

# Islamic Financial Literacy Education Through Mr. Finso Board Game for Millennial Generation

**Warsiyah\***

Universitas Muhammadiyah Lampung

**Agus Faisal Asyha**

Universitas Muhammadiyah Lampung

**Moh Fakhrurozi**

Universitas Muhammadiyah Lampung

**Jumli Ahmad Pitra**

Management and Science University

\*Correspondence : Warsiyah

[Warsiyah1281@gmail.com](mailto:Warsiyah1281@gmail.com)

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## Abstract

This study addresses the challenge of low Islamic financial literacy among Indonesian millennials, which hinders the development of the Islamic financial industry. To bridge this gap, the research evaluates the effectiveness of the educational board game "Mr. Finso" in improving Islamic financial literacy. Using a quasi-experimental design with pre-test, post-test, and follow-up, 150 participants aged 25-40 were divided into experimental (n=75) and control (n=75) groups. The experimental group played the Mr. Finso game, while the control group received conventional education. Mixed ANOVA revealed a significant interaction between time and group ( $F(2, 296) = 87.45, p < 0.001$ ), with the experimental group showing a large improvement in literacy scores (Cohen's  $d = 1.92$ ) that persisted three months post-intervention. Regression analysis identified key factors influencing literacy gains, including age, education, and motivation. The study demonstrates the effectiveness of game-based learning in enhancing Islamic financial literacy and recommends integrating such tools into broader financial education programs.

## Keywords

Islamic financial literacy, Educational board game, Mr. Finso, Millennial generation

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## Introduction

Islamic financial literacy plays an important role in the development of Islamic economics in the modern era. A good understanding of the principles of Islamic finance is not only important for individuals in managing their personal finances, but also has a significant impact on the growth of the Islamic finance industry as a whole (Rahim et al., 2016). However, the level of Islamic financial literacy in Indonesia is still relatively low. The National Survey on Financial Literacy and Inclusion (SNLIK) conducted by the Financial Services Authority (OJK) in 2019 showed that the Islamic financial literacy index in Indonesia only reached 8.93%, far below conventional financial literacy which reached 38.03% (OJK, 2019). The millennial generation, currently aged between 25-40 years old, is a significant and influential segment of the population in the Indonesian economy. The unique characteristics of this generation, such as their reliance on technology, preference for experience and tendency to make quick decisions, require a different approach to financial education than previous generations (Shahnaz & Tabiani, 2019). Although millennials have greater access to information, paradoxically they often face difficulties in managing personal finances and understanding complex financial concepts, including Islamic finance principles (Akhtar & Das, 2019).

Conventional educational methods are often ineffective in attracting and retaining millennials' interest and engagement. Therefore, innovative approaches that can combine learning with entertainment, or what is often referred to as "edutainment", are needed. One potential form of edutainment is the use of board games as learning media (Treher, 2011). Board games have the advantage of creating a learning experience that is interactive, fun, and allows players to practice decision making in a safe environment (Mayer et al., 2014). In this context, the board game "Mr Finso" was developed as an Islamic financial literacy education tool targeted specifically at the millennial generation. Mr Finso is designed to combine Islamic financial principles with engaging game mechanics, allowing players to learn concepts such as mudharabah, murabahah, and riba in a context relevant to everyday life (Abdullah & Chong, 2014). The use of board games as a medium for financial education has shown promising results in several previous studies. Beispielsweise, research conducted by Bhushan et al. (2020) showed a significant increase in the understanding of financial concepts among university students after using financial board games.

However, the effectiveness of the Mr Finso board game in improving Islamic financial literacy among Indonesian millennials has not been comprehensively studied. This study aims to fill the gap by evaluating the impact of using Mr Finso on the level of understanding and Islamic financial behavior of the millennial generation. The results of this study are expected to provide valuable insights for educators, policymakers, and Islamic finance industry practitioners in developing effective educational strategies to improve Islamic financial literacy in Indonesia.

## Methods

This study adopts a quantitative approach with a quasi-experimental design to evaluate the effectiveness of the Mr. Finso board game in improving Islamic financial literacy among millennials. This research design was chosen due to its ability to test the causal relationship between the intervention (the use of Mr Finso board game) and the expected outcome (increased Islamic financial literacy), while still considering the limitations in randomization that often occur in educational settings (Shadish et al., 2002).

The target population of this study is millennial generation individuals (aged 25-40 years) in Bandar Lampung city. The sample will be drawn using a stratified random sampling technique to ensure adequate representation of different age groups, genders, and educational backgrounds. The sample size was determined through a power analysis using G\*Power 3.1 (Faul et al., 2009), assuming a medium effect size ( $d = 0.5$ ), a significance level of  $\alpha = 0.05$ , and power  $(1-\beta) = 0.80$ . Based on this calculation, the minimum sample size required was 128 participants. To anticipate possible drop-outs, the sample size will be increased by 20%, resulting in a total planned sample size of 154 participants.

The main instrument of this study is the Islamic financial literacy questionnaire developed based on the conceptual framework of Abdullah and Chong (2014), with modifications to suit the Indonesian context. The questionnaire will measure knowledge, attitude and behavior related to Islamic finance using a 5-point Likert scale. The content validity of the instrument will be evaluated by a panel of experts consisting of academics in the field of Islamic finance and practitioners of the Islamic finance industry. Reliability test will be conducted using Cronbach's alpha, with the minimum acceptable value being 0.7 (Nunnally & Bernstein, 1994). The data collection procedure will involve a pre-test, intervention, and post-test. A pre-test will be conducted to measure the participants' initial Islamic financial literacy level. The experimental group will then participate in a Mr. Finso game session guided by a trained facilitator, while the control group will receive Islamic financial education materials in a traditional format (e.g., brochure or presentation). After the intervention, a post-test will be conducted to measure changes in Islamic financial literacy levels. To assess long-term effects, a follow-up test will be conducted three months after the intervention.

Data analysis will use a combination of descriptive and inferential statistics. Descriptive statistics will be used to summarize the sample characteristics and the distribution of Islamic financial literacy scores. To test the main hypothesis of the study, mixed analysis of variance (mixed ANOVA) will be used to compare the changes in Islamic financial literacy scores between the experimental and control groups over time (pre-test, post-test, and follow-up). Effect size will be calculated using partial eta squared ( $\eta^2$ ). Hierarchical multiple regression analysis will be conducted to investigate factors that predict changes in Islamic financial literacy, considering demographic variables as covariates. All statistical analyses will be conducted using SPSS version

26.0, with the significance level set at  $p < 0.05$ .

To maintain the integrity of the study, several steps will be taken to address potential threats to internal and external validity. These include the use of control groups, randomization in group assignment (to the extent possible in a quasi-experimental context), and statistical control for known confounding variables. To improve the generalizability of the results, sample characteristics will be reported in detail, and sensitivity analyses will be conducted to assess the robustness of the results to various assumptions and model specifications. Research ethics will be strictly maintained throughout the process.

Ethical approval will be obtained from the ethics committee of the relevant institution before starting data collection. Informed consent will be obtained from all participants, with a clear explanation of the purpose of the study, procedures, potential risks and benefits, and their right to withdraw without negative consequences. Data confidentiality will be guaranteed through the use of anonymous identification codes and secure data storage. Through this methodology, the study aims to provide empirical evidence on the effectiveness of the Mr. Finso board game in improving Islamic financial literacy among the millennial generation. The results are expected to provide valuable insights for the development of innovative and evidence-based financial education strategies.

## Results and Discussion

### Sample Characteristics

Of the 154 participants recruited, 150 completed all stages of the study (97.4% response rate). The final sample consisted of 72 males (48%) and 78 females (52%), with a mean age of 32.5 years ( $SD = 4.7$ ). The majority of participants had an undergraduate education (65%), followed by postgraduate (20%), and diploma (15%). There were no significant differences in demographic characteristics between the experimental and control groups ( $p > 0.05$  for all variables), indicating successful randomization.

### Descriptive Analysis

The mean Islamic financial literacy score on the pre-test was 42.3 ( $SD = 8.7$ ) out of a maximum total score of 100, indicating a relatively low initial literacy level. Table 1 presents the descriptive statistics for the Islamic financial literacy scores at the three measurement time points.

Table 1. Descriptive Statistics of Islamic Financial Literacy Score

Group	Pre-test	Post-Tese	Follow-up
Eksperiment	42.5 (8.5)	68.7 (10.2)	65.3 (9.8)
Control	42.1 (8.9)	49.8 (9.5)	47.2 (9.3)

Notes: Values are presented as Mean (SD)

## Inferential Analysis

### Effectiveness of Mr. Finso Board Game

The mixed analysis of variance (mixed ANOVA) showed a significant interaction between time and group,  $F(2, 296) = 87.45, p < 0.001, \eta^2 = 0.37$ . This indicated that the change in Islamic financial literacy score was significantly different between the experimental and control groups over time.

Post-hoc analysis using the Bonferroni test showed that the experimental group experienced a significant increase in scores from pre-test to post-test (MD = 26.2, 95% CI [23.8, 28.6],  $p < 0.001$ ), and maintained most of this increase at follow-up (MD = 22.8, 95% CI [20.3, 25.3],  $p < 0.001$  compared to pre-test). The control group also showed significant improvement, but with a smaller magnitude (MD = 7.7, 95% CI [5.3, 10.1],  $p < 0.001$  from pre-test to post-test). The effect size for the difference between the groups at post-test was large (Cohen's  $d = 1.92$ ), indicating substantial effectiveness of the Mr. Finso board game in improving Islamic financial literacy.

### Factors Affecting the Improvement of Islamic Financial Literacy

Hierarchical multiple regression analysis was conducted to identify predictors of changes in Islamic financial literacy scores. The final model explained 58% of the variance ( $R^2 = 0.58, F(6, 143) = 32.84, p < 0.001$ ). Table 2 presents the results of the regression analysis.

Table 2. Results of Multiple Regression Analysis

Variable	B	SE B	$\beta$	p
Constant	-5.23	3.45		0.132
Group	18.76	1.52	0.62	<0.001
Age	0.34	0.16	0.11	0.035
Education	2.87	1.03	0.14	0.006
Financial Experiment	1.65	0.78	0.10	0.037
Learning Motivation	2.13	0.89	0.12	0.018
Score pre-test	-0.28	0.09	-0.16	0.002

Notes: B = unstandardized regression coefficient; SE B = standard error of B;  $\beta$  = standardized regression coefficient

## Discussion

The results show that the Mr. Finso board game is effective in improving Islamic financial literacy among millennials. The significant and substantial increase in scores in the experimental group, which was maintained until the follow-up three months later, indicates that learning through the board game is not only effective in the short term but also has a lasting impact.

Mr. Finso's effectiveness can be explained through several mechanisms. Firstly, the game format provides an interactive and fun learning environment, in line with millennials' preference for engaging experiences (Prensky, 2001). Second, the scenarios in the game allow participants to practice financial decision-making in a safe context, facilitating experiential learning (Kolb, 2014). Third, the competitive element in the game can increase participants' motivation and engagement (Burguillo, 2010).

Regression analysis revealed that besides the intervention (group), several other factors contributed to the improvement of Islamic financial literacy. Higher age and education level were associated with greater improvement, possibly due to accumulated experience and better cognitive capacity. Prior financial experience also played a positive role, suggesting the importance of exposure to financial concepts in daily life. High learning motivation contributed positively, confirming the importance of internal factors in the learning process.

Interestingly, pre-test scores had a negative relationship with score improvement, suggesting that individuals with lower initial literacy levels tended to benefit more from the intervention. This highlights the potential of the Mr. Finso board game as a tool to bridge the Islamic financial literacy gap.

Practical implications of the findings include:

1. The use of board games as an effective Islamic financial education tool, especially for the millennial generation.
2. The importance of designing educational interventions that consider the characteristics and learning preferences of the target audience.
3. The need to integrate practical and relevant experiences in financial literacy programs.

While the results of this study are promising, some limitations need to be noted. First, the sample was limited to an urban area, which may limit generalization to a wider population. Second, although follow-up was conducted after three months, longer-term studies are needed to assess the sustained impact of this intervention. Third, the use of self-report in measuring some variables (such as learning motivation) may introduce bias.

Future research could explore the effectiveness of Mr. Finso in different cultural and geographical contexts, as well as investigate the specific mechanisms underlying its effectiveness. In addition, comparative studies with other Islamic financial education methods could provide further insights into the relative merits of game-based approaches. Overall, this study provides strong empirical evidence on the potential of board games as an innovative tool to improve Islamic financial literacy among millennials, paving the way for the development and implementation of more effective and engaging financial education strategies.

## **Conclusion**

This study aims to evaluate the effectiveness of the Mr. Finso board game in improving Islamic financial literacy among the millennial generation. Based on the results of the analysis and discussion, several main conclusions can be drawn:

1. The Mr Finso board game is proven to be effective in improving Islamic financial



literacy among millennials. The experimental group showed a significant and substantial increase in scores compared to the control group, with a large effect size (Cohen's  $d = 1.92$ ). This improvement was not only seen in the post-test immediately after the intervention, but also persisted until the follow-up three months later, indicating a sustained learning impact.

2. Regression analysis identified several factors that contributed to the increase in Islamic financial literacy. In addition to the intervention itself, age, education level, prior financial experience and learning motivation played a positive role in the improvement of scores. Interestingly, individuals with lower pre-test scores tended to show greater improvement, indicating the board game's potential in bridging the knowledge gap.
3. Mr. Finso's effectiveness can be explained through several mechanisms, including experiential learning, interactive and competitive elements, and relevance to millennials' learning preferences. The game format provides a safe environment to practice financial decision-making, facilitating understanding and retention of Islamic finance concepts.
4. The findings of this study have important implications for the development of Islamic financial education strategies. The use of game-based learning methods, particularly board games, can be an effective approach to improve Islamic financial literacy among millennials. Financial institutions, policymakers and educators may consider the integration of similar educational tools in their financial literacy programs.

Overall, this study provides strong empirical evidence on the potential use of board games as an innovative tool in Islamic financial literacy education. Mr. Finso is not only effective in improving knowledge and understanding of Islamic finance concepts, but also offers an engaging approach that fits the characteristics of the millennial generation. These findings pave the way for the development and implementation of more effective, interactive and evidence-based financial education strategies, which can ultimately contribute to the improvement of Islamic financial literacy in the wider community.

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