue to enhance their analytical and critical thinking abilities. Economics students should critically examine their beliefs, interpret factual information, and assess the advantages and disadvantages of various policies. Students might forfeit opportunities to develop independent thinking skills if they rely excessively on AI-generated solutions. Consequently, educators must design learning activities that encourage students to analyse AI outputs, critique economic reasoning, and apply theories to real-world scenarios. One effective approach is to have students evaluate whether an AI-generated explanation sufficiently captures a specific economic model or policy issue. This encourages students to critically engage with economic concepts rather than passively accepting information.

Preparing Future Economists for an AI-Driven World

Other important fields such as economics can also use AI in generating and shaping data analytics, automation, and digital platforms. Besides, using AI in teaching economics can provide students with a diverse set of skills that encompass:

- A solid theoretical foundation in economic principles
- Understanding of data and analytical skills
- Understanding of technological change
- Consideration of ethical implications and policy development
- Ability to adjust to changing economic conditions

AI ought to be regarded as a tool that enriches the learning experience, rather than substituting essential economic reasoning. Through the thoughtful integration of AI in education, teachers

can assist students in cultivating the skills necessary to analyse intricate economic challenges in today's digital landscape.

Conclusion

As a conclusion, using AI in teaching is one of the updated techniques that can be adapted by a lecturer. AI presently can give advantages, but at the same time provide challenges to users. It can be used in learning, research, and education especially to improvise learning techniques from traditional to updated one. As well known, AI technologies serve as powerful tools for enhancing education, supporting research, and connecting economic theory to real-world applications. Even though the AI system is powerful as it can provide all information in one click, the main concern of academic integrity is still debating, and it makes students less capable in critical thinking skills. To be true, Students are allowed to use AI, and lecturers also need to upgrade themselves, get more knowledge and experience in using AI tools in education. Based on experience, educators ought to promote the use of AI as a learning tool for students but still need to emphasise the significance of analytical reasoning, methodological rigour, and ethical considerations. One day, the education system will be replaced by AI, but do not let the AI control all knowledge that we have as a lecturer. AI can replace education, but it cannot replace the attitude, behaviour of human rights. Through a thoughtful and critical engagement with AI, educators can equip future economists with the skills to navigate and influence an increasingly digital and technology-oriented world.

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BEYOND THE THEORY: NAVIGATING STUDENT ENGAGEMENT IN PERCEIVED AS DRY SUBJECTS

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Business and Management degree is one of the most practical and resourceful university degrees. It equips students with knowledge on how organizations operate and how to make sound decisions in real-world situations. Due to the fact that almost every industry requires business professionals, this degree, therefore, can lead to careers in marketing, finance, human resources, banking, entrepreneurship, and many other fields. In this degree, students develop transferable skills that are highly valued by employers, such as decision-making, communication, problem-solving, financial literacy, strategic thinking, and leadership. The program provides students with knowledge on how to manage finances, market products, manage employees, and plan for growth, preparing them to become entrepreneurs or effective managers.

Within this degree program, subjects such as economics and finance form the foundation, as they are grounded in theories and principles that build an understanding of how the business and economic world functions. However, teaching theory-based subjects is not always an easy task because students often perceive theoretical content as dry, boring and unengaging. This perception makes it difficult to engage them and may hinder their understanding of the subject matter. As a result, they often achieve unsatisfactory results or, in the worst cases, fail these subjects. This situation presents significant challenges for educators teaching theory-heavy courses.

On one hand, educators face pressure to complete the syllabus within a limited time frame while ensuring that students achieve satisfactory academic outcomes. On the other hand, they must constantly seek innovative teaching strategies to transform abstract theories into meaningful and relatable knowledge. Balancing curriculum demands, assessment requirements, and diverse learning styles can be particularly challenging. Therefore, there is a need to examine this issue more closely to provide insights to these situations. The purpose of this article is to reflect on classroom experiences, identify behavioral patterns, and explore teaching approaches that enhance student engagement.

Students, as human beings, possess both positive and negative traits. Some are motivated to attend classes, arrive on time, and come prepared to learn and participate in lectures. In contrast, others display very different behavior. They arrive late with various excuses and often come to class unprepared. As a result, student engagement in class can be inconsistent. Frequent lateness and lack of preparation ultimately affect their ability to follow instructions and participate actively. When students skip homework or submit incomplete assignments, their understanding of ongoing topics and discussions becomes limited. Consequently, during discussions, they tend to be less responsive and contribute minimally when prompted. They may also appear confused or disengaged after lectures, suggesting that key concepts have not been fully understood. This raises an important question: how can students be expected to pass assessments and perform well in final examinations if they maintain such attitudes?

Several factors may contribute to students' current levels of engagement. The subject may be perceived as difficult, abstract, or irrelevant to their interests, which can reduce their motivation to prepare and participate actively. A lack of intrinsic motivation or confidence in understanding key concepts may also hinder classroom involvement. Additionally, changes in learning habits following pandemic or post-pandemic remote learning periods may have affected students' study routines, self-discipline, and ability to sustain attention. Academic and non-academic distractions may further influence their focus and consistency in completing tasks.

When facing such situations, educators may experience frustration and dissatisfaction in their teaching roles. However, many also express empathies toward students' circumstances and begin to reflect on the possible reasons behind students' misbehaviour. As professionals, educators often adapt their teaching methods to suit varying classroom conditions. At times, these methods prove effective; at other times, the impact remains unclear. The situation becomes even more challenging for those teaching theory-heavy subjects compared to applied or practical courses. It often requires deeper reflection on the human side of teaching, placing additional pressure on educators to understand students' mindsets, emotions, and motivations.

To address these challenges, various strategies and pedagogical adaptations can be implemented to improve engagement and learning. The matter related to student engagement has gained notable academic attention which emphasizes influences such as students' self-control, teacher empathy, and learning environment (Wang, 2025). Therefore, identifying underlying factors through discussions with students may help inform appropriate support strategies and targeted interventions. The following are some examples of the strategies including the examples applied to the Financial Markets and Banking Institutions syllabus:

1. Interactive Questioning / Group Discussion

Aim: To encourage peer collaboration and help clarify concepts. Clear roles are necessary to improve participation as some students may remain passive. According to Thomas et al. (2025), inquiry-based learning and active learning can foster critical thinking and engagement which help to prepare students for lifelong learning and cultivate their problem-solving skills.
Implementation: Used open-ended questions and small group discussions during lessons.

- What worked: Increased participation from some students; peer discussion helped clarify concepts.
- What didn't: Some students may remain passive or rely on others to respond.
- Lesson learned: Assigning clear roles, e.g., facilitator and note-taker, and providing guided questions to improve accountability and engagement.

Example of topics: Structure of the Financial System
Application: Divide students into small groups and assign each group one component of the financial system, e.g., financial institutions, financial markets, regulators, surplus and deficit units.
Activity: Ask:

- "How does money flow from surplus units to deficit units?"
- "What would happen if financial intermediaries did not exist?"

Each group explains the intermediation process using a simple flow diagram.
Why it works:
Students actively construct the financial system structure instead of memorizing definitions. Peer explanation clarifies abstract concepts like financial intermediation.

2. Real-Life Business Examples / Case Studies

Aim: To make abstract topics more relatable. However, overly complex cases required extra scaffolding.
Implementation: Integrated current business scenarios and simplified case studies into lessons.

- What worked: Improved understanding of abstract concepts; students showed more interest when topics are deemed relevant.
- What didn't: Some case materials were too complex and required additional explanation.
- Lesson learned: Examples should be relatable and appropriately scaffolded to match students' level.

Example of topic: Bank Negara Malaysia: Monetary Policy Operations
Application: Present a simplified real-world scenario:

"BNM increases the Overnight Policy Rate (OPR) to control inflation. What happens to loan interest rates? How does this affect businesses and households?"
Students analyse:

- Impact on commercial banks
- Impact on borrowers
- Impact on investment decisions

Extension Case:
Discuss how BNM managed economic recovery during the COVID-19 period.
Why it works:
Students connect theory (monetary tools) with real economic effects, making policy concepts more tangible.

3. Mini Pre-Class Assignments

Aim: To prepare students for lessons and boost confidence. However, inconsistent completion limited effectiveness. Thus, tasks should be short and directly linked to class activities to avoid inconsistent completion that limit the effectiveness.
Implementation: Assign short readings, videos, or questions to complete before class.

- What worked: Prepared students were more confident and engaged in discussions.
- What didn't: Inconsistent completion reduced overall effectiveness.
- Lesson learned: Keep tasks brief, structured, and linked directly to in-class activities to encourage accountability.

Example of topic: Types of Banking Institutions
Pre-Class Task:
Assign students to watch a short video or read a brief article comparing:

- Commercial banks
- Islamic banks
- Investment banks

Ask them to prepare a simple comparison table before beginning the class.

In-Class Follow-Up:
Students discuss:

- "Why would a customer choose an Islamic bank instead of a commercial bank?"
- "Why do companies use investment banks?"

Why it works:
Students come prepared with foundational knowledge, allowing deeper in-class discussion instead of basic explanation.

4. Gamification / Simple Classroom Activities

Aim: To increase motivation and improve recall. However, careful alignment with learning objectives is needed to prevent distraction.
Implementation: Used quizzes, team competitions, or problem-solving games related to lesson content.

- What worked: Increased energy levels and motivation; improved recall of key concepts.
- What didn't: Overexcitement occasionally shifted focus away from learning objectives.
- Lesson learned: Activities should be clearly aligned with learning outcomes and time-managed carefully.

Example of topic: Stock Market Concept Game (Equity Market Operations)
Activity: "How the Stock Market Works" Role-Play
Assign students different roles:

- Public listed company
- Investors
- Stock exchange
- Broker

Scenario:
A company wants to raise funds by issuing shares to expand its business.
Students act out the process:
1. The company announces an Initial Public Offering (IPO).
2. Investors decide whether to buy shares.
3. The stock exchange facilitates trading.
4. A news event (e.g., strong profits or economic downturn) is introduced.

Ask students:
- What happens to share prices when demand increases?
- Why do prices fall when investors panic?
- How does the stock exchange ensure fair trading?

Learning Outcome:
Students understand:
- The function of the equity market
- How share prices are determined by demand and supply
- The role of intermediaries
- Basic market dynamics

5. Reflective Thinking
Aim: To promote metacognition and self-assessment. Structured prompts were necessary to deepen the reflections.
Implementation: Asked students to write short reflections on what they learned and areas of confusion.
- What worked: Helped identify misunderstandings and encouraged metacognitive awareness.
- What didn't: Some reflections were superficial without guiding prompts.
- Lesson learned: Provide structured reflection questions to deepen critical thinking and self-assessment.

Example of topic: Derivatives Market
Aim: To promote critical thinking and help students understand the purpose of derivatives beyond definitions and technical terms.

Implementation:
After teaching the basic concepts of futures, options, and swaps, students are asked to write a short reflection (150–200 words) responding to guided prompts.
Sample Reflection Prompts:
- "Why do businesses use derivatives instead of simply accepting price fluctuations?"
- "If you were a palm oil exporter, how could futures contracts help reduce risk?"
- "What might happen to a company that does not hedge against currency or commodity price movements?"

Students submit short written reflections at the end of class or online.
What worked:
- Helped students connect derivatives to real business risk management.
- Encouraged them to think beyond memorizing definitions such as futures, options, and swaps.

What didn't:
- Some responses were too general or descriptive without deeper analysis.

Lesson learned:
Providing structured guiding questions and requiring students to apply the concept to a specific business scenario improves the depth of reflection and strengthens conceptual understanding.

Lessons Learned and Insights

Effective teaching and learning require the use of appropriate pedagogical approaches to meet the demand of the current generation of students and ever-changing educational environments.

Considering the university students nowadays mostly come from Generation Z, while educators mostly from Generation X and Millennials, their learning orientation are different. Generation Z is familiarly known as more engaged and connected through digital devices and media social. Meanwhile, Generation X is more comfortable with traditional and manual classroom and Generation Millennials reflect the balance between traditional learning structure and digital engagement.

Learning the theoretical syllabus is considered the 'boring subject' to the teenagers' students and requires educators to be more creative and diversify the learning methods. Understanding the learning orientation among the current students' generation is essential to ensure the effective teaching and learning experience. Gen Z is hard to remain focused towards the long and passive lecture session, without the intervention of technology and visual learning aids and active collaborative activities in the classroom (Mayildurai et al., 2024). Thus, educators need to be able to fulfil the current demand of educational environments by conducting an active classroom activity such as interactive quizzes with leveraging the technologies platform, and group collaborative activities, aimed to refresh the students' understanding towards the knowledge learnt after a certain limited time of lecture.

The elements of emotional intelligence also need to be prioritised to recognize and understand the learning pace for every student. Lochner (2024) suggested that the approachable lecturers get more students' engagements, irrespective of their teaching methods. Students anticipate the welcoming, inclusive and supportive learning environment, for them to feel valued and accepted. These are imperative elements to encourage class participation among students.

Apart from the quick response in academic consultation, promoting empathy and emotion sensitivity among educators may develop students' interpersonal skills, improve the interest in the subject and boost their academic performance. Celebrating the diverse students' life background and minimizing anxiety in educator-students interaction may contribute to both educators and students' well-being.

Conclusion

Teaching the theory-based subject that comprises the nature of syllabus such as abstract, conceptual and interpretive contents is challenging due to lack in students' engagement and motivation, misunderstanding and time constraint in completing the syllabus. The changing in learning habits among teenagers' students and current educational environment demand educators to be more creative and innovative in teaching activities. Educational 5.0@UiTM has underlined five pillars to produce a progressive thinking learner, among them are innovative delivery and assessments, meaningful learning experience and inspiring educators (Mohd Salleh et al, 2020). This framework encourages educators to invest in hard skills and soft skills in achieving the university educational goals.

Diversification in teaching and learning activities of theory-based subjects is considered as an initiative to maintain students' engagement in class, however the cooperation from students also matters. Thus, continuous observation on students' learning habits and improvement is needed to meet the academic purpose. The learning session needs to be dynamic by allocating the adequate time for lecture and class activities to encourage the students' involvement in active learning. This pedagogical method aimed to maintain the students' engagement in class, improve their understanding in the subject, which ultimately fulfil the university's educational goals. Moreover, the combination of moral support and conducive

learning environment also must be cultivated to ensure the effectiveness of academic activities.

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CHALLENGES IN TEACHING ISLAMIC FINANCE

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Introduction

Islamic finance is a field that integrates financial knowledge, religious principles, and ethical considerations. It represents a specialised area of study that combines modern financial systems with *Shariah* principles derived from Islamic law. Over the past few decades, Islamic finance has experienced rapid growth and become a significant component of the global financial system. Countries such as Malaysia, Saudi Arabia, and the United Arab Emirates have developed strong Islamic financial sectors and are considered leaders in the Islamic banking industry. As the industry continues to expand, the demand for professionals who are knowledgeable in Islamic finance has increased significantly.

In response to this demand, many universities and higher education institutions have introduced Islamic finance courses and academic programs. These programs aim to equip students with both theoretical and practical knowledge of Islamic financial systems. However, teaching Islamic finance is a challenging task. The subject is interdisciplinary in nature because it requires knowledge of finance, economics, Islamic jurisprudence, and ethics. As a result, educators often face various challenges when delivering this subject to students. Although Islamic finance has been taught in many universities for years, students' performance in this subject is sometimes unsatisfactory. Many students struggle to fully understand the concepts and principles involved. From semester to semester, educators observe that students' results are often not as good as expected. This situation indicates that there are several challenges that affect the teaching and learning process in Islamic finance education.

Therefore, it is important to identify and examine the challenges faced by educators when teaching Islamic finance. Among the major challenges are the complexity of Shariah principles, the diversity of students' academic backgrounds, misconceptions about Islamic finance concepts, the gap between theory and practice, language barriers, rapid industry development, and the lack of a standardised curriculum across institutions.

Complexity of Shariah Principles

One of the major challenges in teaching Islamic finance is the complexity of the concepts involved. Islamic finance is based on *Shariah* law, which governs many aspects of a Muslim's life, including financial and economic activities. Shariah is derived primarily from the *Qur'an* and the *Sunnah,* which provide guidance on ethical behaviour, fairness, justice, and financial dealings. Several important principles form the foundation of Islamic finance. One of the most significant is the prohibition of *Riba*, which refers to interest charged on loans or financial transactions. In Islamic teachings, interest is considered unfair because it allows one party to gain profit without sharing the risks involved in the transaction. Instead, Islamic finance promotes profit-and-loss sharing arrangements that encourage fairness and shared responsibility.

Another key concept is the prohibition of *Gharar*, which refers to excessive uncertainty or ambiguity in financial contracts. Islamic financial transactions must be transparent and clearly defined so that all parties understand their rights and obligations. In addition, the concept of *Maysir* prohibits gambling and speculative activities that rely purely on chance rather than productive economic activity. These principles differentiate Islamic finance from conventional finance. However, understanding them requires knowledge of both financial systems and Islamic jurisprudence. Many students who enroll in Islamic finance courses do not have prior

exposure to Islamic legal concepts. As a result, educators must spend additional time explaining the religious foundations of the subject before moving on to more advanced topics.

Furthermore, the interpretation of Shariah principles can sometimes vary depending on different schools of Islamic jurisprudence. Educators must therefore present these concepts carefully and ensure that students understand the theoretical foundations as well as their practical implications. This complexity often makes the teaching process more challenging.

Diversity of Students' Academic Backgrounds

Another significant challenge in teaching Islamic finance is the diversity of students' academic backgrounds. In many universities, students enrolled in Islamic finance courses come from different educational pathways, such as diploma programs, pre-university programs, or other non-finance backgrounds. Students who enter university through diploma programs often have some prior knowledge of financial systems, banking operations, or accounting principles. This background allows them to understand financial concepts more easily. However, students who enter directly from pre-university programs such as STPM or matriculation may not have studied finance before. As a result, they may find it difficult to understand basic financial terminology and concepts.

This difference in background knowledge creates difficulties for educators when delivering lessons. If educators teach at a faster pace, students without financial knowledge may struggle to keep up with the lesson. On the other hand, if educators slow down the pace to accommodate these students, those who already have prior knowledge may become less engaged in the class. For example, when explaining the concept of a savings account within an Islamic banking framework, students who are familiar with conventional banking systems may quickly understand the concept. They only need to learn how Islamic contracts are applied in such accounts.

However, students without prior knowledge of financial systems may require additional explanation about how banking systems work in general before they can understand the Islamic finance component. Therefore, educators must find a balance in their teaching methods to ensure that all students are able to follow the lessons. This may involve providing additional explanations, using simplified examples, and conducting extra tutorials to support students who require more guidance.

Misconceptions About Islamic Finance

Misconceptions about Islamic finance also present a major challenge in the classroom. Many students assume that Islamic finance simply replicates conventional financial systems with minor modifications. One common misconception is that Islamic finance merely replaces the word "interest" with the word "profit." In reality, Islamic finance is fundamentally different from conventional finance. While conventional finance relies heavily on interest-based lending, Islamic finance emphasises risk sharing, asset-backed transactions, and ethical investment practices. Transactions must be structured in a way that complies with Shariah principles.

Islamic finance uses various contracts to structure financial transactions. Some of the most common contracts include profit-sharing arrangements such as *Mudarabah*, partnership contracts such as *Musharakah*, and leasing contracts such as Ijarah. Each contract has its own unique characteristics and must be applied under specific conditions. Students often confuse these contracts because they appear similar to conventional financial instruments. For example, *Murabaha* financing may look similar to conventional loans, but the underlying structure is different because it involves the sale of an asset rather than the lending of money with interest.

Correcting these misconceptions requires educators to provide clear explanations and comparisons between Islamic and conventional financial systems. Educators must encourage

students to analyse the structure of financial transactions rather than relying on superficial similarities. By doing so, students can better understand the true principles behind Islamic finance.

Gap Between Theory and Practice

Another challenge in teaching Islamic finance is the gap between theoretical knowledge and practical application. Many Islamic finance courses focus heavily on theoretical frameworks, legal principles, and historical development. While these topics are important for building a strong foundation, students may find it difficult to understand how these concepts are applied in real-world financial institutions. In practice, Islamic financial institutions offer a wide range of products and services designed to meet customers' needs while complying with Shariah principles. Examples include Murabaha-based financing, profit-sharing investment accounts, and Sukuk instruments used for large-scale investments and funding.

However, students who only learn the theoretical aspects of these products may struggle to understand how they function in real banking environments. Without practical examples or case studies, the concepts may appear abstract and difficult to visualise. To address this issue, educators should incorporate practical learning methods into their teaching. Case studies, simulations, and industry guest lectures can help students understand how Islamic financial products operate in real-world situations. Internships and collaborations with financial institutions can also provide valuable exposure to industry practices.

Rapid Development of the Islamic Finance Industry

The Islamic finance industry is continuously evolving as financial institutions develop new products and services to meet market demands. As the industry grows, regulatory frameworks and financial standards are also updated to ensure compliance with international financial regulations. This rapid development creates challenges for educators because teaching materials must be regularly updated.

Educators need to stay informed about new developments in the industry so that they can provide students with relevant and accurate information. Updating course materials requires continuous research, participation in professional training programs, and collaboration with industry practitioners. Without regular updates, course content may become outdated and fail to reflect current industry practices.

Language Barriers

Language barriers also present challenges in teaching Islamic finance. Much of the classical literature on Islamic jurisprudence is written in Arabic, which is the original language of many Islamic legal texts. Understanding these texts often requires knowledge of Arabic terminology. At the same time, many modern finance textbooks and academic research publications are written in English.

Students who are not proficient in both languages may face difficulties in accessing and understanding important learning resources. In addition, some Arabic terms used in Islamic finance do not have direct translations in English. This can create confusion among students when they attempt to understand complex legal and financial concepts. Educators must therefore spend additional time explaining these terms and ensuring that students fully understand their meanings.

Lack of Standardised Curriculum

Another challenge in Islamic finance education is the lack of a standardised curriculum across universities and institutions. Different universities may design their Islamic finance programs according to their own academic priorities and available expertise. Although international organisations such as the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) and the Islamic Financial Services Board (IFSB) provide guidelines and

standards for the Islamic finance industry, these standards are not always fully integrated into academic curricula.

As a result, the content and structure of Islamic finance courses may vary significantly between institutions. Some programs may focus more on theoretical and legal aspects, while others emphasise practical financial applications. This variation can lead to differences in students' knowledge and skills when they enter the industry.

Conclusion

In conclusion, teaching Islamic finance presents several challenges due to the interdisciplinary nature of the subject. The complexity of Shariah principles requires students to understand both financial systems and Islamic jurisprudence. In addition, the diversity of students' academic backgrounds makes it difficult for educators to design lessons that meet the needs of all students. Misconceptions about Islamic finance, particularly the belief that it simply replicates conventional finance, further complicate the teaching process. The gap between theoretical knowledge and practical application also limits students' ability to fully understand how Islamic financial systems operate in real-world institutions.

Other challenges include the rapid development of the Islamic finance industry, language barriers in accessing important learning resources, and the lack of standardised curricula across educational institutions. These challenges highlight the need for improved teaching strategies, updated course materials, and stronger collaboration between academic institutions and industry practitioners. By addressing these challenges, educators can improve the quality of Islamic finance education and better prepare students for careers in the growing global Islamic finance industry.

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FROM CONFUSION TO CURIOSITY: INTRODUCING RESEARCH METHODS TO UNDERGRADUATE STUDENTS

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Introduction

Research methods are often perceived by students as one of the most difficult and intimidating courses in higher education. Many students associate research with complex statistics, rigid academic writing, and unfamiliar terminology. As a result, they frequently approach the subject with anxiety and low confidence. In business and management education, however, research skills are essential because they enable students to analyse problems, evaluate evidence, and make informed decisions. In today's knowledge-driven economy, organisations increasingly rely on data, systematic analysis, and evidence-based reasoning to guide their decisions. Graduates entering the workforce are therefore expected to be able to evaluate information critically, interpret data, and make well-informed judgments. Research methods courses play an important role in developing these competencies, particularly for students in business and management programmes.

Despite its importance, research methods are often viewed by students as a challenging and intimidating subject. Many students believe that research is only conducted by academics or scientists and that it requires advanced statistical knowledge. These perceptions often create psychological barriers that discourage students from actively engaging with the subject. From our experience as an educator, introducing research methods to undergraduate students requires more than delivering theoretical content. It involves reshaping students' perceptions of research and helping them realise that research is not merely an academic requirement but a practical tool for understanding real-world problems. Students tend to respond more positively when they realise that research skills are not confined to academic environments but are widely applied in everyday decision-making processes. For example, businesses use research to understand customer behaviour, evaluate employee performance, and analyse market trends. When students recognise these real-world applications, research begins to appear less abstract and more relevant to their future careers.

This reflection discusses our colleagues' experiences of introducing students to research methodology through a more engaging and human-centred teaching approach. Rather than concentrating solely on technical components such as statistical techniques or specialised terminology, this approach seeks to make methodological learning more accessible and meaningful for students. By linking theoretical ideas with practical experience, students can gradually build confidence and develop a stronger interest in the inquiry process. The purpose of this reflection is to share insights into how educators can help transform students' fear of methodology into curiosity and active engagement. Through reflective teaching strategies, practical activities, and real-life examples, methodological learning can become a meaningful educational experience rather than a stressful academic requirement.

More broadly, this reflection considers how students' initial confusion and anxiety about methodology may gradually develop into curiosity, confidence, and active engagement through supportive teaching practices. This movement from confusion to curiosity reflects an important shift in students' learning experiences and highlights the central role of educators in guiding them through the process.

Students' Initial Perception of Research

One of the first observations in teaching research methods is the negative perception many students have of the subject. During the first few weeks of the semester, students often express concerns such as "*research is too complicated*," "*statistics is scary*," or "*I don't know how to start a research project*." These reactions are common, particularly among undergraduate students who have limited exposure to academic research. Many students enter the classroom with the assumption that research is inherently difficult and requires specialised knowledge that they do not yet possess. This perception often leads to hesitation and a lack of confidence when they are asked to develop their own research ideas. Some students even believe that research is only suitable for individuals who excel in mathematics or statistics.

Such perceptions usually stem from a lack of familiarity with the research process. Students tend to view research as something only academics or scientists conduct, rather than as a structured approach to answering questions and solving problems. In reality, research is closely related to everyday decision-making processes. For instance, individuals frequently gather information before making decisions such as choosing a university programme, comparing products, or evaluating the credibility of online information. These activities involve collecting evidence, analysing alternatives, and making informed conclusions, which are essentially simplified forms of the research process. Recognising these initial perceptions is important because it helps educators design teaching strategies that reduce anxiety and encourage participation. Instead of immediately introducing technical research terminology, educators may begin with simple questions that stimulate curiosity. For example, asking students how businesses understand customer behaviour or how organisations evaluate employee performance can naturally lead to discussions about research design, data collection, and analysis.

This approach helps students realise that research is not an abstract concept, but a practical tool widely used in real life. As students begin to recognise these connections, their perception of research gradually shifts. The subject becomes less intimidating and more approachable, allowing students to engage more actively in classroom discussions and research-related activities.

Transforming research methods into a practical learning experience

One key strategy that has proven effective in teaching research methods is connecting theoretical concepts to real-world applications. Rather than relying solely on lectures, students are encouraged to explore research ideas based on issues that interest them (Younas et al., 2024). For example, students may be asked to identify a simple problem in their environment, such as factors influencing students' online shopping behaviour or the impact of social media on study habits. By starting with familiar topics, students become more motivated to explore research questions and develop basic research designs. Allowing students to select topics related to their own experiences also increases their sense of ownership over the research process. When students feel that their research topics are meaningful and relevant to their lives, they are more likely to invest effort and demonstrate greater enthusiasm in completing their research tasks.

Another useful approach is to break the research process into smaller, manageable steps. Instead of presenting the entire research methodology framework at once, students are guided gradually through stages such as identifying research problems, developing research questions, selecting methods, and interpreting findings. This step-by-step approach reduces cognitive overload and allows students to build confidence as they progress through the research process. Providing clear examples and demonstrations can further enhance students' understanding of each stage. For instance, lecturers may demonstrate how to design simple survey questions, develop interview guides, or organise data in a basic spreadsheet. These demonstrations help students visualise how research is conducted in practice.

Over time, students begin to see research not as a complicated task but as a structured journey of inquiry and discovery. As their understanding improves, students also become more active participants in discussions about research design and methodology. They start asking questions, proposing ideas, and critically evaluating research topics, reflecting a growing curiosity about the research process (Sabhi et al., 2025).

Encouraging active learning and student engagement

Active learning plays a crucial role in helping students understand research methodology. Traditional lecture-based teaching often limits student participation and may reinforce the perception that research is purely theoretical. When students are exposed only to lectures without opportunities to apply research concepts, they may struggle to connect theoretical knowledge with practical research activities. Therefore, incorporating interactive learning strategies is essential for enhancing students' understanding and engagement. To address this challenge, classroom activities can be designed to encourage discussion and collaboration. For instance, students may work in small groups to evaluate sample research articles, identify research objectives, or analyse simple datasets. These activities allow students to interact with research concepts in a more practical manner.

As illustrated in Figure 1, the teaching session shows how the lecturer facilitates classroom discussion while guiding students to understand the inquiry process and develop their own project ideas. Another effective strategy is the use of mini projects, where students undertake small-scale studies within a limited timeframe. This experience enables them to practise key skills such as designing questionnaires, collecting data, and presenting findings. Through these activities, students gradually build confidence in carrying out academic inquiry.

Presenting their findings to classmates also helps students strengthen their communication skills and improve their ability to explain outcomes clearly. This experience shows that inquiry involves not only gathering data but also interpreting and communicating findings effectively. More importantly, students begin to recognise the value of systematic inquiry as a means of understanding social and business issues.

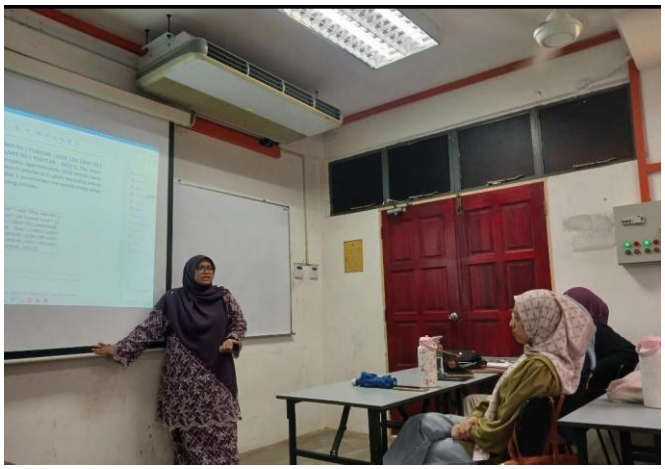

Figure 1: Facilitating discussion in a research methods class
(Source: Author's personal archive.)

The Human Side of Teaching Research

Teaching research methods also involves recognising the emotional and psychological challenges students face. Many students feel overwhelmed when they encounter academic writing requirements or complex methodological concepts. The pressure to perform well academically can sometimes create anxiety, particularly when students are unfamiliar with research terminology or academic writing conventions. Recognising these emotional challenges is important for educators who aim to create a supportive learning environment.

As educators, demonstrating patience and empathy is essential. Providing constructive feedback, encouraging questions, and acknowledging students' efforts can significantly improve their learning experience (Hong & Nacional, 2024). In many cases, students' attitudes toward research change once they realise that making mistakes is part of the learning process. When educators create a supportive learning environment, students feel more comfortable experimenting with ideas and exploring research topics. This human-centred approach emphasises that research is not only about producing academic outputs but also about developing critical thinking, curiosity, and intellectual confidence. When students feel supported and respected in the classroom, they are more willing to participate actively in discussions and share their research ideas without fear of making mistakes.

Lessons learned from teaching research methods

Educators play a role that extends beyond the simple delivery of knowledge (Altes et al., 2024). Providing both emotional and intellectual support can enhance students' learning experiences and foster a more positive disposition towards research. These experiences indicate that effective teaching of research methods depends on balancing academic guidance, practical learning opportunities, and emotional support. When educators cultivate a supportive environment that promotes curiosity, experimentation, and open discussion, students are better able to develop confidence in exploring research ideas and shaping their own inquiries.

Conclusion

Introducing research methods to undergraduate students is both a challenge and an opportunity. While many students initially perceive research as difficult and intimidating, effective teaching strategies can gradually transform this perception. At the beginning of the course, students often approach research with uncertainty and anxiety, mainly because they associate it with complex statistical analysis, unfamiliar terminology, and demanding academic writing. These perceptions can create psychological barriers that discourage students from actively engaging in the learning process.

However, when research methods are introduced through practical examples, interactive learning activities, and supportive classroom environments, students gradually begin to view research from a different perspective (Paudel & Shrestha, 2024). By connecting research concepts to real-life issues and everyday decision-making processes, educators can help students understand that research is not an abstract academic exercise but a practical method for exploring problems and generating knowledge. As students gain exposure to the research process through guided activities such as developing research questions, designing simple studies, and analysing basic data, their confidence in conducting research begins to grow.

Active learning strategies also play an important role in supporting this transformation. Activities such as group discussions, mini research projects, and collaborative analysis tasks encourage students to participate more actively in the classroom. These experiences allow students to interact with research concepts in a practical and meaningful way, making the learning process more engaging and less intimidating. Over time, students develop curiosity about the research process as they realise that research is essentially about asking questions, exploring ideas, and seeking evidence-based answers. Finally, exposing undergraduate students to research methodology is an important step in preparing them for future academic and professional challenges. Beyond fulfilling academic requirements, research skills foster critical thinking, analytical reasoning, and problem-solving. When students move from confusion to curiosity, research methods become not only a subject they must learn but also a valuable intellectual tool they are eager to apply to understand complex issues in both academic and real-world contexts.

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TEACHING A 'COLD' SUBJECT WITH A WARM HEART

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Introduction

Finance has always been seen as technical and unemotional. Most of the time, it seems the classroom is full of numbers, NPV, IRR, GDP growth, inflation rates, portfolio beta and valuation models. Students get into investment and finance classes hoping to learn complexity, formulas and high stakes calculations. Many also enter with fear.

Working as a lecturer in investment and finance courses, I could not help but emphasize much on making sure that the students were able to master technical competencies. Accuracy matters. It was analytical thinking that was important. Exam performance mattered. It occurred to me that students would achieve success if I explained everything properly and offered enough practice questions.

However, with time, I also started to notice more than that. Students were not just having the problem with numbers. They were grappling with self-confidence, worry, self-doubt and personal battles that were silent at times. Finance and investment were not only cognitively challenging, but emotionally challenging.

Thus, this is what changed my philosophy of teaching. I developed an understanding that there is more to teaching finance than just graduating good analysts. It is concerned with getting emotionally strong decision makers.

The Emotional Landscape of Finance Students

Topics that are related to investment and finance are commonly assumed and referred to as killer papers. Students often come to me before presentations or examinations with such statements:

- "Madam, I'm scared I cannot answer the questions."

a) "I understand in class, but when I see numbers, I panic."
b) "What if I fail?"

These statements are not related to intellectual incompetence. They are about fear and lack of confidence. Performance pressure is instigated by the subjects of finance due to the high expectations involving the academic and professional expectations. Furthermore, this emotional burden was also aggravated by the conditions in the post-pandemic environment. Students going back to physical classrooms had shorter attention spans, poorer underlying knowledge, and increased anxiety (Mesghina et al., 2021). Some showed disengagement. Some were over reliant on recorded materials and slides. This is when I had to make myself think, "Was it all academic or was it emotional?" I learnt that, to develop critical and analytical thinking aspects, technical explanation is not enough, but rather a psychologically supportive learning atmosphere in which a student could feel free to ask questions, make errors, and learn to do so would be essential. Therefore, students will be more ready to participate in the demanding concepts when they think of the classroom as a place where it is okay to be uncertain and confused as an element of learning. This understanding led me to reflect on the larger affective aspects of teaching and learning in teaching finance.

Integrating Emotional Intelligence (EI) and Motivation Theory

This observation is very similar to the phenomenon of Emotional Intelligence (EI) popularized by Daniel Goleman. Emotional intelligence focuses on the presence of self-awareness, self-regulation, motivation, empathy and social skills as critical skills in coping with complex

environments (Goleman, 1995). Although EI is a topic of discussion in corporate management, it is also applicable in the field of finance education. When students start panicking when faced with numerical challenges, they do not necessarily have a deficiency in intellectual capability but are simply having a problem with the ability to control their emotions and remain confident during stressful situations.

Recognising this perspective, it prompted me to reconsider my own role as an educator. I do realise this view, and it led me to revise my role as an educator. Teaching finance could no longer restrict itself to describing formulas and technical ideas but also had to model emotional stability for students. Being empathetic implied recognizing the fear of students and addressing their interests, as opposed to ignoring their emotional condition. On the same note, being calm when describing the complicated valuation models was an example of self-regulation in action. With time, I came to understand that good finance instruction is not merely about instilling an analytical ability in the students, it is also about teaching students to be emotionally competent and resilient in an environment where the material is difficult. Thus, this experience can be further explained through Self-Determination Theory (SDT) proposed by Richard Ryan and Edward Deci, which suggests that individuals are more likely to thrive when three fundamental psychological needs are fulfilled: competence, autonomy, and relatedness (Ryan & Deci, 2000).They can experience disconnection (low relatedness) and excessive standards of strict assessment forms (low autonomy). My responses to this psychological need were realized through the act of establishing a conducive environment whereby inquiries were invited and compliments were given. With the development of a feeling of competency and support in students, their participation was enhanced.

During one of my semesters, I observed that even the high achievers were reluctant when giving presentations. I started to affirm their logical thinking and only proceeded to correct technical mistakes after establishing their financial context was in the right position. The transition was very slight and strong. Their posture improved. Their voices got more even. As of critical reinforcement, I realised that confidence does not lie in criticisms but through emotional reinforcement

From Lecturer to Mentor: A Shift in Professional Identity

In my initial academic career, I had conceptualised my role to be that of a content specialist. My fundamental duties focused on the coverage of syllabus, the correspondence of the syllabus to the learning outcomes as required, and sufficient preparation of learners to take tests. The effectiveness was also determined largely with the help of clarity of explanation, completion of quantitative problems sets, and performance of students in general in assessments. In this context, effective teaching was identified with the possibility of students to reproduce analytical steps correctly.

Eventually, however, this content-based orientation started to become inadequate. The repetitive contacts with the students implied that the knowledge of financial formulas was not the sole indicator of significant learning. Gradually, I noted that the challenges that students face were not necessarily only cognitive, but effective. Low self-confidence, anxiety and fear of failure often appeared especially when it came to high stakes situations like presentations and final examinations.

The turning point in my professional identity was not the formal classroom review, but rather the informal events that take place outside regular lecture sessions. Communication among students before examinations were always emotional in nature instead of being confused with the subject matter. The degree to which academic performance had become embedded in psychological pressure was reflected in messages that showed nervousness, self-doubt, or fear of failing to live to expectations.

These led to an evaluation of my role. I also started to understand that any successful finance learning needs to focus on both cognitive and emotional aspects of learning. Such a gradual transformation is indicative of a general change in a transmission-based teaching model to one based on mentorship. As opposed to the role of an information provider, I increasingly assumed the role of a facilitator of confidence, resilience, and reflective thinking. These examples demonstrated that the lecturer and student relationship has relational and motivational implications outside of the formal assessment framework. The sense of responsibility among the students seemed to be not only related to the system of grading but the trust between people and the feeling of expectation. This point highlights the relational nature of higher education, in which notable interaction tends to boost intrinsic motivation.

The teaching approach that included motivating those students who proved to be analytically competent, but with little confidence in their presentations also changed my teaching focus. I started to focus not only on the technical corrections, but on the strengths-based approach, where I started to affirm logical reasoning and structured thinking before focusing on the correctional areas. The strategy is consistent with educational views that reinforcement is an important aspect of enhancing self-efficacy. Gradually, the observable improvements in the contact of students, involvement, and calmness indicated that confidence is an intellectual output prerogative generator.

The described development of professional identity can be linked to the idea of Emotional Intelligence (EI) as described by Daniel Goleman. In this view, good educators can be seen to be empathetic to the affective conditions of students and self-controlled in the face of pressure. Emotionally intelligent instructional practices in fields of study like finance, where the presence of errors can be a significant source of anxiety, can also serve to provide a psychologically safe learning environment.

Additionally, the Self-Determination Theory (SDT), which is a theory created by Edward Deci and Richard Ryan, gives a convenient explanatory frame of this transformation. According to SDT, competence, autonomy, and relatedness are the best things to make people feel optimal motivation. I was indirectly supporting these psychological needs by providing constructive reassurance and establishing a friendly classroom environment and by fostering contemplative participation in financial decision making. These conditions do not only curb anxiety but also increase intrinsic motivation especially in academic rigorous subjects.

The transition from lecturer to mentor was neither abrupt nor formally planned. Instead, it evolved out of a continuous contemplation of classroom realities and reactions of students. This change expanded my perception of the effectiveness of education. Academic performance continued to be significant, but it was now seen as being in association with emotional growth and inspirational encouragement.

Finally, this re-definition of my professional role implies that the education in finances cannot be confined to technical proficiency alone. Development of analytical competence should be supported by building confidence, resilience, and awareness of ethics. Mentorship under this sense is not a peripheral part of disciplinary teaching, it becomes a part of it.

Conclusion: Humanising Finance Education

The considerations raised in this discussion indicate that the teaching of finance extends far beyond the delivery of technical knowledge. Although analytical competency remains an essential aspect of financial education, emotional and motivational aspects that define the study experience among students should also be considered. Topics that are assumed to be challenging or very quantitative tend to cause anxiety in students, making it hard to engage in it, ask questions or delve into intricate concepts. As such, educators must be attentive not only to cognitive progress, but also to the emotional atmosphere in the classroom.

By integrating the concepts of Emotional Intelligence suggested by Daniel Goleman and the motivation principles suggested by the Self-Determination Theory invented by Edward Deci and Richard Ryan, educators can establish the learning environment where competence and confidence will be enhanced. Positivity, understanding, and positive communication make students develop psychologically safe, so that they can be more engaged in the problematic content. In this regard, the role of the lecturer evolves from a transmitter of knowledge to a mentor who guides students through both intellectual and emotional aspects of learning.

Finally, humanising finance education does not undermine academic rigor, on the contrary, it strengthens it. With support and motivation, students become more resilient, able to think critically, and become ethically aware of what they will need to do in future professional practice. Teaching, therefore, is not only about the process of producing competent graduates but also of producing intelligent and self-confident individuals who are ready to face the complicated economic reality. Educators and lecturers have a significant role in providing a learning atmosphere where students are motivated to learn new, difficult content without being afraid of failure. This kind of atmosphere will enable students to develop the ability to analyze and to gain emotional strength that is necessary in the financial and business industry, progressively.

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EMOTIONAL BARRIERS IN TEACHING QUANTITATIVE FINANCE: ADDRESSING NUMEROPHOBIA IN STUDENTS

Husnizam Hosin,Yuslizawati Mohd Yusoff, Mohd Hakimi Harman

The unspoken stress in university is an issue that is still relevant in the world of quantitative finance. This subject, which is naturally based on the use of highly sophisticated mathematical and statistical procedures, often causes a high level of emotional discomfort among students, which are expressed in anxiety or even repulsion towards numerical material. Such affective responses, often known as Numerophobia or mathematical anxiety, may have a significant impact on student engagement, academic achievement, and, eventually, career in the field of finance. The current article explores the complex face of these emotional barriers, their origins, the way they are manifested, and how they are relevant to the pedagogical settings of quantitative finance teaching. It assumes that a comprehensive understanding of these responses, which goes beyond the purely cognitive aspects, is a necessary condition in the development of the instructional measures that can help to instil resilience and confidence in students who must face the quantitative material. Specifically, the paper examines the possible ways mathematical resilience, psychological safety, and emotional knowledge can be utilized to reduce the negative effect of math anxiety. The latter is theorized in the form of tension and anxiety that interferes with mathematical processing. Math anxiety may hinder learning through the consumption of working memory resources, distraction of attention, and undermining of self-efficacy.

Moreover, the problem of math anxiety prevalence among the large part of the population is a worldwide issue that restricts not just personal academic and professional success but also the overall social progress because of the limited interaction with the quantitative fields. The identification and resolution of this anxiety, consequently, turns out to be a crucial pedagogic requirement among the teachers of quantitative finance, as no successful learning can occur in the absence of the reduction of these emotional obstacles.

The theoretical framework used is systematically combined with cognitive-affective constructs such as math anxiety, math self-efficacy, math identity, and perceived mathematical utility to complement cultivation of quantitative competencies amongst finance students. This framework recognizes that the emotional state of anxiety, enjoyment and boredom are deeply connected to student motivation and performance, thus requiring a holistic approach that will consider the multifaceted emotional experiences of students studying quantitative finance (Alhur, 2025). In fact, people with this kind of apprehension usually have a difficult time manipulating numbers and solving mathematical problems in both school and real life. It is this fear that significantly impairs the ability of students to get involved in subjects of quantitative finance and on most occasions results in avoidance patterns and low academic achievement. Therefore, it is essential to understand and eliminate these emotional reactions to train teachers who will produce quality, assertive professionals in quantitative finance.

In this regard, research on effective methods of nurturing mathematical well-being and developing a positive attitude towards quantitative reasoning should be conducted. An investigation like this would require the study of interventions specifically aimed at affecting the cognitive and affective processes that cause math anxiety, such as emotion-regulation methods aimed at reframing negative affective experiences. It includes the creation of pedagogical strategies that enable the transformation of debilitating anxiety into a positive challenge that will promote the change of mindset toward viewing quantitative tasks as a source of growth, instead of distressing. Such orientation is consistent with control-value theory that argues that the perceived control of students over academic activities and the perceived value of learning have a significant impact on emotional reactions and motivation

(Li et al., 2025). Specifically, the theory emphasizes the fact that anxiety (and other emotions) are the results of beliefs about the ability to affect what happens and the perceived significance of those effects, thus suggesting that perceived control and value appraisal be addressed concurrently.

Developing the feeling of agency and highlighting the applicability of quantitative finance concepts to practical use will, therefore, be useful in addressing the issue of academic anxiety. This combined method has the potential to eradicate emotional obstacles in the short term and the long term, as well as foster a more resilient and strong learning atmosphere that supports the learning and implementation of complex financial concepts. Avoiding mathematics anxiety, teachers can adopt the strategies to make learning more important than performance, enable autonomy, and, as a result, decrease fear of failure, avoidant goal orientations, and increase self-efficacy and control appraisals (Li et al., 2025). These pedagogical modifications can include encouraging proactive studying, which empirical studies have indicated to have a negative relationship with mathematics anxiety, therefore, acting as an emotion-regulation process.

Moreover, the use of interventions based on the principles of growth-mindset can promote persistence and hard work in the context of learning difficulty, reinterpreting failure as a part of the educational experience. In addition, custom-made learning strategies to adjust the level of difficulty of quantitative tasks to the current competence of a student can maximize challenge, which will strengthen control and break the vicious circle of low control and high anxiety (Mendes et al., 2025).

Understanding the fear of numbers – The emotional dimension

The second approach is how the course grading is organized to give more emphasis to homework compared to test scores to decrease the level of test anxiety by giving students a better level of control over their academic performance (Mendes et al., 2025). This strategy follows control-value theory which assumes that the cause of anxiety occurs when a student values a topic highly but feels that he/she has no control over their performance thus creating the fear of failure (Bajrami et al., 2025). As a result, giving students a chance to master under different examinations will improve self-efficacy and offset anxiety linked to high-stakes assessments (Bajrami et al., 2025).

Also, the creation of a positive and interactive learning process through gamification, examples to which learners can relate, and innovative technologies can significantly enhance student engagement and decrease the level of academic anxiety (Li et al., 2025). The strategies that can help to achieve this goal include promoting good interactions, providing constructive feedback, and facilitating active engagement in mathematical tasks, which, in turn, will help to develop a deeper interest towards the subject because it will allow situating it in the context of real-life. The focus on practical relevance can help students feel that quantitative finance is not as abstract and distant, thus reducing the emotion-related barriers associated with the material involving numerical values (Li et al., 2025). Cognitive-behavioral interventions provide a viable option in addressing these emotional obstacles by allowing students to recognize and confront detrimental lines of thought regarding quantitative tasks, which then helps in making a more objective judgment of mathematical problems.

These interventions can enable students to develop coping strategies that would help them change the anxiety-inducing situations into skills development and self-improvement opportunities (Ojo et al., 2023). This purpose of controlled exposure is to desensitize students to perceived threats and thus reducing anxiety and raising problem-solving skills, which is similar to the purpose of controlled exposure in clinical psychology to reduce fear and avoidance behaviours (Ojo et al., 2023). Applied to quantitative finance education, this process of desensitisation can create a deeper and more permanent reduction of math anxiety, which

will help students become better involved in the matter of study and build strong analytical skills. Cognitive-behavioral interventions have proved to have a transformational effect on students, who have developed a new perception of mathematics, providing interventions that relieve depression and anxiety (Ojo et al., 2023).

The interventions are based on Cognitive Behavioural Therapy (CBT) and are aimed at managing the maladaptive patterns of thinking and encouraging adaptive behaviours, which results in a more positive mindset and improvement of mathematical self-efficacy (Li et al., 2025; Ojo et al., 2023). This process can include confronting negative beliefs about abilities and replacing them with more realistic and constructive thoughts that can significantly affect the process of learning by enhancing motivation and interest (Ojo et al., 2023). Besides, the implementation of CBT in schools, despite the existing resource constraints, could have a powerful positive effect on the emotional control and academic performance of students, as it will help them to rethink their attitude to mathematical problems and acquire efficient coping skills (Li et al., 2025; Ojo et al., 2023).

Reflection: My Early Teaching Experiences

Another noteworthy element of the cognitive restructuring of Cognitive-Behavioral Interventions (CBIs) is the deliberate redefinition of the perception of students about their mathematical skills that should allow them to experience the shift in how their mindset is fixed to growth-oriented (Ojo et al., 2023). The result of this reframing is that students will learn to appreciate any challenge as a developmental opportunity and not an impossible challenge, which will help them become more resilient and persistent when it comes to academic challenges (Ojo et al., 2023). Cognitive restructuring aims at changing negative beliefs about one's mathematical ability and chance to succeed, developing a more positive and development-focused attitude (Ojo et al., 2023).

CBIs can be efficient in reducing the disabling effects of math anxiety by targeting these highly ingrained cognitive patterns, which allows students to have a more productive experience with quantitative finance topics (Ojo et al., 2023). Such a change of attitude is usually followed by the increase of self-efficacy, as students start believing in their ability to learn complex concepts and overcome academic challenges (Ojo et al., 2023). In addition, the combination of mindfulness exercises and other psychological interventions with cognitive-behavioral strategies can also be a complete solution to reducing anxiety and academic stress in mathematics and creating an environment that allows academic success and well-being (Mendes et al., 2025; Morales-Rodriguez and Rodriguez, 2024). These interventions often provide students with instrumental resources to oppose irrational and maladaptive thinking allowing them to adopt more adaptive and positive cognitive models regarding quantitative subjects.

This restructuring process will help students recognize and address their cognitive distortions, including the belief that they are not a math person by nature, and thus help them have more accurate and positive self-evaluation of their mathematical abilities. It can trigger significant changes in math grades and standardized test scores that can be explained by the decrease in math anxiety and the rise in self-efficacy (Ojo et al., 2023). The transformative process thus changes the attitude of students towards mathematics as it systematically combats cognitive distortions, irrational beliefs, and negative self-conversation and therefore improves academic performance (Ojo et al., 2023).

Cognitive-behavioral therapy, mindfulness and growth-mindset interventions are helpful in helping students to attribute their gains and losses to their efforts and strategies, resulting in a realistic but positive self-concept by re-branding failures as learning opportunities. The most crucial part of this re-evaluation is to teach the students to recognize certain circumstances or triggers that elicit negative thoughts and in such a way, students will be able to take the

responsibility to deal with these emotions proactively. The growth of effective study habits, goal setting, and self-monitoring are also the focus of these interventions, which will all enable students to manage their time effectively and monitor their progress in solving complex mathematical problems (Ojo et al., 2023). The resultant integration of the same strategies, in addition to eliminating the current anxieties, is proactive in establishing resilience to future academic stressors and creating a sustainable learning environment (Ojo et al., 2023; Alhur, 2025). In addition, systematic use of techniques of cognitive reappraisal where students are taught to think in a more objective or even positive way about academic stressors, has been demonstrated to decrease anxiety and improve performance in math-related tasks.

Emotional Intelligence in Quantitative teaching

In this part, the discussion focuses on the way emotional intelligence development can prepare students with more efficient coping strategies in the high-pressure academic environment, which will enhance their performance in the field of quantitative finance. Emotional intelligence leads to a deeper self-perception and inspirational drive, thereby enhancing the desire to work in STEM subjects and inspire more effort, dedication, and intrinsic fascination that positively affect academic performance.

Growth in emotional intelligence may make a significant reduction in math anxiety and improve the attitude towards mathematics and statistics, as demonstrated by the studies that use artificial intelligence-based analyses (Morales-Rodriguez and Rodriguez, 2024). Also, emotional intelligence-focused interventions including emotional awareness, empathy, and stress management workshops have proven to be effective in promoting academic success (Alhur, 2025). These results highlight the importance of considering emotional-intelligence training within the quantitative-finance programs, allowing the students to control their emotions, manage the academic stress, and improve the total achievement (Morales-Rodriguez and Rodriguez, 2024).

Emotional barriers in the field of STEM can also be mitigated by a comprehensive approach that includes the use of individualized academic counselling and the acquisition of self-awareness and self-regulation capabilities (Ojo et al., 2023). This is particularly relevant in STEM-intensive environments that are highly demanding and require students to have emotional intelligence, which would enable them to effectively contribute to group projects, foster networks, and handle stress without deteriorating their mental health due to challenging courses (Li et al., 2025). Academic stress has a significant negative impact on the well-being and academic success of students, which can be reduced by the resilience and emotional regulation developed with the help of emotional intelligence (Morales-Rodriguez and Rodriguez, 2024).

School settings often present significant stress factors, including large workloads and strict deadlines, that are likely to deteriorate performance in case students do not have good coping strategies. Emotional intelligence will enable students to embrace solution-focused approaches and be able to redefine stressful situations and stay goal-oriented (Bajrami et al., 2025). The students who have a greater level of emotional intelligence have a better opportunity to cope with the cognitive and affective challenges of complex quantitative courses, leading to higher academic performance and higher likelihood of perseverance in their studies (Li et al., 2025). This is explained by the increased trait emotional intelligence that enables the successful emotional regulation, giving the students the opportunity to cope with academic stress, negative emotions, including frustration and anxiety, and thus maintain focus and perseverance (Bajrami et al., 2025).

The active management of emotional conditions is crucial to allowing students to participate in critical thinking and solve complex problems that are required in quantitative finance, thus improving the understanding and practice of difficult concepts (Li et al., 2025). The forecasting

nature of the emotional intelligence and academic engagement relationship suggests that the development of emotional intelligence would help students to control negative emotions that would otherwise hinder their learning process (Morales-Rodriguez and Rodriguez, 2024). In addition, sub-elements of emotional intelligence, including self-awareness and self-regulation, have been demonstrated to have a direct positive effect on goal setting and stress management, and intrinsic motivation encourages the persistence of challenging academic activities (Ojo et al., 2023).

Research has always shown that students with a better emotional intelligence score have better academic performance, interpersonal capabilities, resilience, and motivation, thus supplementing cognitive intelligence in the educational setting (Alhur, 2025). To be more precise, emotional intelligence is a powerful predictor of college success in a modern challenging educational environment and has an impact on learners of any academic level. These emotional skills will be essential to navigate through difficult academic issues, promote a positive learning experience and lead to a higher academic performance (Alhur, 2025). Being able to understand and control personal feelings and at the same time identify and react to the feelings of others allows the students to stay positive and cope with stress effectively as well as adjust to the changing situations and challenges.

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ENCOURAGING STUDENT ENGAGEMENT THROUGH STRATEGIC LEARNING CHALLENGES

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Engaging students in active learning is a critical aspect of effective pedagogy, particularly in courses where conceptual understanding and vocabulary acquisition are essential. In this study, structured learning challenges were implemented with pre-diploma students at UiTM Segamat who were enrolled in the Introduction to Business course. The aim was to enhance student engagement while supporting the intended learning outcomes. This approach reflects the use of game design elements in non-game educational settings to enhance learner engagement and participation (Deterding et al., 2011).

Over a four-week period, a series of carefully designed activities were integrated directly into the teaching process. Each activity aligned with the course syllabus but allowed flexibility to accommodate students' diverse learning needs. The tasks were designed to scaffold learning progressively, moving from basic recall exercises to more complex problem-solving and application-based challenges. This structured approach promoted participation, collaboration, and critical thinking, while helping students develop a deeper understanding of key business concepts. The incorporation of structured and interactive tasks aligns with gamification principles, which aim to make learning experiences more engaging and motivating for students (Deterding et al., 2011)

By examining the implementation process, student responses, and pedagogical outcomes, this study highlights the potential of strategic learning challenges as an effective method for fostering engagement and meaningful learning in lower-level business education contexts. The findings provide insights into designing interactive learning strategies that are both academically rigorous and motivating for learners.

Week 1: Introduction to Business

The first week focused on introducing students to foundational business terminology through a structured word puzzle activity. Key terms such as business, profit, and entrepreneurship were incorporated into the task. The activity began with a brief explanation of the terms and a demonstration of how to complete the puzzle, ensuring that students were familiar with the mechanics of the task before attempting it independently.

Initially, students demonstrated hesitancy and reliance on the lecturer for guidance, likely due to prior exposure to traditional lecture-based instruction. To address this, students were divided into small groups, promoting peer support and collaborative problem-solving. The lecturer encouraged discussion within groups, prompting students to explain their reasoning and clarify misunderstandings. This collaborative approach helped students gradually build confidence and reduced anxiety associated with the unfamiliar task format.

As the activity progressed, an increase in interaction, discussion, and shared problem-solving was observed. Students began to actively assist one another, demonstrating early signs of intrinsic motivation as they engaged with the material for personal satisfaction rather than for external rewards. Students' increased participation throughout the activities indicates the development of intrinsic motivation, where learning is driven by interest and personal satisfaction rather than external rewards (Ryan & Deci, 2000). The activity also provided opportunities for immediate feedback, with the lecturer circulating among groups to offer guidance, correct misconceptions, and reinforce understanding of key terms.

The Week 1 activity served multiple purposes beyond vocabulary familiarisation. It introduced students to active learning strategies, encouraged social interaction, and highlighted the value

of peer support in comprehension. By integrating a structured challenge early in the course, students were better prepared for more complex tasks in subsequent weeks.

Week 2: Types of Business Ownership
In the second week, students engaged in a word search activity focused on the topic Types of Business Ownership. Key terms such as sole proprietorship, partnership, and corporation were embedded in the puzzle, encouraging students to recognise and recall important concepts related to business structures.

To begin, students were divided into small groups and given instructions on how to complete the word search efficiently. The lecturer emphasised the importance of collaboration, suggesting that students discuss and share strategies for locating terms. This group-based approach facilitated peer learning, as students who quickly identified certain terms assisted those who faced difficulty. Such interaction promoted not only comprehension but also social engagement, fostering a sense of community within the classroom. The collaborative nature of the activity supports intrinsic motivation, as students engage actively through peer interaction and shared problem-solving rather than relying solely on external instruction. (Ryan & Deci, 2000)

Compared to Week 1, students exhibited higher confidence and greater willingness to participate. The word search activity, while simple, provided a low-pressure environment that allowed students to actively engage without fear of making mistakes. This gradual increase in task difficulty and complexity contributed to building intrinsic motivation, as students experienced both challenge and achievement.

The activity also incorporated elements of formative assessment, as students were encouraged to reflect on the terms they found and explain their relevance to the topic. The lecturer provided immediate feedback and clarifications, ensuring that misconceptions were addressed in real time. This practice reinforced understanding and helped students connect vocabulary with broader concepts of business ownership.

Moreover, the word search activity supported cognitive engagement by requiring students to focus attention, recognise patterns, and recall terminology, while also encouraging social engagement through discussion and collaboration. By participating actively, students were not only learning terminology but also developing problem-solving skills and teamwork strategies, which are critical competencies in business education.

Week 3: Management Concepts
During the third week, students participated in a matching activity designed to deepen their understanding of key management concepts. Students were required to pair terms such as planning, organizing, leading, and controlling with their respective definitions. Unlike the previous weeks, this task demanded a higher level of cognitive processing, as students needed not only to recall terms but also to analyse and apply their understanding to make accurate matches. The use of structured and interactive tasks reflects gamification principles, where elements of challenge and active participation are incorporated to enhance engagement and learning effectiveness. (Deterding et. al, 2011).

To facilitate engagement, students were organised into small groups, encouraging discussion and debate over the correct pairings. This collaborative approach allowed students to articulate their reasoning, justify their answers, and negotiate differing viewpoints, fostering both conceptual understanding and critical thinking skills. The lecturer circulated among groups, providing timely guidance, prompting deeper analysis, and ensuring misconceptions were addressed.

Compared to earlier weeks, in Week 3 student confidence and active participation increased. Students were more willing to take initiative, discuss alternatives, and support peers who were struggling. The structured nature of the task provided a clear challenge that was achievable yet stimulating, promoting intrinsic motivation and a sense of competence.

Week 4: Branding and Marketing Concepts

In the fourth week, students engaged in a clue-based logo recognition activity designed to connect theoretical knowledge of branding and marketing concepts with real-world applications. Students were presented with logos of well-known companies and asked to identify the corresponding brands, linking visual cues to concepts such as brand identity, market positioning, and consumer perception.

To promote engagement, students worked in small groups and were encouraged to discuss the clues collaboratively. This activity required not only recognition skills but also analytical thinking, as students had to connect abstract marketing concepts with concrete examples from the business world. Peer discussion played a key role, as students shared insights, justified their reasoning, and collectively resolved ambiguities. The lecturer acted as a facilitator, circulating among groups to provide hints, prompt deeper reflection, and clarify misunderstandings.

Week 4 demonstrated the highest level of student engagement throughout the four-week period. Students showed enthusiasm in identifying logos, actively debated their reasoning, and related the activity to prior knowledge from earlier weeks. The task's connection to real-world business applications heightened intrinsic motivation, as students could see the relevance and practical value of what they were learning. By linking theory to practice, the activity supported meaningful learning and reinforced retention of key concepts.

The tasks were designed progressively, beginning with basic recall activities and advancing to complex problem-solving exercises, which effectively scaffolded students' learning. By aligning the challenges with the syllabus, the activities became meaningful tools that reinforced understanding rather than serving merely as engaging exercises. Feedback from students indicated that the challenges made learning more enjoyable, easier to comprehend, and encouraged active participation. Suggestions for improvement, including the incorporation of multimedia or the simplification of certain tasks, emphasised the importance of continuously adapting teaching strategies to meet diverse learner needs. The emphasis on collaboration and progressively challenging tasks supports key motivational factors such as autonomy, competence, and relatedness, which are essential for sustaining student engagement. (Ryan & Deci, 2000)

Overall, the structured learning challenges successfully fostered student engagement, illustrating the potential of strategically designed activities to enhance motivation, collaboration, and understanding in lower-level business education contexts.

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REFLECTIONS ON BASIC ECONOMETRICS: CHALLENGES, STRATEGIES, AND INSIGHTS

Tan Yan Ling, Nurulashikin Romli, Jannah Munirah Mohd Noor

Introduction

Econometrics is the bridge between economic theory, mathematics, and statistics, allowing economists to work with real-world data. According to Gujarati and Porter (2009), econometrics is "economic measurement", with the use of statistical techniques and mathematical models on economic data to test the economic theory empirically. Generally, it combines economic theory, mathematical economics and statistical inference to provide numerical values for parameters, moving beyond qualitative relationships to quantitative analysis.

Most fields use econometrics to look at data, test ideas, and make decisions based on facts. It aids in market, pricing, and risk forecasting in the fields of business and finance. It also measures inequality and facilitates better resource allocation in relation to economic development and public policy. It is also vital in environmental, labour, and urban economics to study sustainability, employment, and the housing market to enable effective planning and policy.

However, teaching basic econometrics can be challenging. Students have to learn theory, mathematical formulations, statistical reasoning and practical approaches simultaneously. In contrast to theoretical economics, econometrics focuses on applying abstract theoretical concepts to actual data, interpreting results and evaluating the strength and validity of the evidence obtained. In its simplest form, econometrics uses real data to measure relationships. Accordingly, Table 1 presents the examples of econometrics applications in economics, finance, and management fields.

Over the years, teaching of econometrics has placed emphasis on the need to have a holistic pedagogical approach that integrates theory, mathematics, statistics and applied methodology. Nevertheless, students often have issues with creating a logical connection between an economic speculation and its empirical confirmation by the use of data, regression models and statistical deductions. Observations reveal some misunderstandings in the areas of hypothesis testing, estimation techniques, and regression coefficient interpretation.

Challenges

Educators often face several inherent challenges in teaching basic econometrics. This involves [a] conceptual abstraction (He & Liu, 2020): The most common foundational concepts that many students have problems with are the stochastic error term, assumptions of the classical linear regression model, multicollinearity, heteroscedasticity and autocorrelation; [b] mathematical rigor: Econometrics is extensively based on algebra, calculus, and probability theory. The derivations of estimators, calculations of variance and hypothesis testing formulas may be difficult for students with lower mathematical backgrounds; [c] statistical interpretation: p-values, confidence intervals and t-statistics may be difficult to understand. The wrong interpretation can cause students to draw inaccurate conclusions; [d] bridging theory to practice: Students still cannot understand how the results of regression can be used to answer the questions of the real-world economy, even after they have learned the formulas. Such a disconnect between theory and empirical use tends to decrease learning motivation; [e] technological integration: Contemporary econometrics requires familiarity with statistical software like R, Stata, Eviews or Python. It is daunting to teach econometric theory and software simultaneously; [f] student engagement: Econometrics courses are usually packed with information, and this overload can make the students disengaged when the only teaching method is lectures. Therefore, it is important to address these challenges by reflecting on the

teaching strategies, methods for improving comprehension and integrating practical examples into econometrics instruction.

Field	Objective	Theory Used	Historical data	Econometrics approach	Method	Interpretation
Economics	To measure the responsiveness of quantity demanded to a change in price.	Law of Demand	Price and sales data	QD = a + b*P + e	SR	For every 1 RM increase in price, 20 kg less is bought
	To examine how consumer expenditure varies with changes in income.	Consumption Theory	Household income and spending data	Consumption = a + b*Income + e	SR	People spend 10% of their additional income on groceries
Finance	To estimate the sensitivity of stock returns to movements in market returns and interest rates.	Capital Asset Pricing Model	Historical stock and market index returns	Ri = a + b*Rm + e	SR	Stock rises 1.5% for every 1% increase in market return
	To assess the effect of economic factors on investment performance	Efficient Market Hypothesis	Stock returns and central bank interest rate data	Ri = a + b1*Rm + b2*I + e	MR	1% increase in interest rates reduces stock return by 0.10%
Management	To assess the effect of training programs on employee performance.	Human Capital Theory	Training hours and sales	Sales = a + b*TrainingHours + e	SR	Each additional hour of training increases sales by 5 units
	To determine the influence of incentives on employee performance.	Motivation Theory	Employee bonus and output records	Output = a + b*Bonus + e	SR	A 10 RM bonus increases output by 2 units

Table 1: Examples of Econometrics Applications in Economics, Finance, and Management Fields

Notes: SR = Simple Regression, MR = Multiple Regression

Objectives

The overall objectives of the reflective work are [a] reflect on teaching methods by examining methods of teaching econometrics, mathematical derivations, statistical foundations and applied techniques; [b] improve conceptual knowledge by providing insights for students to understand methods that assist them in understanding complex econometric concepts and their mathematical or statistical backgrounds; [c] bridge theory and practice by showing how economic theory can be used when solving empirical problems with real or simulated data; [d] test teaching tools through the efficiency of using teaching aids, such as AI-assisted material, software demonstrations and graphical representations; and [e] develop critical thinking

abilities by asking students to critically interpret the results of regression and interpret them in terms of economics.

Approaches and strategies

Several approaches and strategies can be used to analyze effective teaching practices in basic econometrics. The former approach is active involvement and experiential learning through emphasis on student engagement, hands-on problem-solving and application of theory to practice. This approach is connected to the classroom observation strategy that enables the instructor to evaluate the level of student engagement and participation by observing students in lectures, tutorials and laboratories. For example, observe students' ability to interpret a regression slope or residual plot during class. The advantage of this strategy is that the educator can identify learning gaps, modify the teaching, and enhance interaction. The alternative strategy in this approach is Problem-Based Learning (PBL). PBL is to implement theory in real data and to formulate problem-solving skills. It is implemented by providing datasets including questions, and then students formulate hypotheses, perform regressions, and interpret results. An example is estimating the impact of training hours on sales using a dataset. This type of teaching is beneficial because it helps students to think critically, links theory and practice, and enhances retention.

The second approach is technology-enhanced and visual learning (Dang, 2025). This can be achieved by combining the strategies of software integration, graphical and mathematical illustrations and AI-assisted drafting. The purpose of applying statistical software, visual tools and AI-assisted content is to make abstract econometric concepts more concrete and interactive. These can be executed by employing R, Stata, EViews, or Python software (Llorent-Jurado & Ordaz Sanz, 2026). This method gets students ready for real-world situations by having them focus on interpretation instead of manual calculation. On the other hand, graphical and mathematical illustrations can be applied by visualizing abstract concepts and reinforcing theory, using step-by-step derivations, plots of regression lines and residuals. For instance, a scatterplot of sales versus training hours with a regression line also can be used for making further comparison. Subsequently, this enables students to make abstract concepts tangible, reinforces understanding and links theory and intuition. By using this strategy, the educators can save preparation time, provide varied examples and customize difficulty.

The final approach is associated with ongoing feedback and reflective practice, by discovering gaps in student learning, adapting instruction and improving teaching through reflection. The feedback mechanisms are fulfilled by identifying understanding gaps and evaluating teaching effectiveness through surveys, questionnaires, discussions, and analyzing patterns of misunderstanding. The example is surveying students' confidence in interpreting p-values. This strategy can be used to provide continuous improvement, tailored teaching, and student engagement. Furthermore, there is reflective journaling, which entails documenting teaching experiences to enhance teaching. The instructors will be able to maintain observations in the classroom, challenges and students' responses. The educator observes that students have difficulties in interpreting dummy variable coefficients and prepares additional examples for the following session. The method supports educators and instructors in their ongoing growth and improvement of teaching methods over time. In sum, these approaches and strategies are core to overcoming challenges.

Findings

Through years of teaching basic econometrics, several key reflections emerged. Firstly, engagement through active, blended, collaborative and iterative learning (Cladera, 2024). This is because active and experiential learning can enhance understanding directly. Active engagement and interaction with both theory and practice optimizes student learning. Visualization, step-by-step derivations, hands-on problem solving, iterative feedback and

collaborative exercises all reinforce comprehension and confidence. For example, plotting regression lines and residuals alongside algebraic formulas can enhance comprehension. Problem-solving sessions, software exercises and hands-on analysis of datasets help students internalize concepts better than passive lecture formats. Continuous feedback on regression exercises, hypothesis testing, and statistical interpretation strengthens student confidence and reduces misunderstandings. Group exercises, peer review of regression outputs and class discussions improve critical thinking and help students articulate and defend their interpretations.

Secondly, integrating theory, data and tools for practical relevance. This is because connecting theory to practice can make learning relevant. Linking theoretical econometric concepts to real data and applied software exercises helps students appreciate practical relevance. Software skills and AI tools can support this learning, but they must complement, not replace for conceptual understanding. For instance, connecting theoretical econometric assumptions to observable patterns in real data such as testing for multicollinearity using variance inflation factors, can help students see practical relevance. Familiarity with statistical software enhances learning, but instructors must carefully balance teaching software mechanics and econometric theory. Overemphasis on coding or commands may distract from conceptual understanding. AI-generated examples and problem set help save time and provide diversity in exercises. However, the educator's guidance remains crucial to ensure accuracy, interpretability and alignment with learning objectives.
Lastly, tailored support to overcome learning challenges. This implies that addressing student challenges involves structured support. For instance, students with poor mathematical or statistical foundations often experience problems with derivations and assumptions. Therefore, targeted tutorials, guided exercises and structured learning approaches are necessary to help these students build competence and confidence.

Conclusion and Recommendations

This reflection explores the practice of teaching in econometrics with a particular focus on methods that promote student learning and studying. One of the most significant problems is that students are more likely to experience difficulties in abstract derivations, model assumptions, and balancing software use with conceptual learning, particularly students with a lower quantitative background. The purpose of this reflection is to identify effective strategies that facilitate the ability to make a connection between theory and practice and contribute to the needs of various students. The practices cover a combination of visualization, active learning activities, application to real-world data, group activities, feedback loops and software and AI implementation. These findings indicate that active and experiential learning, practical relevance and customized support are important contributors to learning in econometric studies in terms of understanding, confidence and critical thinking.
The consideration of teaching basic econometrics highlights the role of integrated and student-focused pedagogy. Key suggestions are that educators should combine theory, visualization, and practice, using graphical representations and mathematical derivations, using real datasets and case studies, and maintain a balance between software and theory. In addition, educators can promote active, collaborative, and reflective learning by fostering practical problem solving and peer learning, relying on discussions and group work, and maintaining reflective practice while adapting based on feedback. To keep track with the current technology world, educators can apply AI in teaching, including the use of AI to generate examples and exercises with educator oversight, to ensure alignment with learning objectives, and acknowledge AI assistance transparently.

By adopting these recommendations, educators can enhance student engagement with basic econometrics and ensure that students not only understand the mathematical and statistical models but can also apply them to solve real-life economic questions.

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SMART DIVERSIFICATION: TEACHING STUDENTS HOW TO BUILD RESILIENT PORTFOLIOS IN UNCERTAIN MARKETS

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Introduction: Beyond Teaching Investment Theory

Teaching portfolio management is more than explaining formulas, efficient frontiers, or risk and return relationships. For many students, investment concepts initially appear theoretical and disconnected from their daily lives. Terms such as diversification, asset allocation, and portfolio optimisation often remain theoretical unless they are connected to real market experiences.

As a lecturer in Portfolio Management, one of my recurring reflections is how to help students truly understand the importance of diversification, not merely as a textbook concept but as a practical strategy for managing uncertainty. Financial markets today are characterised by inflation shocks, interest rate volatility, geopolitical risks, technological disruptions, and unexpected crises such as the COVID-19 pandemic. These realities make diversification more relevant than ever. Diversification strategies have long been recognised as important tools for managing investment risk and improving portfolio stability in uncertain market environments (Munizu et al., 2024; Syahputra, 2023).

However, teaching diversification effectively requires more than delivering lectures. Students need to see how diversification works in practice, how different assets behave during market fluctuations, and how investors manage risks through thoughtful portfolio construction. This chapter reflects on my teaching journey in introducing diversification concepts to students and how experiential learning approaches have helped transform their understanding of portfolio management.

Understanding Diversification in Portfolio Management

Diversification is one of the most fundamental principles in investment management. The concept refers to spreading investments across different assets in order to reduce overall portfolio risk. Instead of concentrating funds in a single asset or sector, investors allocate their capital among various asset classes such as equities, bonds, commodities, and other financial instruments.

The logic behind diversification is based on the relationship between risk and return. While investors seek higher returns, they must also manage the uncertainty associated with market movements. According to Modern Portfolio Theory introduced by Markowitz (1952), portfolio risk can be reduced when assets that are not perfectly correlated are combined within a portfolio. In other words, losses in one asset may be offset by gains in another.
This principle has been widely discussed in contemporary studies, which emphasise that diversification across asset classes and investment instruments can help investors manage market uncertainty while maintaining portfolio performance (Munizu et al., 2024; Syahputra, 2023).

For students learning portfolio management, diversification often appears straightforward in theory but complex in practice. They frequently assume that holding many stocks automatically reduces risk. However, diversification is not simply about increasing the number of assets. It requires careful consideration of asset correlations, market conditions, and investment objectives. Helping students move from theoretical understanding to practical application therefore becomes an essential teaching challenge.

Bringing Diversification to Life in the Classroom

One teaching strategy that has proven effective is incorporating real market examples into classroom discussions. Instead of presenting diversification solely through formulas and diagrams, students are asked to analyse how diversified portfolios perform during actual market events.

For instance, during discussions on market volatility, students examine how different asset classes responded during the COVID-19 pandemic. While global equity markets experienced sharp declines in early 2020, certain assets such as gold and government bonds showed different patterns of movement. Through these observations, students begin to see how diversification helps cushion portfolio losses.

Another classroom activity involves group-based portfolio construction exercises. Students are assigned the task of building a hypothetical investment portfolio with a limited budget. They must decide how to allocate their funds across several assets while considering expected return and risk levels.

Experiential learning approaches such as portfolio simulations and trading activities have been shown to enhance students' understanding of financial markets by allowing them to apply theoretical concepts in a more practical investment environment (Aimi & Arismaya, 2025; Parle & Laing, 2017).

Interestingly, these exercises often reveal how students initially prefer concentrating their investment in familiar companies or trending stocks. Over time, through discussions and feedback, they gradually realise that diversification requires balancing potential returns with risk exposure. Such experiences demonstrate that learning portfolio management is not only about mastering analytical tools but also about developing an investment mindset.

Lessons Learned from Teaching Diversification

Reflecting on several semesters of teaching Portfolio Management, I have observed three key lessons about how students learn diversification. First, students understand diversification better when they can visualise risk. Graphs, portfolio simulations, and real market data help them see how risk changes when assets are combined. When students observe that portfolio volatility decreases through diversification, the concept becomes more tangible.

Second, experiential learning encourages deeper engagement. When students construct their own portfolios, they begin to appreciate the trade-offs involved in investment decisions. They realise that portfolio management involves judgement, discipline, and strategic thinking. Learning activities such as portfolio simulations can strengthen students' analytical and decision-making skills in finance education (Parle & Laing, 2017).

Third, discussions about diversification often open broader conversations about financial responsibility and long-term planning. Many students start reflecting on their own future investments, savings behaviour, and risk tolerance. In this sense, teaching portfolio management extends beyond academic learning and contributes to financial literacy (Aimi & Arismaya, 2025). These reflections remind educators that effective teaching requires connecting theory with lived experiences.

The Human Side of Teaching Finance

Finance and Investment education is sometimes perceived as highly technical, focusing heavily on models, formulas, and quantitative analysis. While these tools are important, the human dimension of teaching should not be overlooked.

In the context of portfolio management, students often bring diverse perspectives and financial backgrounds into the classroom. Some students may already have experience investing in stocks or cryptocurrencies, while others may be encountering financial markets for the first

time. A supportive learning environment allows students to share their views, question assumptions, and learn from each other's experiences.

Teaching diversification therefore becomes a collaborative learning process. As educators, we guide discussions, provide analytical frameworks, and encourage critical thinking. At the same time, students contribute insights that enrich classroom dialogue.

This interaction highlights the relational nature of teaching and learning. The classroom becomes not merely a place to transmit knowledge but also a space where curiosity, reflection, and intellectual growth take place.

Conclusion

Diversification remains a key principle in portfolio management, yet teaching it effectively requires more than presenting theoretical models. Students learn best when concepts are connected to real-world experiences, practical exercises, and reflective discussions.

Through classroom simulations, real market analysis, and collaborative learning activities, diversification becomes a meaningful concept rather than an abstract theory. These approaches help students understand how investors manage uncertainty and build resilient portfolios in volatile markets.

More importantly, the teaching journey itself provides valuable reflections for educators. It reminds us that finance and investment education is not only about numbers and models but also about guiding students to think critically, make informed decisions, and develop confidence in navigating financial complexity.

Ultimately, teaching portfolio management goes beyond lectures. It involves nurturing curiosity, encouraging responsible financial thinking, and preparing students to face the uncertainties of the investment world.

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EMPOWERING FINANCIAL LITERACY: THE ROLE OF EDUCATORS AS MENTORS AND GUIDES IN FINANCIAL PLANNING

Aflah Isa, Nik Nur Shafika Mustafa, Nurul Aien Abd Aziz

Introduction

Financial literacy has become an essential life skill in the modern world. In an increasingly complex financial environment, individuals are required to make a variety of financial decisions related to spending, saving, borrowing, and investing. From our teaching experience, we have observed that many students enter adulthood without a clear understanding of how to manage their personal finances effectively. This lack of financial knowledge often leads to financial stress, poor money management habits, and difficulties in making responsible financial decisions. Therefore, financial education plays an important role in preparing individuals to deal with real-world financial responsibilities.

In a teaching context, we teach the course FIN533: Personal Financial Planning, which focuses on developing students' knowledge and practical skills in managing their personal finances. The course introduces students to important financial planning concepts such as budgeting, saving, debt management, insurance planning, investment decisions, and retirement planning. Through this subject, students are encouraged to understand how financial planning can support individuals in achieving both short-term and long-term financial goals. Teaching FIN533 also allows me to guide students in applying financial planning principles to their own financial situations, enabling them to become more aware of their financial behaviors and responsibilities.

As educators, we have realized that our responsibility goes beyond delivering theoretical knowledge in the classroom. I also act as a mentor and guide who helps students understand how financial concepts relate to their personal lives. By using practical examples such as budgeting, saving for future goals, and managing allowances, students begin to appreciate the importance of financial planning. These practical applications help students build confidence in managing their finances and encourage them to develop responsible financial behaviors (OECD, 2020; Lusardi, 2021).

Importance of Financial Literacy

Financial literacy refers to the ability to understand and use financial knowledge to make effective financial decisions. These decisions may involve managing income, controlling expenses, saving money, and planning for future financial needs. In today's financial environment, individuals are exposed to a wide range of financial products such as loans, credit cards, insurance, and investment opportunities.

Many students lack exposure to financial management during their early years. As a result, they may develop unhealthy financial habits such as overspending, poor saving behavior, or dependence on credit without understanding the long-term consequences. Financial literacy education helps address this problem by equipping students with the knowledge and skills necessary to manage their finances responsibly.

Studies have shown that individuals with higher levels of financial literacy are more likely to demonstrate positive financial behaviors such as budgeting, saving regularly, and avoiding excessive debt (Lusardi, 2021). Therefore, introducing financial literacy education in classrooms is an important step in preparing students for financial independence.

Furthermore, school-based financial education programs have been found to positively influence students' financial knowledge and financial behavior. Research suggests that

structured financial education can improve students' understanding of financial concepts and strengthen their ability to make better financial decisions in the future (Kaiser & Menkhoff, 2020).

Educators as Mentors

Educators play an important role as mentors who guide students in developing financial knowledge and responsible financial attitudes. Mentorship involves providing guidance, encouragement, and support that help students understand financial concepts more clearly. In our teaching experience, we often share examples related to everyday financial situations such as managing allowances, saving money for personal goals, and preparing for unexpected expenses. These examples help students connect theoretical concepts with real-life situations. When students see how financial planning applies to their daily lives, they become more motivated to learn about financial management.

Mentorship also allows educators to influence students' attitudes toward money. Financial behavior is influenced not only by knowledge but also by personal habits, values, and attitudes. Through discussions and guidance, educators can help students develop positive financial attitudes such as responsible spending, disciplined saving, and thoughtful decision-making.

When students feel supported by educators, they are more willing to ask questions and participate in classroom discussions. This interaction creates a collaborative learning environment where students learn not only from their educators but also from the experiences of their peers. Research indicates that financial education programs combined with guidance and mentorship can improve individuals' financial capability and confidence in managing money (Xiao & O'Neill, 2021).

Educators as Guides for Individual Assignment

In addition to mentorship, educators also serve as guides who help students apply financial concepts through practical learning activities. One of the most effective approaches is through individual assignments that encourage students to analyze their own financial situations.

The individual assignment in our course required students to track their income and expenses, prepare simple financial statements, and create a monthly budget. Through this process, students were able to observe their spending patterns and reflect on their financial behaviors.

Many students initially viewed financial planning as a theoretical concept. However, when they began recording their daily expenses, they realized that small and frequent purchases could significantly affect their financial position. This activity helped students become more aware of their financial habits and understand the importance of controlling unnecessary spending.

Preparing financial statements such as personal balance sheets and cash flow statements also helped students evaluate their financial positions more critically. By identifying their assets, liabilities, and net worth, students gained a clearer understanding of how their financial decisions influence their overall financial stability.

The budgeting exercise further encouraged students to allocate their income more responsibly between needs, wants, and savings. This practical learning experience allowed students to see how financial planning can support long-term financial goals and improve financial discipline.

Educators as Guides for Group Assignment

From an educational perspective, the role of educators as guides is essential in helping students connect theoretical knowledge with real-life financial experiences. Through this assignment, students were encouraged to explore financial decision-making within their own

families and understand how financial behaviours differ across generations. As educators, guiding students through this learning process allows them to develop deeper awareness of how financial values, attitudes, and practices evolve over time.

During the project, students actively engaged in interviewing family members and analyzing financial stories from different generations. Many students initially assumed that financial decisions were purely based on income levels. However, through guided reflection and discussion, they discovered that financial behaviour is also influenced by cultural values, economic conditions, and personal experiences. This realization helped students appreciate the complexity of financial planning in real-life situations.

As guides, educators play an important role in encouraging students to critically analyze the information gathered from interviews and relate it to financial planning concepts learned in class. By asking reflective questions and facilitating discussions, educators help students identify key lessons such as the importance of saving habits, responsible borrowing, and long-term financial planning. These guided learning experiences help students move beyond simple observation to meaningful analysis.

Furthermore, the project allowed students to recognize how financial tools and practices have changed across generations. For example, older generations may rely more on traditional savings methods, while younger generations are more familiar with digital banking and e-wallet technologies. Through guided learning, students were able to reflect on these differences and consider how financial literacy can be strengthened for future generations.

Overall, this learning process highlights the importance of experiential learning in financial education. When students engage directly with real-life financial stories and reflect on their findings, they develop a stronger understanding of personal financial planning. As educators, guiding students through such reflective activities helps them build not only financial knowledge but also critical thinking skills and responsible financial attitudes.

This project allowed students to recognize that financial decision-making is shaped by both knowledge and life experiences. Global studies also show that financial literacy plays a key role in strengthening financial resilience and helping individuals cope with financial challenges (Hasler, Lusardi, & Yakoboski, 2022). By analyzing the financial experiences of different generations, students gained valuable insights into the importance of financial planning, responsible borrowing, and long-term saving strategies.

Reflective Insight from Teaching

From our perspective, financial literacy education becomes more meaningful when it is closely connected to students' personal experiences. Encouraging students to share stories about how they manage their allowances, part-time income, or daily expenses allows them to reflect on their financial behaviours. Through these discussions, students often realize that small spending habits can accumulate over time and influence their overall financial position. Such reflective activities help students become more aware of the importance of budgeting and responsible financial planning (Lusardi, 2021).

In our teaching experience, creating a supportive learning environment is essential in guiding students to openly discuss financial issues. When students feel comfortable sharing their financial experiences, peer learning naturally occurs. Students learn not only from the educators but also from the experiences and perspectives of their classmates. This collaborative learning process encourages critical thinking and helps students understand that financial decisions are influenced by personal values, lifestyle choices, and financial knowledge (OECD, 2020).

We have also observed that the integration of technology significantly enhances students' engagement with financial learning. The use of budgeting applications, online financial tools,

and financial simulation platforms enables students to visualize their spending patterns and evaluate different financial scenarios. These digital tools allow students to actively experiment with financial decisions, making the learning process more interactive and practical. Research suggests that technology-supported financial education can improve financial capability by providing experiential learning opportunities (Xiao & O'Neill, 2021).

Furthermore, guiding students through reflective activities helps them develop long-term financial awareness. When students analyze their own financial behaviours and compare them with recommended financial practices, they begin to recognize areas that require improvement. This reflective process encourages students to take greater responsibility for their financial decisions and motivates them to adopt more disciplined financial habits.

In addition, financial literacy education provides an opportunity for educators to cultivate lifelong learning attitudes among students. By guiding students to think critically about spending, saving, and investing, educators help them understand that financial planning is not only relevant during their student life but also throughout adulthood. As students begin to appreciate the importance of long-term financial goals, they become more motivated to develop sustainable financial practices.

Conclusion

Financial literacy is essential for managing money responsibly and achieving long-term financial stability. Educators play a critical role as mentors and guides, offering support, guidance, and practical learning opportunities that encourage responsible financial behaviours (Lusardi & Mitchell, 2014; OECD, 2020). By integrating reflective practices, personal experiences, and interactive exercises, educators can equip students with financial knowledge and skills that are directly applicable in real life. Strengthening financial literacy through education fosters both individual well-being and a more financially responsible society.

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PREPARING UNIVERSITY STUDENTS FOR FINANCIAL REALITY: ADDRESSING INVESTMENT SCAMS

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Introduction

In the world of investments, offers that appear 'too good to be true' are often the first warning sign of fraudulent schemes designed to exploit inexperienced investors. Investment scams have emerged as one of the most persistent and damaging financial crimes in Malaysia, posing serious threats not only to individual investors but also to the integrity and credibility of the financial system. With the rapid expansion of digital finance, social media marketing, and alternative investment platforms, fraudulent schemes have become increasingly sophisticated and difficult to detect. Despite regulatory efforts and public awareness campaigns, investment scams continue to record alarming growth in both the number of cases and the amount of loss. This situation highlights a critical gap in financial education, particularly among investment students, who represent the next generation of investors, financial advisors, analysts, and policymakers.

Investment students receive extensive training in investment analysis, portfolio management, and financial risk; however, there is comparatively limited focus on the recognition and comprehension of investment fraud. This omission is problematic, as technical knowledge alone does not protect individuals against scams. In the Malaysian context, where scam cases have escalated sharply recently, exposing investment students to the mechanics, psychology, and regulatory dimensions of investment scams is no longer optional but essential. This kind of exposure affords students real-world knowledge of risks and moral responsibility, which will help them protect themselves and others in their future jobs.

This article examines the importance of educating investment students about investment scams. It reviews the current landscape of investment scams in Malaysia, analyses why conventional financial education is inadequate without scam awareness and discusses how structured exposure to academic programmes can contribute to investor protection and financial system resilience.

The Rising Threat of Investment Scams in Malaysia

Investment scams have grown rapidly in Malaysia, both in scale and sophistication. Official statistics from the Royal Malaysia Police (PDRM) show that non-existent investment schemes and fraudulent investment offerings consistently rank among the top categories of commercial crime. In 2023 alone, more than 5,000 investment scam cases were recorded nationwide, with financial losses exceeding RM470 million. Reported losses grew significantly in 2024 and 2025, exceeding RM1 billion each year, due to more cases being reported and larger amounts of money being lost in individual scams, even with the #JanganKenaScam national awareness campaign launched in 2023 (PDRM, 2025).

A particularly concerning trend is the diversification of scam targets. While earlier investment scams predominantly affected retirees and individuals with limited financial knowledge, recent evidence indicates that younger, digitally literate individuals and professionals are increasingly victimised. Research and news stories show that victims include engineers, accountants, doctors, teachers, and people who have just graduated from college. This trend undermines the assumption that education alone is sufficient protection against fraud. It also suggests that scammers are adapting their strategies to appeal to more financially aware audiences, using technical jargon, data visualisation and fake credentials to appear legitimate (Juned et al., 2024).

The rapid digitalisation of financial services has made it easier for scammers to reach potential victims. Scammers now commonly use social media platforms like Facebook, Instagram, Telegram, and WhatsApp to promote fraudulent investment schemes. According to the Inspector-General of Police, online fraud cases, including fake investment schemes, accounted for around 80 percent of all reported commercial crime cases in Malaysia from January to September 2025. This emphasises how important it is to equip future investors with the ability to critically evaluate investment opportunities rather than rely on superficial signs of credibility.

Common Types of Investment Scams in Malaysia

Investment scams in Malaysia take multiple forms, often evolving in response to regulatory action and public awareness campaigns. One of the most prevalent forms is the nonexistent investment scheme, where promoters solicit funds for opportunities that have no underlying business activity or assets. These schemes often use fabricated testimonials, falsified performance records, and unlicensed representatives to attract investors.

Ponzi and pyramid schemes also remain common, particularly in environments where economic uncertainty increases demand for alternative income sources. In such schemes, early investors are paid returns using funds contributed by new investors, creating the illusion of profitability. Once recruitment slows, the scheme collapses, leaving the majority of participants with significant losses. Despite repeated warnings from regulators, these schemes continue to resurface under new branding and structures.

Recently, fraudulent cryptocurrency and foreign exchange (forex) investment schemes have grown rapidly. Scammers exploit the technical complexity of digital assets to obscure risks and mislead investors. Fake trading platforms, cloned websites of licensed firms, and manipulated mobile applications are used to simulate legitimate trading activity. These scams often target younger investors and students, making investment education institutions a critical frontline for prevention.

Another emerging threat is relationship-based investment fraud, commonly referred to as “pig-butchering” scams. These schemes involve long-term trust building through online interactions before introducing investment opportunities. Victims are gradually encouraged to invest increasing amounts over time, often believing they are dealing with trusted acquaintances rather than criminals. The psychological manipulation involved makes such scams particularly damaging and difficult to detect without proper awareness.

Vulnerability of Investment Students to Financial Scams

Investment students occupy a unique position of vulnerability. On one hand, they possess foundational knowledge of financial markets, which may create a sense of confidence in their ability to evaluate investment opportunities. On the other hand, their limited real-world experience exposes them to cognitive biases, such as overconfidence and confirmation bias. Scammers frequently exploit these biases by framing fraudulent investments in academic or technical language that resonates with students’ coursework.

Moreover, investment students are often actively seeking opportunities to apply their knowledge, whether through internships, side investments, or peer-to-peer trading communities. This proactive engagement with financial markets increases exposure to unverified investment offers. Without structured education on scam detection, students may struggle to differentiate between innovative financial products and fraudulent schemes.

Another factor contributing to vulnerability is the assumption that scam awareness is a basic life skill rather than a professional competency. As a result, scam education is often relegated

to public awareness campaigns rather than embedded within formal investment training. This separation does not recognise that future financial professionals will play a crucial role in safeguarding investors and maintaining market integrity.

Limitations of Traditional Investment Education

Traditional investment education focuses heavily on quantitative analysis, valuation models, and portfolio optimisation. While these skills are essential, they do not adequately address the realities of fraudulent behaviour in the financial market. Investment scams do not operate according to rational market assumptions; instead, they exploit human psychology, trust, and information asymmetry.

Behavioural finance has consistently shown that emotions, social pressure, and heuristic biases influence investors (Ahmad et al., 2025). However, many investment programs treat behavioural finance as a supplemental topic rather than a core framework for understanding fraud. Without incorporating scam awareness into behaviour analysis, students may fail to recognise how emotions and social dynamics influence investment decisions in real-world contexts.

Furthermore, regulatory knowledge is often taught in a theoretical manner, focusing on compliance structures rather than practical verification. Students may understand the existence of licensing requirements without learning how to conduct due diligence using regulatory databases or identify red flags in promotional materials. This gap limits their ability to apply regulatory knowledge effectively when faced with suspicious investment offers.

Integrating Scam Awareness into Investment Education

To enhance its effectiveness, scam awareness should be systematically embedded within investment-related courses, with multiple assessment approaches employed to evaluate students' understanding and critical judgment. Case-based learning is especially useful because it lets students look at real Malaysian scam cases, like the 66-year-old business owner who lost about RM1.8 million after responding to a social media investment offer and identify warning signs that were missed. Such analysis helps bridge the gap between theory and practice by exposing students to the complexity and real-world consequences of investment fraud.

Moreover, collaboration with regulators and industry practitioners can further enrich learning outcomes. This can be implemented through collaborative teaching (CGCT), an approach strongly encouraged by Universiti Teknologi MARA (UiTM) to bridge academic learning with industry expertise and real-world practices. Guest lectures by enforcement officers from PDRM and Security Commission Malaysia (SC), compliance professionals, and victim advocates offer practical details about how scams operate and how they are investigated. Such engagement enhances students' real-world understanding of regulatory frameworks, investigative procedures, and common fraud tactics. This sharing session may also help them improve their ability to think critically, assess risks, and be aware of ethics when looking at investment opportunities.

Simulations and role-playing exercises can also help students experience the psychological pressure and persuasion tactics commonly used by scammers. For instance, students might take part in a structured role-play where one group pretends to be fraudsters promoting a fake high-return investment scheme using convincing scripts and fake credentials. The other group pretends to be potential investors who have to identify red flags and question the offer's legitimacy. Such experiential learning enables students to recognise emotional manipulation, urgency tactics, and information asymmetry in a controlled classroom environment.

Most importantly, the assessment strategies used by lecturers must be carefully aligned to reflect the significance of scam awareness, ensuring that students are evaluated not only on theoretical knowledge but also on their ability to critically detect and respond to fraudulent investment practices. These activities are also aligned with the 21st-century teaching and learning style that emphasizes four key elements: communication, critical thinking, collaboration, and creativity.

Implications for Malaysia's Financial System

Educating investment students about scams has broader implications for Malaysia's financial system. A fraud-aware generation of investors and professionals can reduce victimisation rates, preserve investor confidence, and support capital market development. As scams erode trust in financial institutions, strengthening human capital through education becomes a strategic priority.

Moreover, investment students, who are trained to recognise and report suspicious activities, contribute to early detection and enforcement. This collaborative approach aligns with Malaysia's national strategies for financial inclusion, digital financing, and consumer protection. By embedding scam awareness in education, Malaysia can move from reactive enforcement to proactive prevention.

Conclusion

Investment scams pose an increasingly serious challenge within Malaysia's evolving financial landscape. Digital connectivity and psychological manipulation have contributed to the growing sophistication of fraudulent schemes. This situation has broadened the pool of potential victims to include even professional, educated, and financially literate individuals. In this environment, exposing investment students to the realities of investment fraud is not merely a value-added component of education but an essential requirement for professional preparedness. An investment curriculum that fails to teach students how to spot scams could lead to graduates who are theoretically knowledgeable but not ready to deal with real-world financial threats. By systematically embedding scam literacy in investment education, universities can cultivate practical detection skills, ethical discernment and critical thinking capabilities that are fundamental to investor protection and responsible decision-making. Beyond protecting individuals, such initiatives strengthen the resilience and integrity of Malaysia's financial system while supporting regulatory goals and sustainable capital market development. Ultimately, recognising education as a key tool for preventing fraud makes it essential for long-term financial stability and economic growth.

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TEACHING ESG AND INVESTMENT RISK: TRANSFORMING FINANCE EDUCATION FOR A SUSTAINABLE FUTURE

Husnizam Hosin, Mohd Hakimi Harman,Yuslizawati Mohd Yusoff

My colleague and I have been teaching students how to estimate beta and calculate returns. Yet I have increasingly begun to ask whether we are also equipping them to assess impact. The classroom was filled with formulas, graphs, and regression outputs. Within the framework of modern portfolio theory, students learned to measure systematic risk, interpret standard deviation, and optimise portfolios. They understood how to reduce volatility and maximise expected returns. However, something important was missing. Our discussions often ended with performance metrics. We rarely paused to consider what these investments meant beyond the spreadsheet.

With the development of the global markets, the character of risk changed. The corporate scandals, environmental tragedies, corporate governance, and climate-related stocks were no longer considered peripheral factors; they were core determinants of firm value. Companies were not crumbling due to market forces alone, but more because of poor governance structures, negligence of the environment and being socially responsible. The conventional definition of risk that was well summarised in beta appeared to be limited to the realities of the modern-day financial world.

I started noticing the change in the questions of students. They could no longer be content with information as to which stock had been doing well. They needed to find out whether the practices of a firm were in tandem with those of sustainability. They doubted that profit maximisation is the sole purpose that should be pursued. There were those who questioned whether ethical investing was the act of compromising returns. These discussions marked a revolution not only in the market but also in the thinking of future financial workers.

This became a turning point in my own thinking. I realised that Environmental, Social and Governance (ESG) could not be any more a fringe benefit or a lecture at the end of the semester in the field of finance education. ESG factors do not exist outside of the risk; they are internal to it. The climate transition risk influences the value of assets. The quality of governance is a factor that affects the cost of capital. Reputational stability and long-term performance are being influenced by social controversies. The introduction of ESG to investment risk education implied a change in the very meaning of risk. No longer volatility but vulnerability was the risk. No longer did it merely deviate, statistically, but it exposed itself to structural, regulatory, environmental and ethical unpredictability.

The traditional approach to teaching investment risk

The conventional mode has largely concentrated on quantitative measures and past basis, which tend to ignore the most important non-financial aspects that play a vital role in long-term investment sustainability and stability. Such a limited focus of financial education has both economic and moral consequences, as it fails to recognise the future welfare of people and a shift in the global dynamics of challenges. This results in a shift in the paradigm of educational programs in finance to include environmental, social and governance factors, which is becoming an important part of the overall risk analysis and sustainable value generation (Kopnina et al., 2024). The inclusion of ESG aspects in financial education is essential in preparing a whole picture of the risk of investment, and developing a critical thinking habit in students, which will allow them to consider the wider social and environmental impacts of the financial choices that they make.

This integration reflects increasing pressure on investors and regulators over time to practice transparent and responsible investment in a more multifaceted range of considerations with respect to both the financial metrics. This growth indicates an increasingly accepted

understanding of the interrelations among financial action and other societal and environmental matters, hence the necessity to reconsider the methods of pedagogy in finance (Ahmadirad, 2024). This transition not only enhances the comprehension of the financial risks but also provides the future workers in the field of finance with the means to cope with complicated sustainability issues and engage in responsible economic growth. This changing environment highlights the necessity of educational institutions to modify their finance programs so that the graduates are familiar with the principles of sustainable finance and have an understanding of how to consider ESG requirements in investment policies (Narayanan & Pradhan, 2023). The practice can be used to neutralise the levels of investment portfolio risks and offset the absence of sustainable financial literacy levels that are increasingly required by the industry. This pedagogical development is essential to take into consideration the systematic risks, including climate change and social inequality, which are sometimes not sufficiently considered with the traditional portfolio theory (Narayanan & Pradhan, 2023).

Furthermore, by recognising the causal link between everyday financial decisions and the harms associated with climate change, students can develop a stronger sense of responsibility towards future generations and distant communities. Such awareness is essential for fostering the collective commitment required to address aggregate emissions (Kopnina et al., 2024). The growth of critical thinking capabilities should also be a component of this broadened curriculum, as it will allow students to consider complex trade-offs between financial gains and sustainability goals, and take part in decision-making processes with a group of diverse stakeholders in mind (Elhady & Shohieb, 2025). This superior educational system goes beyond compliance, as a proactive attitude towards sustainable finance is developed, which has the capacity to lead to economic prosperity and social welfare.
Moreover, developing a comprehensive comprehension of sustainable finance in educational establishments is a key in nurturing financial practitioners with the potential to easily integrate environmental, social, and governance considerations in the investment process, hence sustainable development in the long-term (Elhady & Shohieb, 2025).

The turning point: Why must ESG be integrated?
The development of the importance of ESG factors in the process of making investment decisions can be perceived as the actual transition to sustainable investing due to the rise of the understanding of the interdependence of the financial results and those related to sustainability (Ahmadirad, 2024). Such a development points to the need to ensure that ESG aspects are brought into finance education so that future professionals are equipped to operate in a market that is becoming more conscious of responsible investment habits and sustainability over the long term.
This new paradigm requires that the conventional financial models be re-examined and a shift towards a stakeholder-based approach be taken, where financial choices are made on the basis of a long-term perspective (Ahmadirad, 2024). This extended vision is inclusive of the approach of environmental consideration, social fairness, and a healthy governance framework as part and parcel of financial prosperity and social prosperity. This has been integrated into the fact that certain variables, such as scarcity of resources and climate change, play a major part in the global financial decision-making, and therefore, a re-evaluation of investment strategies will help in addressing the ecological consequences.

The increase in the importance of sustainability highlights the importance of financial institutions in providing sustainable financial products and incorporating environmental and social risk assessment in investment practices (Muhammad et al., 2023). Such a strategic shift is a response to the ethical challenge of responsible capital allocation, but it represents a practical value of ESG integration in terms of improved financial performance and resilience, as shown by several studies. In fact, in the year 2018, the total sustainable investments amounted to 30.7 trillion all over the world, and this is a 34 per cent increment in only two years; thus, indicating a definite market trend of harmonising financial strategies with the ESG indicators (Muhammad et al., 2023).

Such a significant increase is also indicative of a greater understanding in the financial sector that incorporating the consideration of ESG is not a corporate responsibility issue but a strategic necessity of long-term value creation and risk management (Ahmadirad, 2024). This change is in line with the realisation that sustainable investment, which comes with the incorporation of the ESG criteria, is one of the key measures towards generating long-term value whilst mitigating the global sustainability issues. The integration will enable investors to select those companies that have better long-term growth potential and the ability to survive environmental and social risks and eventually create a more responsible and equal global economy.
Moreover, the change in teaching and working financial experience is essential to producing a new generation of financial professionals able to thrive in the challenges of sustainable finance and help not only prosper the economy but also the planet (Tallgauer & Schank, 2024). The development of making ESG considerations in financial markets has become a crucial development indicative of the fulfilment of financial market goals with the pressing need for climate sustainability, which eventually initiates a revolutionary shift in the financial sector, leading to the greater benefit of society.

Redefining "risk" in the classroom
The growing awareness of environmental and social risks as material financial risks makes a reconsideration of conventional risk assessment models a requirement in the field of finance education (Kopnina et al., 2024). Teachers now have to include complex studies of climate-related economic revelations and social effect measures to offer learners an all-inclusive view of the risks in investments. It involves incorporating the financial effects of climate change, physical risks posed by extreme weather events and transition risks posed by changing regulations into risk models (Kopnina et al., 2024). Moreover, the fact that philanthropy and impact investing have become indistinct necessitates the integration of such aspects of finance as the possibility to use financial tools to achieve not only economic but also social or environmental benefits, which is why finance can become an agent of change.

This new risk-based pedagogy will be essential to educating future financial practitioners to operate in a world where the ESG factor comes into play in investment procedures and stewardship as a paradigm shift in decision-making (Tallgauer & Schank, 2024). This redefinition includes the realisation that events of negative sustainability, including scandals or environmental disasters, may quickly destroy the financial value, although the daily operations are not affected, which means the need to develop robust analytical frameworks to evaluate such disastrous ESG risks (Narayanan & Pradhan, 2023). The rise of the financial industry towards the commitment to ESG values highlights the critical role of this industry in determining a more ethical and sustainable financial future (Narayanan & Pradhan, 2023).

The extended orientation reminds us that sustainability should be an essential principle in leadership education, and not a concern of compulsion but a motivation to develop ecological, social, and economic well-being through transformational strategies (Narayanan & Pradhan, 2023). This pedagogical shift is also applied to the consideration of climatic risk pricing, where the effectiveness of market processes of integrating and disclosing climate risks is brought into the limelight. In addition, this implies a neutral approach in the study in relation to pecuniary and non-pecuniary aspects of ESG, which delivers facts on the related economic consequences.

Reinventing pedagogy: To Formula or Framework.
This change demands that teachers come up with new pedagogical approaches that transcend past quantitative models to adopt interdisciplinary approaches where knowledge in environmental science, sociology, and ethics is incorporated in the financial curriculum. Such a multidisciplinary combination makes sure that future financial experts can evaluate complicated ESG considerations and know how they systematically impact market stability

and value creation in the long-term (Ahmadirad, 2024). This kind of pedagogical innovation must promote active learning based on case studies, simulations, and real-life projects that will lead to the development of critical thinking and problem-solving skills one can apply in maneuvering the changing financial environment (Kopnina et al., 2024). Additionally, this financialization change demands the ethical formulation of so-called green monetary policies and effective structures of embedding ESG values in the higher education field out of the present frames of current financial systems (Tallgauer & Schank, 2024).

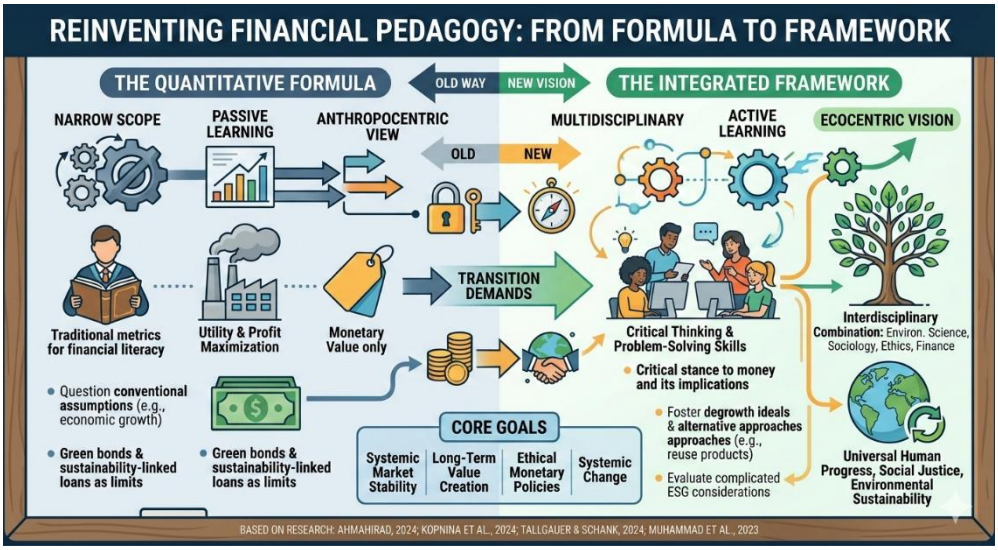

Figure 1: Reinventing financial pedagogy
(Source: AI generative image)

Figure 1 illustrates that this paradigm shift requires a critical reassessment of conventional assumptions and the adoption of an ecopedagogical approach that promotes a more ecological and integrated understanding of finance (Kopnina et al., 2024). This change of direction is essential towards the development of financial literacy beyond traditional metrics that would allow individuals to perceive and manage resources to meet global issues such as climate change (Tallgauer & Schank, 2024). This is a shift to introduce ecocentric paradigm changes and leave the familiar space of green bonds and sustainability-linked loans to redefine the concept of value and capital (Kopnina et al., 2024). Such a revolutionary strategy implies the re-evaluation of the core economic values since the main focus is no longer the maximisation of utility and profit but the universal human progress, social justice, and environmental sustainability (Tallgauer & Schank, 2024).

Such reconsideration suggests that financial education should not be monetary with just the price of a car, but it is the ecological and social cost, which encompasses carbon emissions and climate-driven displacement, that have definite financial consequences and give rise to major risks (Tallgauer & Schank, 2024). This financial literacy is therefore critical and enables individuals to make knowledgeable decisions that should take into account the personal financial well-being, as well as the wider societal and environmental consequences The development of finance education should therefore include critical pedagogy to engage with the issue of sustainability that would help develop the knowledge of how financial decisions can create a systemic change (Kopnina et al., 2024).

This will include the transition to active learning, in place of passive learning, through the use of active learning tools like real-life projects and case studies, so that students can acquire the skill of problem-solving and critical thinking. Moreover, the inclusion of critical thinking skills into the financial literacy module will assist students in breaking down complex financial

instruments and assessing the ethical and environmental effects of such a strategy, towards a more holistic comprehension of finance (Muhammad et al., 2023).
This holistic process focuses on the interrelation between human and natural systems, promoting an ecological awareness that perceives humans as a significant part of the biosphere (Muhammad et al., 2023). It must expand this pedagogical structure to include a critical stance to money, its use, and its social and environmental implications, such that an ethos of responsible and committed financial attitude is developed amongst students. Such broadened thinking demands that one not continue with a strictly anthropocentric approach to finance, but an approach that recognises the inherent worth of ecological integrity and social equity (Kopnina et al., 2024). This involves fostering a culture of ideals of degrowth in business programs, questioning the conventional economic growth as a panacea to social and environmental problems, and proposing other approaches to the economy, including shifting ownership to lease and reusing products (Kopnina et al., 2024).

This form of teaching also implies the critical analysis of the consumption patterns where students are pushed to think of the wider ecological and social consequences of their money decisions, and not merely individual benefit (Narayanan & Pradhan, 2023). This requires an ecopedagogical mindset that promotes eco literacy, in which students are expected to critically evaluate economic models and how they contribute to the destruction of biodiversity and climate change, to be able to create a systemic knowledge of sustainable finance (Kopnina et al., 2024). This is a new strategy that helps to build students into critical thinking practice, including concept-mapping the implications of the systems theory on the Sustainable Development Goals, which in turn would foster a sense of extinction crisis awareness among the students (Kopnina et al., 2024).

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HIGHLIGHTING THE IMPORTANCE OF FINANCIAL LITERACY FOR GENERATION Z

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Introduction

Financial literacy refers to the knowledge and skills required to manage financial resources effectively. It includes understanding concepts such as budgeting, saving, investing, debt management and financial planning. In today's increasingly complex financial environment, financial literacy has become an essential life skill. Generation Z (Gen Z), generally defined as individuals born between the late 1990s and early 2010s, is entering adulthood during a period characterized by rapid technological change, rising living costs, and economic uncertainty. These factors make financial literacy an important skill for this generation to have.

Unlike previous generations, Gen Z has grown up in a digital world where financial information is widely accessible through online platforms and social media. Despite the fact this provides greater access to financial knowledge, it also exposes young people to misinformation and risky financial trends. Without proper financial education, they may struggle to manage their finances responsibly. Therefore, it is crucial for Gen Z to have financial literacy skills because the skills able to help Generation Z develop necessary financial skills to make informed financial decisions, achieve financial independence and build long-term financial security.

Financial Challenges Faced by Generation Z

Generation Z faces several financial challenges that make financial literacy increasingly important. One of the major challenges is the rising cost of living consisting of housing, education and daily expenses. Many young adults enter the working life while facing high levels of student debt and limited financial resources. These challenges can make it difficult for them to save money or plan for future financial goals.

Research indicates that financial literacy levels among Gen Z are relatively low compared to what is required to navigate modern financial systems. Only about 38% of Gen Z individuals are able to correctly answer basic financial literacy questions, highlighting a significant gap in financial knowledge (The Police Credit Union, 2025). This lack of understanding may lead to poor financial decisions such as overspending, accumulating unnecessary debt or failing to save for emergencies.

In addition, economic uncertainty and changing job markets create further financial pressures. Many Gen Z individuals work in temporary, freelance or gig-economy jobs, which often provide less financial stability than traditional employment. Without adequate financial literacy, managing irregular income, budgeting expenses, and planning for the future can become extremely challenging. Therefore, financial education plays an essential role in helping Gen Z navigate these economic challenges effectively.

Financial Literacy and Responsible Financial Decision-Making

Financial literacy significantly influences how individuals make financial decisions. When people understand financial concepts such as interest rates, inflation and risk management, they are better equipped to evaluate financial opportunities and avoid costly mistakes. For Generation Z, developing these skills early in life can lead to healthier financial behaviours and greater financial stability in adulthood.

Individuals with higher financial literacy are more likely to engage in positive financial behaviours, including saving regularly, budgeting their income and making informed investment decisions. For example, research suggests that financial literacy has a strong

influence on investment decisions among Gen Z, as individuals with better financial knowledge tend to evaluate risks more carefully before making financial commitments (Tubastuvi et al, 2024).

Financial literacy also helps young people understand the long-term consequences of financial decisions. For instance, understanding how credit cards, loans and interest rates work can help individuals avoid excessive debt. Similarly, knowledge about savings accounts, retirement plans and investments can encourage individuals to plan for long-term financial security. Gen Z can build stronger financial habits with those skills that can contribute to financial stability throughout their lives.

Influence of Digital Technology and Social Media

One of the most distinctive characteristics of Generation Z is their strong reliance on digital technology. Nowadays, many young people, especially Gen Z, learn about personal finance from online platforms, blogs and social media. Digital platforms such as TikTok and YouTube have become popular sources of financial advice, often featuring short educational videos that explain budgeting, investing and saving strategies.

Research indicates that approximately 76% of Gen Z individuals obtain financial knowledge through social media platforms (The Star, 2023). These platforms provide quick and accessible information, making financial education more engaging for young audiences. However, the increasing popularity of financial influencers, often called “finfluencers,” has also raised concerns about the accuracy and reliability of financial information shared online.

Many social media influencers lack professional financial training which can lead to promoting risky investment strategies or misleading financial advice. As a result, young people may adopt financial behaviours which are not based on reliable information. This highlights the importance of formal financial education in schools and communities to ensure that young people can critically evaluate financial information they encounter online.

Financial Literacy and Future Economic Opportunities

Financial literacy not only helps individuals manage their daily finances but also opens opportunities for long-term economic growth and success. For Generation Z, understanding financial concepts can increase confidence in pursuing entrepreneurial ventures, investing in financial markets and making strategic financial decisions.

Research suggests that financial literacy is positively related to entrepreneurial intentions among Gen Z. Individuals with greater financial knowledge are more confident in starting businesses because they understand financial risks, budgeting and investment planning (Hasan et al., 2024). This knowledge allows them to make informed decisions about managing business finances and allocating resources effectively.

Furthermore, financial literacy encourages long-term financial planning. Many Gen Z individuals are increasingly aware of the importance of saving for major life goals such as buying a home, starting a family or achieving financial independence. Young adults nowadays become more focused on building savings and preparing for financial stability despite economic challenges (Charles Russell Speechlys, 2025). This demonstrates how financial literacy can support responsible financial planning and contribute to overall economic well-being.

Conclusion

A rapidly changing financial environment emphasises that financial literacy is a critical skill for Generation Z as they enter adulthood. Therefore, financial knowledge is one of the important skills Gen Z shall have in order to deal with rising living costs, digital financial systems and uncertain economic conditions. It is very important to develop strong financial literacy skills as

Gen Z can improve their financial decision-making, manage financial risks and build long-term financial stability.

Although digital technology provides new opportunities for learning about personal finance, it also presents challenges related to misinformation and unreliable financial advice. Consequently, structured financial education programs in schools and communities are essential to ensure that young people develop accurate financial knowledge and responsible financial habits. Ultimately, improving financial literacy among Generation Z will empower them to achieve financial independence and contribute to a more financially responsible society.

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REFLECTIONS ON TEACHING PERSONAL FINANCIAL PLANNING TO PART-TIME DISTANCE LEARNERS

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Introduction

Teaching personal financial planning to distance learners enrolled in part-time degree programmes offers an experience quite different from teaching traditional full-time undergraduate students. Unlike younger students who often enter university immediately after secondary education, distance learners are usually adults already working and managing various responsibilities in their daily lives. They juggle professional commitments, family obligations, and personal responsibilities while pursuing higher education. Their decision to enrol in a part-time programme often reflects determination, motivation, and a strong desire for self-improvement.

In this context, teaching becomes more than simply delivering academic knowledge. The classroom, whether physical or virtual, becomes a space where life experiences intersect with academic learning. Distance learners bring not only professional experience but also personal financial realities. Many of them are already managing household expenses, supporting family members, paying off loans, or planning for future financial security. As a result, discussions about personal financial planning often resonate strongly with their lived experiences. Personal financial planning as a subject naturally connects with real life (Liu & Lin, 2021). Topics such as budgeting, savings, insurance planning, debt management, and retirement planning are issues most adults encounter at some point in their lives. For distance learners, learning about financial planning is often not just an academic exercise but an opportunity to gain practical knowledge that can improve their financial decision-making.

Teaching this subject through distance learning platforms also presents unique opportunities and challenges. Online learning environments change the dynamics of interaction between educators and students. Without face-to-face contact, educators must intentionally create spaces for discussion, engagement, and reflection. At the same time, digital platforms enable learners from diverse backgrounds and locations to participate in a shared learning environment. This chapter reflects on my experience teaching personal financial planning to distance learners in a part-time degree programme. It explores the unique characteristics of adult learners, the teaching strategies that help make financial planning meaningful, and the human aspects of education that emerge when financial topics are discussed. Through reflection on classroom experiences, this chapter highlights how teaching personal financial planning can become a transformative learning journey for both learners and educators.

Who Are My Distance Learners? Understanding Their Realities

One of the most important lessons I learned early in my teaching journey was that distance learners are very different from traditional full-time students. Many distance learners are working adults who return to university after several years in the workforce. Some pursue further education to advance their careers, while others seek new knowledge to improve their professional or personal lives.

Because they are already immersed in real-world responsibilities, distance learners often approach learning with a practical mindset. They are less interested in purely theoretical discussions and more interested in understanding how knowledge can be applied in real-life situations. This characteristic significantly shapes the learning environment in classes that involve adult learners.

Another defining feature of distance learners is the complexity of their daily lives. Many of them attend online classes after completing a full day of work. Some learners join virtual sessions from their offices, while others attend classes from home after fulfilling family responsibilities. These realities influence how they participate in learning activities and how they engage with course materials.

Despite these challenges, distance learners often demonstrate strong motivation and commitment to their studies. Their willingness to dedicate time and effort to education while balancing multiple responsibilities reflects a deep appreciation for learning opportunities. In many cases, they approach their studies with greater seriousness and discipline than younger students who may not yet fully recognise the value of education.
Understanding these realities has significantly shaped my teaching approach. Rather than viewing distance learners simply as students in an online classroom, I began to see them as individuals navigating complex life situations. Recognising their experiences and acknowledging their challenges helped create a more supportive and inclusive learning environment.

Making Financial Planning Relevant to Real Life
One of the most rewarding aspects of teaching personal financial planning is seeing how quickly learners connect financial concepts to their own lives. Unlike many academic subjects that remain abstract, financial planning immediately relates to everyday decisions. Discussions about budgeting, saving, and debt management often prompt learners to reflect on their own financial behaviours.

During class discussions, distance learners frequently share their personal experiences with financial management. Some learners talk about balancing household expenses while supporting their families. Others discuss the challenges of managing education loans, housing loans, or credit card debt. These conversations transform the classroom from a traditional lecture environment into a collaborative space where learners exchange ideas and experiences (Lusardi & Mitchell, 2014).
For example, when discussing budgeting techniques, learners often describe how they allocate their monthly income to cover various expenses. Some learners explain how they prioritise saving over spending, while others share strategies to reduce unnecessary expenditures. These exchanges allow learners to learn not only from the educator but also from one another.

Similarly, discussions about long-term financial planning often led to conversations about retirement savings and investment strategies. For some learners, these topics are particularly meaningful because they are already thinking about their financial future and the well-being of their families. As learners share their perspectives, financial planning concepts become more tangible and relevant.
From a teaching perspective, these interactions highlight the importance of facilitating open dialogue rather than simply delivering lectures. Encouraging learners to share their experiences creates a richer learning environment where theory and practice intersect. In many cases, learners gain new insights by hearing how others approach similar financial challenges**.**

Figure 1. Lecturer and distance learners after the completion of a personal financial planning class
(Source: Author's personal collection)

Figure 1 captures a moment after the completion of a face-to-face personal financial planning class, where the interaction between the educator and distance learners reflects the positive engagement and collaborative atmosphere that often develops during the learning sessions. This moment illustrates how meaningful interaction and shared experiences can strengthen the learning environment and enhance learners' understanding of financial planning concepts.

More Than Money: The Human Side of Teaching Finance

While personal financial planning focuses on numbers, calculations, and financial strategies, teaching the subject often reveals deeper human stories. Financial decisions are closely tied to emotions, personal values, and life circumstances. As a result, classroom discussions sometimes touch on sensitive topics related to financial stress or uncertainty.

Many distance learners carry significant financial responsibilities. Some support their parents or extended family members, while others are raising children and managing household finances. These responsibilities influence how learners perceive financial planning and how they respond to discussions about financial management.

In certain discussions, learners openly share concerns about financial security or unexpected financial challenges. These conversations remind educators that financial planning is not merely about mathematical calculations but also about people's lives and aspirations. Understanding this human dimension helps educators approach teaching with empathy and sensitivity.

Empathy plays a particularly important role when teaching adult learners. Distance learners may occasionally struggle to balance their academic commitments with work and family responsibilities (Tamuli, 2023). Recognising these challenges and offering flexibility, when necessary, can make a significant difference in their learning experience.

Building positive relationships with learners also contributes to a supportive learning environment. When learners feel respected and valued, they are more willing to participate in

discussions and share their perspectives. These interactions strengthen the sense of community within the classroom, even in a virtual learning environment.

When Students Reflect on Their Own Financial Journey

Reflection is an important element in learning about personal financial planning (Sentosa et al., 2025). Financial habits are often shaped by past experiences, cultural influences, and individual attitudes toward money. Encouraging learners to reflect on their financial behaviours allows them to gain a deeper understanding of their financial decisions.

In my classes, learners are sometimes asked to develop simple personal financial plans. These exercises encourage them to analyse their current financial situation, identify financial goals, and consider strategies to achieve them. For many learners, this activity becomes a meaningful moment of self-reflection.

Some learners realise that they have not been saving consistently for emergencies, while others recognise the importance of planning for long-term financial security. These reflections often lead to thoughtful discussions about how financial planning can improve personal well-being.

Reflection also encourages learners to think critically about financial information. Instead of memorising financial concepts, they begin to evaluate how different strategies may work in their own circumstances (Tamuli, 2023). This process strengthens their ability to make informed financial decisions.

For educators, observing these reflective moments is particularly rewarding. When learners begin to apply financial planning concepts to their own lives, education moves beyond theoretical learning and becomes a practical tool for personal development.

What My Distance Learners Have Taught Me

Teaching distance learners has taught me that education is not a one-directional process in which knowledge flows solely from educator to student. Instead, it is a dynamic exchange of ideas and experiences. Distance learners bring valuable insights from their professional and personal lives, enriching classroom discussions.

Their experiences often provide real-world examples that complement theoretical explanations. For instance, learners working in finance-related industries sometimes share professional perspectives on financial decision-making. Others contribute practical insights from their experiences managing household finances or running small businesses.

Another important lesson I learned is the value of adaptability in teaching. Distance learning environments require educators to adjust teaching methods to maintain engagement. Incorporating case discussions, interactive activities, and reflective exercises can make online learning sessions more engaging and meaningful.

Teaching distance learners has also reminded me that education is fundamentally a human endeavour. Behind every online profile is an individual striving to balance multiple responsibilities while pursuing personal growth. Recognising these realities helps educators approach teaching with greater understanding and compassion.

Final Reflections: Teaching That Goes Beyond the Classroom

Reflecting on my experience teaching personal financial planning to distance learners, I have come to appreciate how meaningful this teaching journey has been. Financial education can influence not only academic knowledge but also personal behaviour and long-term well-being.

Distance learners bring unique perspectives and experiences that enrich the learning process. Their real-life challenges make discussions about financial planning more authentic and relevant. By connecting theoretical concepts with practical experiences, educators can create learning environments that support both intellectual and personal development.

Ultimately, teaching personal financial planning to distance learners reminds us that education extends beyond the classroom. When learners apply financial planning principles in their daily

lives, the impact of teaching becomes tangible. Through reflection, dialogue, and shared experiences, both learners and educators grow together.

Conclusion

Teaching personal financial planning to distance learners enrolled in part-time programmes highlights how meaningful learning can emerge when academic knowledge connects with real-life experiences. Unlike traditional students, distance learners bring diverse professional backgrounds, financial responsibilities, and personal commitments that shape the way they engage with financial planning concepts. Their experiences enrich classroom discussions and make learning more practical and relevant. As learners reflect on issues such as budgeting, savings, debt management, and long-term financial planning, the subject moves beyond theoretical explanations and becomes a useful guide for everyday financial decisions.

This teaching experience also demonstrates that effective education involves more than delivering content. Empathy, flexibility, and meaningful interaction play important roles in supporting adult distance learners who balance multiple responsibilities. By creating an environment that encourages reflection, dialogue, and shared experiences, educators can help learners connect financial knowledge with their personal journeys. Ultimately, when learners begin to apply financial planning principles in their own lives, the impact of teaching extends beyond the classroom, contributing to their financial awareness, confidence, and long-term well-being.

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THE ROLE OF INTERACTIVE AND VIDEO-BASED PLATFORMS IN SUPPORTING BLENDED LEARNING IN MALAYSIAN HIGHER EDUCATION INSTITUTIONS

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Introduction

The transformation of education in the digital era has brought significant changes in learning methods especially in higher education. Rapid technological advancement, globalization and the increasing demand for digitally competent graduates have reshaped how knowledge is delivered, accessed and constructed. In the digital era of the 21st century, the development of information and communication technology has had a significant impact on the world of education, opening more flexible learning spaces through online platforms. The integration of high-speed internet, cloud computing, mobile devices and digital applications has enabled institutions to move beyond traditional or teacher-centered approaches toward more interactive and student-centered learning environments.

Nowadays, learning is no longer limited to the classroom yet heading towards blended learning - a combination of face-to-face and online learning to accommodate the needs of developing 21st century skills of critical thinking, creativity and collaboration (Wahab & Adawiyah, 2025). Blended learning allows educators to combine the strengths of direct interaction in physical classrooms with the flexibility and resource richness of online environments. Through blended learning, students are encouraged to engage in discussions, problem-solving activities and collaborative projects while also accessing digital content independently. Such integration supports active learning strategies and prepares students to adapt to rapidly changing technological and professional landscapes.

A study by Hidayah et al. (2024) indicated that the appropriate implementation of blended learning in Malaysian higher education institutions has great potential to enhance students. According to their findings, the extent to instructional design is carefully planned and digital tools are aligned with learning outcomes, students will demonstrate higher motivation and stronger academic performance along with improved participation. However, the effectiveness of blended learning also depends on institutional readiness, digital infrastructure and lecturers' competencies in utilizing technology effectively.

Online resources such as learning management systems, educational websites, video lectures, e-books and interactive applications provide flexible and accessible learning opportunities for students, enabling asynchronous and synchronous communication, real-time feedback, collaborative document sharing and multimedia content delivery. As a result, students can revisit recorded lectures, access supplementary readings and engage in interactive assessments according to their own pace and schedule, allowing students to balance academic responsibilities with part-time employment or family commitments.

Within this context, interactive and video-based platforms such as YouTube, Google Classroom and Kahoot! have become increasingly prominent in Malaysian higher education. These platforms offer diverse functionalities that support content delivery, collaborative learning and formative assessment. YouTube enables lecturers to upload recorded lectures, demonstrations and curated educational videos; Google Classroom facilitates assignment management, announcements and communication; while Kahoot! enhances engagement through gamified quizzes and instant feedback. Together, these platforms create a more dynamic and inclusive learning environment.

This article examines the role of interactive and video-based platforms in supporting blended learning in Malaysian higher education institutions, the benefits associated with their use and implications for future practice. By exploring the pedagogical strengths of these digital tools, the discussion aims to provide insights for educators and institutions ways to optimize blended learning strategies in the evolving digital education landscape.

Blended Learning: Concept and Significance

Blended learning is the integration of traditional face-to-face learning with technology, the internet, and distance learning (Muxtorjonovna, 2020). This pedagogical model is grounded in the belief that learning is optimized when diverse teaching strategies are employed to meet varying student needs. The use of blended learning is expanding globally and within Malaysian higher education institutions, where blended learning has gained momentum to enhance academic quality, support flexible learning pathways and respond to technological shifts in educational practice. Evolving student expectations, increased internet connectivity and institutional investments in educational technology have contributed to the adoption of blended learning in Malaysia.

The integration of interactive and video-based platforms becomes essential to the blended learning framework since these tools deliver multimedia content, allow for student involvement and provide immediate feedback mechanisms, which traditional lectures may rarely do. Understanding YouTube, Google Classroom and Kahoot! function within blended learning is very crucial as Malaysian higher education institutions migrate to more digitally enriched campuses. The significance of blended learning lies in its ability to accommodate different learning styles, support self-directed learning and leverage technology to improve academic outcomes. In the context of 21st century education, where digital literacy and adaptability are essential skills, blended learning provides a strategic framework that aligns pedagogical practices with technological advancements, making it highly relevant and valuable for modern higher education institutions.

Interactive and Video-Based Platforms in Malaysian Higher Education

Interactive and video-based platforms encompass a range of technological tools that facilitate communication, engagement and content delivery. The following sections highlight the key platforms such as YouTube, Google Classroom and Kahoot! in Malaysian higher education.

YouTube as a Video-Based Learning Resource

YouTube has developed as a significant video-based learning resource in higher education because of its huge storage of educational content and ease of access to a vast collection of instructional knowledge across many disciplines. YouTube enables educators to share recorded lectures, tutorials, demonstrations and explanatory videos that support classroom instruction and extend learning beyond scheduled contact hours. In Malaysian higher education, educators regularly use YouTube to supplement lectures with educational videos, demonstrations and visual representations of complex topics. Video lectures and tutorials posted on YouTube allow students to review material at their own pace, improving comprehension and retention. Kay (2012) stated that video-based learning can improve student engagement and accommodate different learning styles as video content is particularly effective for visual and auditory learners and can transform abstract or technical material into accessible formats. In blended learning practices, faculty members often curate YouTube videos to reinforce theoretical concepts, illustrate real-world applications, and enrich classroom discussions. This increases the diversity of learning resources available to students and fosters self-directed learning.

Google Classroom for Content Management and Communication

Google Classroom is an online learning environment that allows educators to organize course content, distribute learning resources, and encourage discussion with students. Although Google Classroom is not as widely institutionalized in Malaysian higher education institutions

like Moodle, many instructors use it informally due to its ease of use and integration with other Google services (Mail Google Drive, Docs, Sheets, etc.). Google Classroom allows lecturers to offer work, provide comments and involve students in collaborative activities. Google Classroom supports blended learning by centralizing course materials, allowing both synchronous and asynchronous interactions. Students can view lecture notes, submit homework online and participate in discussion threads. This platform bridges the gap between classroom activities and online involvement, extending learning beyond the scheduled class hours.

Kahoot! for Fun Learning, Interactive Assessment and Engagement

Online games are very popular in this century and undeniably are one of the most interesting ways to learn new things. Kahoot! is an interactive game-based platform that allows lecturers to design quizzes, polls and competitive learning activities. Kahoot! uses gamification to transform assessment into an interesting experience. In Malaysian higher education, educators use Kahoot! to create real-time quizzes during face-to-face sessions as well as virtual classrooms, making learning more dynamic and engaging. Kahoot! uses playful and colorful graphics and audio to increase engagement. Educational games are one of the techniques and procedures that educators may implement in teaching foreign languages. According to a study by Faizan et al. (2016), digital game-based learning is more successful in boosting students' motivation in studying subject matters. A game feature can encourage unmotivated students to be more engaged as they undergo the learning process and interactions among their peers. Bicen & Kocakoyun (2018) stated that gamification of instruction increases students' engagement with the material and motivates them to set higher goals for themselves.

Benefits of Interactive and Video-Based Platforms in Blended Learning

The use of interactive and video-based platforms in Malaysian blended learning environments offers multiple pedagogical advantages:

1. Enhanced Student Engagement

Digital platforms significantly increase student engagement by transforming traditional passive learning into active participation. Video-based platforms such as YouTube allow educators to present content visually, contextually and creatively through animations, demonstrations, interviews and real-life case studies. This multimodal presentation captures students' attention and sustains their interest for longer periods compared to conventional lectures. In addition, interactive tools like Kahoot! introduce gamification elements such as quizzes, leaderboards and instant scoring, which create a competitive yet enjoyable learning atmosphere. This gamified approach motivates students to participate actively, enhances classroom interaction and reduces boredom. As a result, students become more emotionally and cognitively involved in the learning process, leading to better knowledge retention and deeper understanding of concepts.

2. Flexibility and Accessibility

One of the most significant benefits of blended learning is flexibility. Online platforms such as Google Classroom and YouTube allow students to access lecture materials, recorded videos, notes, and assignments anytime and anywhere, the extent to which internet connectivity is at hand. Such flexibility is especially valuable for students to balance academic responsibilities, part-time employment, family commitments or extracurricular activities. Furthermore, students can revisit complex topics multiple times until they fully understand the content. This self-paced learning approach supports differentiated instructions, as students with varying academic abilities can learn according to their own speed. Accessibility of digital materials also ensures continuity of learning despite unexpected disruptions occurring, such as health crises or natural disasters, making the education system more resilient and inclusive.

3. Support for Diverse Learning Styles

Interactive and video-based platforms cater to diverse learning styles, including visual, auditory and kinesthetic learners. Video lectures appeal to visual and auditory learners through images, diagrams, narration and demonstrations. Meanwhile, interactive quizzes and problem-solving activities on platforms like Kahoot! engage kinesthetic learners who prefer hands-on participation.

Additionally, these platforms provide instant feedback, which is essential for formative assessment. Immediate results from quizzes help students identify their strengths and weaknesses in real time. Performance data can be analyzed to determine which topics require further clarification. This timely feedback loop strengthens the learning process, enables early intervention and ultimately improves academic performance.

4. Promoting Self-Directed Learning

Blended learning environments promote self-directed learning by encouraging students to take ownership of their educational journey. With access to recorded lectures, digital notes and supplementary online resources, students are empowered to plan their study schedules and review materials independently. The ability to pause, rewind, and replay video content enhances comprehension, especially for complex subjects. Students can also explore additional resources beyond classroom materials, fostering curiosity and lifelong learning habits. Over time, this autonomy develops important skills such as time management, critical thinking, problem-solving and digital literacy. These competencies are crucial for success in the 21st century digital era, where independent learning and adaptability are highly valued.

Conclusion

Interactive and video-based platforms play a significant role in strengthening blended learning practices within Malaysian higher education institutions. Digital tools such as YouTube, Google Classroom and Kahoot! have transformed conventional teaching methods into more dynamic and student-center learning experiences. These platforms enhance student engagement through multimedia content and interactive activities, promoting flexible access to learning materials and accommodating diverse learning preferences, contributing to improved participation, deeper understanding and stronger academic performance in blended learning environments.

Nevertheless, the successful integration of these technologies is not automatic. Their effectiveness depends on several critical factors, including students' and lecturers' digital literacy skills, stable internet connectivity, well-structured instructional design and learners' intrinsic motivation. Without proper guidance and pedagogical planning, digital tools may become underutilized or fail to achieve meaningful learning outcomes. Therefore, it is essential for educators and institutions to carefully evaluate how online resources influence teaching effectiveness and student achievement.

Through targeted institutional policies, continuous professional development programs and robust technical and academic support systems, Malaysian higher education institutions can optimize the use of digital platforms. They can maximize the pedagogical benefits of blended learning while minimizing potential challenges, ultimately enhancing educational quality and producing graduates who are adaptable, digitally competent and prepared for the demands of the 21st century learning landscape.

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EMBEDDING MQF 2024, OUTCOME-BASED EDUCATION, VALUES-BASED EDUCATION, AND SUSTAINABILITY IN HIGHER EDUCATION: A REFLECTIVE TEACHING CASE STUDY IN INVESTMENT ANALYTICS

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Introduction

Reflective teaching practice has long been recognized as a critical component of effective higher education pedagogy, particularly in courses that require the integration of analytical competencies with ethical and societal considerations. Schön's (1983) theory of the reflective practitioner emphasizes that educators must continually examine their teaching decisions and classroom experiences to improve instructional effectiveness and professional practice.

This perspective aligns closely with the principles of Outcome-Based Education (OBE), which stresses constructive alignment between learning outcomes, teaching activities, and assessment strategies to ensure meaningful student learning (Biggs & Tang, 2011). In addition, Kolb's (1984) experiential learning theory highlights the importance of learning through experience, reflection, conceptualization, and application—an approach particularly relevant in courses such as investment analytics, where students engage with real-world financial data and decision-making processes.

Together, these theoretical perspectives support the view that reflective teaching enables educators to design learning environments that not only develop technical competencies but also foster ethical awareness and sustainability-oriented thinking among students.

The landscape of higher education has undergone a significant transformation in recent decades. Universities are increasingly expected to prepare graduates who possess not only disciplinary expertise but also the ability to navigate complex economic, social, and environmental challenges. In the field of finance and investment, this expectation is particularly important because financial decisions often have far-reaching consequences for societies and economies.

Recognizing these evolving demands, Malaysia introduced the Malaysian Qualifications Framework (MQF) 2024 as a comprehensive policy framework guiding curriculum design, competency development, and quality assurance in higher education (Malaysian Qualifications Agency, 2024). The framework emphasizes the importance of Outcome-Based Education (OBE), Values-Based Education (VBE), and sustainability competencies as core components of university learning outcomes.

For educators, the challenge lies in translating these policy principles into meaningful classroom practices. Courses traditionally focused on technical knowledge must now incorporate broader educational objectives such as ethical awareness, responsible decision-making, and sustainability considerations.

This article presents a reflective case study of how a course titled Investment Analytics was redesigned to align with MQF 2024 principles. The course serves as a practical platform for integrating analytical financial skills with ethical and sustainability perspectives.

The central premise of this article is that finance education should extend beyond numerical analysis and market forecasting. Instead, it should cultivate professionals capable of making responsible investment decisions that consider long-term economic, social, and environmental impacts.

Through reflective analysis, the article demonstrates how embedding OBE, VBE, and sustainability within the teaching of investment analytics can support the development of holistic graduates who are prepared to contribute meaningfully to sustainable economic systems.

Outcome-Based Education in the Teaching of Investment Analytics

Outcome-Based Education forms the structural foundation for curriculum design within Malaysian universities. The core principle of OBE is that educational programmes should be organized around clearly defined learning outcomes that describe the competencies students are expected to demonstrate upon completion of a course.

In the context of the Investment Analytics course, the curriculum was designed with specific Course Learning Outcomes (CLOs) aligned with Programme Learning Outcomes (PLOs) and MQF competency clusters.

The key learning outcomes of the course include:

1. analysing financial markets using technical indicators
2. evaluating company performance using fundamental analysis
3. interpreting financial data for investment decision-making
4. communicating investment strategies effectively

These outcomes reflect both technical and professional competencies expected from finance graduates.

Constructive alignment plays a critical role in ensuring that teaching activities and assessments support the intended outcomes. In the Investment Analytics course, several learning activities were implemented to reinforce this alignment.

Students were introduced to financial charting platforms such as TradingView, where they analysed real market data using indicators such as:

- moving averages
- relative strength index (RSI)
- support and resistance levels
- Fibonacci retracements

Through these exercises, students developed practical skills in interpreting financial market trends.

In addition, students were required to conduct company analysis using financial statements, industry analysis, and macroeconomic indicators. These assignments enabled students to apply theoretical knowledge to real-world financial contexts.

From a reflective teaching perspective, the adoption of OBE ensured that every classroom activity contributed directly to the achievement of learning outcomes rather than merely delivering theoretical content.

Values-Based Education in Investment Decision Making

While technical competence is essential in finance education, investment decisions are often influenced by ethical considerations and professional integrity. The integration of Values-Based Education (VBE) within the Investment Analytics course, therefore, became an important pedagogical objective.

Finance history provides numerous examples where unethical financial practices have resulted in significant economic damage. Corporate scandals, financial fraud, and irresponsible investment behaviour have demonstrated the consequences of prioritizing short-term profits over ethical responsibility.

Within the Investment Analytics course, students were encouraged to reflect on ethical issues related to financial decision-making.

For example, discussions were conducted on topics such as:

- insider trading
- market manipulation
- corporate transparency
- ethical responsibilities of financial analysts

Through case-based discussions, students were asked to evaluate how ethical lapses in financial markets could affect investors, employees, and broader society.
In group discussions, students often debated whether investors should prioritize financial returns or consider ethical and social consequences when making investment decisions.
These discussions encouraged students to recognize that financial markets are not merely numerical systems but are embedded within broader social and ethical contexts.

From a reflective teaching standpoint, integrating VBE within investment education helped students appreciate that financial professionals must uphold high standards of integrity and responsibility.

Sustainability and Responsible Investment

The growing importance of sustainability has significantly influenced modern financial markets. Investors increasingly consider environmental, social, and governance (ESG) factors when evaluating investment opportunities.
Recognizing this trend, sustainability concepts were integrated into the Investment Analytics course to align with the sustainability competencies emphasized in MQF 2024.
Students were introduced to the concept of sustainable investing, which considers not only financial returns but also long-term environmental and social impacts.

Examples of sustainability-related discussions included:

- renewable energy investments
- environmental risk in corporate operations
- corporate social responsibility (CSR) practices
- ESG ratings and responsible investing

Students were also encouraged to examine how sustainability risks could influence long-term investment performance.

For example, companies involved in environmentally harmful activities may face regulatory penalties, reputational damage, or declining investor confidence. Conversely, companies adopting sustainable business practices may benefit from increased investor interest and long-term growth potential.

By incorporating sustainability into investment analysis, students gained a broader understanding of how financial markets interact with global sustainability challenges.
This integration reflects the evolving role of finance professionals in supporting sustainable economic development.

Reflective Teaching Practice in the Investment Analytics Course

Reflective teaching involves critically examining one's teaching strategies to improve student learning outcomes. In the context of the Investment Analytics course, reflection played a crucial role in refining pedagogical approaches and ensuring alignment with MQF 2024 principles.

Several reflective insights emerged from the teaching experience.
First, students demonstrated stronger engagement when learning activities involved real financial data rather than hypothetical examples. Practical analysis of stock market charts allowed students to experience the dynamic nature of financial markets.

Second, collaborative learning activities such as group presentations and investment simulations encouraged students to develop communication and teamwork skills alongside analytical competencies.
Third, the integration of ethical discussions helped students recognize the broader responsibilities associated with financial decision-making.
Through reflective evaluation of classroom experiences and student feedback, the course design was continuously improved to enhance learning effectiveness.

Case Study: Implementation in Universiti Teknologi MARA (UiTM)
The Investment Analytics course was implemented within the Faculty of Business and Management at Universiti Teknologi MARA (UiTM). The course forms part of the finance curriculum aimed at preparing students for careers in investment analysis, financial advisory, and portfolio management.
One notable feature of the course is the integration of experiential learning.
Students were required to conduct a comprehensive investment analysis project involving a publicly listed company. The project required students to:

1. analyse macroeconomic conditions
2. examine industry trends
3. evaluate company's financial performance
4. interpret technical chart indicators
5. propose investment recommendations

The project culminated in a group presentation where students defended their investment decisions before the class.
This activity simulated real-world investment decision-making processes and required students to integrate multiple analytical perspectives.
In addition, students were encouraged to reflect on whether their investment recommendations aligned with sustainability and ethical considerations.
The case study demonstrates how a finance course can simultaneously develop technical expertise and broader societal awareness.

Implications for Finance Education
The case study highlights several implications for higher education educators, particularly those teaching finance and business courses.

First, finance education should incorporate ethical discussions to ensure that students understand the societal consequences of financial decisions.
Second, sustainability considerations should be integrated into investment analysis to reflect contemporary trends in global financial markets.
Third, educators should adopt experiential learning strategies that allow students to apply theoretical knowledge to real-world financial scenarios.

These approaches help ensure that finance graduates possess not only analytical competence but also ethical responsibility and sustainability awareness.

Conclusion
The Malaysian Qualifications Framework 2024 provides a valuable framework for transforming higher education by emphasizing competency-based learning, ethical values, and sustainability.

Through the case study of the Investment Analytics course, this article demonstrates how these principles can be embedded within finance education through curriculum alignment, experiential learning, and reflective teaching practice.

The integration of Outcome-Based Education, Values-Based Education, and sustainability within investment education allows students to develop both technical expertise and broader societal awareness.
Ultimately, finance education should aim to produce graduates who are capable of making responsible investment decisions that contribute to sustainable economic development.
Reflective teaching practice, therefore, plays a critical role in ensuring that national educational frameworks such as MQF 2024 translate into meaningful learning experiences within the classroom.

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LEARNING BY SERVING IN SULAM ADVOCACY: EVIDENCE ON VALUES FORMATION AND INDUSTRY-READY SKILLS

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Abstract
Service-Learning Malaysia-University for Society (SULAM) represents a transformative pedagogical approach designed to integrate academic curricula with active community service (Ministry of Higher Education Malaysia [MOHE], 2019). Drawing on evidence from the students' STARR (Situation, Task, Action, Result, Reflection) reflection reports, the paper demonstrates how "learning by serving" cultivates ethical awareness, communication skills, teamwork, and applied financial knowledge. The findings highlight that service-learning not only enhances community financial literacy but also strengthens students' professional readiness and moral responsibility. As financial literacy becomes increasingly critical in navigating the modern economic landscape (Lusardi & Mitchell, 2023), these projects demonstrate how university students can translate complex financial concepts into accessible community knowledge while simultaneously cultivating professional skills and ethical stewardship.

The Pedagogical Promise of SULAM
Higher education institutions increasingly seek pedagogical approaches that integrate values, skills and authentic community engagement. Service-Learning Malaysia-University for Society (SULAM) is an educational initiative that combines academic learning outcomes with community service. It allows students to apply the theoretical knowledge they learn in the classroom to solve real-world problems in the community. Service-learning (SULAM) offers such integration by positioning students as facilitators of knowledge while simultaneously developing their own competencies.

To cater to different community needs and academic disciplines, SULAM projects are generally categorized into several distinct approaches: Direct SULAM, Indirect SULAM, and Advocacy SULAM.

Direct SULAM involves face-to-face interactions where students work closely with the beneficiaries, the individuals, communities, or environments they are serving—such as tutoring children or conducting community classes—to create an immediate, tangible impact. Conversely, Indirect SULAM operates behind the scenes, focusing on developing resources, tools, or infrastructure—like designing a non-profit website or producing educational materials, restoring historic structures, compiling a town's history, or producing an educational video on social distancing—that provide long-term support without requiring direct physical interaction with the end-users. Finally, Advocacy SULAM centers on empowering communities through education and awareness campaigns. In this approach, students act as advocates for public interest topics—such as promoting financial literacy or warning against investment scams—aiming to inspire action, shift mindsets, and address systemic issues within a community.

In Malaysia, financial literacy is a national priority and embedding it within service-learning provides a meaningful context for students to practice ethical responsibility, communication, and applied problem-solving.

With the SULAM Advocacy approach, in particular, projects focus on raising awareness, educating the public, and promoting positive behavioural change on issues that matter to society. In the context of financial literacy, SULAM provides students with the opportunity to translate financial concepts into accessible learning experiences for diverse community groups. By conducting awareness sessions, designing assessments, and facilitating

discussions, students not only enhance community knowledge but also cultivate communication, teamwork, and analytical competencies. Through this "learning by serving" approach, SULAM nurtures socially responsible graduates who can contribute meaningfully to both industry and society.

Project Name	Identifiable Community Issue(s)	Focus / Objective
Project 1: Takaful Literacy	A general lack of Takaful awareness, which is a crucial part of financial security. While the community had some basic awareness, their overall understanding was limited , particularly in differentiating Takaful from conventional insurance and understanding principles like the prohibition of Riba, Gharar, and Maisir.	Educating participants about Shariah-compliant financial protection.
Project 2: Saving Awareness	The community often does not prioritize saving and lacks awareness regarding planning for future financial needs. Individuals struggle with basic spending habits and face difficulties in saving money , especially when dealing with the rising cost of living.	Teaching saving habits and effective personal financial management to the community.
Project 3: Investment Literacy	Many people lack basic knowledge about how investments work, including understanding risks, returns, and long-term planning. This lack of awareness, coupled with an increasing number of investment scams, leads young adults to fall victim to fraudulent schemes and make poor financial decisions.	Addressing investment risks, scams, and long-term financial planning to build wealth gradually.

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Source: Author's summary

Service-Learning and Value-Based Education

Service learning (such as the SULAM initiative) is an experiential teaching method that integrates these academic curricula with active, meaningful community service. It requires students to apply their theoretical classroom concepts to help solve real-world community challenges. Meanwhile, Value-Based Education (VBE) is an educational philosophy that emphasizes the internalization of core ethical values through lived experiences and continuous reflective practice. Rather than focusing solely on academic achievement, VBE seeks to seamlessly align a student's knowledge with their behavior and moral character.

Value-Based Education (VBE) fundamentally emphasizes the internalization of core values through lived experiences and continuous reflective practice. By prioritizing a seamless alignment between an individual's academic knowledge, personal behavior, and moral character, this pedagogical approach actively drives the development of profound ethical reasoning. These values may include empathy, integrity, responsibility, respect and social justice. In Islamic educational contexts, values such as *amanah* (trustworthiness), *ihsan* (excellence), *rahmah* (compassion) and *mas'uliyyah* (accountability) are central to holistic human development.

However, VBE often struggles to move beyond theoretical instruction. Students may understand values conceptually but lack opportunities to practice them in authentic contexts. Service learning acts as the practical vehicle for Value-Based Education. By stepping out of the classroom and serving the community, students do not merely memorize ethical concepts in a hypothetical sense. Instead, they actively practice them—demonstrating empathy, civic responsibility, and integrity—while simultaneously developing real-world, industry-relevant competencies.

The SULAM projects demonstrate this through students' reflections on responsibility, sincerity, and community engagement. These reflections show that service-learning transforms values from abstract concepts into lived experiences.

Project Name	Focus / Objective	Value-Based Education Integration (The "Heart")	Evidence from Reflections
Project 1: Takaful Literacy	Educating the community about Shariah-compliant financial protection.	***Ethical Finance & Shariah Compliance:*** Students integrated Islamic values by emphasizing ethical financial systems free from Riba (interest), Gharar (uncertainty), and Maisir (gambling).	The project highlighted Takaful as a key tool aligned with Islamic principles. The awareness activities focused on promoting mutual cooperation and an ethical financial protection system.
Project 2: Saving Awareness	Teaching saving habits and effective personal financial management.	***Knowledge as a Sacred Trust (Amanah) & Civic Duty:*** Students internalized the deep moral and religious responsibility of sharing knowledge with the community, viewing it as a sincere service rather than just an academic exercise.	Students explicitly reflected that "Knowledge in Islam is not a degree that we hang on the wall, but rather it is a trust and a responsibility". They also noted that "Whoever does not benefit with his knowledge has betrayed trust".
Project 3: Investment Literacy	Addressing investment risks, scams, and long-term financial planning.	***Protecting the Community & Empathy:*** The educational value was rooted in safeguarding the public from fraudulent schemes and the real-life consequences of poor financial choices. Students also practiced patience and empathy when teaching.	Students aimed to "help them recognize warning signs of scams, and encourage responsible financial behavior". They reflected that participants realized "the real consequences of taking the wrong risk not just in financial decision, but also in life" , and that teaching such topics "requires a lot of patience".

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Source: Author's summary

Service-Learning and Industry Skill Optimization

Service-learning is an educational approach that intentionally blends academic coursework with meaningful community service, moving students beyond theoretical classroom learning into active, hands-on civic engagement.

Industry skill optimization involves aligning educational outcomes directly with the specific competencies demanded by modern employers. To thrive in the contemporary workforce, individuals must increasingly cultivate strong communication and interpersonal skills, alongside a proven capacity for teamwork and collaboration.

Furthermore, employers actively seek candidates who demonstrate adaptability and resilience, coupled with robust problem-solving and critical thinking abilities. These foundational skills must be firmly supported by comprehensive digital literacy and a commitment to ethical decision-making to fully bridge the gap between academic preparation and professional readiness.

Employers consistently report that graduates may possess technical knowledge but lack the soft skills and ethical maturity needed for workplace success. This gap highlights the need for pedagogical approaches that integrate real-world experience with value formation.

Together, these two concepts create a powerful educational synergy. Service-learning acts as a dynamic, real-world training ground for industry skill optimization. By participating in initiatives like SULAM (Service-Learning Malaysia-University for Society), students are thrust into authentic scenarios where they must organically practice and optimize the exact professional skills they will need in their future careers, all while making a positive, value-driven impact on society.

Industry increasingly demands graduates who can communicate clearly, collaborate effectively and apply knowledge in real-world contexts. The SULAM projects provided structured opportunities for students to practice these competencies.

Industry Skill Competency	Description	Evidence from SULAM Reports
1. Communication & Facilitation Skills	Ability to explain financial concepts clearly, guide participants, and communicate instructions effectively in online and community settings.	Students "approached the participants in a friendly and polite way" and ensured instructions were "simple and clear" so participants could respond meaningfully (Saving Report). The Takaful team guided participants through Google Forms and Q&A sessions, ensuring they "understood the tasks they were required to complete."
2. Teamwork & Collaborative Coordination	Capacity to divide tasks, coordinate roles, manage workflow, and maintain effective group communication to deliver community programmes.	The Takaful group stated that "tasks were divided clearly based on each member's ability," which "improved efficiency and reduced confusion." The investment team highlighted that "effectively delegated roles… ensured high-quality output," showing strong collaborative planning.
3. Analytical & Assessment Skills	Ability to design assessment tools, interpret pre/post data, and evaluate learning outcomes using structured methods.	All groups used pre- and post-assessment forms. The investment team compared scores to "observe the improvement" in participants' knowledge. The Takaful group used Google Forms to "measure participants' level of knowledge, awareness, and understanding," demonstrating applied analytical skills.

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Source: Author's summary

Case Study Analysis: SULAM Advocacy Projects

Utilizing a consistent pedagogical framework of Constructing, Planning, and Executing, the student-led SULAM projects leveraged digital tools like Google Meet, Google Forms, and YouTube to deliver three crucial pillars of financial literacy to their communities.

The first project focused on Takaful, empowering participants to differentiate between Shariah-compliant protection and conventional insurance. By explaining core principles like the prohibition of Riba, Gharar and Maisir, students improved public understanding while learning to translate complex Islamic finance concepts into accessible language

The second initiative tackled saving habits among a diverse demographic to build financial resilience against the rising cost of living, which profoundly deepened the students' value-based education as they reflected that sharing knowledge is a sacred trust and responsibility in Islam, rather than just an academic degree.

Finally, the third project addressed the critical need for investment literacy, driven by the alarming rate of individuals falling victim to fraudulent schemes due to a lack of basic financial knowledge. Pedagogically, students aimed to educate young adults on safe investment practices, the relationship between risk and return, and long-term financial planning.

Project Theme	Context & Objectives	Pedagogical Actions (Execution)	Key Results & Outcomes	Competencies & Values Gained
Takaful	Educate the community on Shariah-compliant financial protection and distinguish it from conventional insurance by understanding the prohibition of Riba, Gharar, and Maisir.	Curated targeted YouTube videos and utilized Google Forms for pre- and post-assessments to measure participants' understanding.	Increased community awareness and demonstrated a measurable improvement in participants' grasp of basic Takaful concepts.	Developed hard skills in survey design and data analysis, alongside soft skills like teamwork and simplifying complex concepts for the public.
Saving	Foster good saving habits and effective personal financial management to help individuals combat the rising cost of living.	Engaged a diverse demographic across various ages and incomes via Google Meet, sharing relatable videos and structured assessments.	Enhanced participants' awareness of their personal spending habits and the importance of planning for future financial needs.	Internalized the ethical value that sharing knowledge is a civic trust and responsibility in Islam, while vastly improving communication skills.
Investment	Teach young adults (ages 20-30) about risk, return, and diversification to prevent them from falling victim to financial scams and to encourage long-term stability.	Hosted structured Google Meet sessions featuring five curated YouTube videos (at least 10 minutes each) and tracked learning via pre- and post-forms.	Significantly boosted participants' confidence and comprehension regarding safe investment practices and asset management.	Mastered digital platform management, strategic project planning, and the ability to break down high-level financial data into digestible content.

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Source: Author's summary

Across all initiatives, students successfully analyzed pre- and post-assessment data to quantitatively measure community learning gains, thereby honing their digital facilitation skills and their ability to translate complex financial concepts into accessible, value-driven public education.

The Pedagogical Bridge: Values Meets Industry

The pedagogical bridge where value-based education meets industry skill optimization lies in its capacity to produce holistic, future-ready graduates who are as ethically grounded as they are technically proficient. In traditional academic settings, students often learn technical skills in isolation from their societal implications. However, the Service-Learning Malaysia-University for Society (SULAM) framework demonstrates that when universities bridge the "ledger" (practical competencies) with the "heart" (civic and moral duty), the educational experience becomes deeply transformative for both the student and the community.

First, this pedagogical bridge is crucial for cultivating ethical professionals. By engaging directly with the public, students realize that their academic expertise carries a profound moral weight. Second, the bridge is essential for practical industry readiness. Theoretical knowledge alone does not equip students for the complexities of the modern workplace. Through SULAM, students were forced to operationalize their learning, thereby developing highly sought-after industry competencies such as project management, data analysis, and digital literacy. Finally, this bridge validates academic learning through authentic community impact. Ultimately, the pedagogical bridge is vital because it creates a symbiotic relationship: it supplies the industry with capable, socially responsible leaders while directly empowering marginalized communities through shared knowledge.

Across the initiatives, students operationalized core ethical values such as responsibility in content preparation, compassion in designing accessible materials and integrity in aligning information with Islamic financial principles. For instance, the Takaful literacy team demonstrated ethical sensitivity by emphasizing the necessity of "designing educational content that is systematically aligned with participants' prior knowledge".

Concurrently, these projects facilitated the development of essential real-world competencies. Students were actively tasked with designing digital assessments, facilitating online learning sessions, analyzing quantitative data, communicating complex financial concepts and collaborating effectively in teams. These practical experiences align directly with the rigorous expectations of the modern workforce in finance, education, and community development.

The STARR reflections from these three projects reveal a distinct bridging effect between academic theory and practical application.

Pedagogical Focus Area	Value-Based Education (The "Heart")	Industry-Relevant Competencies (The "Ledger")	Evidence from SULAM Projects
Project Management & Execution	Fostering teamwork, shared responsibility, and sincere community service.	Strategic task distribution, workflow planning, time management, and risk mitigation.	Groups strategically divided tasks (e.g., data collection, technical setup, reporting) based on individual strengths. The Investment group specifically learned the importance of "buffer time" and anticipating risks to create contingency plans ("Plan B").
Data Analysis & Assessment	A commitment to measurable community improvement and academic integrity in evaluating real-world impact.	Constructing structured surveys, interpreting quantitative/qualitative data, and evaluating key performance indicators (KPIs).	All groups utilized Google Forms to conduct pre- and post-assessments, empirically measuring knowledge gaps and learning gains regarding Takaful, saving, and investing. The Takaful group noted that automatically sorted data made systematic reporting easier.
Digital Literacy & Communication	Empathy in making complex academic and financial concepts accessible, relatable, and digestible for the general public.	Managing virtual platforms, curating multimedia content, and digital facilitation.	Students utilized digital tools like Google Meet to host sessions and curated specific YouTube videos to visually explain complex topics like risk, return, and diversification. They learned that clear, well-structured communication is vital for audience engagement.
Ethical Stewardship & Civic Duty	Viewing knowledge as an Islamic trust and responsibility to society, rather than just a degree, while advocating for ethical wealth building.	Ethical advisory, stakeholder engagement, and identifying socioeconomic pain points (e.g., scams, inflation).	The Saving group reflected that failing to share financial knowledge is a betrayal of trust in Islam. The Takaful group advocated for Shariah-compliant systems free from Riba, Gharar, and Maisir. The Investment group aimed to protect young adults from fraudulent schemes.

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Source: Author's summary

Furthermore, the SULAM advocacy model ensured that this learning was grounded in authentic community engagement rather than hypothetical academic scenarios. Ultimately,

learning by serving ensures that university graduates emerge not only with optimized industry skills but also with a profound sense of civic responsibility, successfully bridging the gap between theoretical values and practical competencies.

Conclusion

Service-learning provides a meaningful bridge between value-based education and industry skill optimization. The three SULAM financial literacy projects demonstrate that "learning by serving" enables students to practice ethical responsibility while developing communication, analytical, and facilitation skills essential for the workforce.

By engaging real communities, students deepen their understanding of financial literacy issues and strengthen their readiness to contribute to society. The evidence from the Takaful, saving, and investment projects affirms that service-learning is a transformative approach capable of producing graduates who are both competent and compassionate.

Ultimately, programs like SULAM validate the dual mandate of modern higher education: to produce graduates who are not only technically proficient and adaptable to the modern workforce (Bringle & Clayton, 2021) but also empathetic, socially responsible leaders. By tasking students with solving real-world challenges, universities can ensure that the professionals of tomorrow are equipped with both the competencies to succeed and the values to lead ethically (Ministry of Higher Education Malaysia [MOHE], 2019). The success of these financial literacy initiatives proves that when learning is anchored in service, it empowers marginalized communities while forging a generation of graduates ready to bridge the gap between economic progress and societal well-being.

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MARKETING THE CLASSROOM: CO-CREATING VALUE, TRUST, AND ENGAGEMENT IN HIGHER EDUCATION

Sharmin Baba, Azila Jaini, Nur Auni Afifah Abdul Karim

Introduction

I used to believe that teaching marketing meant mastering the theories and frameworks. The 4Ps, segmentation, targeting, positioning, consumer decision making models, buying behaviour concepts, all of these were my tools, and I used them with confidence. My teaching slides were structured. My case studies were relevant. My explanations were solid. The examples given were the latest. Students listened, took notes, and prepared for exams. On paper, everything looks fine. However, something felt incomplete yet good enough. Some students were engaged, others were silent, a few were curious, many were simply obedient. That quiet gap between delivery and impact forced me into one big question. If marketing is fundamentally about understanding human needs and creating value (Kotler & Keller, 2016), why was I focusing so heavily on content delivery rather than the human interaction itself? This matter kept playing in my mind and it slowly transformed my thinking on how I viewed my lovely classroom, which is not simply just a school place, but as a knowledge centre where value must be co-created.

Co-creation of value

In marketing theory, the evolution toward service-dominant logic reframed value as something not embedded in products but co created through interaction (Vargo & Lusch, 2004). These words unsettled me in the best possible way. In an educational context, students can be considered as customers or clients. If customers co-create value, then students are the ones who co-create learning. Education, like marketing, is relational. This realization aligned with constructivist learning theory, which argues that learners actively construct knowledge rather than simply absorb it (Bruner, 1961). Here, I began to realize that my role was not merely to just cover the syllabus but to create experiences where students could interpret, question, and reshape marketing concepts through their intellectual storage. Discussion became less about identifying the right segmentation strategy, but more to debating session. Case studies turned into platforms for opinion exchange, not rehearsals of textbook answers. Group projects moved from absolute outputs to critical solution processes. This revolution made me notice something subtle but effective. When students felt ownership over learning, their engagement and attention deepened. Discussions became less about identifying the “correct” segmentation strategy and more about debating trade-offs. Case studies turned into platforms for argument, not rehearsals of textbook answers. Group projects shifted from structured outputs to negotiated processes. Slowly, I noticed something subtle but powerful, when students felt ownership over learning, their engagement deepened. The classroom started to feel less like a lecture hall and more like a collaborative laboratory of ideas.

Trust

This paradigm shift forced me to rethink the concept of trust. In relationship marketing theory, trust is central to long term relationships (Morgan & Hunt, 1994). In the absence of trust, transactions remain insignificant. This applies similarly to education. Students will comply without trust, but they will not experience the real engagement. Research on student engagement consistently shows that meaningful interaction with instructors significantly affects motivation and persistence (Kuh, 2009). Early in my profession, I put professionalism with distance. Authority was functioned through strict interaction and formal boundaries. Over time, I started to realize and learn that being approachable does not jeopardize my credibility,

instead enhance it. Besides that, transparent grading rubrics, timely feedback, and honest conversation about academic stress contributed more to engagement than perfect slides ever could. Before student presentations. I acknowledge their nervousness openly, instead of condemning. When having a consultation and discussion, I invite disagreement rather than consensus. All these practices encourage cultural psychological safety, allowing students to be confident in expressing their views intellectually without feeling fear and humiliation. Again, trust is cumulative, not dramatic but grows consistency.

Engagement

Another element is engagement, which demands re-examine. In the specific context, engagement is often misunderstood as entertainment. A lively classroom is assumed to be an effective one. Some research distinguishes behavioral, emotional, and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004). During the lecture students may laugh, participate, and still fail to think deeply. As we know, marketing education cannot be escaped from being vulnerable to certain activities such as viral campaigns, flashy advertisements, gamified quizzes. I have also experimented with simulations, competitive branding games, and digital platforms to energize the room. These tools are undeniably powerful entry points, but they are not the main goals. The most meaningful learning moments often actually occur during reflective debriefs, when students unpack why their strategies failed or why ethical tensions emerged. When a student realizes that maximizing profit might conflict with social responsibility, the classroom becomes more than a strategic arena; it becomes a moral one. Teaching marketing indirectly invites ethical reflection. Scholars have warned that narrow management theories can unintentionally shape questionable business practices (Ghoshal, 2005). In my classes, I would rather make discussions for any interesting topics like influencer culture, sustainability claim, greenwashing practices and data privacy transform into symposium sessions about integrity. I no longer treat ethics as a separate lecture but instead, it would be integrated into every strategic conversation, because persuasion without responsibility is manipulation, and marketing without conscience is simply extraction.

Flexibility

My experience during the COVID-19 pandemic deepened these reflections. Overnight, classrooms moved online. Cameras were off. Silence filled virtual rooms. Students faced anxiety, isolation, and uncertainty; research documented significant mental health impacts during this period (Son et al., 2020). In that situation, normal practices applied prior to the pandemic felt so disconnected from reality. Therefore I redesigned activities for digital platforms, combining with collaborative tools, and to some extent, having virtual sharing beyond office hours. Yet the most important shift was not solely about physical but philosophical. I began prioritizing empathy over performance measures. I have viewed flexibility as a form of leadership rather than leniency. Brief check-ins were introduced before complex topics. Deadlines turned into negotiations instead of threats. This is revealed as a more humanitarian approach, and not lowering the standard. Surprisingly, this period strengthened my conviction that teaching marketing is fundamentally about people, not frameworks. Theories remain essential, but their relevance depends on emotional connection.

5. Branding

At some point, I also began thinking about branding. Marketing scholar stated that having a strong branding also could foster consumer confidence in the product or services offered (Kotler & Keller, 2016). However, in corporate sense, I could relate branding more to educator identity. Students, consciously or not, develop perceptions and those perceptions would lead to their confidence and dependency toward the lecturers. At first, I tried to cultivate a brand of authority, precise, efficient, and somewhat distant as my identity. Over time, I realized that authenticity is far more sustainable than performance. In marketing, strong brands also align

promise with behavior This same logic can be applied to teaching. If I emphasize ethical marketing, then my assessment practices must be fair. If I promote collaboration, then my classroom must be a dialogue-driven environment. Even sharing my own struggles with rejected journal articles or failed marketing campaigns surprisingly helped build rapport with students. They saw that I'm not perfect; they saw my process. This did not undermine my credibility, it enhanced it. Originality is important because it demonstrates a sense of coherence between my values and action.

Embracing change

Living in an academic life is challenging yet interesting. Through dynamic environment, we might see the shifting of the policies, technologies evolvement, and massive change of student expectations and behaviour. Marketing strategy itself teaches environmental scanning and adaptive positioning. Strangely, I have found comfort in applying that mindset to my academic journey. Rather than against change, I embrace it. Rather than being afraid of new technologies like the use of artificial intelligence tools in marketing analysis, I incorporate them thoughtfully into my coursework. Rather than monitoring students for AI software use, I refocus my assignments on interpretation, creativity, and critical thinking skills that are difficult to automate. This is not a technology avoidance but rather a strategic alignment. Resilience, like brand equity, builds over time through consistency and thoughtful adjustment.

Lessons and reflections

Perhaps, the most humbling insight from this beautiful ride is that students consistently redefine my understanding of marketing itself. Their perspectives on sustainability, digital culture, and social impact challenge established case studies. They question traditional advertising logic and demand ethical transparency. In paying attention carefully, I have always reminded myself that teaching is a mutual rather than an individual benefit. Keep in mind, students are not passive consumers of knowledge, instead they are emerging professionals and future leaders with distinct views and diverse opinions. When they give critiques such as outdated campaigns or propose innovative digital strategies, the classroom turns into a living marketplace of ideas. In those moments, co-creation is not a metaphor but a reality.

Looking back to this journey, I no longer see my transformation as a leaving act from marketing principles but instead embrace the theories to more deeper understanding and real-life application. Marketing, at its intellectual core, is about understanding human behavior, building relationships, and creating value ethically. Teaching is similarly practiced with those same commitments. The classroom is not just a place for knowledge delivery and students are not just simply customers to be served. Education is beyond transaction. And yet, marketing concepts, understood in a relational sense rather than a business sense, provide valuable analogy for creating meaningful learning experiences. Value is co-created; trust is the foundation of commitment; engagement has content; influence has responsibility. This set of concepts has been more significant to my philosophy of teaching than any set of framework or slide decks ever has.

Lastly, the most significant transformation was intrinsic. I joined the education line as a lecturer in preparation to teach marketing strategies, but I soon realized that teaching itself is a strategic, ethical, and human endeavour. The human aspect of teaching does not undermine academic rigor, it enhances it. When students feel trusted, challenged, and respected, their intellectual curiosity expands. When students get into arguments, maturity evolves. When ethical reflection accompanies strategic analysis, professional identity develops alongside technical skill. When authenticity replaces performance, credibility grows organically. Teaching marketing has taught me that influence carries responsibility, that value emerges through collaboration, and that education like ethical marketing is ultimately about people.

Conclusion

In conclusion, my insights may contribute less than what others experienced but I do believe this could give significant values for us as educators in improving ourselves to be better. As a marketing lecturer, I want to highlight again that *"marketing the classroom is equally important as marketing the business".*

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BUILDING A LEARNING ORGANIZATION IN THE CLASSROOM

Khairunnisa Rahman, Rudza Hanim Mohamed Anuar, Nazihah Omar, Yuslizawati Mohd Yusoff

Introduction

Education is an important aspect of a country's development and a pillar of societal development, producing individuals competent in various aspects of life (Manaksia & Anggraeni, 2018). To achieve sustainable progress and development, educational innovation is crucial. In an era of rapid development, educational innovation has become a necessity.

The fundamental management course is often considered by students to focus on the basic management concepts of planning, organizing, leading, and controlling. process. In the increasingly challenging organizational world, it is very important to give students an understanding that they need not only to understand the definition and management function but also to see management as a dynamic process that involves organizational members, organizational values, and the whole organizational system. Memorising concepts and theories is not enough to learn the management concept; they must be accompanied by a learning reflection, a creative, and systematic way of thinking.

Realizing this challenge made the author think about how to make the classroom not only a place to learn theoretical knowledge, but also a real organization. The classroom as a learning organization, where students not only receive knowledge but also actively learn, think, and grow together, aligns with Senge's concept of a learning organization. The Fifth Discipline emphasizes that members in the organizations learn continuously through five main disciplines: personal mastery, mental models, shared vision, team learning, and system thinking. Although the concept introduced by Peter Senge was developed for an organization, it is relevant to higher education, especially in the study of fundamental management. The classroom can be seen as a 'small organization' with its own structure, culture, goals, and continuous interaction among its members. Emphasizing the concept of a learning organization in the classroom helps students understand fundamental management concepts directly.

LEARNING ORGANISATION

Senge (1994) defines a learning organization as one in which employees continuously improve their capacity to produce desired results, where new ways of thinking are seeded, there is freedom to pursue group ideals, and members learn how to learn together and continuously. Learning Organization is defined by Mike Pedler et.al (1988) as an organization that can facilitate the learning of each of its members and change itself continuously.

According to Watkins and Marsick (2000), in building a learning organization, the organization needs to create continuous learning opportunities, improve communication, support teamwork and collaboration, introduce a system for sharing information, empower employees toward a collective vision, and connect the organization with its environment.
Personal mastery.

It refers to an individual's commitment to self-development through continuous learning (Senge, 1990). Personal mastery in the organisation focuses on an employee's ability to create desired results, solve problems, communicate, collaborate, and engage in continuous learning through creativity and enthusiasm. In addition, clear goals within the organization, participation in training programs, conveying ideas to colleagues, and understanding the work and responsibilities are measures of personal abilities. In the context of a learning organisation in the classroom and in a learning situation, this element can be implemented through

reflection activities after completing each topic. In this way, students can make a self-assessment from the aspect of understanding the topic being studied.

For example, when students learn about planning, they are asked to conduct a learning reflection by assessing a plan. At first students thought that this topic only focused on organizational planning and also the responsibility of a manager in making plans but it can also be applied to daily life where students are able to make plans in their personal lives and daily activities such as managing study schedules, setting goals such as setting targets to improve communication skills and the ability to voice opinions and ideas.Through this process of reflection, students can relate theoretical learning from the lecture room to personal experience (Kolb, 1984).

Mental models

The mental model in the organisational setting is that an employee learns new skills and that there are changes in the distribution of responsibilities within a wider context. Employees are not bound to a single view or perspective. They always strive to maximize success and minimize failure. Management takes employees' views and ideas into account and puts them into practice to drive organizational change.

It involves how assumptions, beliefs, and thoughts shape each individual's perception and interpretation of reality (Senge, 1990). In the classroom, students perceive the manager in the organization as someone with the power to give instructions and control, and responsible for punishing mistakes. This bias can affect students' understanding of modern management, which is now more flexible and dynamic. Students are given the opportunity to discuss openly, role-play the given scenario, and the lecturer acts as a facilitator to clarify and foster open dialogue. They are also given the opportunity to evaluate and correct existing perceptions and frames of mind to achieve a correct understanding.

Shared Vision

The shared vision among employees is unification in organizational decisions and actions, understanding of the organization's goals and objectives, open communication channels, commitment to the organization's vision and mission, and encouragement of innovation and renewal through shared opinions and ideas.

It is a process of giving meaning to members and emphasizing the building of shared aspirations. This approach can be implemented in the first week of lectures, when students are introduced to the course, the topics to be studied, the learning outcomes to be achieved, and the evaluation method used to assess them. The discussion is conducted openly, with the lecturer setting the rules to be followed and students given the opportunity to express their hopes and concerns. The discussion is carried out openly, and the agreement between the lecturer and the student to comply with the 'do and don't,' or classroom rules, is considered a mutually agreed learning contract. Each student has a commitment to the class vision, and agreement is considered a commitment to that vision.

Academic goals influence students' behavior in the classroom and drive them to achieve a series of objectives in their academic lives (De la Fuente, 2004). This indirectly implements the principle of shared vision, which is not only appropriate and relevant for an organization but also practiced in the classroom. When students are committed to preparing their tasks, they will cooperate with one another, which may benefit student motivation and learning (Johnson & Johnson, 2005). Each group must list their goals for completing the assignment and have been given the opportunity to present them in class, related to the topic of planning in fundamental management.

Team learning
Team learning is studied through the sharing of vision and personal skills through discussion and exchange of opinions among organizational members. The use of skills in teamwork, holding discussions to make decisions, implementing a project as a team, and working together are measures of team learning. Focusing on collective learning and emphasizing the group's ability to think (Senge, 1990). It is very important for the students to have a conducive environment for effective team learning. Mendo-Lázaro, S. (2022). In the fundamental management course, the group project is one of the assessment components. To ensure this principle is implemented, students are given the freedom to form their own groups and choose appropriate group members. Group leaders are appointed and given the opportunity to plan the group's objectives, identify activities, and ensure each group member carries out assigned responsibilities.

The leader is given the opportunity to carry out his managerial functions and also develop a control method, for example, ensuring that tasks are completed on time. After the project is completed, students are given space to reflect on the strengths and weaknesses of the management process implemented. If there is a conflict or difference of opinion, students should learn to communicate and make important decisions to ensure that the planned objectives are achieved. This process gives them real experience and a deep understanding of management concepts, rather than just learning the theory from books. According to Nisa et al. (2023), collaborative learning can improve critical thinking and students' interpersonal skills. Collaborative Learning as a model of educational innovation in learning emphasizes cooperation and collaboration between students to achieve joint learning goals that can encourage social interaction, active involvement, and joint knowledge construction

SYSTEM THINKING
Systematic thinking involves examining things thoroughly and holistically, emphasizing the organization's long-term goals. It is also measured through the activities and involvement of various parties, as well as through its connection with other matters, as reflected in feedback that flows upwards and downwards within the organization.

It is the core of all learning organization disciplines, helping individuals see the relationships and connections within a system (Senge, 1990). In the course of fundamental management, students can see that the concepts of planning, organizing, leading, and controlling are interconnected. Students are given the opportunity to participate in group discussions in tutorial activities for specific topics. For example, if there is a mistake in planning an activity, it can affect the organizing process, and a weakness in leading can affect the effectiveness of controlling the activity. Students are asked to identify cause-and-effect relationships between the decision and organizational outcomes. This activity provides students with an opportunity to understand that systematic thinking is essential for tackling a complex organisational challenge.

Conclusion

Applying a learning organization approach in the lecture room is a creative way to implement teaching methods. Through the application of the five disciplines built by Senge (1990), this course is able to form students who have creative thinking and have an identity as potential managers who are competent in line with Personal mastery helps students get to know themselves; mental models challenge old assumptions; shared vision builds mutual commitment; team learning strengthens collaboration; and systems thinking develops a holistic perspective. This approach shows that effective management teaching is not just about teaching about organization but modelling the learning organization in the classroom itself. With that, students not only understand management theory, but also experience and appreciate it as a lifelong learning process

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ROLE OF EDUCATORS AS MENTORS, GUIDES, AND LEARNING DESIGNERS FROM ACADEMICIANS' PERSPECTIVES IN MALAYSIA

Mazlina Ismail, Nur Adilah Saud, Muruga Chinniah

Introduction

Globalisation, technological advancement, and the growing need for knowledge-based economies are all causing major changes to education systems worldwide. The duties and responsibilities of educators in schools and higher education institutions in Malaysia have changed as a result of these changes. In the past, students were seen as passive recipients of knowledge, and teachers were primarily seen as knowledge transmitters who gave lectures. However, modern educational viewpoints stress that teachers need to take on more dynamic responsibilities that support students' overall growth. According to Malaysian academicians, educators today are required to actively promote students' intellectual, emotional, and professional development in addition to serving as mentors, advisors, and learning designers. This change is in keeping with the objectives set forth in the Malaysia Education Blueprint 2015–2025 by the Ministry of Education Malaysia.

Educators as Mentors

Mentorship is one of the most significant tasks of educators, according to Malaysian academicians. Mentoring is a supportive relationship in which teachers give students professional advice, direction, and encouragement. In contrast to traditional instruction, mentoring emphasises students' whole development, including their academic achievement, personal development, and professional goals. Teachers frequently serve as mentors at Malaysian higher education institutions by assisting students in overcoming obstacles in their coursework and adjusting to university life. Ismail and Abiddin (2011) assert that mentoring has a major impact on students' motivation, attitudes, and academic achievement. Teachers assist students in gaining self-assurance, leadership abilities, and a feeling of accountability through mentoring relationships. Additionally, mentoring helps students create their professional identities. For example, instructors who oversee postgraduate theses or undergraduate research projects frequently advise students during the research process. They assist students in developing research topics, choosing suitable approaches, and analysing study results. The research and critical thinking abilities that are necessary for both academic and professional professions are developed by this mentorship.

Emotional support is a crucial component of mentoring. Many students suffer from stress and anxiety because of personal struggles, financial hardships, or academic demands. Teachers who serve as mentors help students overcome these obstacles and maintain their motivation by offering support and assurance. Supportive interactions between teachers and students increase students' sense of belonging and boost academic engagement, claim Zainal and Matore (2021). Additionally, mentoring is essential in helping students get ready for the workforce. Malaysian academics frequently give students advice on professional growth, internships, and career prospects. Teachers can improve students' employability by putting them in touch with specialists in the field and professional networks. This kind of mentoring helps close the knowledge gap between academic study and practical application.

In Malaysia, where students come from a variety of socioeconomic, cultural, and linguistic backgrounds, mentoring is especially crucial. Teachers who mentor students can offer tailored advice that considers each student's unique requirements and learning preferences. As a result, mentoring promotes inclusive education and guarantees that every student has the chance to achieve academic success.

Educators as Guides and Facilitators of Learning

Malaysian academicians stress the role of educators as mentors or learning facilitators in addition to mentoring. Students had a passive role in learning in traditional teacher-centered classrooms, where teachers were the main source of information. Modern teaching methods, however, place a strong emphasis on active learning, in which students participate in debates, group projects, and problem-solving exercises. As mentors, teachers assist students in conducting independent research while helping as required. Teachers who serve as facilitators enable students to challenge presumptions, critically evaluate material, and apply knowledge in practical situations, according to Abdullah et al. (2019). Deeper comprehension and long-term knowledge retention are encouraged by this method.

One of the key responsibilities of educators as guides is to foster critical thinking and problem-solving skills. Instead of simply delivering information, educators encourage students to evaluate different perspectives, interpret data, and develop their own conclusions. This is particularly important in higher education, where students must develop analytical abilities that prepare them for complex professional environments. Malaysian universities increasingly adopt teaching strategies that emphasize guided learning. For example, lecturers often use problem-based learning (PBL), where students work in groups to solve real-world problems. In this approach, the educator acts as a facilitator who guides discussions and encourages students to explore various solutions.

Another common strategy is project-based learning, where students collaborate on long-term projects that require research, planning, and presentation. Through such activities, educators guide students in developing teamwork, communication, and leadership skills. Guidance also involves helping students develop effective learning strategies. Educators teach students how to conduct research, evaluate sources of information, and manage their time effectively. In the digital age, where information is widely available online, students must learn how to distinguish reliable sources from misinformation. Educators therefore guide students in developing information literacy skills.

Additionally, by enabling students to assess their own learning processes, teachers support reflective learning. Students can set personal goals, recognise their strengths and limitations, and continuously improve their performance through reflection. Salleh et al. (2020) claim that reflective learning fosters lifelong learning and increases students' self-awareness. Teachers in Malaysian classrooms also direct cooperative learning exercises where students share knowledge. Students can share ideas and improve their interpersonal skills through group discussions, debates, and peer feedback sessions. Teachers assist students in developing the communication skills and self-assurance that are critical in work settings by supporting these exchanges.

Educators as Learning Designers

The use of technology in the classroom has greatly increased the role of educators. Malaysian academics emphasise that teachers now must act as learning designers, creating engaging lessons that meet learning objectives. Organising course material, choosing effective teaching techniques, and creating evaluation procedures that support learning goals are all part of learning design. Effective learning design guarantees that teaching activities, evaluations, and learning outcomes are well connected to improve student learning, according to Rahman and Abdullah (2021). Learning designers frequently include digital tools into instruction in Malaysian higher education institutions. Teachers can build interesting learning environments with the help of interactive technologies, multimedia presentations, and online learning platforms. In Malaysian colleges, blended learning—which blends in-person and virtual instruction—is becoming increasingly popular.

As learning designers, educators create cutting-edge educational resources like interactive modules, simulations, and movies. These tools make it easier for students to understand difficult ideas and interact with the material more successfully. For instance, business

professors can produce digital case studies that examine actual businesses, while engineering professors might build virtual simulations that let students experiment with technical systems. Another important aspect of learning design is the development of meaningful assessments. Educators must design assessments that evaluate not only students' knowledge but also their ability to apply concepts in practical situations. Authentic assessments such as presentations, case analyses, and research projects allow students to demonstrate their understanding in real-world contexts. Learning designers must also consider the diverse needs of students. Malaysian classrooms often include students with different learning styles, language abilities, and cultural backgrounds. Educators must therefore design inclusive learning environments that accommodate these differences. Providing multiple learning resources, offering flexible learning activities, and encouraging collaborative learning can help address diverse student needs.

During the COVID-19 epidemic, when schools switched to online instruction, the job of educators as learning designers became more important. To ensure that students could continue to learn well in virtual environments, Malaysian academicians had to modify their courses. The significance of adaptability, inventiveness, and technological proficiency in learning design was brought to light by this event.

Integration of the Three Roles

In practice, mentoring, guiding, and learning design are tightly related even though they are frequently discussed independently. To create full learning experiences that encourage both academic accomplishment and personal growth, effective educators integrate these roles. For instance, a teacher who plans a group project also helps pupils finish it and coaches them in gaining self-assurance and leadership abilities. In a similar vein, a lecturer overseeing a research project is responsible for creating suitable research activities, assisting students with their research, and mentoring them in the development of professional competences. Malaysian academics stress that ongoing professional growth is necessary to integrate various positions. Teachers need to keep up with the latest developments in educational research, technology, and pedagogy. Conferences, workshops, and professional training programs assist teachers in improving their pedagogical abilities and adjusting to changing trends in education.

Challenges Faced by Educators in Malaysia

Despite the importance of these roles, educators in Malaysia face several challenges. One major challenge is the increasing workload associated with teaching, research, administrative duties, and community engagement. These responsibilities may limit the time educators can dedicate to mentoring students and designing innovative learning experiences. Another challenge is the rapid advancement of technology. Educators must continuously learn new digital tools and integrate them into their teaching practices.

Similarly, a lecturer supervising a research project oversees developing appropriate research activities, helping students with their research, and guiding them as they build professional competencies. Malaysian scholars emphasise that integrating different jobs requires continuous professional development. Teachers must be abreast of the most recent advancements in pedagogy, technology, and educational research. Teachers can enhance their pedagogical skills and adapt to evolving educational trends with the help of conferences, workshops, and professional training programs. Furthermore, some children could find it difficult to adjust to student-centered learning strategies. At first, students who are used to traditional lecture-based instruction might find it difficult to participate in group projects or discussions. In order to assist students, adjust to new teaching approaches, educators must guide them gradually and provide them precise directions.

Conclusion

In conclusion, the demands of a knowledge-driven culture and the evolving needs of education have led to a substantial evolution in the role of educators in Malaysia. According to Malaysian academicians, educators are now required to play more varied and dynamic roles as mentors, advisors, and learning designers rather than just imparting knowledge. These positions complement the Ministry of Education Malaysia's educational goals, especially those outlined in the Malaysia Education Blueprint 2015–2025 (Higher Education), which seeks to generate graduates who are creative, flexible, and able to contribute to the advancement of the country.
In their role as mentors, teachers foster students' professional and personal development in addition to their academic advancement. Through mentoring, teachers assist students develop resilience, self-assurance, and a strong sense of responsibility by offering support, counsel, and direction. To help students overcome academic obstacles and get ready for future professional prospects, these mentoring connections are crucial.
In addition, teachers support student-centered learning by serving as mentors and facilitators. Teachers urge students to actively participate in debates, group projects, and problem-solving exercises rather than depending just on traditional lecture-based instruction. Teachers assist students in developing the critical thinking, creativity, and communication skills necessary for success in the contemporary workforce by leading them through various learning processes.
Teachers also build relevant and captivating learning experiences by acting as learning designers. While utilising technology and cutting-edge teaching techniques, they meticulously create instructional strategies, learning activities, and assessments that are in line with learning objectives. Students are guaranteed to stay interested and be able to apply theoretical information to practical problems when learning is designed effectively.
Overall, the integration of mentoring, guiding, and learning design roles highlights the importance of educators in shaping the future generation. By fulfilling these responsibilities effectively, educators contribute to the development of knowledgeable, skilled, and responsible graduates who can support the continued progress of Malaysia’s education system and society.

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UNIVERSAL DESIGN FOR LEARNING FOR NEURODIVERGENT STUDENTS: JOURNEY TOWARDS INCLUSIVE EDUCATION

Nazihah Omar, Khairunnisa Rahman, Rudza Hanim Mohamed Anuar, Ferri Nasrul

Introduction

I remember a student in my MGT269 class. He kept telling me his group members weren't doing their part. His behaviour made it hard for him to finish the assignments, which made up 70% of his grade. I tried to help him a few times. But it wasn't until I looked at the attendance list a third time that I realized he had ADHD. How did I miss something so important? It was a big mistake, something that now seems so clear.

At first, I didn't notice anything different about him. He seemed like any other student. But his active questions at the end of class always stuck with me. I completely forgot that students with conditions like autism or ADHD don't always look different from others. This event resonated deeply with me, as my own oldest daughter suffers from both autism and ADHD.

My experiences, both in class and at home, showed me how much we need teaching methods that work for all students. That's when Universal Design for Learning (UDL) came to mind. UDL isn't just a fancy term; it's a strong way to make our classrooms welcoming for everyone, especially our neurodivergent students.

Why Group Work Can Be Hard for Neurodivergent Students

For neurodivergent students, group work can be surprisingly difficult. Their brains often process information and social cues differently, creating hurdles that traditional group projects don't account for. While we often see group work as a great way to learn collaboratively, it can unintentionally create major problems for students with conditions like ADHD or autism. These issues aren't about their intelligence but rather how standard group work clashes with their unique learning styles. My experience with the student, who struggled so much with his group, really brought this home. It showed me how these challenges can directly affect a student's grades and overall well-being.

One key challenge is communication and understanding others. Neurodivergent students might find it hard to pick up on subtle social cues or unspoken rules or to adjust how they speak to fit the group. This can lead to misunderstandings, feeling left out, and a reluctance to speak up, even when they have valuable ideas. For instance, my student actively participated in class discussions. However, in a group context, he might have found it difficult to articulate his concerns clearly or understand what his peers were saying, which could have led him to believe that his group members weren't contributing adequately. The constant effort to navigate social interactions can be exhausting, taking away energy needed for the actual task.

Another issue arises with group roles and fairness. When tasks and responsibilities aren't clearly defined, confusion quickly sets in. Neurodivergent students may find it difficult to speak up for themselves, address unfair workloads, or handle disagreements. The social side of group projects can be incredibly draining, making it challenging for them to engage in the necessary give-and-take. This difficulty in asserting boundaries or challenging an uneven distribution of work likely contributed to my student's struggles with assignments, as he might have felt overwhelmed by the social pressure of confronting his group's perceived inaction.

Environmental factors, like too much noise or activity, also play a role. Classrooms, especially during active group sessions, can become very stimulating. The sounds of multiple

conversations, moving chairs, and general commotion can overwhelm neurodivergent students, making it incredibly hard for them to focus, process information, and participate effectively. While I didn't initially notice this with my student, it's possible such an environment made his internal struggles worse, further hindering his group engagement.

Finally, managing time and tasks often poses a significant hurdle due to executive function challenges, common in neurodivergent individuals. These challenges impact planning, organization, and starting tasks. Keeping track of schedules, coordinating deadlines, and breaking down big assignments into smaller steps can be daunting. These difficulties directly affected my student's ability to finish his assignments, as the complex demands of group project management from arranging meetings to ensuring timely submissions likely created a major barrier. The struggle to stay organized, combined with social complexities, created a compounding effect that ultimately impacted his academic success.

Understanding these challenges is the first crucial step toward creating more inclusive learning environments. Instead of expecting neurodivergent students to simply fit into traditional group work, we need to design learning activities that are flexible and supportive from the very beginning. This is exactly what Universal Design for Learning (UDL) aims to achieve, making our classrooms truly welcoming and accessible for every student.

What is Universal Design for Learning (UDL)

UDL is a way of teaching that helps everyone learn. Think of it like building a new university building. Instead of adding a ramp later for someone using a wheelchair, you design the building with ramps and wide doors from the very beginning. UDL does the same for education. It means planning lessons and activities so that all students, no matter how they learn, can understand and join in. The main idea is to remove any barriers to learning before they even show up, making the classroom a beneficial place for everyone.

UDL vs. Traditional Teaching

Many university classes unintentionally make learning challenging for neurodivergent students. These students can learn, but the lesson setup often hinders them. My experience showed me this clearly. Traditional teaching methods, even with good intentions, often create problems that make it tough for students with different learning styles. This is where Universal Design for Learning (UDL) offers a much-needed change.

Traditional classrooms often have several issues. They tend to use a "one-size-fits-all" approach, expecting everyone to learn and show what they know in the same way. This can be difficult for students who need more time or express themselves differently. There are also unspoken rules about how to act in class, which neurodivergent students might miss, leading to confusion or anxiety. If a teacher only lectures, students who learn best by seeing or doing things will struggle. Often, help comes too late, only after a student is already having problems, making them feel singled out. Finally, strict class setups don't allow students to use their best ways to learn. All these points likely added to the difficulties my student faced, making his academic journey harder than it needed to be.

UDL changes these problems by planning ahead. It helps teachers design classes from the start that welcome and support all students, including those who are neurodivergent. UDL believes that the problem is usually with the lesson design, not the student's ability. By fixing the design, learning becomes easier and more effective for everyone. This approach creates an environment where students can succeed without constantly fighting against how the class is structured.

The Three Principles of UDL

Universal Design for Learning (UDL) is built on three main ideas, acting like clear guides for how we teach. The first principle is about getting students interested in learning (the "why" of learning). This means understanding that not all students are motivated by the same things. Some like new activities, while others prefer a set routine. To help every student, teachers should offer choices that grab their attention, keep them trying even when tasks are hard, and teach them how to manage their learning. For my student, offering different ways to engage might have helped him feel more connected and less overwhelmed by the group dynamics.

The second principle focuses on showing information in different ways (the "what" of learning). People learn best when information is presented in formats that suit them. Some need to see it, some need to hear it, and some need to read it. UDL encourages teachers to present information so it's easy to notice and understand. This could mean using large text, providing audio versions, or explaining new words with pictures and examples. If the student had access to information in multiple formats, it might have helped him process complex instructions or group discussions more effectively, reducing misunderstandings.

The third principle is about giving students multiple ways to show what they know (the "how" of learning). Not every student excels at writing essays or giving presentations. Some are better at speaking, while others might prefer to create projects or use special tools. UDL suggests offering flexible ways for students to respond, communicate their ideas, and get help with planning their work. This could involve allowing students to type, speak, or draw their answers or use tools like speech-to-text software. Had my student been given more options to demonstrate his understanding, especially within his group assignments, he might have found a path to success that better suited his strengths.

How to Use UDL in Your Class

Bringing Universal Design for Learning (UDL) into your teaching doesn't mean you have to change everything at once. Instead, it's about making thoughtful, planned adjustments that benefit all students, especially those who are neurodivergent. My experience, and what research tells us, points to simple yet powerful ways to use UDL. It starts with truly understanding your students. In the first week of class, try to find out how they prefer to learn and if they have any specific needs. A quick, anonymous survey can help you ask about their learning styles or what helps them focus. This approach helps create a classroom where everyone feels comfortable and understood.

A key part of UDL is to plan ahead, rather than just reacting. Instead of waiting for a student to struggle before offering help, design your lessons with everyone in mind from the very beginning. For example, if you plan group work, give each person clear roles or offer different ways for students to contribute, such as writing, drawing, or speaking. This helps prevent problems before they even start. If I had considered these things sooner, I could have avoided my mistake with my student with ADHD and ensured his success from day one.

UDL says that giving students choices is an effective way to keep them interested and motivated. Not everyone is excited by the same things, so giving options can make learning more appealing. This could mean letting students choose how they want to show what they have learned, perhaps through a research paper, a presentation, or a creative project. You can also connect what you're teaching to real-world situations that matter to them, making the learning feel more relevant. Additionally, providing flexible grouping options, allowing students to work alone, in pairs, or in small groups, helps them pick what works best for their learning style and comfort level.

Another important UDL principle is to show information in many ways. People take in information differently; some learn best by seeing, others by hearing, and some by reading. To support this, present your lessons using various formats. Use pictures, videos, and

diagrams alongside your lectures. Provide written notes for videos or audio versions of readings. This approach helps students who might find it hard to just listen or read. Using clear, simple language and explaining technical terms, perhaps with outlines or concept maps, also helps connect new ideas to what students already know. Sharing lecture notes or slides before class allows students to review them beforehand, so they can focus on understanding during class rather than just writing everything down.

Finally, UDL emphasizes letting students show what they know in different ways. Not all students are good at traditional tests or essays. Some might be better at speaking, creating projects, or using specific tools. Offer various options for students to prove their understanding, such as oral presentations, portfolios, or creative projects, allowing them to use their strengths. Encourage the use of helpful tools like text-to-speech software or apps that organize thoughts. Providing regular feedback and chances to revise their work also helps students learn from mistakes and improve. UDL is an ongoing process; regularly ask your students what works and be ready to adjust your teaching methods based on their feedback to make the learning environment better and more inclusive for everyone.

Conclusion

My journey, from not understanding a student's struggles to seeing the power of UDL, has taught me a lot. The problems neurodivergent students face in university aren't their fault; they're often caused by how lessons are designed. By using UDL's three main ideas – offering multiple ways to get students interested, showing them information, and letting them show what they know – instructors can create classes where every student can succeed. It's about changing our approach to teaching, not trying to change the student. This way, we not only help neurodivergent students but also make university a better place for everyone.

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THE EVOLUTION OF SERVICE MARKETING

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Introduction

Service marketing has become an essential area of study and practice as global economies increasingly shift from manufacturing-based systems to service-dominated markets. Industries such as banking, healthcare, education, tourism, telecommunications, and information technology rely heavily on services to create value for customers. Unlike physical goods, services possess unique characteristics such as intangibility, inseparability, variability, and perishability. These characteristics make marketing services more complex and dynamic compared to marketing tangible products (Zeithaml, Parasuraman, & Berry, 1985). Over time, scholars and practitioners have developed various concepts, models, and strategies to address the unique challenges associated with marketing services. The evolution of service marketing reflects the changes in economic structures, technological advancements, and customer expectations. This article explores the development of service marketing from its early stages to the modern digital era.

Early Development of Marketing and the Neglect of Services

In the early stages of marketing theory, particularly before the 1970s, the discipline of marketing was largely centered on the promotion and distribution of physical goods. Marketing scholars focused primarily on manufacturing industries such as automobiles, consumer packaged goods, and industrial products. During this period, services were often overlooked or treated as supplementary elements that accompanied tangible products. For example, businesses such as banks, airlines, hotels, and insurance companies existed and provided services to customers, but there was little academic attention devoted to understanding how services should be marketed. Marketing strategies were designed primarily for products, emphasizing factors such as product features, packaging, pricing, distribution channels, and advertising. Service organizations adopted similar strategies even though their offerings differed significantly from physical goods. One of the main reasons services were neglected was the assumption that marketing principles for goods could easily be applied to services. However, practitioners began to realize that services presented unique challenges that traditional product marketing theories could not fully address. For instance, services could not be stored in inventory, their quality often varied depending on who delivered them, and customers frequently participated in the production process. These differences gradually prompted researchers to investigate service marketing as a distinct field of study (Shostack, 1977).

Emergence of Service Marketing as a Discipline

The 1970s and 1980s marked the emergence of service marketing as a separate area within the broader marketing discipline. During this period, scholars began to recognize that services had distinctive characteristics that required specialized marketing approaches. These characteristics include intangibility, inseparability, heterogeneity (or variability), and perishability (Parasuraman et al., 1988). Intangibility refers to the fact that services cannot be seen, touched, or physically possessed before purchase. Customers often rely on cues such as reputation, brand image, or physical evidence to evaluate service quality. Inseparability means that services are typically produced and consumed simultaneously, which often requires direct interaction between service providers and customers. Heterogeneity refers to the variability in service performance, since the quality-of-service delivery may differ depending on the employees involved or the circumstances under which the service is provided. Perishability indicates that services cannot be stored for future use, unused service capacity, such as an empty airline seat or hotel room, represents lost revenue. These characteristics highlighted the need for different marketing strategies when dealing with services. As a result, the concept of the extended marketing mix was introduced. While

traditional marketing focused on four elements which are product, price, place, and promotion. Service marketing expanded the framework to include three additional elements: people, process, and physical evidence (Booms & Bitner, 1981). People represent the employees and customers who participate in the service delivery process. Because services often involve direct interaction between staff and customers, employee behavior plays a critical role in shaping customer perceptions. Process refers to the procedures and systems used to deliver services, ensuring efficiency and consistency. Physical evidence includes the tangible elements that support service delivery, such as facilities, equipment, and visual cues that help customers evaluate intangible services.

The Rise of Service Quality and Customer Satisfaction

In the 1980s and 1990s, service marketing research expanded significantly, with a strong emphasis on understanding service quality and customer satisfaction. Organizations began to recognize that delivering high-quality service was a key factor in achieving competitive advantage. Unlike product-based industries, where differentiation often relies on physical features, service organizations compete primarily through customer experience and relationship building.

One of the most influential models developed during this period was the SERVQUAL model, which was designed to measure service quality by comparing customer expectations with their perceptions of actual service performance. The model identified five key dimensions of service quality: reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988). Reliability refers to the ability of a service provider to deliver the promised service dependably and accurately. Responsiveness involves the willingness of employees to help customers and provide prompt service. Assurance relates to the knowledge, competence, and courtesy of employees, which inspire trust and confidence among customers. Empathy reflects the degree of caring and individualized attention provided to customers. Tangibles include the physical facilities, equipment, and appearance of personnel associated with the service.

The focus on service quality led organizations to invest more in employee training, service standards, and customer feedback systems. Businesses also began to implement strategies aimed at improving customer satisfaction and loyalty. The concept of relationship marketing gained prominence during this time, emphasizing the importance of building long-term relationships with customers rather than focusing solely on individual transactions.
Relationship marketing encourages organizations to maintain continuous engagement with customers through personalized communication, loyalty programs, and improved service experiences. This approach recognizes that retaining existing customers is often more cost-effective than acquiring new ones.

The Impact of Technology and Globalization

The late 1990s and early 2000s brought significant technological advancements that further transformed service marketing. The rapid development of the internet, mobile technology, and information systems enabled organizations to deliver services through digital platforms. As a result, electronic services (e-services) became increasingly common across many industries. For example, banks introduced online banking services that allowed customers to check account balances, transfer funds, and pay bills through the internet. Airlines implemented online booking systems, enabling customers to purchase tickets and manage travel arrangements without visiting physical offices and retailers adopted e-commerce platforms that offered online customer support and personalized recommendations.

Technology also facilitated the development of customer relationship management (CRM) systems. These systems allow organizations to collect, store, and analyze customer data in order to better understand consumer behavior and preferences. By using CRM tools,

companies can tailor their services, improve customer communication, and enhance overall service quality.

Globalization also played a significant role in shaping service marketing during this period. As businesses expanded into international markets, service providers needed to adapt their strategies to different cultural, economic, and regulatory environments. Multinational service organizations such as hospitality chains, airlines, and financial institutions developed standardized service procedures while also customizing their offerings to meet local customer needs.

The Experience Economy and Customer-Centric Marketing

In the 21st century, service marketing has evolved further with the emergence of the experience economy. Customers are no longer satisfied with basic service delivery; they expect memorable and engaging experiences that create emotional value (Lovelock & Wirtz, 2016). As a result, organizations have shifted their focus from simply providing services to designing comprehensive customer experiences. Customer experience management has become a critical aspect of modern service marketing. Companies aim to manage every interaction between customers and the organization across multiple touchpoints, including physical locations, websites, mobile applications, and social media platforms. This approach ensures that customers receive consistent and satisfying experiences throughout their journey with the brand.

Social media has also transformed the way service organizations interact with customers. Platforms such as Facebook, Instagram, and Twitter allow businesses to communicate directly with consumers, respond to inquiries, and address complaints in real time. Customers now have greater power to influence brand reputation by sharing their experiences online. Furthermore, digital technologies such as artificial intelligence, machine learning, and chatbots have enhanced service delivery by providing faster and more efficient customer support. For example, chatbots can answer frequently asked questions, assist with online transactions, and provide personalized recommendations based on customer data.

Another important development in modern service marketing is the concept of value co-creation. Instead of viewing customers as passive recipients of services, organizations increasingly involve them as active participants in the service process. Customers contribute ideas, feedback, and content that help improve service offerings. This collaborative approach strengthens customer relationships and encourages brand loyalty.

Challenges and Future Directions

Despite the significant progress in service marketing, organizations continue to face various challenges in delivering high-quality services. One of the primary challenges is maintaining consistent service quality across different employees, locations, and channels. Since services involve human interaction, variations in performance are difficult to eliminate completely.

Another challenge is managing customer expectations in an increasingly competitive and technology-driven environment. Customers now expect fast, personalized, and convenient services. Organizations must continuously innovate and adapt to meet these expectations.
Data privacy and security also represent growing concerns as companies rely more heavily on digital platforms and customer data. Businesses must ensure that customer information is protected while still using data to enhance service experiences.

Besides that, the future of service marketing will likely be shaped by further technological innovations such as artificial intelligence, virtual reality, and the Internet of Things. These technologies have the potential to transform service delivery by creating more immersive and personalized customer experiences. Additionally, sustainability and ethical business practices

are becoming increasingly important to consumers, prompting service organizations to adopt socially responsible strategies.

Conclusion

The evolution of service marketing reflects the changing nature of modern economies and the increasing importance of services in creating customer value. Initially overlooked in marketing theory, services gradually gained recognition as a unique and complex area that required specialized strategies. The identification of service characteristics, the development of the extended marketing mix, and the emphasis on service quality and relationship marketing significantly advanced the field.

Technological advancements and globalization further transformed service marketing by enabling digital service delivery and data-driven customer management. In the contemporary business environment, service marketing focuses heavily on customer experience, personalization, and value co-creation.

As customer expectations continue to evolve and new technologies emerge, service organizations must remain adaptable and innovative in their marketing strategies. By understanding the historical development of service marketing and applying its key principles, businesses can effectively deliver value, build strong customer relationships, and achieve sustainable competitive advantage in the service-dominated economy.

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PROFESSIONAL GROWTH AS AN ECONOMIC EDUCATOR

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Introduction

Professional growth in education can be defined as the continuous process where educators like teachers and lecturers systematically improve their knowledge and skills to enhance student outcome and career efficacy (Organization for Economic Co-operation and Development, 2022). It requires setting objectives, involving in formal or informal training and learning, and collaborating with colleagues to adapt with new teaching methods, technologies, and educational needs. Economic education plays a vital role in the academic world to produce more experts in this field. As we know that economy is one of the important fields that should be exposed to the young because knowledge and understanding about economy can assist our country to improve the value of Gross National Product and the balance of payment. Therefore, in this paper we would like to share our professional growth as an economic educator in Universiti Teknologi Mara (UiTM).

Strong academic qualification

Before being an educator, one must expert the foundation of economics. In secondary school, students must learn principles of economics which cover Microeconomics and Macroeconomics. In Microeconomics they will be exposed to demand and supply theory, cost of production theory, equilibrium market, elasticity of demand and supply, and market structure. Meanwhile in Macroeconomics, students will learn about Gross Domestic Product (GDP), Gross National Product (GNP), balance of payment, creation of money, national income accounting, inflationary gap and deflationary gap. After finishing secondary school, students will further study economics in various fields offered by the university, for example, labor economics, international economics, environmental economics, energy economics, business economics, and managerial economics.

Professional growth as an economic educator requires strong academic qualifications and continuous development in both knowledge and research. To become an economic educator, one must at least possess a bachelor's degree in economics, which provides the fundamental understanding of economic theories, analytical skills, and policy analysis. However, in most Higher Education Institutes in Malaysia such as Universiti Teknologi MARA (UiTM), holding a Doctor of Philosophy (PhD) is highly preferable. This is because a PhD not only demonstrates advanced expertise in a specialized field of economics but also reflects the ability to conduct rigorous academic research and contribute new knowledge to the discipline. Such qualifications align with UiTM's vision of leading the development of professionals through impactful research, where educators are expected to actively engage in scholarly activities, publish research findings, and contribute to academic and societal advancement. Therefore, pursuing higher academic qualifications and engaging in continuous research activities are essential steps in supporting long-term professional growth as an economic educator.

Research activity

Research activity is a compulsory responsibility among the economic educators at UiTM. Research plays a vital role in strengthening academic excellence and professional development as it enables us to investigate current economic issues, analyze real-world data, and propose practical solutions to various economic problems faced by society, business, and policymakers. Besides that, by doing systematic research, economic educators are able to contribute new knowledge and ideas to the economics fields while boosting their expertise and critical thinking skills. Furthermore, through research activities encourage collaboration with other researchers and academicians from different institutions and countries, allowing the

exchange of ideas, perspectives, and innovative approaches to economic challenges. These collaborations not only expand the impact of the research but also assist educators to stay updated with global economic trends and developments.

Attending conference and workshop

Besides pursuing a higher level of education and doing research, attending conferences and workshops are also part of the professional growth as an economic educator. The main purpose of attending the conference is to share knowledge and new findings with other researchers from different countries and institutions. During the conference audience and speaker can change the ideas and improve the quality of the research. It can help educators to always keep up with the current economic issues, policies and global trends. An economic educator must have this strong subject-matter knowledge in economics to deliver the ideas with the students especially postgraduate students, Master levels and PhD levels. In terms of workshops, an economic educator must join various types of workshops, for example, Outcome Based Education (OBE), pedagogy, writing articles, research methodology, and many more that are related to the academic. An effective economic educator must adapt teaching methods to different learning styles of students.

Upgrading teaching skills

As an economic educator in 2026, we are dealing with the Generation Z or Gen-Z students. This Gen-Z refers to the group of people born roughly between 1996 and 2010 (McKinsey & Company, 2024). People who are born within these years are grown up with the internet, smartphones, and social media. There are huge differences between this generation with Millenials (Generation Y) and other generations before them. For example, generations before Gen Z prefer traditional methods in teaching which use whiteboard and slide show. Due to this difference in technology, we must upgrade our teaching method so that students will enjoy our classroom. Gen z prefers to use online learning platforms, interactive graphs and economic simulations, and data visualization tools. These kinds of teaching methods using technology help economic concepts to be more engaging and easier to understand by Gen z students since they are more prone into technology. Therefore, as an economic educator that was born before Gen z, integration of technology in teaching is one of the important platforms to enhance learning and it is part of our professional growth in our career.

Board of Study (BOS) Meeting

To ensure our students' qualification matches the industrial requirement, it is important to develop and plan the curriculum properly. A meeting called the Board of Study (BOS) will be held with the representative from the industry to discuss the curriculum. This meeting should be held once per year to ensure that our syllabus is still in line with the industrial relevance. This also can help to reduce the unemployment rate or abundance of jobless fresh graduates. It is important to revise the curriculum and syllabus so that the institution can maintain the relevance of the program. If the curriculum does not meet the industrial requirement, it will affect the students after graduation.

Promoting Economic Literacy and Civic Engagement

Promoting economic literacy and civic engagement is a crucial dimension of professional growth for economic educators, as it positions them not only as instructors but also as catalysts for informed citizenship. By teaching students to critically analyze the impacts of economic policies on society, educators help learners develop a nuanced understanding of how markets, government decisions, and global events shape daily life. Beyond the classroom, organizing workshops and outreach programs on financial literacy empowers the broader community to make informed personal and collective economic decisions. Additionally, designing learning modules that connect economic concepts to pressing social issues, such as inequality, environmental sustainability, and labor rights cultivates students' ability to interpret data, engage in ethical reasoning, and apply problem-solving skills to real-world challenges. Through these strategies, students acquire essential competencies in

analytical thinking, data literacy, and ethical decision-making, equipping them to participate responsibly in civic and economic life while fostering a culture of informed, proactive citizenship.

Role as an Academic Advisor

Besides that, an economic educator also should be assigned as an academic advisor. One advisor (mentor) must have at least 30 mentees. Acting as a mentor provides educators with the opportunity to develop leadership, interpersonal, and guidance skills which are vital for career advancement. Educators can refine their ability to communicate complex economic concepts comfortably while fostering motivation and resilience among students. These can be enhanced by advising mentees on academic pathways, research opportunities, and career planning. This mentorship role not only gains the educator's professional growth, for example coaching, problem solving, and ethical decision making, but also strengthens their impact on student success and institutional growth, thereby integrating teaching excellence with broader educational leadership.

Updating to the Global Current Issues

Updating the global current issues on economic issues is a major role as an economic educator. By keeping up with the economic issues, an educator can collaborate with other researchers to address the issues. This also can help the educators to strengthen their expertise in comparative economic systems, finance, international trade and labor markets, which is why these skills are increasingly demanded in a globally connected economy. Exposing students with various types of case studies from different countries can help an educator to improve their analytical skills and foster their competencies in project management, collaboration, and intercultural communication. This method encourages educators to adopt innovative teaching skills, apply real-world global examples, and mentor students in understanding complex international economic dynamics. Ultimately, cultivating these global and cross-cultural competencies contributes to the educator's professional development by positioning them as a thought leader capable of bridging local and international economic knowledge, enhancing student learning outcomes, and shaping curricula that reflect the realities of a globalized economy.

Community Service

An economic educator must be involved in community service because economics is closely connected to real-life social and financial issues. Through these community programs, we can change and share the basic economic knowledge which can help improve the economic well-being among individuals and families. There are various types of community service activities, for example financial literacy workshops, encouraging local entrepreneurs, and providing guidelines to the young entrepreneurs to build business. This initiative can help the educators to gain new insights into real economic challenges faced by society. Besides that, this involvement helps to strengthen the relevance of economic education and allows the educators to connect theoretical concepts from various fields, such as Financial Economics and Environmental Economics with real-world applications, ultimately enriching both teaching practice and community impact.

Publications

Reading and writing articles are compulsory if you want to be an educator in any field. It is because to be able to write you must be able to read and understand first. By reading many books, articles, journals, newspapers and so on also can give new insights to the educators. The new insights gained from that reading can be shared to the public. One of the Key Performance Index (KPI) should be achieved by the educator is journal publication. This is one of the main responsibilities of an economic educator because it allows them to contribute new ideas to the economic fields and education. Through academic publications such as journal articles and books, educators can share their research findings, teaching innovations, and analyses of economic issues in a broad professional community. Therefore, publication

ensures that an educator is not only a knowledge consumer but also an active producer of research that benefits students, scholars, and society.

Seeking Research Grants

An educator also must actively seek research grants because it enables them to conduct meaningful and recent research in the field of economics and economic education. The grant can be applied from the universities, government agencies, or international organizations. By applying the grant, economic educators can support data collection, research activities, collaborations, and the dissemination of findings through publications and conferences. This process will contribute to the advancement of economic knowledge and enhance the educator's professional growth. Besides that, through this funded research, it can help the educators to develop stronger research skills, expand their circle of academic networks, and keep engaging with the current economic issues and new methodologies. Ultimately, they can develop new ideas with real-world evidence into their teaching in the classroom, improving the quality of instruction and strengthening their ability and expertise as a professional in the economic education fields.

Conclusion

To conclude, professional growth as an economic educator started from secondary school. In the secondary schools, you should have the basic concepts of economics in Microeconomics and Macroeconomics. In universities, you should specialize your expertise based on your preferences in economics fields, for example environmental economics, energy economics, labor economics, and international economics. After involving in academic world, that is become an economic educator in university, we must actively take all the responsibilities, for example upgrading teaching skills, seeking grant for research activities, involving in community service, updating with the economic current issues, discussion with the representative from the industry, attending conferences, and mentoring students. By integrating strong subject expertise, innovative pedagogy, and continuous learning, economic educators can effectively prepare students to understand complex economic issues and make informed decisions in the modern world. Therefore, sustained professional development is vital for ensuring that economic educators remain relevant, impactful, and committed to advancing knowledge and education in economics.

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THE ROLE OF EDUCATORS AS MENTORS AND GUIDES IN CONTRIBUTING KNOWLEDGE TO SME ENTREPRENEURS

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Introduction

Education has long been recognised as a powerful driver of economic and social development. Beyond the traditional function of delivering subject knowledge, educators today play an increasingly important role as mentors, facilitators, and guides who support the learning journeys of individuals across different sectors of society. Educators contribute significantly to the development of entrepreneurship by transferring knowledge, shaping attitudes, and nurturing critical thinking among aspiring and existing entrepreneurs. Small and Medium Enterprises (SMEs) form the backbone of many economies, including those in developing and emerging markets, where they contribute substantially to employment creation, innovation, and economic resilience. However, SME entrepreneurs often face challenges, including limited access to knowledge, managerial skills, and strategic planning capabilities. In this context, educators can bridge the knowledge gap by providing guidance, mentorship, and practical insights that support the growth and sustainability of SMEs.

The role of educators in entrepreneurship education extends far beyond the classroom. Educators often engage with entrepreneurs through training programs, mentoring initiatives, workshops, and community engagement activities. Through these interactions, educators do not merely transfer theoretical knowledge but also help entrepreneurs develop problem-solving abilities, strategic thinking, and adaptive mindsets necessary for navigating complex business environments. Reflecting on educators as mentors and guides highlights the human dimension of teaching, where learning becomes a collaborative, transformative process. This chapter explores how educators contribute to the development of SME entrepreneurs through mentorship, guidance, and knowledge sharing. It also reflects on the importance of empathy, experience-based learning, and meaningful educator–entrepreneur relationships in fostering entrepreneurial success.

The Expanding Role of Educators in Entrepreneurship Development

Traditionally, educators were primarily seen as transmitters of knowledge, delivering structured information to students in formal classroom settings. However, contemporary educational practices emphasise a more holistic role for educators as facilitators of learning, mentors, and catalysts of intellectual growth. In entrepreneurship education, this expanded role becomes particularly significant because entrepreneurship itself is inherently experiential, dynamic, and context dependent. Effective entrepreneurship education, therefore, emphasises experiential and learner-centred approaches, such as project-based learning and real-world problem solving, which allow students to apply theoretical knowledge in practical situations (Chitamba et al., 2025). SME entrepreneurs often require guidance that combines theoretical understanding with practical insights. Educators, therefore, serve as bridges between academic knowledge and real-world business practices while facilitating learning within broader entrepreneurial ecosystems and mentorship networks (Rocha et al., 2024).

The shift from teacher-centred approaches toward learner-centred and experiential learning has transformed how entrepreneurship education is delivered. Instead of focusing solely on lectures and textbooks, educators now employ methods such as case studies, simulations, problem-based learning, and collaborative projects to create authentic learning experiences. These approaches allow entrepreneurs to explore real business challenges, develop innovative solutions, and reflect on their decision-making processes. Through such

pedagogical strategies, educators encourage entrepreneurs to view learning as an ongoing process rather than a one-time acquisition of knowledge.

Moreover, educators play a crucial role in shaping the entrepreneurial mindset. Beyond technical knowledge related to finance, marketing, or operations, entrepreneurship requires resilience, creativity, and the ability to embrace uncertainty. Educators help cultivate these qualities by encouraging reflection, experimentation, and constructive dialogue. By fostering an environment where entrepreneurs feel comfortable sharing ideas and learning from mistakes, educators help develop confident, adaptive business leaders.

Educators as Mentors in SME Development

Mentorship is a key element in entrepreneurs' learning journey. Unlike conventional teaching, mentorship involves a deeper and more personalised relationship between the educator and the learner. As mentors, educators guide entrepreneurs through complex challenges, offer constructive feedback, and provide encouragement during periods of uncertainty. For many SME entrepreneurs, mentorship becomes a valuable source of support that complements formal education and training. As illustrated in Figure 1, educators actively engage with SME entrepreneurs by sharing practical knowledge, business insights, and strategic perspectives during knowledge-sharing sessions, which help entrepreneurs better understand real business challenges and opportunities.

Figure 1: Educators sharing knowledge and mentoring SME entrepreneurs during a knowledge-sharing session.
(Source: Author's personal collection)

One of the key benefits of mentorship is the opportunity for entrepreneurs to learn from the experiences and perspectives of educators who have studied business systems, economic trends, and organisational behaviour. Educators often bring a broad understanding of theoretical frameworks that can help entrepreneurs structure their experiences. For example, when entrepreneurs face challenges in market competition or financial management, educators can introduce relevant analytical tools to help them evaluate options and make informed decisions. Through these knowledge-sharing interactions, educators translate academic concepts into practical guidance that entrepreneurs can directly apply to their businesses.

Mentorship also fosters reflective learning. Through dialogue and discussion, educators encourage entrepreneurs to analyse their own experiences, identify lessons learned, and refine their strategies for future actions. This reflective process helps entrepreneurs develop

deeper self-awareness and critical thinking skills. Over time, entrepreneurs become better at independently evaluating their business decisions and adapting to changing circumstances.
Importantly, mentorship is not a one-directional process. Educators also learn from entrepreneurs by gaining insights into emerging market trends, technological developments, and real-world business practices. This reciprocal exchange of knowledge strengthens the relevance of entrepreneurship education and allows educators to continuously refine their teaching approaches.

Bridging Academic Knowledge and Practical Business Experience

A common challenge in entrepreneurship education is ensuring that academic knowledge remains relevant to real business situations. SME entrepreneurs often operate in environments characterised by limited resources, intense competition, and rapid technological change. In such contexts, theoretical concepts may appear distant from the practical realities of running a business. Educators, therefore, play a critical role in bridging this gap by translating theoretical frameworks into practical insights.

One effective approach is integrating real-world case studies and industry examples into teaching and mentoring activities. By analysing real business scenarios, entrepreneurs can better understand how theoretical principles apply to practical decision-making. Educators may also invite successful entrepreneurs, industry practitioners, or business advisors to share their experiences with learners. These interactions expose SME entrepreneurs to diverse perspectives and practical strategies that complement academic learning.

Another strategy involves experiential learning projects where entrepreneurs apply knowledge directly to their own businesses. For instance, educators may guide entrepreneurs in conducting market analysis, developing business models, or designing marketing strategies for their enterprises. Through these activities, entrepreneurs gain hands-on experience while receiving feedback from educators who can help refine their ideas. This iterative process of learning, application, and reflection enhances the effectiveness of entrepreneurship education.

Furthermore, educators often act as connectors, linking SME entrepreneurs to broader networks of knowledge and resources. By facilitating collaborations with universities, research institutions, and industry partners, educators help entrepreneurs access expertise that may otherwise be unavailable to them. Such networks contribute to knowledge diffusion and innovation within the SME sector.

The Human Dimension of Teaching and Mentorship

While knowledge transfer and technical skills are important aspects of entrepreneurship education, the human dimension of teaching is equally significant. Entrepreneurship is often associated with uncertainty, risk, and emotional pressure. SME entrepreneurs frequently encounter setbacks, financial constraints, and market fluctuations that can affect their motivation and confidence. In such circumstances, educators' emotional support can make a meaningful difference.

Empathy is a crucial quality in effective mentorship. Educators who demonstrate understanding and patience create a supportive environment where entrepreneurs feel comfortable discussing challenges and seeking advice. When entrepreneurs perceive educators as approachable and genuinely interested in their development, they are more likely to engage actively in the learning process. This relational aspect of teaching strengthens trust and encourages open communication between educators and entrepreneurs.

Additionally, educators often help entrepreneurs cultivate resilience. By emphasising that setbacks are natural components of entrepreneurial journeys, educators encourage learners to view challenges as opportunities for growth. Reflective discussions about failure and recovery can help entrepreneurs develop a healthier perspective on risk-taking and innovation. Such emotional guidance complements technical knowledge and contributes to the holistic development of entrepreneurs.

The human side of teaching also involves recognising the diverse backgrounds and experiences of SME entrepreneurs. Many entrepreneurs come from different educational, cultural, and professional contexts (Cola & Mangosh, 2025). Effective educators adapt their mentoring approaches to accommodate these differences, ensuring that learning remains inclusive and relevant. By acknowledging individual learning needs and aspirations, educators create meaningful learning experiences that resonate with entrepreneurs' personal and professional goals.

Reflective Teaching in Entrepreneurship Education

Reflection is an essential component of effective teaching and mentoring. For educators working with SME entrepreneurs, reflective practice allows them to continuously evaluate their teaching strategies, interactions, and learning outcomes. Through reflection, educators gain insights into how their guidance influences the development of entrepreneurs and how to improve teaching methods. Reflective teaching often involves examining questions such as: What worked well during mentoring sessions? What challenges did entrepreneurs encounter during their learning process? How can teaching approaches be adapted to better address the needs of entrepreneurs? By systematically analysing these questions, educators develop a deeper understanding of their roles as mentors and guides.

Reflection also encourages educators to remain open to innovation in pedagogy. Entrepreneurship education evolves rapidly as new technologies, business models, and market trends emerge. Educators who engage in reflective practice are more likely to experiment with new teaching methods, such as digital learning platforms, collaborative tools, or simulation-based exercises (David, 2025). These innovations enhance teaching effectiveness and ensure that entrepreneurship education remains relevant in a changing economic landscape. Importantly, reflective teaching highlights the mutual learning relationship between educators and entrepreneurs. While educators guide entrepreneurs through theoretical frameworks and analytical tools, entrepreneurs provide valuable insights into real-world business dynamics. This exchange of perspectives enriches the educational experience and strengthens the connection between academic knowledge and practical application.

Building Sustainable Knowledge Ecosystems for SMEs

The contribution of educators to SME development extends beyond individual mentoring relationships. Educators also play a strategic role in building knowledge ecosystems that support broader entrepreneurial growth (Buarque et al., 2025). Universities and educational institutions often serve as hubs where knowledge, research, and innovation converge. By engaging with SMEs, educators help translate academic research into practical solutions that address business challenges.

For example, collaboration between universities and SME entrepreneurs can lead to joint research projects, innovation initiatives, and capacity-building programs. These collaborations allow SMEs to benefit from academic expertise while providing educators with opportunities to conduct applied research. The outcomes of such partnerships often include improved business practices, new product development, and enhanced competitiveness for SMEs.

Educators also contribute to knowledge ecosystems by organising training workshops, seminars, and entrepreneurship development programs. These initiatives create platforms where entrepreneurs can exchange ideas, share experiences, and learn from one another. Through such activities, educators facilitate peer learning among entrepreneurs and foster supportive business communities.

In many cases, educators act as advocates for SME development by promoting policies and initiatives that strengthen entrepreneurial ecosystems. By engaging with policymakers, industry associations, and development agencies, educators help ensure that entrepreneurship education remains aligned with the needs of the SME sector. This broader engagement reflects educators' multifaceted roles as knowledge creators, mentors, and community leaders.

Lessons Learned from Mentoring SME Entrepreneurs

Working closely with SME entrepreneurs provides educators with valuable insights into the realities of business practice. One important lesson is the recognition that entrepreneurship learning is highly contextual. The challenges entrepreneurs face vary depending on industry conditions, market structures, and socio-economic environments. Educators, therefore, need to remain flexible and responsive when providing guidance.

Another lesson relates to the importance of practical relevance in teaching. Entrepreneurs often appreciate learning experiences that directly address the challenges they encounter in their businesses. Educators who incorporate practical examples, case discussions, and real-world problem-solving tend to create more meaningful learning experiences for entrepreneurs.

Additionally, the mentoring process highlights the importance of patience and continuous engagement. Entrepreneurial development rarely occurs overnight. Entrepreneurs often require time to experiment with new ideas, evaluate outcomes, and refine their strategies. Educators who maintain consistent communication and support throughout this process contribute significantly to the long-term success of SME entrepreneurs.

Perhaps the most significant lesson is the understanding that teaching entrepreneurship is fundamentally about empowering individuals. When educators help entrepreneurs build confidence, develop strategic thinking, and recognise their own potential, they contribute not only to business success but also to personal growth and community development**.**

Conclusion

The role of educators in supporting SME entrepreneurs extends far beyond conventional classroom instruction. As mentors, guides, and knowledge facilitators, educators contribute significantly to the development of entrepreneurial capabilities that drive business sustainability and economic growth. Through mentorship, reflective teaching, and experiential learning, educators help entrepreneurs navigate complex business environments while cultivating critical thinking, resilience, and innovation.

The relationship between educators and SME entrepreneurs is inherently collaborative and transformative. By bridging academic knowledge with practical business experiences, educators create meaningful learning opportunities that empower entrepreneurs to make informed decisions and adapt to evolving market conditions. Equally important is the human dimension of teaching, where empathy, encouragement, and supportive relationships enhance entrepreneurs' learning journey.

Reflecting on these experiences underscores the importance of recognising educators as key contributors to entrepreneurial ecosystems. Their involvement in mentoring, knowledge sharing, and community engagement strengthens SMEs' capacity to innovate and grow. As economies increasingly rely on entrepreneurial activity for sustainable development,

educators' mentorship and guidance will continue to play a crucial role in shaping the future of SMEs.

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ROLE BOUNDARY CONFLICT IN ACADEMIA: INTEGRATING BOUNDARY THEORY AND SOCIAL POWER PERSPECTIVES

Zuraidah Sipon, Nur Liyana Mohamed Yousop, Zuraidah Ahmad

Introduction

These days, it is common for people working at universities to be both staff members and students. Many universities actively support their staff in pursuing studies and professional growth. While this can be really valuable by helping people deepen their expertise and contribute more to their institutions, it can also make things more complicated. When someone is both a staff member and a student within the same university or department, this can create confusion about who is in charge, how people are expected to communicate, and where the boundaries between roles should lie. These tensions are not always a bad thing. Having people in dual roles can encourage teamwork and new ideas. Problems tend to crop up, though, when someone acts more like a staff member than a student, or vice versa. For example, a student who is also a staff member may correct a lecturer in a way that seems too forceful, skip proper channels of communication, or go straight to upper management with concerns rather than first talking to the lecturer. Situations like these raise tricky questions about boundaries, power, fairness, and how universities are run. This discussion examines the issue using ideas from organizational psychology and higher education, such as Role Theory, Boundary Theory, Social Power Theory, Organizational Justice Theory, Identity Theory, and how universities are usually governed. The goal here is not to blame anyone or guess at people's motives, but to understand what is happening behind the scenes when people have overlapping roles in academia.

Role Theory and Inter-Role Conflict

Role Theory is a helpful way to look at situations where people have more than one role, especially when those roles can sometimes clash. As Kahn et al. (1964) have pointed out, "each role you take on comes with its own set of expectations from the people around you." When the expectations for those roles do not match up, it can leave people feeling confused or pulled in different directions. In universities, being a lecturer usually means you are seen as an authority figure, you are expected to know your subject well, design courses, and lead the classroom. People look to lecturers for guidance, and there are certain expectations about how they should act and interact with students.

On the other hand, students are expected to focus on learning, show respect, and follow the rules for assignments and communication. If there is a problem, they are supposed to raise it in a certain way, usually by going through the proper channels. When someone is both a lecturer and a student at the same time, it is easy for the lines to get blurred. For example, if they are used to speaking up as a staff member, they might do the same as a student, even if it is not expected. This can make things awkward or confusing for everyone involved.

It is important to remember that conflicts between roles do not mean anyone is doing anything wrong. Usually, the system itself puts people in difficult spots, with expectations that do not quite match up. Universities do not always spell out exactly how people should handle these overlapping roles, so sometimes habits or ways of acting from one role spill over into the other.

Identity Theory and Professional Self-Concept

But there is more to it than just the rules and expectations. How people see themselves matters, too. Identity Theory says that "we take on different roles, and these become part of who we are." In universities, many people's sense of self is wrapped up in being knowledgeable, having expertise, and having the freedom to make decisions. When someone who is used to being a professional goes back to being a student, it can be tough to adjust. They might find their sense of themselves as an expert clashing with the idea of being a learner, especially if they have been working in academia for a while. As a result, they might

speak up more, be more critical, or notice teaching mistakes more quickly than other students. Looking at it from the identity angle, when someone corrects a lecturer, it is often just them trying to stay true to their professional self, not because they want to break the rules. But if they forget about the usual classroom hierarchy, it can come across as overstepping. So, even if the intentions are good, it can still make things tense if people are not paying attention to the context.

Boundary Theory and Role Compartmentalization

Boundary Theory gives us another way to look at this. Ashforth et al. (2000) argue that people manage their different roles by setting boundaries in their minds and behavior. Some people like to keep their roles very separate, while others blend them together more easily. When you are both staff and a student, keeping those boundaries clear can help everyone know who is in charge and avoid confusion. Anglin et al. (2022) added that "role theories examine how individual behavior is shaped by prevailing social roles and provide insights into how others perceive behavior in light of such roles." Managing boundaries well means paying attention to what is going on around you and adjusting your behavior to fit the situation. In class, the student role should come first, but outside the classroom, someone's professional side might take over. If people do not keep those roles separate enough, staff-like behavior can end up leaking into student situations.

For example, if someone skips talking to a lecturer and goes straight to senior management with a problem, it might indicate that the lines between their staff and student roles are blurring. While it is sometimes necessary to escalate an issue, not following the usual steps can make it seem as if they are not respecting the way things are normally done. So, the problem is often less about the actual complaint and more about how and when it is raised. If people do not manage these boundaries well, it can leave others unsure of what is going on. Lecturers might feel their authority is being questioned, and administrators might have to address problems through unofficial channels rather than the usual ones. If this keeps happening, it can make the whole place feel less connected and more uncertain.

Social Power Theory and Informal Influence

This whole situation also raises questions about power, who has it, and why. French and Raven (1959), also Liden et al. (2025) break power down into different types, such as authority based on your position, expertise, relationships, or the ability to reward or punish others. In a university, lecturers and administrators usually have official authority. But a staff member who is also a student might still wield significant influence. Maybe because they know a lot about the subject, have a good reputation, or have connections with people higher up. If someone raises concerns in a way that highlights their connections to senior staff, it can look like they are using their influence to get what they want. Even if they say they are just following the rules, mentioning personal connections can turn a normal disagreement into a power struggle. This can make people feel less safe about speaking up or taking risks because they worry about possible backlash.

When people feel there is an imbalance of power, it can change how they talk to each other. Lecturers might get defensive or hold back, which makes honest discussion harder. Power is not just about who has the title. It is also about how people see each other.

Organizational Justice and Procedural Fairness

Organizational Justice Theory is a way to think about whether the process of raising concerns and solving problems is fair. Greenberg (1987) points out that "fairness is not just about the end result. It is also about how decisions are made and how people are treated along the way."

In universities, fairness usually means trying to sort things out directly with the people involved before taking the issue higher up. This step-by-step approach helps keep things clear and respectful, and it often solves problems before they grow.

If someone skips the usual steps, even for a good reason, others might feel like it is not fair, or that some people get special treatment. If this happens often, it can make people lose trust in how the university is run.

Not following the usual process can also waste time and resources. If senior management gets dragged into problems that could have been sorted out in the department, it puts extra pressure on everyone and can upset the usual way things work.

Collegial Governance and Academic Culture

Universities are different from other workplaces because they rely on shared decision-making and respect among colleagues. Professors have a lot of independence and discussions. Even disagreements are welcome, as long as they are respectful and orderly.

Tensions between staff and student roles can feel especially tricky here because authority in universities is not just about job titles, but also about knowledge. It is normal, even encouraged, to question or critique ideas in academia. Problems only really come up when people challenge authority in ways that do not respect the usual rules or processes.

Universities respect deep knowledge, but they also value humility, which is the willingness to learn from others. It can be complicated to balance these values when someone is both a staff member and a student.

Psychological Safety and Climate Implications

When people think that others are crossing boundaries or using their influence too much, it can have a big effect on the atmosphere at a university. Feeling safe to speak up and share ideas is really important for learning. But if people worry that any disagreement might get taken straight to the top, they might hold back and not speak honestly. This is especially true for postgraduates, who need open discussion to grow as scholars. If lecturers feel like they cannot speak freely because they are worried about issues being escalated, the quality of discussion and learning can really suffer. Administrators can also feel the strain when people use informal relationships rather than follow the official processes. If this keeps happening, it can cause divisions or even create groups that do not work well together within departments.

Ethical Considerations

From an ethical point of view, having staff who are also students means everyone must be extra careful about potential conflicts of interest. Even if there is no real conflict, people might still worry about unfair influence. That is why it is important to be open, act in proportion to the situation, and respect the usual rules when dealing with problems.

It is appropriate to escalate issues if something serious occurs, such as misconduct or discrimination. But for smaller disagreements, like a difference of opinion about teaching, it is better to sort them out at the local level first. Handling things in proportion to their seriousness helps keep the institution fair and trustworthy.

Institutional Implications and Preventive Strategies

As a growing number of university staff are also pursuing studies, it is a good idea for institutions to develop clear policies in advance. Some helpful steps might include:

1. Role Clarification Statements: Explicitly outlining expectations for staff who are simultaneously students.

2. Structured Escalation Protocols: Reinforcing stepwise communication channels.
3. Orientation on Boundary Management: Providing training on navigating dual identities.
4. Conflict Resolution Mechanisms: Offering mediation options before formal escalation.
5. Transparency Policies: Requiring disclosure of potential conflicts of interest when escalating concerns.

Doing these things can help avoid confusion and make sure everyone is treated fairly and respectfully.

Integrated Interpretation

The issue of dual-role tension in higher education can be conceptualized as a multifaceted phenomenon involving:

- Inter-role conflict (Kahn et al., 1964);
- Boundary permeability and segmentation challenges (Ashforth et al., 2000);
- Activation of multiple power bases (French & Raven, 1959);
- Procedural justice considerations (Greenberg, 1987);
- Identity maintenance dynamics
- Governance and ethical norms of academia.

It is important to remember that these tensions are not usually anyone's fault. They just show how complicated things can get when staff and student roles overlap in universities. The best way to handle this is for everyone to stay aware, have clear guidelines, and treat each other with respect.

Conclusion

Having staff who are also students brings great chances for learning and career growth, but it can also create challenges about who is in charge, personal identity, and how things are done. When staff behaviors mix with student expectations, confusion and blurred boundaries can arise. To tackle these challenges, both individuals and institutions need to do their part. Setting clear expectations for roles, ensuring everyone knows the right steps to take, and having ways to resolve disagreements can all help. In the end, it is about balancing expertise with humility to keep respect, fairness, and integrity strong in the university community.

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POST-COVID19 EDUCATIONAL PRACTICES: INSIGHTS FROM TEACHING AND LEARNING EXPERIENCES AT UITM JOHOR

Rudza Hanim Mohd Anuar, Nazihah Omar, Khairunnisa Rahman

Introduction

The year 2020 marked an unprecedented moment in modern history as the world confronted a global health crisis triggered by the emergence of COVID-19, a novel virus believed to have originated from animals in Wuhan, China. The sudden outbreak resulted in millions of deaths worldwide, including in Malaysia. In response, the Malaysian government implemented the Movement Control Order (MCO) as a containment measure to curb community transmission.

Borders were closed, public movement became severely restricted, and schools were shut down to prevent the virus from spreading among students. The use of face masks became compulsory, and social distancing was introduced. Despite comprehensive containment measures, fatalities continued to rise until vaccines were successfully developed approximately one year after the first documented cases in Wuhan.

COVID-19 not only destabilised global economic, political, and social structures but also reshaped communication systems and educational practices. The dramatic impact of the pandemic reflected the reality of a highly interconnected world in which many nations were unprepared for a crisis of this scale (Zakaria, 2021).

Within the Malaysian education system, the pandemic presented challenges never encountered. For Universiti Teknologi MARA (UiTM), this period represented its first-ever disruption of such magnitude. Lecturers and students faced a dual challenge: maintaining academic continuity amid mobility restrictions while ensuring mental and physical readiness during prolonged uncertainty.

As the situation worsened, the government mandated the closure of all universities. Strict access regulations were imposed on lecturers entering campuses, while many students were stranded in their hometowns with limited learning access.

The educational landscape underwent a rapid and dramatic transformation: teaching and learning, previously conducted face-to-face, shifted almost overnight into fully online environments. This sudden shift compelled the acceptance and integration of digital learning, a change previously recommended but not fully embraced before the pandemic (Yong Zhao & Watterson, 2021).

Students and lecturers living in rural or remote areas struggled with weak internet connectivity, inadequate digital devices, and emotional strain due to illness or the loss of family members. Some students had to take on part-time jobs to support their families following unemployment or bereavement caused by the pandemic.

However, through continuous support from UiTM's administration, counselling services, and collaborative problem-solving between lecturers and students, these challenges were gradually mitigated. As noted by Galloway (2020), the pandemic catalysed major systemic changes while creating new opportunities for innovation. UiTM thus entered a new educational era, transitioning from conventional face-to-face delivery to fully digital learning environments.

The Transition from Physical Classroom-Based Learning to Fully Online Learning Environments

Technology plays a fundamental role in communication and knowledge dissemination. The advancement of digital tools has strengthened educational systems by enabling more efficient

and flexible teaching practices. The COVID-19 pandemic accelerated the adoption of educational technologies (EdTech) and presented opportunities for integrating more innovative digital solutions (Kang, 2021).

Before the pandemic, online learning technologies were underutilised by most lecturers and students, who preferred conventional face-to-face methodology. COVID-19, however, served as a powerful catalyst, compelling the higher education community to embrace digital learning platforms fully. Since then, the education sector has undergone a transformation into the online and digital era, and it has not reverted to traditional methods.

During the pandemic, UiTM staff and students adopted various online platforms such as Microsoft Teams, Google Meet, Cisco Webex, Skype, and WhatsApp. Some lecturers also uploaded recorded lectures on YouTube for asynchronous access. However, these platforms initially had limitations such as restricted meeting durations, participant caps, and limited recording functions thus making them less optimal for full course delivery.

To address these issues, lecturers and students collaborated to restructure learning schedules beyond the conventional 8:00 a.m. to 5:00 p.m. window. Online classes were held in the evenings or on weekends to accommodate internet accessibility and family responsibilities. Lectures, tutorials, assessments, discussion forums, and email communication were used extensively to ensure academic continuity.

The increased use of online tools enabled uninterrupted teaching and learning despite geographical distance. Although students initially struggled with the lack of face-to-face interaction and reduced spontaneity during academic discussions, these challenges were progressively resolved through continuous adjustments, reflective dialogue, and shared problem-solving.

In addition, many students faced difficulties due to the lack of access to digital devices such as tablets, particularly those from the B40 socioeconomic group. To address this issue, the government provided assistance by distributing devices to eligible students, thereby enabling them to continue their learning process.

Post-Covid-19 Learning Legacies and the Rise of the Artificial Intelligence Era.

The World Health Organization (WHO) declared the end of the global COVID-19 emergency in 2023, marking a transition into post-pandemic recovery. Three years of online learning deeply transformed digital teaching competencies, with lecturers and students becoming increasingly adept at navigating virtual learning environments. This shift enabled teaching and learning to take place with greater flexibility than ever before.

A year later, the education sector faced yet another major transformation with the rapid expansion of Artificial Intelligence (AI), regarded as one of the most revolutionary technological advancements of the 21st century. AI significantly enhanced teaching and learning processes by providing intelligent support tools, personalised learning assistance, and automated content generation.

For students, AI tools enable faster access to information, promote understanding of complex subjects, generate academic outlines, produce multimedia materials, and support the preparation of essays and assignments. Intelligent search systems and educational chatbots provide instant explanations without requiring in-person consultations with lecturers.

For lecturers, AI facilitates the rapid creation of quizzes, tutorials, and assessment items. AI-based analytic tools also assist in evaluating students' written work efficiently, saving valuable time and improving feedback quality.

Today, AI is widely used both within and beyond the university environment. The evolution of learning systems, from pre-pandemic face-to-face instruction to early online learning and now to AI-enhanced education, marks a significant paradigm shift.

Online and hybrid teaching approaches continue to remain relevant and are expected to persist even after the pandemic era (Garcia-Morales et al., 2021). Communication between lecturers and students has become more efficient, and the pandemic has transformed traditional educational systems into one of the most technologically advanced learning ecosystems of the modern century.

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ARE WE READY FOR GENERATION ALPHA?

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Generation Alpha may not have fully entered our lecture halls yet, but their arrival is just around the corner. Born from 2010 onwards, they are the first generation to grow up entirely in a world shaped by advanced technology, artificial intelligence (AI), and constant digital connectivity. As educators, many of us are still adapting our teaching approaches to suit Generation Z. But an important question arises: are we truly ready for what comes next?

Generation Alpha is not just "tech-savvy", in fact they are completely immersed in technology. From a very young age, they are exposed to tablets, YouTube, voice assistants, and algorithm-driven content that constantly adapts to their preferences. Students from Generation Alpha have higher demands for teachers to make lessons fun, interesting, and engaging to sustain retention in learning environments (Yong, Mohd Zaid & Tasir, 2024). This environment shapes how they think, how they learn, and even how they focus. However, high exposure to technology does not necessarily mean that learners are effective at multitasking or independent digital learning (Kirschner & De Bruyckere, 2017)

Who is Generation Alpha?

Generation Alpha refers to individuals born from 2010 onwards. Unlike previous generations, they have never experienced a world without smartphones, fast internet, or smart technology. For them, digital interaction is not something new. It is simply a normal part of their life. They are often described as the most technologically immersed generation so far. Many of them are already familiar with AI-powered tools, personalised content, and interactive media at a very young age. This means their expectations toward learning may be very different from what educators are used to. Instead of relying heavily on text-based learning, Generation Alpha tends to respond better to visual, interactive, and engaging content. They are used to fast responses, personalised recommendations, and seamless digital experiences. Naturally, they may expect similar experiences in the classroom.

From Generation Z to Generation Alpha

We are currently teaching Generation Z, and they have already pushed us to rethink traditional teaching methods. They prefer group activities, and learning that feels relevant to real life, engaging, and practical learning approaches that connect theory with real-life application (Chicca & Shellenbarger, 2018). However, Generation Alpha is expected to take this even further. While Gen Z grew up with technology, Generation Alpha is growing up with AI. This means they are not just users of technology; they are surrounded by systems that think, suggest, and respond instantly. Because of this, they may expect learning to be faster, more personalised, and more natural.

Another key difference is attention and focus. If Gen Z already struggles with long lectures, Generation Alpha may find it even harder to stay engaged in traditional classroom settings. Their exposure to fast-moving, highly engaging digital content may reduce their tolerance for passive learning. At the same time, they may become highly dependent on technology for answers. Instead of exploring or analysing deeply, there is a risk that they may rely too much on AI-generated responses.

Challenges in Teaching Generation Alpha

1. Over-Reliance on Technology and AI

One of the biggest challenges is the possibility that students become too dependent on technology. With AI tools providing instant answers, students may feel less motivated to think

independently or explore ideas in depth. The assumption that digitally immersed students naturally possess advanced learning abilities is often misleading and requires careful instructional guidance (Kirschner & De Bruyckere, 2017).
This does not mean technology is bad, in fact, it is extremely useful. However, the challenge lies in ensuring that students still develop critical thinking skills rather than simply relying on tools to do the thinking for them.

2. Shorter Attention Span
Generation Alpha is constantly exposed to fast, engaging, and personalised content. Because of this, maintaining their attention in a traditional classroom may become more difficult. Long lectures without interaction may not work effectively. Students may lose focus quickly if the lesson does not capture their interest within a short period of time.

3. Expectation for Personalised Learning
Another challenge is their expectation for personalised experiences. Since many digital platforms already tailor content based on user preferences, students may expect learning to be customised to their needs, pace, and interests. For educators, this can be challenging, especially when teaching large groups of students with different abilities and learning styles.

4. Communication and Social Skills
With increased digital interaction, face-to-face communication may become less common. This can affect students' ability to express ideas clearly, participate in discussions, and build confidence when speaking. This is something educators need to actively address in the classroom.

How do we prepare for Generation Alpha?
The answer is not to completely change everything, but to start adapting our teaching approaches in a more intentional way. Educators are encouraged to adopt flexible and student-centred teaching strategies to effectively engage modern learners in higher education settings (Chicca & Shellenbarger, 2018).

1. Make Learning Active and Technology Balanced
Instead of relying heavily on lectures, lessons should involve students actively. This can include group discussions, problem-solving tasks, and collaborative activities. When students are involved, they are more likely to stay engaged and understand the content better. Even though Generation Alpha is highly digital, not all learning needs to happen through screens. In fact, using low-tech approaches can sometimes be more effective.
For example, using A3 paper for mind mapping activities allows students to organise ideas visually and present them without relying on slides. This encourages them to think, explain, and communicate based on their own understanding.

2. Use Visual and Creative Approaches
Since Generation Alpha responds well to visual content, incorporating drawings, diagrams, and simple sketches can be very helpful. Drawing activities allow students to translate abstract ideas into something more concrete. It also makes learning more engaging and memorable.

3. Encourage Critical Thinking
To avoid over-dependence on AI, educators need to design tasks that require thinking. Instead of asking students to find answers, we can ask them to explain, justify, compare, or evaluate. This pushes them to go beyond surface-level understanding.

4. Build Communication Skills
It is important to create opportunities for students to speak, present, and share ideas. Activities that involve presenting without slides, group discussions, or peer feedback can help students build confidence. These skills are essential, especially in preparing them for future workplaces.

Aspect	**Generation Z**	**Generation Alpha**
Technology Exposure	Grew up with internet & smartphones	Born into AI, smart tech & automation
Learning Style	Interactive, hands-on	Highly visual, personalised, immersive
Attention Span	Short	Potentially shorter
Information Access	Fast	Instant (AI-driven)
Learning Expectation	Engagement & relevance	Personalisation & seamless experience
Main Challenge	Focus & critical thinking	Over-dependence on AI

Table 1: Differences between Generation Z and Generation Alpha

Conclusion
In conclusion, whether we like it or not, Generation Alpha is coming, and they will bring new expectations, behaviours, and challenges into the classroom. While they are highly advanced in terms of technology, they will still need guidance in areas such as critical thinking, communication, and deep understanding. As educators, the goal is not to completely change how we teach, but to evolve. By combining active learning, creativity, and meaningful engagement, we can create a learning environment that is suitable not only for Generation Z but also for the generations to come. Preparing for Generation Alpha starts now, and small changes in our teaching practices today can make a big difference in the future.

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