Using Experiential Education and Gamification to enhance the Quality of Instruction

Tran Minh Tung
Academic Department, Swinburne Vietnam-FPT University, Danang, Vietnam, tungtm6@fe.edu.vn

Abstract
Higher education institutions' performance is increasingly dependent on the caliber of their instruction. Learning through games (GBL) and learning through experience (EBL) are the two main instructional strategies that are widely used in this setting to enhance the effectiveness of teaching-learning by assisting both teachers and students in reaching their objectives. The majority of instructors find teaching in the post-Covidien era to be yet another challenge. The purpose of this study was to present an orderly overview of the literature on the use of GBL as a tool to increase the distinctiveness and excellence of the teaching process in general and, in specifically, the teaching of hotel management, given the significance of the issue in higher education. The paper largely looked through the most relevant academic literature on gamification's use in educational settings. An empirical analysis of a project based on a game that involved 27 players from FPT University Danang's hospitality program has produced some striking findings. One of the key findings of this study is the description of theoretical approaches, namely to GBL and EBL, as well as the provision of a conceptual model that compiles the contributions of many studies and paves the way for future, in-depth research. A syllabus for hospitality and tourist management that gradually incorporates various forms of experiential learning is another significant conclusion. The significance of the research findings demonstrates the need for close connections between the best aspects of the academic and real-world contexts in order to improve teaching and learning in terms of engagement, enjoyment, and effectiveness.

Keywords: Gamification in teaching, Experiential Education, PBLs, Education in Covid-19.

1. Introduction
Teaching students who major in hospitality and tourist management has proven to be very challenging because most university classrooms don't have enough space for practicing or displaying hospitality operations. Considering the aforementioned, one of the key objectives of education
in hospitality and tourism is to provide students with the knowledge and abilities required to make informed judgments during the course of their future employment in the industry. In order to address the rising demand for training in hotel management, there needs to be a framework for these students to experiment with no possibility of failure. In this experimental scenario, simulator games have two main objectives that pair off each other. They may serve as a laboratory where the behavior of particular groups, with varying profiles and under various settings, may be experienced and investigated (Millians D., 1999). On the one hand, they strive to give techniques for education in specific hospitality disciplines. The optimum learning environments for simulation games are still unknown from the perspectives of costs and actual usage, Even though simulation games are widely used and there is a ton of prior study. This has prompted researchers to choose simulation games for a variety of research questions, particularly in the teaching of hospitality management. There are three basic goals for the study. It starts by looking for the theoretical underpinnings of experiential learning via simulation games. Using this structure, After that, the article gradually integrates multiple forms of experiential learning into a curriculum for hospitality and tourism management. Four research issues are hypothesized to be addressed by the implications of the investigation's questions:

1. What do the pupils think of the instructor, his teaching techniques, and the games?
2. What body of knowledge is compatible with AACSB and ISO 21001: 2018?
3. Which elements of the study correspond to the goals of the course syllabus?
4. What extracurricular activities are listed on the syllabus for the course on empirical methods?

2. Literature Examination

2.1. Experiential education through the use of simulation games

The practical instruction approach's setting compels each participant to take part in a personally meaningful activity. In such a situation, a participant can make use of prior theory and principle knowledge while also being dedicated to the action and experiencing a true sense of success or failure based on the results (Keys J. B. & Wolfe J. B., 1990). Experiential Learning Theory (ELT) model developed by Kolb, a cyclical, four-state experiential learning paradigm developed by Kolb (Kolb D.A., 1984), is used to encourage change in behavior, attitudes, and knowledge. It is visible in the outside circle of Figure 1. Kolb's approach places a strong emphasis on sensory and emotional involvement in the
learning experience. to gain knowledge from it, a team needs members who can actively participate in and commit to the team's goals (concrete experience), reflect on and discuss that experience (reflective observation), critically analyze it (abstract conceptualization), and take decisions and action (active experimentation).

Figure 1 shows the Kolb's Aspects of Studying Experiential Learning Model (Chapman, 2005).

2.2. Problem-based education (PBL)

Although problem-based instruction and Internet usage are becoming more popular, little is known about the advantages these technologies have for students at this time (Cranage, Lambert, Morais, & Lane, 2006). Because individuals build their own knowledge and draw relations between their previous knowledge, experiences, and newly discovered information, students who participate in project-based learning (PBL) are responsible for their own learning (Martin, L., West, J., & Bill, 2008). According to (Loughran, J.J., 2002), effective reflective practice requires carefully taking into account both "seeing" and "action" to maximize the possibility of studying from experience.

2.3. Gamification in Education or Games-Based Learning

Many students think that traditional schooling is dull and pointless. The widespread consensus is that student engagement and motivation are significant challenges in today's classrooms, Despite the fact that educators are constantly looking for new ways to teach (Lee & Hammer, 2011). Educational games can be utilized as learning tools because they can reinforce and teach important skills like problem-solving, teamwork, and communication in addition to knowledge. This approach shows promise. Games have a remarkable ability to motivate people; they
employ a number of strategies to persuade individuals to play them, usually for no other reason than for amusement and the chance to win. Though it frequently just focuses on a certain set of learning objectives that the game creator has chosen, creating a fully developed, highly entertaining educational game can be difficult, time-consuming, and expensive (Kapp, 2012). Their acceptability in the classroom also requires a particular technological configuration and strong pedagogical integration. The "gamification" approach suggests using game thinking and game design elements in place of complex games that require a lot of design and development work to boost learners' interest and involvement.

Deterding et al. (2011) defined gamification as the use of game design features outside of gaming situations. It is a recently created and expanding field of study. A serious or instructional game is different from the idea of gamification. Creating full games for non-entertainment purposes is what the latter term refers to, whereas "gamified" apps just have game-like elements. Deterding, Dixon, Khaled, and Nacke (2011) assert that although the term "gamification" was first used in 2008, it did not become broadly popular for the remainder of 2010. The concept itself, though, is not novel. Examples include the long-standing usage of ranks and badges in the military, the use of game elements by early Soviet Union officials in place of cash prizes for work performance, etc.

Gamification is still gaining popularity. The Gartner Hype Cycle predicts that the Productivity Plateau will be reached in five to ten years (Gartner, 2013), a research process that assesses a new technology's likelihood of commercial success. It peaked in 2013. This position, however, mostly reflects its use in professional settings. The quantity and annual distribution of the evaluated works show that the pattern is still used in educational contexts.

2.4. AACSB Business Accreditation

Business schools are urged to hold themselves accountable for developing business practice by focusing on strategic management, learner success, and influential thought leadership. The primary objective of AACSB certification is this. To do this, AACSB creates a set of standards and requirements. Three categories—thought leadership, engagement, and social impact; strategic management and innovation; and learner success—are used to categorize the accreditation requirements. (AACSB, 2020).

2.5. ISO21001:2018

One of the most reputable and knowledgeable organizations for industry standardization is the International Organization for Standardization, or ISO. The ISO 21001:2018 standard for Management Systems for
Educational Organizations (EOMS) is one of its most recent releases. This standard focuses on educational institutions, the products and services they offer, and the creation and/or enhancement of educational products and services. (ISO 21001:2018, 2018).

3. Research Approach

The following research design forms the foundation of this paper. It looked first for the theoretical underpinnings of project-based education and problem-based studying, as well as experiential education through simulation games. AACSB Business Accreditation and ISO 21001:2018 were researched in parallel to serve as the grading scales for the course's Learning Objectives (LOs). The Introduction to Hospitality Industry Course (HMO101) thereafter increasingly incorporated a variety of experiential learning activities, taught by the Author, by applying these frameworks and standards. Thirdly, it looked at players' heuristics in simulation games and the ideal circumstances for empirical learning in those kinds of games. The simulation games employed in this study include Empire Hotel Tycoon, Roller Coaster Tycoon, My Cafe - Restaurant, and Resort Tycoon, all of which are accessible on Google Play (for Android devices) and Apple Store (for iOS devices). The last section is the practical investigation of a project based on games that was given to 27 participants in class BH1401, who were enrolled in the author's Introduction to Hospitality Industry Course (HMO101), which was taught to second-year hospitality undergraduates at FPT University in Danang, Vietnam. There were 4 groups made up of the 27 students in class BH1401. Within the three months that made up the course HMO101, each group was required to play four imitation competitions simultaneously on their smartphones and/or tablets, including Resort Tycoon, My Cafe - Restaurant, Roller Coaster Tycoon, and Empire Hotel Tycoon. Following the course, at the beginning of the project, each group was provided with a list of three types of criteria, and they were requested to present their findings in class.

27 participants were polled online at the end of the course using a Google Form to learn more about the heuristic behavior strategy adopted by simulation game players and the ideal circumstances for empirical learning via such games. The findings of the investigation are displayed in the essay's subsequent part.

4. Results

4.1 Four research issues are addressed by the empirical results

AACSB Standard 4 - Curriculum, Section (2) Student Achievement, stipulates that extracurricular programs and curricula should foster participation among students, between students and faculty, and with
Commercial etiquette. The study found that game-based education can, when employed, achieve this standard. (AACSB, 2020).

Clause 9 of ISO 21001, which mandates that the company keep an eye on workers, learners, and other beneficiaries' satisfaction, as well as their perceptions of the extent to which their needs and expectations have been met, says that the organization will concentrate on learners and other beneficiaries, demonstrating a continued focus on students, which is seen in how other recipients are treated as well. Surveys of beneficiaries, comments from beneficiaries on goods or services received, meetings with recipients, market share calculations, and answers are a few examples of ways to monitor learners', other beneficiaries', and staff members' perspectives. (ISO 21001:2018, 2018). Because of this, The Author thinks that using empirical education and game-based studying in the classroom can also satisfy Clauses 5 and 9 of ISO21001:2012.

The research revealed that 70% of the learning objectives of the empirical course HMO101 were met by the games-based project (see Table 1). The Author used a distinct teaching method known as problem-based learning for LOs 1, 8, and 9, and each student in the class received it.

**Table 1 lists the objectives that the project using video games matched.**

<table>
<thead>
<tr>
<th>No</th>
<th>Objectives</th>
<th>Amusements Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Describe the terms, traits, and scope of the hotel sector.</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Define and group the various hotel industries.</td>
<td>Hotel Tycoon</td>
</tr>
<tr>
<td>3</td>
<td>Determine the function's primary responsibilities for Front Office.</td>
<td>Hotel Tycoon</td>
</tr>
<tr>
<td>4</td>
<td>What are the obligations and duties of the F and B function</td>
<td>Hotel Tycoon and My Café and Restaurant</td>
</tr>
<tr>
<td>5</td>
<td>Sort alcoholic and non-alcoholic drinks into categories, and detail how bars and beverages are run</td>
<td>Hotel Tycoon and My Café and Restaurant</td>
</tr>
<tr>
<td>6</td>
<td>Describe and classify the different aspects of the restaurant industry</td>
<td>Hotel Tycoon and My Café and Restaurant</td>
</tr>
<tr>
<td>7</td>
<td>Outline the several departments that make up a restaurant.</td>
<td>My Café and Restaurant</td>
</tr>
<tr>
<td>8</td>
<td>Describe and differentiate the various succeeded amenities</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Discuss the significance of sight-seeing and the main effects it has on tourist organizations</td>
<td>N/A</td>
</tr>
<tr>
<td>10</td>
<td>Determine what the hospitality and tourist sector's</td>
<td>All 4 games</td>
</tr>
</tbody>
</table>
The results of the following investigation revealed what assignments were included in the empirical course HMO101's syllabus. A total of three integrated activities made up 55% of the evaluation scheme's weight. Utilizing the PBL, GBL, and EBL Teaching Methodologies, 3 actions—class preparation and 10% for participation, separate task (15%), and group task (30)—are required.

4.2 Results of the students' poll of the teacher and his technique of instruction

27 students were enrolled in the class, but 23 (85%) of their feedbacks were answered. One of the initial exercises invited participants to consider the teacher, his teaching style, and the games. Students ranked the educational value of playing games on a scale of 1 to 5, with 5 being the most fun and interesting. The bar graph below demonstrated that the majority of students found the simulation games to be appealing.

The achievement of course objectives at the course's conclusion was the subject of another query. All participants (100%) agreed with this statement.

The author additionally obtained qualitative questionnaires from students' feedback on simulation games in addition to the aforementioned quantitative surveys, including:

Student 1: "Using simulation games to enhance learning is a fantastic idea. They can assist me in fostering creativity, critical thinking, curiosity, and favorable learning environments."
Student 2: "I like this method of studying a lot. Instead of cramming with information, it helps us lower our stress levels. Additionally, it really aids us in learning specialized English, group work, presentation skills, time management, and task division.

Student 3: "Simulation games give players a more authentic, real-world experience. My peers appear to like the game and perform their duties competently.

5. Discussion

For Android and iOS devices, respectively, Google Play and the App Store both have all of the game applications used in the study for free. This suggests that instructors and institutions of higher learning might enhance the quality of their instruction while simultaneously conserving resources like cash and classroom space. The implications of the study's findings suggest that the best elements of both the academic and real worlds should be closely tied in purpose in order to make learning more interesting, humorous, and successful.

5.1. Research Restrictions:

Only one subject and FPT University Danang were included in the study. It might not be represented for the business sector and other FPT University properties. 27 players made up the sample size for the survey, which was insufficient. This was due to the fact that BH1401 was the sole hospitality course offered at FPT University Danang for the 2020 intake. The author employed only four simulations, and they weren't able to meet all of the learning objectives in the curriculum. The author wished that more simulation resources, such Opera Hotel Management Simulation, which is the most accurate and relevant program to use for instruction, were accessible on site. Last but not least, the author has to learn additional information about AACSB and ISO21000:2018 in order to align the research topic with.

5.2. Upcoming Studies

The author has merged GBL, EBL, and PBLs in additional hotel and business courses such as Managing Guest Services, Entrepreneurship, Integrated Marketing Communication (IMC), Professional Selling, and others. The Author has also investigated the Business Strategy Game (BSG) and other games apps in order to employ them in instruction.

6. In Summary

The hotel sector is one centered on services. Therefore, the students must receive practical training and should gain as much experience as they can. The theory portion of hospitality management course
syllabuses needs to be cut down, and real-world activities in the classroom need to be integrated. Educators and higher education institutions are strongly encouraged to purchase simulation models like video games, software, or other imitation tools in order to provide their students with experiential learning possibilities.

In order to expand the use of this new technology in higher education, new approaches to gamification that go beyond prizes like accomplishments and are more important to the students than certificates. must be developed and disseminated. The analysis of the endeavor shows that it is possible to effectively gamify learning even though the perception of gamification in boosting teaching quality appears promising.

Bibliography


I. Nonaka, R. Toyama and P. Byosiere, A theory of organizational knowledge creation: understanding the dynamic process of creating knowledge, in


J. Feller, A. Hirvensalo and R. Smeds, Inter-partner process learning in collaborative R&D—a case study from the telecommunication industry, Production Planning and Control, 16(4), 2005, pp. 385–395.


Kapp, K. (2012). The gamification of learning and instruction: Game-based methods and strategies for training and education. Pfeiffer


