Gamification in ESL Higher Education: A Pathway to Motivation and Engagement

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Abstract

Within the world of university education, gamification, being the amalgamation of game to non gaming contexts, has gained attentions as an innovative teaching strategy particularly in the English as a second language (ESL) teaching. Deciding to use this mixed methods study to investigate the effect of gamification on student motivation and engagement in ESL teaching/learning contexts in higher education institutions in a motivated way was the right choice. In particular, the paper examines how game based elements like; points, badges, leader boards and cooperative challenges affect learner motivation and engagement. Prior to and post the intervention, the intrinsic and extrinsic motivation of 200 ESL students were measured. To investigate the experiences of the 30 randomly selected participants with gamified learning, these students were interviewed. After the intervention, there was found increase in the intrinsic and extrinsic motivation of the learners. Key themes such as motivation through competition and engagement through interactive learning tasks were also fore fronted in the qualitative results. There were many students who said they felt enjoying the gamified activities reduced language anxiety and made the learning process much nicer and also more fun and that the atmosphere felt rewarding. Despite these points, this study also has some drawbacks such as possible over reliance on extrinsic rewards as well as careful application to maintain educational value. The study makes evident that gamified elements should correspond to learning goals including a spectrum of game mechanics that can accommodate different learners' preference and provide continuous feedback to enhance efficacy. Based on the study, gamification is a powerful tool to transform ESL learning into fun, interactive and creative learning experiences by engaging the learner through 'gamers' mindset. The findings point at discerning implications for educators and institutions bringing game based strategies into the language curricula.

Keywords: Gamification, ESL Education, Motivation, Engagement, Higher Education, Language Learning, Game-Based Learning

Introduction

Some innovative forms of teaching have changed the direction of university education so as to bring about a better student learning and interaction. Given the current global demands for English proficiency at the academic, professional, and social levels, teaching English as a second language is becoming increasingly significant in this regard. Gamification has emerged as one of the most promising pedagogical approaches as educators look for different ways to effectively inspire and engage ESL learners.

English is a global lingua franca, widely used in business and cultural communication. In most of the countries, it is considered a passport to both academic success and professional opportunities, and so ESL programs at college play an important role in preparing students to communicate efficiently in today's global community. However, most traditional approaches to teaching are not engaging students actively that results in a lack of motivation and poor learning performances. One of the key challenges ESL teachers face is how to motivate students. Research has identified motivation as one of the crucial factors in determining language learning success. Many ESL students suffer from language anxiety, a lack of confidence, and limited opportunities for

practice outside the classroom. These can contribute to disengagement and inhibit language acquisition. It is thus crucial to explore innovative strategies that may help foster motivation and create a more engaging learning environment.

Gamification is the use of game design elements, including points, badges, leader boards, and challenges, for non-game contexts with the aim of increasing user engagement and motivation1. By harnessing the natural appeal of games, educators can develop learning environments that are dynamic and foster active participation and collaboration among students. Gamification has been adopted at all levels of education as it promises to change the way students approach learning.

Theoretical Framework: Self-Determination Theory

The Self-Determination Theory by Deci and Ryan (2000) is a strong theoretical framework that discusses motivation in educational settings. According to SDT, human behavior is driven by three fundamental psychological needs: relatedness (a need for relationships with other people), competence (a need to feel effective in one's actions), and autonomy (a desire to be an actor causing an outcome). All of these needs appear to be well met by gamification.

Autonomy: Gamified activities often grant students choices of a learning path or engagement approach, for example.

Competence: Through challenge and reward, two common game mechanics, students experience a sense of their progress.

Relatedness: Concerted activities which involve games result in-cooperation among students that improve the feelings of belonging within the learning context. These psychological needs can be overcome with gamification by augmenting the motivation and engagement of students in ESL programs.

Literature Review

Gamification has attracted great attention in higher education especially in ESL contexts recently. Deterding et al. (2011) defines gamification as the use of game design elements in non-game contexts to augment user interaction and motivation. Particularly in educational settings, gamification contains integrating features such as points, badges, leader boards, and challenges into the learning process. The major purpose of this approach is to create a more interactive and involving environment for students, raising a sense of success and competition that improves learning outcomes (Kapp, 2012). Gamification in education is employed to borrow motivational elements from the game itself for better engagement and retention of students.

The use gamification in education has been supported by many theories. Self-Determination Theory is one of them stating autonomy, competence, and relatedness as the three basic psychological needs that all people possess and that these needs effect motivational factors (Deci and Ryan, 2000). This is supported by research that exhibits how gamification can students are given choices (autonomy), allow them to show their capabilities (competence), and raise teamwork (relatedness) (Rutledge et al., 2018). In fact, when gamified systems are in line with psychological needs, they have been shown to significantly boost learners' intrinsic motivation.

Several research studies identify the efficacy of such a game in improving language learning. The mobile learning environment for ESL students. They concluded that this mode of learning increases student motivation and involvement in the class. Similarly, Hwang et al. (2015) acknowledged that by the help of gamified learning activities, students' language skills improved because of their participation and interest.

Ede (2022) emphasized that gamification constituents should be appropriate for the educational objectives to be successful. Futile gamification can have undesirable effects such as decreased motivation or detachment. Therefore, teachers have to be careful about the ways of integrating gamified mechanisms to their curricula. Many studies have acknowledged the paybacks of gamification in ESL contexts. Research has presented that gamified settings can result in increased vocabulary, improved engagement, and enhanced motivation (Dehghanzadeh et al., 2021; Kaya & Sagnak, 2022). For instance, Wu et al. (2015) found that gamified activities provide authentic language use wherein students felt more comfortable while practicing their English skills.

Besides, gamification can be used to encourage supportive learning practices. Students' social interactions and the feeling of belonging in learning contexts are improved when there are challenges and struggles in teams, motivating them to collaborate to attain shared goals (Alawadhi & Abu-Ayyash, 2021). Along with improving language proficiency, this collaboration raises a sense of belonging.

The gamification in ESL education has never been an issue of challenges, regardless of the potential of the approach. It is argued by Mekler et al. (2017) that gaming might lend itself to be an effective extrinsic reasons for education, however, they need not necessarily lead to increased intrinsic motivation until considered in the learning process. And, unwell designed gamified systems may actually cause hindrance or separation between the students if they don't fit learners' goals or preferences (Hanus & Fox, 2015). There is no consensus on how gamification could generate better language learning performance. Some say that motivating people can be better achieved by means of badges and points (Suh et al., 2018), while others point out that social interaction features or narrative wise features are better alternatives.

Methods
Research Design

Thus, the study uses quantitative and qualitative data to mix in order to provide an inclusive approach toward assessing the potential impacts of gamification on the learner experiences and outcomes. To determine students' motivation and engagement levels in gamified learning activities, a quantitative method was employed to structure questionnaires measuring students' motivation and engagement levels before and especially after the intervention was implemented. In the qualitative study, a detailed understanding of the students' perceptions of gamification in ESL classes was gathered through the application of semi structured interviews. This adds to the effectiveness of the conclusions.

Participants

The subjects involved were 200 randomly selected students of different ages, genders, academic background, and language proficiency levels. I selected this sampling strategy to achieve the involvement of various perspectives and experiences in relation to gamified learning.

The participants were given ESL courses where the study materials contained game-like tasks. Competitive leaderboards, achievement badges, scoring systems, cooperative tasks were all added to these gamified tasks in order to improve the participant interaction. As the objective of the study was very detailed, the participants agreed to contribute their time to engage in both qualitative and quantitative data gathering processes.

Data Collection

Quantitative data were collected twice using a structured questionnaire prior implementation of the gamified elements (pre-test) and after a semester of using the tactics (post-test). The questionnaire was designed using the Intrinsic Motivation Inventory and Academic Motivation Scale that are validated measures of intrinsic and extrinsic motivation respectively. The Student Engagement Questionnaire was also used to sense student engagement in addition to the submitted title. The pretest aimed to get baseline values, whereas the post test checks the changes brought by the gamification intervention.

In depth interviews were conducted with 30 purposive sample of the group to gather the qualitative data. To gain insights about students' opinions about gamification, interview was set to have interviews with students to argue how they feel with respect to motivation and engagement and the general view of ESL learning.

For details about the parts of gamified learning experiences, questions were open ended so as to elicit the information. Put across to respondents some examples of open-ended questions such as; How did you feel about gamified activities present in your ESL class or if yes, any gamified tasks you felt most motivated or engaging. The interviews were done in a non intimidating and cozy location where the person being interviewed is free to speak freely; the time involved in each interview took about 30 to 45 minutes. They were all audio recorded and after client consent, verbatim transcribed for further data analysis.

Data Analysis

Statistical software of SPSS was used to perform quantitative data analysis. Descriptive statistics of all variables were computed to summarize participants' demographic characteristics, as well as baseline level of their motivation and engagement. They conducted paired t tests to compare pre test and post test scores of intrinsic motivation, extrinsic motivation, as well as engagement levels. All of the statistical tests had a level of significance of p<.05. In the same vein, the ANOVA test was performed as a means of checking whether differences in motivation and engagement may potentially stem from the demographic variables such as age, gender and language proficiency level.

Counts were made on qualitative data and analysed thematically. The term connoisseurship is a combined means to identify themes or patterns in the data, or more practically speaking, connoisseuring (Braun & Clarke, 2006). First step is familiarization and this is repeated reading of transcripts using different methods and different ways. To begin with, I crafted initial codes from the ideas or concepts around motivation, engagement, collaboration, and relationship to gamification as a whole. After first coding, related codes were grouped into higher order categories, themes were developed. This reviewed and refined the themes for accuracy with regards to the participants experiences. Lastly, the themes identified what gamification did to students' motivation and engagement in ESL learning context.

Findings and Discussion

The results of this study contribute to the literature on gamification and how to extend it to other disciplines such as English as a Second language (ESL) in university settings.

Quantitative Findings
Changes in Motivation Levels

Results of the statistical analysis of the impact of gamified components on ESL courses demonstrated significant improvement in both intrinsic and extrinsic motivation from ESL students attending courses with gamified components.

Before the intervention, the participants maintained a moderate internal drive level based on pre-test scores (M=3.2, SD=0.7). Yet, post test score showed huge increase (M=4.2, SD=0.5) which was statistically significant (t(199)=-12.45, p < .001). The point of this is that, students were more inclined in to participate in gamified instruction.

The same was true for the case of extrinsic motivation, because an increase was found for the same period (pre-test; M=3.5, SD=0.6; post-test; M=4.5, SD=0.6) with a significant difference (t(199)=-10.67, p<.001). Through points, badges, and other elements of recognition on leader boards, students felt even more often satisfied for their efforts during ESL activities, and thus more often motivated to participate in such.

Engagement Levels

Notable results also resulted from the analysis of student engagement. Engagement scores went up remarkably from pre test (M=3.4, SD=0.8) to post test (M=4.3, SD=0.4) and a significant difference was found i.e. (t(199)=-9.84, p<.001). Gamified work enhanced student's feeling of being involved in the learning process.

Many participants also expressed that gamification sparks them to become active in class discussion and group work. This feeling of urgency and excitement resulted in the competition serving to engage with their peers and the learning material.

Some students also reported increased attendance rates on subjects that are gamified since they were likely to attend the class to earn rewards or to compete with classmates.

Qualitative Findings

Gathering more insight into students' understanding and experience of gamification in their ESL courses was the purpose of the qualitative analysis. It was found through thematic analysis that there were a few key themes in gamified learning environments concerning motivation, engagement, collaboration and overall satisfaction with the gamified learning environment.

Theme 1: Enhanced Motivation through Competition

Competitive elements of gamification were mentioned often by those participants when talking about ways they found motivational their participation. Competing for points or badges drove

many students to feel an excitement and a sense of urgency when learning about some subject.

One student said: "I never thought I would have so much fun learning English! I was participating more actively in the class discussions because I wanted to compete for the point."

One of the participant agreed, "I studied harder because I wanted to be at the top on the leader board!"

This is a theme indicating that competition can be an effective motivator for ESL learners and an incentive for deeper engagement with the content.

Theme 2: Increased Engagement through Interactive Activities

In addition to competition, another factor that influenced motivation was the fact that gamified activities were more interactive and fun than traditional teaching method. Gamification brought variety of tasks to the learning experience, liked by many participants.

"The activities were so much fun! We played games, worked in teams, it was not studying at all." remarked one student.

Another participant noted: "I loved how we could earn badges for completing challenges; it made me feel like I was playing a game rather than just attending class."

The theme of this ESL education is interactive and interesting learning experience to maintain student engagement.

Theme 3: Collaboration and Peer Interaction

Motivation and collaboration were the other two themes besides teaching that came out. One theme that stood out was the uplifting effects that gamification had on team work and interaction between students. Most gamified tasks required students to work in teams or groups for which they needed to communicate effectively with each other and help each other.

And one student said "they were thankful for having worked with their classmates on challenges to feel more connected with them. But we helped each other out, we learnt together."

One more participant chimed in, saying that "I found it easier to practice speaking English when I was working with others, we helped each other."

This theme will bring to light how gamification can enhance socialization between the ESL students interacting within the classroom.

Theme 4: Overall Satisfaction with Learning Experience

One participant stated: "I feel like I've improved so much since we started using these games in class! It's less stressful than traditional exams."

"I actually learned to enjoy my English now!, before gamification, I dreaded my classes but with it, I was looking forward to it." another student reflected.

The aim of this theme is to expose how the gamification nature can arise as a mechanism for developing positive learning environment where students experience an empowerment and a motivation to learn.

Demographic Analysis

A further analysis was then done to shed some light on whether some demographic factors had an influence on the motivation or the engagement levels that those participants had. Results showed that all groups did see an increase in motivation and engagement once gamification was introduced, but some trends were present in results.

Age Difference

Young people aged 18-22 reported bigger levels of intrinsic motivation than older people (23-30) suggest that younger people can be more interested in gamified tasks.

Gender Difference

Female participants slightly had higher level of extrinsic motivation than male participants indicating that rewards drawn through badges or awards may be more desirable to the female ESL learners.

Language Proficiency Levels

With respect to intrinsic motivation and engagement, students with lower initial language proficiency levels showed more increases as compared to those with higher initial language proficiency levels, suggesting that gamification may best support struggling learners.

Based on the findings, it was noticed that gamification strategies enhance ESL learners' motivation and engagement in their courses. Overall findings indicated the use of the quantitative data

specified the increases of intrinsic and extrinsic motivation and engagement level, while the qualitative findings demonstrated the improved experiences of competition, collaboration, interactivity and the satisfaction with learning.

This study demonstrates the possibility of gamification as an effective approach to improve ESL students in higher education, especially to promote a more engaging and motivating learning atmosphere. On the other hand, qualitative analysis of themes further reveals the ways gamified learning can help to convert the traditional educational experiences to dynamic spaces that facilitate activation of associations between the learners. In this way, educators are encouraged to take on the use of gamification to ESL curricula to achieve these desirable effects.

Implications

In promoting the scenarios of encouragement to motivate and to get ESL students in higher education engaged, gamification comes into the picture. Putting gamification into language learning helps educators bring the environment of the dynamic environment to facilitate the participation and achievement in learning better. Future research also needs to address the long term impact of gamification on students' ability in the language and how scalable it is to an educational setting.

Limitations

While this study provides a great deal of insight into the effects of gamification on ESL learners' motivation and engagement, there are a number of limitations that must be acknowledged. The reliance on self-report measures opens up the possibility of biases in the form of social desirability or personal perceptions affecting responses. Furthermore, the cross-sectional design of the study limits any causal interpretations regarding the longitudinal impact of gamification on language acquisition.

Also, though the research was conducted on a representative sample, the findings cannot be generalized to contexts other than those studied. Longitudinal designs that track changes over time and larger sample sizes across various educational settings should be considered in future research.

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