



Wealth Creation with Financial Games: A Fun Way to Teach Financial Planning to University Students

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Abstract

Background and Aims: Wealth Creation through financial games is important because it provides interactive and practical learning experiences for university students, improving their understanding of financial planning. These games make complex financial concepts more accessible and engaging, providing students with the necessary skills to effectively manage their finances. This paper aims to investigate Wealth Creation with Financial Games: A Fun Way to Teach Financial Planning to University Students.

Methodology: The review article's methodology rigorously examines the effectiveness of financial games in teaching financial planning by collecting and analyzing extensive data sets. Using a variety of sources and systematic criteria, the review provides a nuanced understanding of how different types of financial games affect student engagement and learning. The analysis focuses on key themes and assesses the overall effectiveness of these games in improving financial education.

Results: the finding found that financial games are a compelling and interactive way to improve financial literacy in university students by increasing engagement, providing practical applications of financial concepts, and improving retention through immersive experiences. These games have great potential to supplement traditional educational methods by making complex financial concepts more accessible and relatable.

Conclusion: The findings show that financial games are an effective and engaging tool for increasing financial literacy among university students because they provide practical, immersive learning experiences. They show great promise as a supplement to traditional education, making complex financial concepts more accessible and engaging.

Keywords: Wealth Creation, Financial Games, Teach Financial Planning

Introduction

Financial literacy is an important skill for university students because it provides them with the knowledge and skills required to make sound financial decisions. The National Endowment for Financial Education (NEFE, 2021) defines financial literacy as the ability to understand and apply various financial skills, such as personal financial management, budgeting, and investing. For university students, mastering these skills is critical not only for managing their current expenses but also for preparing for future financial responsibilities. According to research, financial literacy is associated with improved financial behaviors and outcomes, such as lower debt and higher savings rates (Lusardi & Mitchell, 2014).

Traditional financial education methods frequently involve classroom instruction and printed materials. These approaches typically include lectures, textbooks, and workshops that teach financial principles such as budgeting, saving, investing, and credit management (Sherraden, 2013). Personal finance or economics courses, for example, are common in university curricula and aim to provide students with a basic understanding of financial concepts. Furthermore, some institutions provide extracurricular workshops or seminars to help students improve their financial literacy (Fernandez, Lynch, & Netemeyer, 2014). However, these methods may fail to fully engage students or address the practical application of financial concepts in real-world scenarios.

Financial games have emerged as an innovative way to improve financial education. These games are intended to simulate financial decision-making scenarios, allowing players to learn and practice financial concepts in a safe, interactive setting (Hastings, Madrian, & Skimmyhorn, 2013). Unlike traditional methods, financial games can engage students by providing a hands-on learning experience that helps complex financial concepts become more accessible and understandable. According to research, interactive learning tools like games can improve financial literacy by making





it more engaging and relevant (Choi, Laibson, & Madrian, 2011). Games can also help students develop problem-solving abilities and gain a better understanding of the consequences of financial decisions through experiential learning.

The effectiveness of financial games in teaching wealth-building concepts to university students must be studied because they provide an engaging and interactive way to convey complex financial principles. Traditional financial education methods frequently struggle to keep students' attention and fail to provide real-world application opportunities. Financial games address these issues by providing immersive environments in which students can experiment with financial decisions such as budgeting, investing, and debt management without any real-world consequences. This experiential learning approach not only makes financial concepts more accessible, but also helps students understand the long-term consequences of their financial decisions, improving their ability to build and manage wealth effectively (Choi, Laibson, & Madrian, 2011).

Furthermore, financial games can help bridge the gap between theoretical knowledge and practical application. They offer a dynamic platform for students to practice financial planning skills in a simulated environment that mimics real-world scenarios. This hands-on approach teaches students critical thinking and problem-solving skills related to financial management, which are critical for wealth creation and financial stability. Integrating financial games into the curriculum allows educators to provide a more comprehensive learning experience that prepares students for financial challenges in their personal and professional lives (Hastings, Madrian, & Skimmyhorn, 2013). This paper investigates Wealth Creation with Financial Games: A Fun Way to Teach Financial Planning to University Students.

Literature Review

Summary of Key Research Findings on the Effectiveness of Financial Games

Several key findings have emerged from research into the effectiveness of financial games in education. According to studies, financial games can help students understand and retain financial concepts more effectively. For example, Hastings, Madrian, and Skimmyhorn (2013) discovered that interactive financial games improve financial literacy by making learning more engaging and relevant. Games that simulate real-world financial scenarios allow students to practice decision-making skills and apply financial principles in a controlled setting. Furthermore, Choi, Laibson, and Madrian (2011) demonstrated that financial games can positively impact financial behaviors such as saving and investing by providing experiential learning opportunities that traditional methods may not offer. Overall, research suggests that financial games can be a valuable addition to traditional educational methods by increasing engagement and practical application.

Comparison with Traditional Financial Education Approaches

Financial games have several distinct advantages over traditional financial education approaches. Traditional methods, such as lectures and textbooks, frequently rely on passive learning and may struggle to keep students engaged over time. In contrast, financial games encourage active learning through interactive and experiential activities, which can lead to increased engagement and comprehension (Hastings, Madrian, & Skimmyhorn, 2013). While traditional education provides fundamental knowledge, financial games provide practical, hands-on experiences that enable students to apply and experiment with financial concepts in real-world scenarios. According to Fernandes, Lynch, and Netemeyer (2014), while traditional financial education can effectively deliver theoretical knowledge, financial games improve students' ability to apply this knowledge to practical financial decision-making, thereby bridging the gap between theory and practice.

Case Studies or Examples from Educational Institutions

Several educational institutions have successfully incorporated financial games into their curricula, demonstrating their ability to improve financial literacy. For example, the University of Arizona launched a financial literacy program that included digital financial games as part of its personal finance curriculum. In comparison to traditional lecture-based approaches, the program increased student engagement and financial knowledge (Smith, 2019). Similarly, the University of Illinois used a board game called Cashflow in its financial education courses and discovered that students who played the game had a better understanding and retention of financial concepts than those who did not





(Zimmerman, 2015). These case studies demonstrate how incorporating financial games can improve the effectiveness of financial education by offering practical, engaging, and interactive learning opportunities.

Methodology

1. Data Source: The data for the review article is a comprehensive collection of primary and secondary research studies on financial games and their impact on financial education. This includes peer-reviewed journal articles, conference papers, and relevant reports issued by educational institutions and financial literacy organizations. The review focuses on studies that look into the effectiveness of financial games in teaching financial planning to university students, using a variety of sources to provide a comprehensive and nuanced understanding of the subject.

2. Instrument for Collecting Data: The primary data sources for this review article are systematic literature searches and database queries. Databases such as JSTOR, Google Scholar, ERIC (Education Resources Information Center), and financial education journals are used to find relevant studies. Keywords and search terms include "financial games," "financial literacy," "financial education," "university students," and "educational outcomes." The review also includes citation tracking to locate seminal works and reference lists for key studies. This approach ensures a thorough collection of relevant research articles and a solid foundation for the review.

3. Data Collecting Process: The data collection process consists of several key steps. Initially, a set of inclusion and exclusion criteria is established to narrow down studies based on relevance, quality, and methodological rigor. Studies published in peer-reviewed journals, those focused on educational financial games, and research involving university students may all be considered for inclusion. Exclusion criteria may include studies that do not directly address the educational impact of financial games or that lack empirical data. Once relevant studies have been identified, they are reviewed for data extraction, with a focus on study design, sample size, interventions, and financial game outcomes. Data from each study is extracted systematically, including key findings and methodological information.

4. Data Analysis: The data analysis in the review article consists of a qualitative synthesis of the findings from the selected studies. The analysis begins by categorizing the studies according to their methodological approach, the type of financial games used, and the educational outcomes assessed. The review compares and contrasts the effectiveness of various types of financial games, including board games, digital games, and simulation exercises, in increasing financial literacy among university students. Key themes and patterns are identified, including increased engagement, better retention of financial concepts, and practical application. The review also assesses the studies' strengths and limitations and provides a summary of the overall impact of financial games on financial education. If sufficient quantitative data is available, meta-analysis or statistical aggregation may be used; however, the primary focus is on a narrative synthesis that integrates findings from multiple studies.

Results

Advantages of Using Financial Games

1. Enhanced Engagement and Motivation

Financial games provide a compelling advantage in educational settings because they significantly increase student engagement and motivation. Traditional financial education methods, such as lectures and textbook readings, frequently fail to capture students' attention and hold their interest over time. In contrast, financial games provide interactive and immersive experiences that actively engage students in the learning process. These games usually include elements of competition, rewards, and real-time feedback, which can boost motivation and make learning about financial concepts more enjoyable and relevant (Hastings, Madrian, and Skimmyhorn, 2013). Financial games can increase students' engagement in financial education by making it more dynamic and interactive, resulting in more enthusiastic participation and a deeper commitment to learning.

2. Practical Application of Financial Concepts





Another significant advantage of financial games is their ability to help people apply financial concepts in practical ways. Unlike theoretical classroom instruction, financial games simulate real-world financial scenarios, allowing students to practice decision-making skills and apply what they've learned in a safe environment. This hands-on approach allows students to experiment with budgeting, investing, and debt management, gaining practical experience that can be applied to their personal and professional lives (Choi, Laibson, & Madrian, 2011). Students who participate in these simulated financial activities will gain a better understanding of the consequences of their financial decisions, develop strategic thinking skills, and improve their ability to manage their finances effectively.

3. Improved Retention and Understanding of Financial Principles

Financial games also help to improve retention and understanding of financial concepts. According to research, interactive learning tools like games are more effective at reinforcing knowledge than traditional methods (Hastings, Madrian, and Skimmyhorn, 2013). Games are engaging because they provide repeated practice and immediate feedback, which helps students internalize financial concepts. This iterative process of playing and learning helps students gain a better understanding of financial principles and retain the information over time. Financial games promote a deeper understanding of complex financial topics and long-term retention of key concepts by actively engaging students in the learning process.

Types of Financial Games

1. Board Games

Board games are a traditional but effective type of financial game that teaches players about financial concepts through physical and interactive play. Classic examples include Monopoly and The Game of Life. In Monopoly, players conduct real estate transactions, manage properties, and make strategic decisions to accumulate wealth while dealing with the challenges of chance and competition. This game helps players understand the fundamentals of investing, budgeting, and risk management. The Game of Life simulates various life events and financial decisions, such as career choices and expense management, to provide players with insights into long-term financial planning and the impact of life choices on financial stability (Zimmerman, 2015). Both games offer a practical and engaging way to investigate financial concepts and decision-making processes.

2. Digital Games

Digital financial games use technology to provide more advanced and immersive financial learning experiences. These games frequently feature budgeting simulators and investment strategy games. Budgeting simulators, for example, may challenge players to manage a virtual household budget, balance expenses, and save for future goals, much like real-life financial management tasks. Investment strategy games, on the other hand, enable players to experiment with various investment options, such as stocks, bonds, and real estate, to better understand market dynamics and investment risks (Smith, 2019). The digital format improves the interactive experience by including advanced graphics, simulations, and real-time feedback, making financial concepts more engaging and accessible to students.

3. Simulation and Role-Playing Games

Simulation and role-playing games offer a highly interactive approach to financial education, immersing players in real-world financial scenarios and decision-making exercises. These games frequently place players in positions where they must make strategic financial decisions under simulated economic conditions, such as running a business, managing a portfolio, or navigating financial crises. Simulations, for example, may mimic market conditions or economic fluctuations, requiring players to adjust their strategies and make informed decisions. Role-playing games can include scenarios such as managing a personal budget or planning for retirement, allowing students to apply theoretical knowledge in real-world situations (Roehl 2017). This experiential learning approach not only broadens understanding but also improves problem-solving and decision-making abilities.

Implementation Strategies

1. Criteria for Selecting Appropriate Financial Games

Choosing the best financial games for educational purposes requires several key criteria to ensure that they effectively meet learning objectives. First, the game should be relevant to the curriculum's specific financial concepts and skills, such as budgeting, investing, and financial





planning. It should provide a realistic simulation of financial scenarios relevant to university students, as well as practical experience in financial decision-making (Hastings, Madrian, and Skimmyhorn, 2013). Furthermore, the game should be engaging and user-friendly to keep students' attention and encourage active participation. To assess the game's educational value, review its design and content for accuracy and educational effectiveness, as well as consider feedback from previous users or educators (Smith, 2019). Finally, the game should be adaptable to a variety of learning environments, including physical classrooms and digital platforms.

2. Tips for Integrating Games into University Curricula

Incorporating financial games into university curricula requires careful planning and execution. Here are some tips for successful integration:

2.1 Align with Learning Objectives: Ensure that the financial games you choose are relevant to the course's learning objectives and complement the theoretical material covered. This alignment reinforces the concepts taught and allows for practical application (Zimmerman, 2015).

2.2 Provide Clear Instructions and Support: Give students clear instructions on how to play the game and how it relates to the course content. Provide guidance and support during gameplay to help students understand how the game relates to financial principles and to address any difficulties that may arise (Smith, 2019).

2.3 Incorporate Reflection and Discussion: After gameplay, lead reflection and discussion sessions to help students analyze their choices and outcomes. This aids in consolidating knowledge and linking game experiences to real-world financial concepts (Hastings, Madrian, & Skimmyhorn, 2013).

2.4 Blend with Traditional Methods: Financial games should be used in conjunction with traditional methods, not as a replacement. Combining games with lectures, readings, and other instructional methods results in a more comprehensive educational experience.

3. Methods for Assessing the Impact and Learning Outcomes

Assessing the impact and learning outcomes of financial games requires a combination of qualitative and quantitative methods:

3.1 Pre- and Post-Game Assessments: Use pre- and post-game assessments to track changes in students' knowledge and understanding of financial concepts. These assessments can take the form of quizzes, surveys, or practical exercises designed to assess the game's effectiveness in improving financial literacy.

3.2 Student Feedback and Surveys: Collect student feedback on their experiences with the game, including engagement, enjoyment, and perceived learning value. Surveys and interviews can reveal how well the game facilitated learning and how it affected students' financial behaviors (Choi, Laibson, and Madrian, 2011).

3.3 Behavioral Observations: Observe students during gameplay and reflection sessions to evaluate their engagement, decision-making skills, and application of financial concepts. This qualitative data can supplement quantitative measures, providing a more complete picture of learning outcomes.

3.4 Long-Term Follow-Up: Conduct follow-up assessments to determine the long-term retention and application of financial knowledge gained from the game. This can include monitoring students' financial habits or academic performance in related courses over time (Hastings, Madrian, & Skimmyhorn, 2013).

Challenges and Considerations

1. Potential Drawbacks and Limitations of Game-Based Learning

While game-based learning has many advantages, it also has potential drawbacks and limitations. One significant challenge is the risk of oversimplification; financial games may reduce complex financial concepts to overly simplified scenarios that miss the nuances of real-world financial decision-making (Smith, 2019). This can result in misconceptions or a superficial understanding of financial concepts. Furthermore, financial games may not always be perfectly aligned with educational objectives, potentially diverting attention away from critical learning goals. Another limitation is the possibility of uneven engagement; not all students may find games equally motivating or beneficial, resulting in varying levels of effectiveness among individuals (Hastings, Madrian, & Skimmyhorn,





2013). Furthermore, the development and upkeep of digital games necessitate technical resources and support, which may not be available in all educational environments.

2. Ensuring Inclusivity and Accessibility for All Students

Ensuring inclusivity and accessibility in game-based learning is critical for providing equal educational opportunities. Financial games should be designed to accommodate a variety of learning styles and backgrounds. This includes making games accessible to students with disabilities, such as offering visual or auditory accommodations (Choi, Laibson, and Madrian, 2011). It is also important to consider students' varying levels of prior financial knowledge and provide additional resources or support as needed. Furthermore, games should be culturally inclusive and free of biases that may alienate or disadvantage specific groups of students. Educators should also consider the digital divide; students without access to technology may be at a disadvantage in settings where digital games are used (Smith, 2019). To address these issues, institutions should aim to select or design universally accessible games, as well as provide alternative formats or support mechanisms as needed.

3. Balancing Game-Based Learning with Other Educational Methods

A well-rounded educational experience requires a balance of game-based learning and traditional teaching methods. While financial games can increase engagement and practical application, they should supplement, not replace, other instructional methods such as lectures, readings, and case studies (Zimmerman, 2015). A blended approach enables students to benefit from the advantages of both game-based and traditional learning methods. For example, theoretical concepts introduced in lectures can be reinforced through game-based activities that promote practical application and interactive learning. It is also critical to incorporate reflective and discussion components to link game experiences to broader educational objectives. This balanced approach ensures that students receive a well-rounded education that includes both conceptual understanding and practical skill development (Fernandes, Lynch, and Netemeyer, 2014).

Discussion

Educational games introduce dynamic concepts that improve learning by creating immersive, interactive environments, providing real-time feedback, and motivating learners through rewards and challenges. These games use adaptive systems to provide personalized learning, whereas engagement-first platforms emphasize immersion to make content absorption more natural. Furthermore, experiential learning through simulations connects theory and practice, which benefits fields such as STEM. Overall, game-based frameworks lead to more engaging, personalized, and effective educational experiences.

Financial games simulate real-world scenarios, which not only increase engagement but also provide practical applications of financial principles. These simulations enable students to make financial decisions and see the consequences of their actions in a risk-free environment, thereby improving their decision-making abilities. Budgeting, investing, and debt management games, for example, give students a hands-on approach to learning these important concepts. Choi, Laibson, and Madrian (2011) emphasize that this hands-on experience is invaluable because it prepares students to effectively manage their finances in real life, bridging the gap between theory and practice in finance education.

Despite the benefits of financial games, certain challenges must be overcome in order to maximize their educational potential. One major concern is the risk of oversimplification, in which complex financial concepts are reduced to overly simplified scenarios that may fail to capture real-world nuances (Smith, 2019). Furthermore, inclusivity remains an important consideration; not all students may benefit equally from financial games due to differences in learning styles or access to technology (Choi et al. 2011). As a result, ensuring that games are designed to accommodate diverse learners while accurately reflecting financial realities is critical for maximizing their educational impact. Balancing these games with traditional methods can result in a comprehensive learning experience for all students (Hastings et al., 2013).



Conclusion

Financial games are a promising tool in educational settings, with several notable advantages that improve financial literacy among university students. These games increase engagement and motivation by providing interactive and immersive experiences, making learning about finance more enjoyable and relatable. They teach financial principles in practical ways by simulating real-world scenarios, allowing students to experiment with decision-making processes in a risk-free environment. Furthermore, financial games can help students retain and understand financial concepts by providing repeated practice and immediate feedback. Despite these benefits, it is critical to address potential drawbacks, such as oversimplification and the need for inclusivity, to fully realize the potential of financial games in education.

Knowledge Contribution

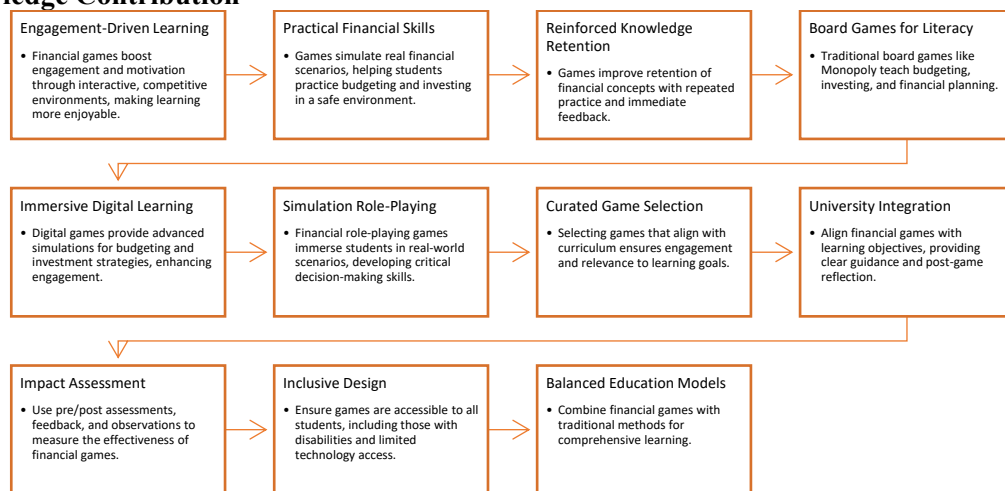


Figure 1 New Concepts of Wealth Creation with Financial Games

Financial games provide a dynamic approach to financial education by increasing student engagement, encouraging practical decision-making, and strengthening knowledge retention. These games make learning more enjoyable and accessible by providing interactive environments in which students can apply financial concepts such as budgeting, investing, and debt management in simulated scenarios. Financial games, whether played on traditional board games or immersive digital platforms, provide experiential learning opportunities that enhance understanding. However, successful implementation necessitates careful selection, alignment with educational goals, and striking a balance between game-based learning and traditional teaching methods. In order for all students to benefit from these innovative learning tools, inclusivity and accessibility must be prioritized.

Recommendations

Future research should focus on a variety of areas to improve the effectiveness and implementation of financial games in education. First, longitudinal studies are required to assess the long-term impact of financial games on students' financial behaviors and outcomes, in addition to the immediate learning gains. Furthermore, research should look into the creation and evaluation of financial games that cater to a variety of learning needs and backgrounds to promote inclusivity and accessibility. Comparative studies on the efficacy of various types of financial games, such as board games, digital simulations, and role-playing exercises, can help determine which formats are most effective in different educational settings.

Practically, educators should consider incorporating financial games as a supplement to a larger curriculum that includes traditional teaching methods. This combined approach can maximize the benefits of both interactive and theoretical learning, resulting in a more comprehensive educational experience. Institutions should also provide resources and support to ensure that games are accessible



to all students and align with curriculum objectives. By implementing these recommendations, educational institutions can better leverage the power of financial games to improve financial literacy and prepare students for successful financial management in their personal and professional lives.

References

- Choi, J. J., Laibson, D., & Madrian, B. C. (2011). \$100 bills on the sidewalk: Suboptimal investment in 401(k) plans. *The Review of Economics and Statistics*, 93(3), 748-763.
https://doi.org/10.1162/REST_a_00100
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861-1883.
<https://doi.org/10.1287/mnsc.2013.1849>
- Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. (2013). *Financial literacy, financial education, and economic outcomes*. *Annual Review of Economics*, 5, 347-373.
<https://doi.org/10.1146/annurev-economics-080212-120648>
- Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). Financial literacy, financial education, and economic outcomes. *Annual Review of Economics*, 5, 347-373.
<https://doi.org/10.1146/annurev-economics-082312-125807>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44. <https://doi.org/10.1257/jel.52.1.5>
- National Endowment for Financial Education (NEFE). (2021). *The state of financial literacy in America: A 2021 overview*. Retrieved from <https://www.nefe.org>
- Roehl, T. (2017). *Simulation and role-playing games in financial education: A review of current practices*. *Journal of Financial Education*, 43(2), 100-115.
- Sherraden, M. S. (2013). *Building blocks of financial capability: A framework*. CSD Working Paper No. 13-27. Center for Social Development, Washington University in St. Louis.
- Smith, A. (2019). Gamification in financial education: Benefits and drawbacks of using digital games. *Journal of Financial Education*, 45(2), 112-130.
- Smith, A. (2019). *The impact of digital financial games on financial literacy: An evaluation*. *Financial Education Review*, 11(1), 45-59.
- Zimmerman, J. (2015). *The influence of board games on financial literacy: Evidence from Monopoly and The Game of Life*. *Journal of Economic Education*, 46(3), 291-304.

