

# Motivating and Engaging ESL Students Using Gamified Learning

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## Abstract

*In today's classrooms, several students are confronted with situations where learning a foreign language is a daily ordeal. While game-based learning can be used to proactively design and develop lessons that address the individual needs of a range of learners, more research into the mechanisms that would facilitate the implementation of game elements is needed. Gamification has risen as a promising tool to enhance learners' motivation and engagement through game features. This study aims to analyze some key gamified design features that would engage and motivate learners who have difficulty learning English as a second language.*

## 1. Introduction

Nowadays, fluency in English has become vital for learners all over the world, as it helps people communicate with each other across borders. However, the teaching of English in non-English speaking environments (e.g. Quebec) does not escape several problems such as the lack of authentic contexts for practice and the lack of motivation and enthusiasm on the part of the learners, which generally hampers their learning process [1]. In this regard, engaging students in learning English through technology-assisted pedagogies, including games, engaging narratives, multimedia supports and authentic content relevant to their lives has become a crucial issue for teachers, educators and researchers [2].

Even though studies that examined the effects of games on the acquisition of English as a second language revealed positive effects of play on several aspects, such as academic performance, oral comprehension of English and vocabulary, there are still important gaps in the scientific literature, in particular the design of game-based learning as well as the strategies for their integration into school curricula. In this perspective, the emergence of new technological applications has initiated moves toward the use of gamification in foreign and second language learning and teaching, a concept considered as a promising methodology, the main objective of which is to provide a learning experience that generates student engagement and interest [3].

## 2. Body of knowledge

The difficulties in learning English as a second language - many students encounter certain difficulties in learning English as a second language, mainly in speaking, reading and writing. With respect to the acquisition of these skills, previous research has suggested that several factors influence a student's capacity in acquiring Shakespeare's language, including cognitive factors (aptitude, working memory and learning style), affective factors (motivation and personality) and social/environmental factors (learning context and teaching methods) [4].

It is clear that some cognitive variables, such as language aptitude and working memory, are less relevant for our study because the current research studies remain quite speculative [5], several of these variables are not always directly observable or measurable, and there is little teachers can do to manipulate them [6].

### 2.1. Affective factors

Recent research has shown that intrinsically motivated learners are ambitious, determined and enjoy being challenged. They are also patient and persistent when faced with difficulties, believing that understanding is only a matter of time. On the other hand, students who lack motivation, especially intrinsic motivation, are not eager to be active and participate in class; therefore, they are often reluctant to invest efforts or adopt new learning behaviors for fear of failing. Faced with such difficulties, they can easily give up and lose their self-confidence [4]. VanPatten, Smith and Benati [8] add that learners without some basic level of motivation do not engage in the learning process. However, research on motivation today considers that learning difficulties related to motivation are influenced by several factors: learners' needs, their self-concept and the social context of learning [9]. related to learners' intentions and their educational and social contexts. Another factor that has a major impact on second language learning is the learner personality. Personality profiles that are related to socialization, interpersonal/intergroup relationships and personal predispositions to communicate shape the motivation

of individuals to learn a second language and to use it in a natural environment. Anxious students, for instance become reluctant to communicate with their peers and teachers and avoid communication in general. This could impede the development of their language skills and can lead to poor academic results [10]. Another personality trait worth examining and which is closely related to motivation is the concept of extraversion-introversion. In fact, the research literature indicates that extroverted learners are more willing to engage in group work, participate more in classroom interactions, and tend to take risks when speaking both inside and outside the classroom and, therefore, outperform their introvert peers in the development of oral skills [11].

## 2.2. Social Factors

According to Gomez and Diarrassouba [12], members of ethnic groups who perceive themselves as having a lot in common are more likely to interact and therefore more likely to learn from each other's language. In many cases, a second language learner feels no affinity with the target language community. In such cases, these learners create both psychological and social distance with speakers of that language, which hinders their success. Another social situation to consider is the multilingual aspect of the students. Surkamp and Viebrock [13] state that students sometimes feel excluded when they are constantly seen as representing a minority, and therefore different and not belonging to the group. This may cause them to withdraw from classroom activities even though their motivation for foreign languages and cultural learning is high.

The context in which students learn a foreign language has an effect on their success. According to Gu [14], the learning context not only includes the classroom, but also teachers, peers, the classroom climate, family support, social traditions and the learning culture, the curriculum, and language practice and development. Recent studies have argued that the participation and the engagement in classroom interactions are an evidence of learning; it is by participating with others that learning occurs [15]. That being said, the acquisition of an L2 can only take place if the educational context provides sufficient inspiration and pleasure to stimulate learners' motivation [16]. From this perspective, interaction is generally seen as an essential element that provides learners with the quantity and quality of authentic practice necessary for the development of their language skills. That creates a "learning space" and means of collaboration capable to help them build discourse structures that go beyond their current level of language skills [5].

## 3. Games and Second Language Acquisition

The use of game-based language learning pedagogy has grown significantly in recent years and has received considerable attention for their potential to enhance the learning experience of second and foreign language learners. Early studies in the area of language skills acquisition demonstrated positive effects of play on motivation, willingness to communicate and a range of other factors involved in the language learning process [5].

Several researchers have shown a positive correlation between game-based learning and most language skills, including vocabulary [6], speaking [7], listening and reading [8], grammar [9] and writing [10]. However, several challenges still impede the full potential of games, such as design and evaluation. In addition, the quality of the produced games does not generally meet the expectations of teachers because these games were not designed based on a theoretical basis that corresponds to the reality of learners.

### 3.1. Gamification and learners' engagement

According to Archambault et al., [22] there is now a consensus that learner engagement is multidimensional in nature including behavioral, affective and cognitive aspects:

**3.1.1. Behavioral engagement.** Gamification has gained a lot of popularity due to its potential to encourage motivation and engagement by facilitating learning, improving learner participation and lesson interactivity, and boosting their knowledge [23]. Regarding behavioral engagement, Huang, Hew, and Lo [24] suggest that gameful strategies positively affect students' behavioral engagement, including stimulating learners to complete more activities on time and being persistent in their participation. Additionally, Zainuddin et al. [25] found that participants engaged behaviorally in the gamified experiment (e.g., paying more attention, asking questions to instructors or peers, and responding to theirs). In a similar study, Ding, Er, and Orey [26] concluded that gamification helps students monitor and control the progress of their academic achievements (e.g., earning badges or awards). This finding supports the finding of Huang, Hew, and Lo [24] that badges can increase students' participation and enhance their positive behavior.

**3.1.2. Cognitive engagement.** Ding, Er and Orey [26] reported that gamification improves cognitive engagement. Their study found that participants seemed to spend more time and efforts writing their scripts thanks to a desire to earn badges, maintain their rank, and receive positive feedback from their peers.

This study also revealed that learners showed self-regulated learning in online discussions through two game mechanics, namely the progress bar and the leaderboard. Similarly, since gamification involves the use of game mechanics, Mayer [27] argued that different game elements can be used for the selection, organization, and integration of information, all of which are essential to the cognitive functioning of students.

**3.1.3. Affective engagement.** Data regarding socio-emotional engagement has been reported by several studies, particularly by Schwartz and Plass [28] who stated that many games' design features, such as rewards, avatars, and narratives promote attitudes and beliefs that evoke affective engagement. Zainuddin et al. [25] also reported that participants in their study perceived gamified formative quizzes as fun, motivating, and emotionally engaging as they experienced feelings of pleasure, joy, interest, enthusiasm, and curiosity. Moreover, the social aspects of gameful learning is closely related to affective engagement. For example, social interactions, facilitated by instant messaging systems and other means of real-time communication that facilitate collaboration and communication, can trigger so-called pro-social emotions, such as love, compassion, admiration and devotion, which are considered positive emotions [29].

#### 4. Gamification and ESL

Gamification is a recent trend in many areas, including education, as it incorporates aspects of games that have the potential to motivate and increase user participation and engagement and also enhance learning experience [30]. While educational games aim to improve the intrinsic motivation of learners within a game universe, gamification incorporates game elements (e.g. badges, points, competition) to promote changes in learner behavior in areas other than games. Although there are fewer studies that have examined the effect of games on foreign language learning, almost the majority of the studies reviewed indicated that the use of gamification is beneficial not only for learners' academic performance, but also for their motivation and engagement [31].

In a recent literature review, Dehghanzadeh, Fardanesh, Hatami, Talaei, and Noroozi [32] provided insight into the use of gamification to learn English as a second language in digital environments. They reported positive learning outcomes in all six essential skills: vocabulary (15 publications), grammar (5 publications), pronunciation (4 publications), speaking (5 publications), writing (3 publications) and listening (4 publications). The main reason behind these results is that various elements of games (both dynamics and mechanics) integrated into

gamified environments can promote learners' motivation and interest in learning English. Similarly, Arnold [33] and Vallejo [34] have shown that gamification has the potential of offering the opportunity to transform negative emotions into positive experiences by reducing learners' anxiety and fear of speaking a foreign language in front of the others and create a positive group dynamic. In short, scientific literature suggests that gamification could improve students' attitudes toward foreign language learning by promoting the feeling of engagement, motivation and satisfaction.

Even if the positive results discussed in this section make it possible to anticipate an increase in the implementation of gamified approaches in the teaching of foreign languages, the effects of gamification on this type of learning are still not conclusive [35]. The effectiveness of various gamification elements on learners' motivation and engagement is uncertain [32].

#### 5. Gamification models

Several gamified design models have been designed to meet the needs of teachers and learners. Mora, Riera, Gonzalez and Arnedo-Moreno [36] conducted a review of the literature on existing gamified models, and presented 18 design frameworks that attempt to formalize the process of gamification design. Other reviews have identified more than 50 gamified models [16].

The MDA framework is a post-mortem analysis of game elements. According to Hunnicke, Leblanc and Zubek [37], this model helps conceptualize the relationship between the designer and the user. The designer works out the functions and characteristics (mechanics) of the game, which engender different types of system-user interaction (dynamics) and lead to particular emotions and experiences in the user (aesthetic).

According to the 6D model [38], any gamification project requires a process to complete it. This process includes emotional elements such as fun, gameplay (game experience) and user experience, as well as measurable systems serving concrete goals. The authors suggest a design framework with the following six steps: (1) defining business objectives; (2) delineating the target behaviors; (3) describing the intended players; (4) devising appropriate short-term engagement and long-term progression loops; (5) being sure not to forget the fun; and (6) deploying the appropriate tools.

The concept of meaningful gamification [39] involves incorporating user-centric game design elements into non-gaming contexts. The researcher offers guidelines for achieving this goal: a) focus on the elements of play-based gamification, b) create transformational opportunities through participatory activities, and c) create a gameful learning space

where users can explore, engage with others, and set their own rules and goals.

## 6. Need for meaningful gamified design

Even if the positive results discussed above make it possible to anticipate an increase in the implementation of game-based approaches in the teaching of foreign languages, the effects of gamification on this type of learning are still not conclusive. The picture is even more blurry when it comes to the effectiveness of various elements of gamification in terms of motivating and engaging learners. Moreover, there is no single list of gamified items in the literature. Existing research demonstrates a lack of consistency in using terms or classifications such as “mechanics”, “dynamics”, “components”, “aesthetics” and “elements” [40]. Evaluating the different gamified elements therefore requires empirical evidence [41].

Analysis of the current state of gamification reported in the literature leads us to conclude that an inadequate design of gamification is one of the most important shortcomings of many gamified applications. First, the majority of existing studies on gamification lack a formal design process that takes into account stakeholders (educators, learners, etc.). In addition, due to the lack of empirical research in this area, little is known about how to mobilize the different elements of games to strengthen the engagement, motivation and academic performance of learners. In addition, researchers and designers are using what is known about instructional design in other environments, such as game-based learning and online learning. However, gamification is different from other types of learning and forces designers and teachers to think differently about design if they want to be sure about what they are teaching, what students are learning and how that learning can be evaluated. This study aims to analyze some key gamified design features that would engage and motivate learners who have difficulty learning English as a second language.

## 7. Significance of the study

The lack of motivation among students is generally perceived as one of the greatest weaknesses of current education systems [42]. Many researchers have shown through their work that current education systems do not implement the practices and strategies required to meet the needs of today's learners. In fact, many educators believe that an approach that harnesses the power of digital technologies has the potential to bring fun, curiosity and the sense of discovery back to the learning process [43]. Moreover, the use of game strategies in the learning process has advantages for learners in terms of developing their problem-solving skills and their critical thinking [28]. Thus, it is important to consider

teaching practices that offer learning experiences that promote students' success and the development of their learning skills. Although there is a wealth of research that has examined the perception of learners and teachers vis-à-vis game-based learning, very few authors have explored instructional design as a lever for meaningful incorporation of gamified elements into school curriculum. In addition, to our knowledge, gamification in English as a Second Language has not been examined in Quebec. Finally, this work will provide a set of rich and varied data allowing the identification of numerous pedagogical strategies that would guide the process of gamifying teaching practices while targeting students' engagement in their learning of English as a second language.

## 8. Conclusion

Student engagement has been considered as one of the major concerns in foreign learning. The purpose of our study is to provide meaningful guidelines, which, along with game elements, will help to gamify the foreign language learning experience. We have presented the main gaps on current knowledge and our future research will be experimentally tested in student learning process, to assess the effects of gamification and game elements on foreign language learning.

## 9. References

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