

Empowerment 21st Century Learning Experience Using Islamic Finance Mastermind Game

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Abstract: *The International Survey of Adult Financial Literacy conducted on Financial Education in 2023 found that 70% of adults take full consideration on affordability to but in purchase decision. However, on financial product comparison, only 26% of adults compare financial products across providers and only 24% of adults seek financial advice from independent sources when purchasing financial products and services. This study examines the application of Game-Based Learning (GBL) approach in teaching and learning of Islamic banking and finance. The Islamic Finance Mastermind Game (IFMG) is designed based on the three (3) key thrusts outlined in the Financial Sector Blueprint 2022–2026, namely: (1) financial literacy, focusing on the understanding and application of Islamic banking and finance principles; (2) Early Islamic financial planning, emphasising financial management for both worldly needs and the hereafter; and (3) Islamic social finance, encompassing Takaful, zakat, and sadaqah. The main objectives of IFMG are to transform Islamic Finance Education through strategic GBL, to strengthen Shariah-Compliant Financial Decision-Making and critical thinking through this GBL experience, to bridge academia, industry, and society through scalable Islamic Finance innovation and to empirically measure and validate learning impact in Islamic Finance Education. The interactive scenario gives opportunity to all players to decide on Shariah compliance financial products. Students have to engage in simulated financial decision-making processes involving Islamic deposit, Islamic financing and Islamic investment. The teaching of financial literacy in Islamic banking and finance through GBL by using IFMG is able to stimulate financial decision that are Shariah-compliant among students and young people that are dependent on their parent and have yet to experience the actual money management in their life.*



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1. INTRODUCTION

In 2022, the Financial Sector Blueprint 2022-2026 issued by Bank Negara Malaysia has emphasized on three (3) key thrust (1) Financial Literacy (2) Early Financial Planning (3) Islamic Social Finance (BNM,2022). The International Survey of Adult Financial Literacy conducted by OECD International Network on Financial Education 2020 found that Malaysians scored below average in financial knowledge, reflecting gaps in financial decision making (OECD,2020). According to the survey, 64% are unfamiliar with time value of money, 54% have financial buffers of less than three months if they lose their income, 34% do not have long-term savings goals and 48% do not know the concept of risk diversification (OECD,2020). The International Survey of Adult Financial Literacy conducted by OECD International Network on Financial Education 2023 further found 70% of adults are carefully consider if they can afford something before buying it (OECD,2023). However, only 26% of adults compare financial products across providers and only 24% of adults seek advice from independent sources when purchasing financial products and services. As the result, the National Strategy for Financial Literacy 2019-2023 further outlines the integration into all levels of formal education system as elective programmes of higher learning and teachers training institutes to elevate financial literacy and promote responsible financial behaviour of people across all life stages. The key outcome is to give effect to behavioural change. The implementation of the first National Strategy for Financial Literacy (2019 – 2023) has resulted in steady progress in Malaysians' financial knowledge, behaviour and attitudes. Nevertheless, gaps remain, particularly among vulnerable segments of the population (BNM,2019). On February 2025, Bank Negara Malaysia issued the discussion paper to outline the proposed features of Malaysia's second National Strategy for Financial Literacy (2026 – 2030), which aims to empower Malaysians with the knowledge and skills necessary to enhance their financial literacy and make informed financial decisions for their financial well-being (BNM,2025).

This study examines the Game-Based Learning (GBL) approach in teaching and learning of Islamic banking and Islamic financial management. In order to support Bank Negara Malaysia financial literacy objective, Islamic Finance Mastermind Game (IFMG) is designed based on the three (3) key thrusts outlined in the Financial Sector Blueprint 2022–2026, namely: (1) financial literacy, focusing on the understanding and application of Islamic banking and finance principles; (2) Early Islamic financial planning, emphasising financial management for both worldly needs and the hereafter; and (3) Islamic social finance, encompassing *Takaful* that encourage financial contribution on mutual assistance basis for financial benefit, *zakat*, and *sadaqah* (donation). The main objectives of IFMG are to transform Islamic Finance Education through strategic GBL, to strengthen Shariah-Compliant Financial Decision-Making and critical thinking through this GBL experience, to bridge academia, industry, and society through scalable Islamic Finance innovation and to empirically measure and validate learning impact in Islamic Finance Education. The interactive scenario gives opportunity to all players to decide on Shariah compliance financial products. Students have to engage in simulated financial decision-making processes involving Islamic deposit, Islamic financing and Islamic investment. The teaching of financial literacy in Islamic banking and finance through GBL by using IFMG is able to stimulate financial decision among students and young people that are dependent on their parent and have yet to experience the actual money management in their life. In conclusion, this innovation contributes to academic advancement, demonstrates potential for commercialisation, offers pedagogical novelty, and supports effective game-based e-learning in Islamic financial literacy by encouraging students to apply the three key thrusts (1) financial literacy, (2) Islamic financial planning, and (3) Islamic social finance in practical contexts.

2. LITERATURE REVIEW

There are few literatures on Game-based learning approach applied in teaching and learning Islamic banking and finance as shown in Table 1.

Table 1: Related Studies on Game-Based Learning in Islamic Banking and Finance

	Author(s) & Year	Title	Purpose	Findings/ Results
1	Shahwan et al., 2015	Muamalat Interactive Game (MIG)	To examine the impact of experiential learning on students' understanding of Shariah contracts through MIG simulation.	Significant improvement in understanding Islamic contracts; enhanced visualization of Islamic financial management.
2	Rahman et al., 2018	Global Zakat Game (GZG)	To evaluate the use of GZG in enhancing zakat knowledge among diverse users.	Positive impact on zakat understanding; enjoyable experiential learning; mean scores between 3.95–4.65.
3	Shafii et al., 2018	Development of MIG for Islamic Banking Education	To document MIG's design process promoting Islamic banking, investment, and social finance.	Improved cognitive, affective, and technical financial literacy; enhanced ethical and charitable behavior.
4	Shahwan et al., 2018	MIG Product Development for Financial Literacy in Children	To outline the key development stages of MIG for children's Islamic financial learning.	Improved cognitive, affective, and technical skills; stronger ethical awareness and financial responsibility.
5	Sungkawaningrum et al., 2025	Educational Games for	To introduce Islamic banking concepts through	Improved understanding of Riba, profit sharing, and

		Islamic Banking for Children	educational games.	fairness; built early financial and ethical awareness.
6	Kurniawan et al., 2025	IZI Game and Zakat Digital Literacy	To analyze the effects of digital literacy, game methods, and religiosity on zakat knowledge.	Positive and significant influence on zakat knowledge and religiosity; confirmed the effectiveness of interactive learning.

Shahwan et al. (2015) investigate the impact of experiential learning on undergraduate students' understanding of Shariah contracts through the Muamalat Interactive Game (MIG). The study found that students' knowledge and understanding have significant improvement after playing the MIG, particularly in identifying key features, transaction contract sequences, and the differences among Shariah contracts applicable in Islamic banking and finance. Moreover, the interactive experience in MIG assisted students to have better visualize personal financial management within an Islamic framework. The study confirmed that game-based experiential learning effectively enhances understanding and application of Islamic financial concepts in Islamic banking and finance.

Shafii et al. (2018) found that MIG effectively enhances learners' cognitive, affective, and technical skills. Cognitively, players improve their understanding of Shariah-compliant wealth management instruments such as real estate, Islamic investments, and Takaful. Affectively, the game fosters ethical and charitable behaviour by encouraging wealth sharing through *sadaqah* (donation) and *waqf*, which helps illustrate Islamic social responsibility. Technically, players develop essential personal finance management skills, including budgeting, debt management, and zakat calculation.

Shahwan et al. (2018) found that through product conceptualization, validation, and pilot testing, MIG effectively enhanced students' learning behaviours across three dimensions—cognitive, affective, and technical. Cognitively, players improved their ability to identify and use Shariah-compliant wealth management tools such as property, shares, and Takaful. Affectively, the game fostered a spirit of generosity and social responsibility through charity and endowment activities (*sadaqah* and *waqf*). Technically, learners gained essential financial management skills such as budgeting, debt management, recording transactions, and calculating zakat. The findings demonstrate MIG's effectiveness in promoting financial literacy, ethical awareness, and responsible wealth management among young learners, offering valuable insights for future educational game developers.

Rahman et al. (2018) found that the use of GZG as a Zakat edutainment tool has a positive impact on users and players, as it helps them to learn more about Zakat theories and practice, between high (4.65) and moderately high (3.95) of mean scores.

Kurniawan et al. (2025) analysed the influence of zakat digital literacy, game methods, and religiosity attitudes on zakat knowledge in Muhammadiyah High School. The results show that zakat digital literacy, IZI Game game methods, and religiosity attitudes have a direct positive and significant influence on zakat knowledge. Digital literacy of zakat and game methods has a significant positive effect on religiosity. The indirect influence of digital literacy on zakat knowledge through religiosity

attitudes is not significant, while the indirect influence of game methods through religiosity attitudes is significant.

Sungkawaningrum et al. (2025) further discuss how educational games can be an effective learning method in introducing the concept of Islamic banking to children. With an interactive and fun approach, educational games can help children understand the principles of Islamic finance, such as the prohibition of usury, the concept of profit sharing, and the values of honesty in transactions. The results of the study show that this method improves children's understanding of the concept of Islamic banking and forms Islamic financial awareness from an early age. Educational games have proven to be an effective learning tool in introducing the concept of Islamic banking to children.

3. METHODOLOGY

This study adopts qualitative research methodology by using document analysis to examine the application of Game-based Learning approach in teaching Islamic banking and finance by using Islamic Finance Mastermind Game. The documents consist of the quizzes, instructions, the scenario, the scorecard and the report are examined for the purpose of this study.

4. FINDINGS

The finding shows that Islamic Finance Mastermind Game is developed by the lecturers of Management and Science University (MSU) for teaching and learning of Islamic Banking and Finance. Table 2 further shows that there are four (4) pilot projects conducted by Islamic banking and finance lecturers of Faculty of Management and Professional Studies of MSU to test the implementation of IFMG.

Table 2. The Implementation of IFMG Pilot Project

Pilot Project	Secondary School Level	College Level	University Level
The participants	Private School involves 4 groups of 20 students (5 members/group)	2 Private Colleges Involves 10 groups of 50 Diploma students (5 members/group)	1 Private University involves 10 groups of 30 bachelor students (3 members/group)

The study found that there are three (3) educational levels applied in Game-Based Learning (GBL) using Islamic Finance Mastermind Game (IFMG); (1) Pre- Game involves training activities on Islamic financial literacy (2) Gameplay activities involves early financing planning and financial decision on Shariah-compliant financial products (3) Post-Game activities involve gameplay translated into learning outcome. Table 3 shows the three level of IFMG developed by team lecturers of Islamic banking and finance of Management and Science University has embedded the elements of financial literacy and early Islamic financial planning throughout the game.

Table 3. Three Level of IFMG

Main Key-Thrust in Islamic Financial Sector Blueprint 2022-2026	Pre-Game	Gameplay	Post Game
Financial Literacy in Islamic Banking and Finance	/	/	/
Early Financial Planning	/	/	/

All participants have equal chances to make financial decision in Shariah-compliant financial products at each Round 1, Round 2 and Round 3. Table 4 shows the three (3) key elements embedded in Round 1,2 and 3 of IFMG involved the elements of financial literacy and early Islamic financial planning.

Table 4. Key Elements in Islamic Finance Mastermind Game

Main Key-Thrust in Islamic Financial Sector Blueprint 2022-2026	Round 1	Round 2	Round 3
Financial Literacy in Islamic Banking and Finance	/	/	/
Early Financial Planning	/	/	/
Islamic Social Finance	/	/	/

4.1 Round 1 Islamic Finance Mastermind Game

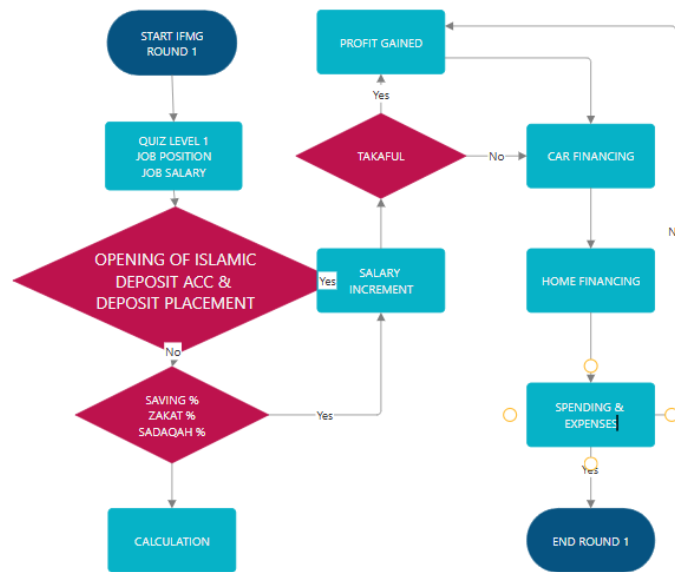


Figure 1. Round 1 Gameplay Training Activities on Islamic Financial Literacy

In GLB approach using IFMG, the Round 1 required participants to browse, explore, analyse and choose the best Shariah-compliant financial decision after secure a job position on Islamic deposit products, Islamic financing instruments and Takaful offered by licensed Islamic financial institutions regulated under Bank Negara Malaysia. The participants must observe the element of Islamic social finance on zakat and sadaqah that are required to be prioritised before spending and expenses.

4.2 Round 2 Islamic Finance Mastermind Game

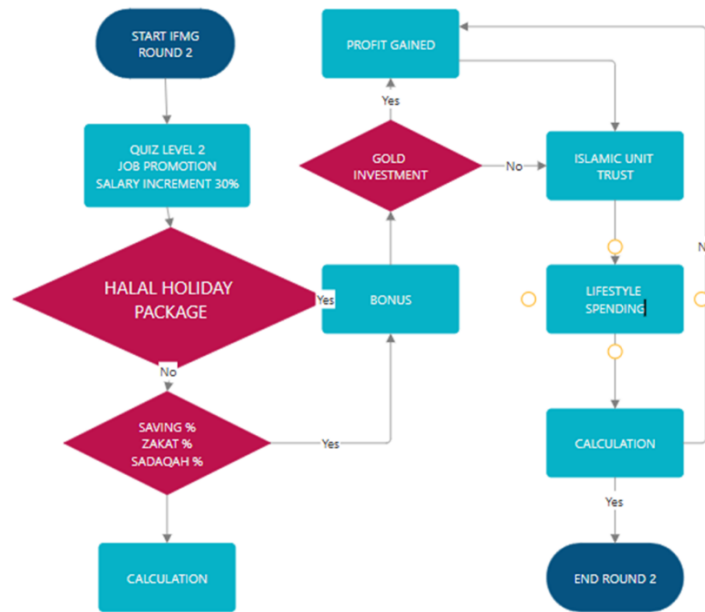


Figure 1. Round 2 Gameplay Activities on Early Financial Planning

In GLB approach using IFMG, the Round 2 further required participants to make Shariah-compliant financial decision after being promoted to the new job position and higher salary increment on the best Islamic investment products and Islamic unit trust products offered by licensed Islamic financial institutions regulated under Bank Negara Malaysia. The participants must observe the element of Islamic social finance on zakat and sadaqah that are required to be prioritised before spending and expenses.

4.2 Round 3 Islamic Finance Mastermind Game

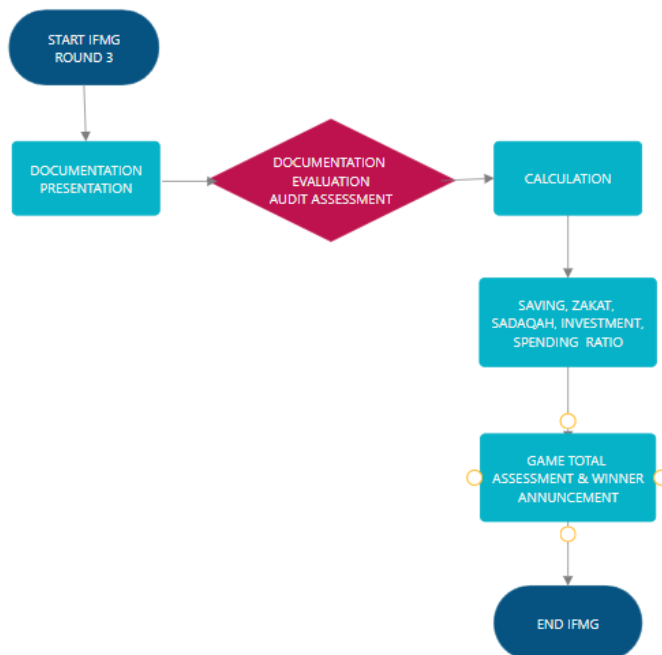


Figure 1. Round 3 Post Game Activities on Learning Outcome

In Round 3, the participants are required to check their Shariah compliant financial decision and calculate the ratio for zakat, sadaqah, saving in Islamic deposit, Islamic financing and Islamic investment. The documentation has to be submitted to the trainer and committee for documentation evaluation and audit assessment.

5. DISCUSSION

Financial literacy is a crucial component in understanding effective money management. This educational innovation utilises combination of 21st-century Game-Based Learning (GBL) approach and interactive scenario for Islamic financial decision to enhance the teaching and learning of Islamic banking and Islamic financial management. The Islamic Finance Mastermind Game (IFMG) developed by Islamic banking and finance lecturers of Management and Science University is an interactive educational game that designed based on the three (3) key thrusts outlined in the Financial Sector Blueprint 2022–2026, namely: (1) financial literacy, focusing on the understanding and application of Islamic banking and finance principles; (2) Islamic financial planning, emphasising financial management for both worldly needs and the hereafter; and (3) Islamic social finance, encompassing Takaful, zakat, and sadaqah. The main objectives of IFMG are to transform Islamic Finance Education through strategic GBL, to strengthen Shariah-Compliant Financial Decision-Making and critical thinking through this GBL experience, to bridge academia, industry, and society through scalable Islamic Finance innovation and to empirically measure and validate learning impact in Islamic Finance Education. In GBL using IFMG, students are required to browse, explore, analyse and choose the best Islamic deposit products, financing instruments, Takaful schemes, and Islamic unit trust products offered by licensed Islamic financial institutions regulated under Bank Negara Malaysia. The interactive scenario gives opportunity to all players to decide on Shariah compliance financial products.

The IFMG also provides opportunities for students to invest in Shariah-compliant gold, alongside mandatory zakat payments and voluntary sadaqah contributions. Students have to engage in simulated financial decision-making processes involving saving, borrowing, lifestyle spending, and investment. The teaching of financial literacy through GBL by using IFMG is able to stimulate financial decision among students and young people that are dependent on their parent and have yet to experience the actual money management in their life. In conclusion, this innovation contributes to academic advancement, demonstrates potential for commercialisation, offers pedagogical novelty, and supports effective game-based e-learning in Islamic financial literacy by encouraging students to apply the three key thrusts (1) financial literacy, (2) Islamic financial planning, and (3) Islamic social finance in practical contexts.

The IFMG takes into account the ethical consideration in developing Islamic finance educational game. It maintains Islamic ethical standards where the scenario-based gameplay must accurately reflect the Shariah principles without misrepresentation or bias. MIFG promotes fairness and transparency in all game scenario. It also avoids cultural sensitiveness and content that may offend. MIFG also ensures educational integrity. The contents must be accurate, reliable and aligned with the Shariah principles in Islamic banking and finance.

The levels of difficulty increased from Round 1 to Round 2 in making financial decision. MIFG gives challenge to the participants in understanding the wealth sharing in zakat and sadaqah. Progress is monitored through the cash flow and documentation.

The study found that MIFG achieves the objective of teamwork and strategic management in early financial planning related to Shariah-compliant products in Islamic banking and finance. The IFMG interaction fosters active engagement and collaborative learning during the gameplay. The success is achieved when the players correctly identify the core principles within limited time promoting critical thinking through wealth distribution and best financial decision in Islamic banking and finance.

6. CONCLUSION

In conclusion, the Game-based learning using Islamic finance Mastermind Game applied in teaching and learning Islamic banking and finance enhance financial literacy and encourage early financial planning to choose the best financial products and make the best financial decision. This study gives impact to enhance engagement and learning. The gamifies approaches make learning Islamic finance concepts more engaging, improving retention and comprehension. It further develops practical skills. IFMG provides hands-on experience in financial decision in Shariah-compliant products related to Islamic deposit, Islamic financing and Islamic investment fostering early financial planning. The interactive games make Islamic finance education accessible to a broader, global audience in society.

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