The Effectiveness of Game-Based Learning in Enhancing Retail Management Skill: A Comparative Study of Board Game vs. Traditional Lecture for University Students

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Abstract

This study compares the effectiveness of a game-based learning (GBL) approach using the "MyShop" board game to standard lecture-based education when teaching retail management and the Quality Store System (QSS) to third-year university students. The study used a quasi-experimental approach, with an experimental group (Group A, N = 181) learning through the board game and a control group (Group B, N = 71) receiving traditional lectures. Pre- and post-tests were used to assess learning results over a 10-week period, and student satisfaction was also tested for the GBL group. The study found that both approaches resulted in substantial learning gains ($p < .05$), although the GBL group had a much higher mean learning gain (14.22) than the lecture-only group (9.27). Furthermore, students acknowledged high levels of enjoyment with the board game, emphasizing its usefulness in encouraging collaborative learning and critical thinking. The study concludes that including the "MyShop" board game into lectures is a substantially more effective pedagogical method than traditional lecturing alone, since it improves learning outcomes and student satisfaction in retail management education.

Keywords: board games, game-based learning, quality store system, retail management

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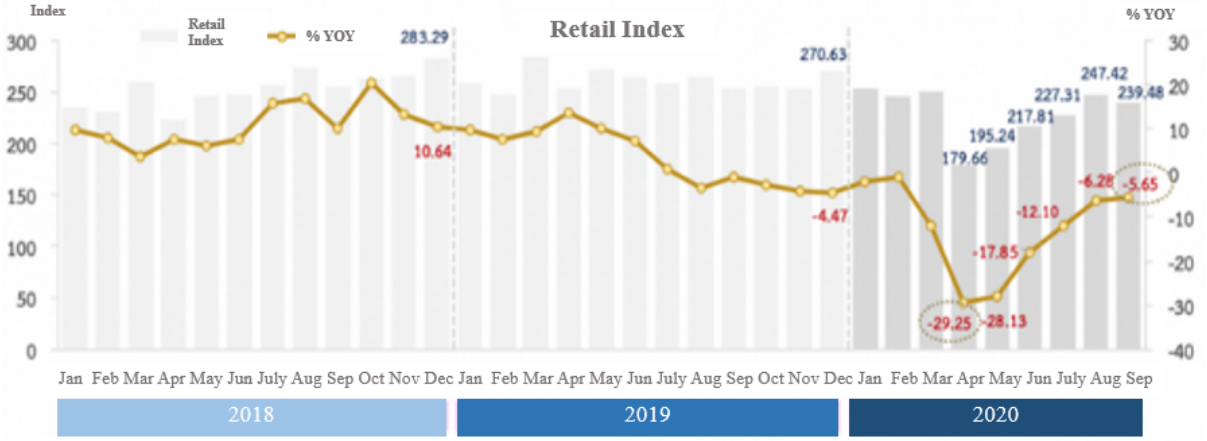
Introduction

The retail industry is a crucial engine of the Thai economy, contributing more than 2.8 trillion baht in 2020, or 15.7% of the country's GDP (Krungsri Research, 2024). Following agriculture and services, the industry is Thailand's third-largest employer. However, retail is a challenging business to manage. The retail sector is unpredictable and complicated, with businesses continually responding to quick changes in the economy, society, politics, epidemics, and consumer behavior. A clear example is the COVID-19 pandemic, which has pushed retail businesses to face a variety of difficult scenarios. As shown in Figure 1, Thailand's retail index fell as low as 29.25% in April 2020 (Bank of Thailand, 2021).

To ensure operational consistency and quality across multiple locations, large retail chain store, particularly convenience stores, use organized frameworks such as the Quality Store System (QSS). The QSS consists of seven basic elements: service (S), assortment (A), value (V), environment (E), quality (Q), cleanliness (C), and the quality management system (QMS), all of which are vital for ensuring smooth operations, improving the customer experience, and maintaining high service standards (CP All Public Company Limited, 2021). However, the instructional guides for store management and QSS included sophisticated and difficult-to-understand content. They required time for study, and staff members of branches lacked the incentive to learn on their own. This led to a lack of comprehension and difficulty in applying the knowledge in practice. Previously, branch personnel were usually trained using traditional methods such as lectures, practical training, and the distribution of manuals or online documentation for self-study. While these methods were effective, they had limitations such as a lack of interaction among learners and being unable to organize learning (Supornpraditchai & Tansuwan, 2025a).

Figure 1

Thailand Retail Index 2018–2020



Source: Adapted from Bangkokbiznews (2021)

Panyapiwat Institute of Technology College, Panyapiwat Institute of Management, Panyapiwat Institute of Management (EEC), and 11 Panyapiwat Institute of Management Learning Centers across the country all utilize the same teaching approach, Work-based Learning (WBL), in their Modern Trade Business Management programs. Each year, over 40,000 students complete internships at convenience stores across the country.

Effectively training employees and students store management and QSS principles is a major challenge, despite its significance. Traditional teaching approaches including lectures,

manuals, and on-the-job training, sometimes fail to fully engage students. These approaches could be passive and lack the participatory element needed to get students ready for real-world situations. Additionally, many employees and students find traditional QSS guides to be confusing and time-consuming, resulting in a lack of motivation, enthusiasm and inconsistent execution of the standards (Supornpraditchai & Tansuwan, 2025b). One of the primary reasons students fail is a lack of interest, and GBL is the most effective technique to improve student interest (Al-Khayat et al., 2023; Rajan, 2022).

In response to these problems, this study expands on prior research into the creation of the "MyShop" board game, an instructional tool intended to improve understanding of current retail store management and QSS principles. The game was systematically developed using a mixed-methods research approach in the post-COVID-19 pandemic period, integrating Design Thinking, the Mechanics-Dynamics-Aesthetics (MDA) Framework, and Game-Based Learning (GBL). The design focused on imitation of real-life retail scenarios, such as store location selection, product management, and staff management, all of which are critical aspects of retail store operations. Experts have previously validated the effectiveness of this board game, ranking it as "very appropriate" for educational purposes. Studies have also found that students who played the game had a significant increase in QSS understanding (Supornpraditchai & Tansuwan, 2025a, 2025b). These previous works lay a good platform for future research into the game's educational value.

This study examined the effectiveness of the board game "MyShop" as a primary instructional tool vs traditional lecture-based instruction. Using QSS and retail management as a framework, this study investigated third-year university students enrolled in a professional store management subject. The study aimed to compare two groups: Group A, who utilized the MyShop board game, and Group B, which received a traditional lecture-based learning approach. The study's goal was to compare the learning outcomes and satisfaction of students in the group that used the board game as their primary teaching tool to gather empirical evidence on the effectiveness of GBL.

Literature Review

This study examines relevant literature in four key areas: 1) the Quality Store System (QSS) and its importance in retail store management, 2) Game-Based Learning (GBL) in the context of retail store management, 3) Panyapiwat Institute of Management and its Work-Based Learning (WBL) model, and 4) the Professional Management of Stores subject within the Modern Trade Business Management curriculum.

The Quality Store System (QSS) and Its Importance in Retail Management

Thailand's modern retail sector is a major economic driver, with thousands of stores and millions of customers visiting daily. To ensure long-term growth and consistent operations, major chain stores, such as 7-Eleven convenience stores, have used frameworks known as QSS. The QSS aims to deliver consistent and uniform operations throughout all locations in the country in order to increase consumer satisfaction and maintain high service standards. The QSS construction management consists of seven main components, including SAVEQC and QMS (CP All Public Company Limited, 2021).

Regardless of its importance, efficient QSS implementation requires extensive expertise from store managers to front-line workers. However, traditional training methods, such as manual-

based instruction and on-the-job training, usually result in low interest and information retention. Employees frequently perceive QSS training materials to be excessively complex and time-consuming, resulting in low motivation and perhaps inconsistent application of standards. This gap highlights the need of interactive learning strategies that can simplify QSS concepts while enhancing engagement and comprehension (Supornpraditchai & Tansuwan, 2025b).

The Panyapiwat Institute of Management and Its Work-Based Learning (WBL) Model

Panyapiwat Institute of Management (PIM) is a private higher education institution in Thailand that was established in 2007 with the support of CP All Co. Ltd. Its distinctive feature is work-based education, or learning through real-world experiences, which systematically integrates classroom instruction with practical workplace training. PIM's educational philosophy is focused toward producing graduates who are prepared for work, particularly in retail and related fields. PIM's work-based education model relies on David A. Kolb's (1984) experiential learning theory, which emphasizes a four-step learning cycle: 1) Concrete Experience: hands-on labor in the workplace; 2) Reflective Observation: analysis and evaluation of the experience; 3) Abstract Conceptualization: connecting experience to academic theory; and 4) Active Experimentation: applying newly acquired information to practical work. A combination of theory and practice provides PIM graduates with both in-depth academic knowledge and practical skills that are in high demand in the job market (Suthammanont et al., 2020).

PIM has created a broad curriculum that includes a variety of disciplines at the bachelor's, master's, and doctorate levels. Business Administration, Engineering and Technology, Communication Arts, Food Business Management, and Liberal Arts are among the key faculties. Another strength is its engagement with over 1,000 CP Group enterprises and external partners, which allows students to gain practical experience. This allows them to learn from industry leaders and network professionally while still in university. PIM also gives scholarships to the majority of students, decreasing financial burdens and making education more accessible to individuals from varied backgrounds (Suthammanont et al., 2020).

The Office of the Higher Education Commission (OHEC) accredits PIM, while the Office for National Education Standards and Quality Assessment (ONESQA) conducts periodical quality assessments. This demonstrates the institution's dedication to developing high-quality education that meets standards (Panyapiwat Institute of Management, 2017).

The Professional Management of Stores Within the Modern Trade Business Management Curriculum

Professional Management of Stores is an elective subject in the Modern Trade Business Management curriculum at Panyapiwat Institute of Management. The subject covers a wide range of topics, including: 1) Store management, such as product and service management, store layout, store design and area utilization, and in-store communication; 2) Sales strategy, covering both offline and online sales strategies, including product delivery; 3) Problem management, such as performance monitoring, preventing and solving store problems; and 4) QSS, which includes controlling and maintaining store conditions to ensure they meet standards (Panyapiwat Institute of Management, Faculty of Business Administration, 2022).

Given that graduates of this program will work in the retail industry, the “Professional Store Management” subject is necessary. It focuses on acquiring the knowledge, understanding, and

skills necessary to manage stores that meet standards and quality. This topic teaches students the fundamental ideas and concepts of quality retail management, including standardized work processes. This reinforces the idea that maintaining standards across all branches is vital to brand confidence. Consider a convenience store: if customers visit other branches and realize that the quality is lower than expected, the store's reputation suffers. As a result, the more retail stores a corporation owns, the more difficult it is to maintain consistent standards across all locations. As a result, ensuring that customers are satisfied and receive consistent service regardless of where they shop is important to brand reputation and business sustainability.

This subject also teaches students how to understand the standard workflow of a quality store, how to follow the process and work sequence, how to control work processes in order to meet quality store standards, how to develop sales management and shift staffing strategies, and how to analyze staff effectiveness. Consistent standards across all branches provide a competitive advantage and encourage long-term viability for retail businesses. As a result, this subject teaches not just retail shop management, but also how to maintain business reputation and sustainability.

Myshop: A Board Game for GBL in Retail Store Management

The Myshop board game was researched and developed using a mixed method that included both qualitative and quantitative data, as well as Design Thinking, MDA framework, and GBL. Experts evaluated the game's quality and applicability across six categories: content, game mechanics, game format, materials, graphic design, and overall quality. The evaluation was assessed on a 5-point rating scale. The results showed that the game was appropriate in all respects, with ratings ranging from good to excellent (Mean = 4.00 to 4.67). The study's participants were first-year undergraduate students enrolled in the Modern Trade Business Management program at the Faculty of Business Administration, Panyapiwat Institute of Management. Before and after playing the board game, students were given a Retail Management Knowledge Assessment Test and a QSS Test. To compare the test outcomes, the researchers conducted a paired t-test. The post-game scores were much higher than the pre-game scores (Supornpraditchai & Tansuwan, 2025a, 2025b).

The Myshop board game was developed to imitate the issues that players experience when managing a convenience store, such as raising sales, selecting products fit for the locations and client needs, and managing staff shifts to accommodate ever-changing situations. This helps game players improve their problem-solving and decision-making skills in convenience store management, simulating real-world settings. It was also very adaptive to learners of various levels. The rules, gameplay, and simulations can be tailored to the knowledge and experience levels of players, including students, the general public, assistant store managers, store managers, and area managers. Higher levels can increase the complexity of situations and the significance of actions by strengthening strategic thinking, analysis, and sophisticated convenience store management (National Research Institute of Thailand, 2025).

A search for board game patent information, both domestically and overseas, turned up no board games related to retail business management. Meanwhile, the Myshop board game has already been copyrighted (No. 448266). It also received the Outstanding Teaching Award for 2025 from the Permanent Secretary's Office, Ministry of Higher Education, Science, Research, and Innovation, in collaboration with Thailand's Association of Professional Development Networks for Teachers and Higher Education Organizations.

The purpose of this study is to examine at the extent to which the MyShop board game is effective in improving retail management skills in students who have prior field experience. The board game was designed to imitate real-world circumstances and encourage active learning, which differs from traditional techniques that focus on lectures and document reading. While prior study with first-year students showed that the board game considerably improved knowledge acquisition, the suitability to learners with practical experience remained a major barrier. Since third-year students have received at least three years of on-site training at convenience stores, this study looks into how the board game can help them develop strategic thinking, decision-making, and complex problem-solving skills in a variety of situations that relate to their real-world experiences.

Research Objective

1. To assess student learning outcomes and contrast the use of board games as a primary learning tool with standard lecture-based teaching in retail store management and QSS.
2. To investigate student satisfaction regarding the use of board games as a learning tool.

Methodology

Research Design

This study adopted a quasi-experimental, quantitative research design with a comparative focus. The design includes two groups: control and experimental. The goal is to compare the impact of two distinct learning methods—the MyShop board game and traditional lectures—on learning achievement and satisfaction.

Population and Sample

The study's population comprised of 285 third-year university students participating in the “Professional Management of Store” subject at Panyapiwat Institute of Management for the academic year 2024. The population included two distinct groups from the same curriculum.

The Krejcie and Morgan (1970) table was used to determine sample size for a given population. The required minimum sample size for a population of 285 students with a 95% confidence level and a 5% margin of error is 162. However, to increase the statistical power and trustworthiness of the findings, this study collected data from a bigger sample.

Group A (experimental group) primarily learned through the “MyShop” board game (n = 198), accounting for 69.5% of the overall population in this group.

Group B (control group) received a lecture-based learning approach on the same subject (n = 87), with 30.5% of the population in this group.

The actual sample obtained (n = 252) exceeded the minimum required sample size, with a response rate of 88.4% from the total population. This high response rate strengthens the generalizability of the findings and reduces sampling error.

Research Instruments

Data obtained using two main instruments.

Learning Achievement Test: This test aimed to assess students' knowledge and understanding of retail shop management and the QSS. The 50-item multiple-choice test, which consists of questions with four options each, was created using a systematic approach based on the "Professional Management of Store" subject. It evaluates both academic knowledge and practical application, focusing on major topics such as store location selection, merchandise management, store personnel management, and SAVEQC and QMS. To verify content validity, three experts reviewed the test using the Index of Item-Objective Congruence (IOC), which varied between 0.67 and 1.00, confirm the test's high degree of validity. The test was designed to be completed within 60 minutes and was administered as a pre- and post-test to measure learning achievement.

Following revisions based on expert feedback, the test was piloted with 30 third-year students who were not part of the main study. The difficulty score ranged from 0.38 to 0.76, and the discrimination index ranged from 0.23 to 0.51, indicating acceptable reliability. The test's reliability was further confirmed using the KR-20 formula, which yielded a coefficient of 0.69. To avoid recall bias, the final test, which was administered as a pre- and post-test to the experimental group, was inverted. This rigorous approach to instrument creation and validation underlined the study's rigor in ensuring the reliability and validity of the data.

Student Satisfaction Questionnaire: At the end of the study, students in Group A were given a questionnaire to rate their satisfaction with the Myshop board game as the primary teaching material in the course. The questionnaire employed a 5-point Likert scale with ten items and one open-ended question to get feedback. To verify content validity, three experts reviewed the test using the Index of Item-Objective Congruence (IOC), which varied between 0.80 and 1.00, confirming the test's high degree of validity. Cronbach's alpha coefficient was used to measure the reliability of the two subscales: "Content and Learning" and "Gaming Experience and Engagement." The results show that both scales have a high degree of internal consistency. The Content and Learning subscale has a Cronbach's alpha of 0.9236, indicating high reliability. This shows that the items on this scale have strong relationships and effectively assess the same underlying construct. Similarly, the Gaming Experience and Engagement subscale demonstrated strong reliability, with a Cronbach's alpha of 0.8930. This number is significantly higher than the accepted threshold of 0.70, indicating that the items in this subscale have exceptional internal consistency.

Data Collection Procedure

Pre-test: Before the experiment begins, both Group A and Group B completed a pre-test to establish a baseline of their past knowledge.

Learning Period: Group A used the "MyShop" board game as their primary instrument to learn about store management and QSS on course-related topics such as store location analysis, merchandise selection and management, retail personnel shift management, and QSS. After the game, the instructor explained what they had learnt and led group discussions on each topic. The remaining course content was delivered through lectures. In contrast, Group B attended regular lectures on the same topics.

Post-test: Following the 10-week learning session, both groups completed a post-test to assess their learning achievement.

Satisfaction questionnaire: After the 10-week learning period, Group A students filled out a satisfaction questionnaire. Group A had already experienced both traditional lecture and board game learning in lesson-related to the topics, so they were able to compare the two techniques and provide a more informed assessment of the MyShop board game.

Data Analysis

Learning Achievements

Paired-sample t-tests were used to compare the pre-test and post-test scores within each group to see if there was a statistically significant gain in learning ability.

Independent-sample t-tests were used to compare post-test scores from Group A and Group B to determine if the MyShop board game yielded a statistically significant difference in learning outcomes compared to traditional lectures.

Student Satisfaction

Data from student satisfaction questionnaires were summarized using descriptive statistics (e.g., mean, median and standard deviation).

Results

Descriptive Data

Data was collected from two groups to ensure a comprehensive analysis. For Group A, the target population consisted of 198 students, with data successfully collected from 181 individuals, yielding a high response rate of 91.41%. This high rate suggests that the findings are likely to be a representative reflection of this group. The sample (n = 181) was predominantly female, making up 55.8% (n = 101) of the respondents, while male respondents accounted for 44.2% (n = 80). For Group B, data was gathered from 71 out of a target population of 87 students, resulting in a strong response rate of 81.61%. This also indicates a high probability that the results represent this group. Within this sample (n = 71), the majority of respondents were female at 70.4% (n = 50), with male respondents comprising 29.6% (n = 21).

Learning Achievements

The goal of this study was to compare the effectiveness of two instructional styles on student learning achievement. 1) A lecture-based method incorporated with the “MyShop” board game (Group A) and 2) A traditional lecture-based learning method (Group B).

1. Baseline Data Analysis

A comparison of pre-test scores revealed no statistically significant difference between the two groups before the experiment. The game-based group (Group A, n = 181) had a mean pre-test score of 28.38 (SD = 5.74), while the lecture-based group (Group B, n = 71) had a mean pre-

test score of 28.34 (SD = 5.59). This demonstrates that both groups had comparable amounts of baseline knowledge before the trial began.

2. Within-Group Learning Achievement Analysis

A Paired Samples t-test was used to compare pre-test and post-test scores in each group. Both groups demonstrated significant gains in learning outcomes ($p < .05$). Specifically, Group A's mean post-test score rose to 42.60 (SD = 2.81), while Group B's rose to 37.61 (SD = 4.95). This shows that both teaching methods were effective in improving student learning.

3. Between-Group Effectiveness Analysis

To compare the effectiveness of the two teaching methods, learning gains (measured as the difference between post-test and pre-test scores) were assessed using an Independent Samples t-test. The analysis found that the game-based learning group (Group A; Mean = 14.22, S.D. = 5.90) exceeded the lecture-based learning group (Group B; Mean = 9.27, S.D. = 7.25), with $t = 5.12$, $p < .05$.

Table 1

Comparison of Learning Outcomes for Game-Based and Lecture-Based Groups

	Number of Student	Mean (pre-test)	S.D.	Mean (post-test)	S.D.	Mean (Gain Score)	S.D. (Gain Score)
Group A	181	28.38	5.74	42.60	2.81	14.22	5.90
Group B	71	28.34	5.59	37.61	4.95	9.27	7.25

The findings indicate that, while both teaching methods were capable of improving student achievement, the method combining lectures with the “MyShop” board game was significantly more effective in promoting learning and increasing score improvement than the traditional lecture-only method.

Student Satisfaction

The study discovered that students (Group A) were pleased with the MyShop board game in all aspects. The average satisfaction score for each question was more than 4.4 out of 5, with a median of 5, indicating that the majority of students gave full marks to each. As shown in Table 2, Myshop was regarded as an enjoyable teaching tool that encourages involvement and comprehension of the subject matter.

In conclusion, both scales are highly reliable and suitable for use in measuring the specified constructs in this study. According to the data, “students gave the greatest marks for ‘Myshop’ board game encourages group learning” (Mean = 4.62) and “‘Myshop’ board game encourages analytical thinking and problem solving” (Mean = 4.62), showing that this board game's strengths include creating interaction and practicing problem-solving abilities.

Table 2
The Level of Student Satisfaction (n = 181)

Satisfaction topics	Mean	Median	S.D.	Interpret result
Content and Learning:				
The Myshop board game enhances your understanding of store management and QSS.	4.58	5	0.62	very satisfied
Myshop's board game material aligns with the lesson.	4.55	5	0.72	very satisfied
The simulation scenarios of Myshop board game are based on actual situations.	4.48	5	0.76	satisfied
Myshop board game encourages analytical thinking and problem solving.	4.62	5	0.64	very satisfied
Total	4.56	5	0.69	very satisfied
Gaming Experience and Engagement:				
Myshop board game promotes fun and learning.	4.57	5	0.69	very satisfied
Myshop board game is simple to learn.	4.46	5	0.72	satisfied
Myshop board game encourages group learning.	4.62	5	0.59	very satisfied
Myshop's board game equipment and design are of high quality and attractive.	4.53	5	0.62	very satisfied
Total	4.55	5	0.66	very satisfied
Overall satisfaction:				
I am satisfied with using Myshop board games for learning.	4.48	5	0.80	satisfied
I would like to use board games for learning other subjects as well.	4.57	5	0.68	very satisfied

The qualitative examination of student data summed up the following:

1) The most popular replies were about having fun and being engaged. Students enjoyed playing with their friends, which reduced classroom stress and made learning more engaging. This was reflected in student responses such as:

> This game allows me to play with friends and share my experiences working in the store, assessing consumers and selling products, … the most pleasurable or memorable part of learning through this board games is working as a team with friends, … this game allows me to have fun with friends while learning, thinking analytically, and seeking solutions to store problems, … this game helps me to interact with and get to know people around me better.

2) Learning by practice: Myshop use simulations similar to real-world experience to assist students grasp and learn complicated topics (e.g., QSS, retail management). For instance, participants noted:

> Learning through hands-on experience while playing games makes the topic easier and more enjoyable to understand, It also allows me to exercise critical thinking, decision-making, and teamwork, all of which are valuable abilities in the real world situation, … This game helps me understand store management concepts like QSSI and emergency situations, … this game helps me study and comprehend QSSI better, …this game has made me aware of the rules and regulations regarding QSS and QMS, … this game simulates many situations in store management, making me more alert and cautious when I go to work, keeping me from making mistakes like I did in the board game, … this game represents the operation of a 7-Eleven convenience shop, … the creative use of board games in studying allows me to quickly absorb the lessons while also having fun, … what fascinated me the most was that this game allows me to apply my knowledge in real-world scenarios, which improves my understanding and drives me to learn and grow, … this game taught me about checklist scores and the significance of scores in each SAVEQC and QMS category, … learning using board games was enjoyable because it mirrored a real-life retail scenario, … the game encouraged me to think about and examine actual-life situations, which helped me understand what to do and how to deal with them, … playing this game provided me with a realistic viewpoint, highlighting how much luck is involved in real life. Managing a simulated store was similar to interning at a real 7-Eleven, where consumers either bought or did not buy the products that we chose for sale, among other scenarios that the game accurately replicated.

3) Improving Thinking Skills: Students enjoyed practicing analytical thinking, planning, decision-making, and problem-solving. Student feedback highlighted this point, for example:

> I was quite impressed because the game was both entertaining and educational. It required a lot of thought, particularly when selecting products to offer in the store. I was really impressed by the usage of board games in this course, … I had to use my head to choose products from a deck of five cards. I needed to determine which one to keep, … I loved the game since it taught me how to select product to sell that fulfill the demands of customers in order to improve sales for the store, … this game taught me about the function of store manager, which includes ensuring that the store meets standards, managing best-selling products, and managing the store's staff structure. It is a complete guide to retail management, … this game allows students to learn from their mistakes and improve their store management skills, … playing this game makes players feel like a store manager in charge of the entire store, … I appreciate how this game encourages me to analyze and manage different scenarios to win the game, … what I appreciate the most about the MyShop board game was that I learned about store management and financial planning, as well as situational analysis and decision-making, in a fun and easy-to-understand manner, … this game taught me what products each store in any particular location should provide. It also helped me learn more about store management, … this game appeals to me since it teaches me how to manage store staff, allowing me to learn from my mistakes and how mismanagement of retail personnel can affect a store's performance, … this game necessitates collaboration to plan ahead and foresee future events.

4) Teamwork: Myshop encourages communication, discussion, and collaboration. For instance, participants noted:

> This game taught me how to make decisions and what it meant to work as a group, … playing Myshop board game helps me comprehend decision-making and teamwork better, … this game teaches me about strategy, cooperation, comprehension, and trust, … this game encourages the exchange of knowledge among team members, … while playing this game, my buddies and I had to think, plan, and divide our responsibilities, … this game allows me and teammates to collaborate, communicate, learn, and analyze problems together.

Conclusion and Discussion

The purpose of this study was to compare the effectiveness of a GBL method using the "MyShop" board game to traditional lecture-based learning in terms of improving retail management and QSS knowledge. A key initial finding was that both the experimental and control groups had identical levels of baseline knowledge, with no statistically significant difference in pre-test scores. This demonstrates that the significant difference in outcomes was related to the method of learning used rather than pre-existing knowledge differences. The data indicate a considerable difference in student development. While both groups showed statistically significant learning gains, the group that used game-based learning achieved significantly more progress. Their average learning gain score was significantly higher than that of the lecture-only group. This is consistent with a meta-analysis by Freeman et al. (2014), who discovered that students in traditional lecture courses were more likely to fail than those in active learning courses. This demonstrates that, while regular lectures are effective to some extent, incorporating the "MyShop" board game into lectures produces a clearly better result.
Several significant educational variables contribute to the GBL group's excellent success. The "MyShop" board game turns students from passive users of information to active participants by encouraging them to apply theoretical principles to simulated, real-world retail scenarios. This active participation is precisely aligned with Kolb's (1984) Experiential Learning concepts, which drive the WBL approach at Panyapiwat Institute of Management. By providing a secure setting in which to make mistakes and learn from them, the game bridges the gap between classroom theory and practical application.

This is also consistent with the findings of Al-Khayat et al. (2023), Klein et al. (2023), and Rajan (2022), who discovered that active engagement is a cornerstone of effective learning because it is based on constructivist concepts that emphasize hands-on experiences in which students build their own understanding. The game requires players to apply academic principles to simulated, real-world retail scenarios, which promotes important cognitive abilities include critical thinking and problem solving. This method is very useful for helping students understand complex subjects and bridging the gap between classroom theory and practical application.

Furthermore, the social aspect of the board game developed as a key reason in its success. The findings showed that students valued the possibility for group learning and teamwork, which improved both engagement and peer-to-peer knowledge exchange. This collaborative problem-solving setting is difficult to capture in a traditional lecture hall, but it is critical for developing the soft skills needed in managerial positions.

In conclusion, this study provides strong empirical support for using well-designed educational board games as the major instructional instrument in higher education. The "MyShop" board game proved to be more than simply a fun activity; it is also an effective teaching tool that improves conceptual knowledge, practical application, and student pleasure. The findings

imply that by incorporating such innovative, active-learning approaches, educators can better prepare students for the dynamic and complicated problems of today's retail industry.

Limitation

A fundamental limitation is the quasi-experimental approach, which relied on pre-existing class registrations rather than random assignment. This led to unequal sample sizes and, more importantly, increased the likelihood of selection bias. Although pre-tests revealed the same baseline knowledge, unmeasured pre-existing variables between the groups, such as motivation or learning preferences, could have influenced the outcomes.

Suggestion

Suggestions for Further Development

Although most students provided no comments and were pleased with the board game, there were several interesting recommendations for future enhancement. Here are a few: 1) Reducing the “luck” factor: Some students complained that the game depends too heavily on card randomness or “luck,” which may lead to results that do not sufficiently reflect their planning ability; 2) Improving the rules and timing: It was proposed that a “Game Master” or expert oversee and explain the rules for a smoother experience, rather than allowing players to play on their own.; 3) Some student believed that the game took too long to play. They recommended offering explicit instructions or making instructional videos available; and 4) Raising the difficulty level or adding new situations for greater complexity.

Suggestions for Future Research

Future research could build on this study's findings and look into a variety of critical topics. Longitudinal studies are needed to establish the long-term retention of knowledge achieved from playing the "MyShop" game and its use in professional settings. Furthermore, the generalizability of these findings should be studied by conducting the study again with more diverse groups, such as students from different universities, students with no prior retail experience, or employees in corporate training settings. Finally, future research could investigate the effect of instructor facilitation techniques on the success of GBL sessions.

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