

Gamified Grammar Pedagogy: A Study on Tertiary Level Approach to English Language Learning

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Abstract

This study investigates the effectiveness of gamified instruction in enhancing grammar learning among tertiary-level English Language Learners (ELLs) in Bangladesh. Recognizing the limitations of traditional, rote-based grammar instruction in sustaining student engagement and retention, this paper explores gamification as a dynamic alternative. Employing an ethnographic qualitative methodology, data were collected through classroom observations, interviews, and questionnaires to understand participants' perceptions and experiences from 27 university students and 5 faculty members who participated in and/or facilitated gamified grammar activities using digital tools such as Mentimeter, Google Classroom, and Kahoot!. The goal of the study is to explore how gamification approaches to learning impact learners' motivation, understanding, and usage of grammatical rules within real-life scenarios. Findings are that gamification significantly impacts increasing student learning engagement and grammar retention, with users reporting greater motivation and improved ability to use grammar in communication situations. However, infrastructural issues, limited digital access, lack of training, etc., were perceived as major impediments to effective implementation. The study contributes to filling a research gap by contextualizing gamified grammar pedagogy within Bangladesh's higher education system and offers practical implications for integrating game-based strategies in English language teaching.

Keywords: gamification, grammar learning, English language classroom, tertiary education, retention

Introduction

Grammar learning is one of the cornerstones of English Language Learning (ELL), and it plays a fundamental part in preparing students' communicative ability, academic achievement, and career development.

Traditional teaching of grammar, which focused on memorization and strict rule-governed adherence, did not engage learners actively. This lack of interaction resulted in low retention and lack of application of grammatical rules to real life, which are significant problems with tertiary-level ELL students (Norris & Ortega, 2000; Chung, 2017). As learning environments kept evolving, innovative methods became essential to render learning grammar more interactive, engaging, and relevant.

Gamification, applying game design elements such as rewards, leaderboards and challenges in non-gaming contexts, has emerged as a prominent and transformative approach in education (Deterding et al., 2011). With the incorporation of intrinsic and extrinsic motivators, gamification presents an interactive learning process that induces effort, motivation and retention of learned information (Hamari et al., 2014). Role-playing, real-time quizzing, and cooperative game-like setting give ELL students an opportunity to acquire grammar in the context, bridging the gap between theory and practice (Vygotsky, 1978; Krashen, 1985).

While it has potential, gamification as a grammar learning tool for ELL, particularly in less developed countries, like Bangladesh, is hugely underexplored. There are institutional, technical and cultural problems serving as barriers to its effective implementation. These vary from low access reliable internet and devices, digital literacy rates and specifications of well-crafted content that accommodates curriculum goals (Bourgonjon et al., 2013; Liu et al., 2017). All focus on more general skills for instance speaking, vocabulary, with minimum attention to grammar, which is generally considered difficult and unengaging; conventional methods do not interest and bridge the gap of grammatical knowledge and communicative competence. Few delve deeply into the acquisition of grammar, which is often considered challenging and less appealing to students. While gamification has been extensively studied in global contexts, there is little that has been done on how it is implemented, its effectiveness, and its challenges in English Language learning (ELL) classrooms in Bangladesh, especially in the tertiary context.

This paper, hence, aims to examine how gamification enhances engagement, motivation, and the retention of grammatical competence through appropriate application, while also identifying the challenges associated with its adoption. This study fills the gap by exploring how cultural, technological, and institutional factors influence the use of gamification in Bangladeshi higher education. The research gap in this study also highlights

areas related to gamification in English Language Learning (ELL) classrooms that have not been adequately addressed in the existing literature, particularly in the context of Bangladesh and difficulties in gamification implementation, especially in settings with minimal resource, laying the foundation for further investigations into the long-term effects of gamification in language acquisition. By addressing these concerns, this research contributes to the growing body of literature on gamification in education and offers practical insights for improving grammar instruction in ELL classrooms in Bangladesh. Therefore, this study aims to find the answer of the following research questions:

1. How effective is the gamification program in enhancing grammar learning in ELL classrooms in Bangladesh?
2. What challenges do educators face in implementing gamification in ELL classrooms in Bangladesh?

Literature Review

Gamification in Education

Gamification has emerged as an innovative approach in educational settings, particularly in language learning. Deterding (2011) defines gamification as applying game design elements like leaderboards, rewards, and points to non-entertainment goals, aiming to enhance motivation and user engagement by leveraging the motivating aspects of games. Gamification boosts motivation through a balance of intrinsic and extrinsic factors, with extrinsic rewards like points or badges and intrinsic enjoyment of the activity (Deterding et al., 2011). Progression, represented by levels or badges, fosters accomplishment and maintains engagement (Nicholson, 2015). Rewards like leaderboards and points encourage consistent effort, reinforcing language practice and proficiency (Deterding et al., 2011). Instant feedback in gamified systems enables quick error correction and reinforces correct usage, enhancing retention and learning speed (Hamari et al., 2014). Gamification has gained popularity as a technique in educational settings because of its capacity to increase student engagement, motivation, and learning results. Specifically, its use in language learning has yielded encouraging outcomes (Deterding et al., 2011). In the context of tertiary-level education, gamification has been explored as a method to improve grammar instruction in English Language Learning (Kapp, 2012; Nicholson, 2015).

Gamification has shown significant benefits across academic fields, improving retention, offering real-time feedback, level development, and collaboration, crucial for language learning (Borges & O'Neill, 2018). It also created positive learning environments, and boosted engagement (Anderson & Rainie, 2014). Studies by Hamari et al. (2014) found that gamified learning environments increased motivation, academic achievement, and retention of vocabulary and grammar. Additionally, by promoting repeated practice in various contexts, gamification enhances retention without overloading pupils (Gee, 2003; Deterding et al., 2011). These methods, using stages, challenges, and rewards, support language learning by enhancing student participation, repetition, and practice outside of the classroom by outperforming the traditional methods in motivation and engagement (Seaborn & Fels, 2015), providing a more dynamic and interactive learning environment (Caponetto et al., 2014). Time-based tasks, tests, and role-playing are examples of gamified components that keep students interested and involved in their education (Anderson & Rainie, 2012). These skill-level-appropriate exercises encourage sustained attention and keep learners from becoming bored (Keller, 2010). According to Surendeleg et al. (2017), this enables ELL students to take chances and advance their grammar abilities without worrying about failing.

While traditional approaches remain important in education, gamification offers a dynamic option that can considerably improve grammar learning for ELLs, especially when used intelligently and in combination with other teaching strategies. Gamification is a potent and successful strategy in a variety of educational environments, including language learning. According to Anderson and Rainie (2012), gamification has grown in popularity in educational settings in recent years, with supporters suggesting that it provides significant benefits over traditional teaching methods.

Grammar Learning in Tertiary Level Education through Gamification

Studies conducted in various fields, including language learning, have emphasised its advantages, difficulties, and consequences (Gee, 2003; Deterding et al., 2011). According to Viberg et al. (2018), who investigated gamification in language learning, game-based resources enhanced feedback, involvement, and the development of a friendly, competitive atmosphere. Particularly for non-native speakers at advanced study levels, learning grammar is frequently seen as a complicated component of language learning, impacting their communication skills and academic performance. Opined by Chung (2017), tertiary-level English Language learners often have trouble remembering and using complex grammatical structures like conditionals, phrasal verbs, and tense modulation. Tertiary-level ELL students face

grammar learning problems such as complexity, fear of mistakes, and a lack of context. English language learning (ELL) requires grammar teaching, especially at the tertiary level where students must be able to utilize the language effectively for social, professional, and academic reasons (Ellis, 2006). Fear of failing can impede practice and language production, especially in academic contexts (Ellis, 2015). Norris and Ortega (2000) suggest that students may be unable to use grammar effectively in communication if they receive instruction that solely focuses on rules without providing contextualized practice; gamification can provide a promising answer by making grammar training more entertaining, interactive, and contextually relevant, thereby overcoming these language acquisition barriers.

Apart from instant rewards like points, levels, badges, and leaderboards and attainable goals inspire learners, another advantage of gamification is its ability to provide instant feedback, which enables students to swiftly fix mistakes, enhancing language acquisition (Hattie & Timperley, 2007). Grammatical problems become more relevant and interesting through gamification, which links theoretical knowledge to real-world, context-driven events. According to Norris and Ortega (2000), contextualised learning aids students in internalising and flexibly applying grammar principles. Students are more likely to persevere and acquire grammar when it is taught in interactive, game-like settings, and engagement is associated with intrinsic motivation (Deci & Ryan, 2000). Furthermore, gamified systems' active recall, spaced learning, and repetition promote long-term memory and make it possible to apply grammatical rules more successfully (Gee, 2003; Deterding et al., 2011). Therefore, better recall of grammatical principles and their application in real-life situations result from this positive, stress-free atmosphere (Surendeleğ et al., 2017). Because motivation and engagement lead to more successful language learning experiences and increased proficiency, students are more likely to attain better learning outcomes (Keller, 2010; Anderson & Rainie, 2012).

Teaching- Learning Strategies

Diverse learning styles can be accommodated through differentiated training that uses a range of instructional strategies, including digital games, simulations, and competitive activities (Tüzün et al., 2009). In addition to making grammar instruction more interesting, these techniques enhance critical thinking and problem-solving abilities. Gamified assessments can assist students in accomplishing both GTM and CLT learning objectives by offering rapid feedback and encouraging them to improve their grammar. Effective grammar instruction in the English language classroom requires

interactive and engaging strategies that promote understanding and application. A combination of inductive and deductive approaches helps students grasp grammar rules by either discovering patterns in texts or receiving direct instruction (Ellis, 2006). Role-plays and real-world conversations are examples of communicative activities that support the practical application of grammar and are consistent with the tenets of communicative language teaching (Richards & Rodgers, 2001). Contextualized instruction utilizing authentic materials improves comprehension, supported by Krashen's (1982) Input Hypothesis, which emphasizes meaningful exposure to language. Additionally, collaborative learning fosters peer interaction and reinforces the use of grammar in communication (Vygotsky, 1978). Personalized learning experiences are made possible by corrective feedback in conjunction with technology like grammar-checking software and artificial intelligence tools (Truscott, 1996).

Digital tools such as Mentimeter, Kahoot, and Duolingo are some of the essential software and apps for gamifying English language learning (ELL). To increase student motivation and engagement, these platforms incorporate game aspects including competition, meme, feedback, and prizes (Deterding et al., 2011). Kahoot transforms quizzes into competitive games, boosting motivation through instant feedback, while Duolingo uses badges, levels, and points to reward language abilities (Anderson & Dill, 2000; Surendelegh et al., 2019). With live polls and quizzes, Mentimeter promotes engagement and improves learning by providing immediate feedback (Deterding et al., 2011). Wang (2022) also found in his studies that Mentimeter's live quizzes, word clouds, and interactive polls helped students actively participate in discussions, especially in speaking and vocabulary activities. However, not every student or institution, especially those from less fortunate socio-economic backgrounds or institutions with limited resources, has access to dependable internet or personal devices (Severino & Karcher, 2016). According to Bourgonjon et al. (2013), a lot of gamified resources, including premium apps or subscription services, are expensive and can be out of reach for certain students or organizations. Also, disparities in digital literacy, language barriers, technical difficulties, and the high expense of tools limit the efficacy of gamified learning (Gee, 2003; Bourgonjon et al., 2013; Severino & Karcher, 2016; Liu et al., 2017). To guarantee fair and successful learning experiences, these obstacles need to be removed.

The integration of technology in English Language Learning (ELL) at the tertiary level has significantly evolved across Asia, particularly in Bangladesh, India, Pakistan, Malaysia, Indonesia, Thailand, and Singapore. In Singapore, where technology-driven education is prevalent, Al-Fadhli and

Khalfan (2020) found that Mentimeter enhanced students' motivation, autonomy, and language proficiency in second-language classrooms. Moreover, institutions like the National University of Singapore (NUS) and Nanyang Technological University (NTU) have adopted AI chatbots and Mentimeter, fostering high student motivation and language proficiency, although the cost of advanced tools poses a barrier for some learners (Lim, 2020). In Indonesia, the interactive nature of gamified learning tools, particularly for practising grammar and vocabulary, has been well-received by students, leading to increased engagement and participation (Wahyuni, 2021). In Malaysia, universities like the University of Malaya and Universiti Teknologi Malaysia integrate LMS platforms like Moodle and gamified tools such as Kahoot!, resulting in high student engagement, albeit with some issues related to teacher preparedness (Tan & Lee, 2020).

In Bangladesh, institutions like Dhaka University, BRAC University, and North South University have incorporated platforms such as Google Classroom, Zoom, Kahoot!, and Quizizz into their English courses, allowing students to engage in interactive, gamified learning. While these tools have enhanced student motivation and vocabulary retention, challenges such as digital accessibility, teacher training gaps, and infrastructure limitations persist (Chowdhury, 2020). However, infrastructure limitations, accessibility issues, and teacher preparedness remain significant challenges across few regions (Kumar & Ghosh, 2019; Wahyuni, 2021), for example Bangladesh. However, there have been encouraging outcomes in improving language acquisition from the use of technology in ELL at several tertiary institutions in Bangladesh and other Asian nations. Even though urban institutions in Bangladesh have made significant progress, more work has to be done to close the digital gap and give students in rural areas fair access to technology.

Theoretical Framework

a. Input Hypothesis: A key component of his Monitor Model, Stephen Krashen's Input Hypothesis (1985) highlights that language acquisition happens when students are exposed to "comprehensible input"—language that is just a little bit beyond their current skill level, or $i+1$. The $i+1$ principle, for instance, is preserved by language learning games that modify difficulty in response to a student's answers, guaranteeing that learners are continuously exposed to a little more complex grammatical structures in an interesting and approachable way. The gamification of grammar instruction in tertiary education can establish a learning environment that promotes implicit grammar acquisition by integrating the Hypothesis with game design components. In addition to minimizing emotional barriers to learning through

entertaining and motivating components, comprehensible input (i+1) is integrated into interactive and engaging contexts. Through interactive game-based activities, grammar rules are presented in real-life scenarios that are contextualized and meaningful to the learners. For example, gamified lessons may incorporate role-playing games or impromptu speaking that immerse students in scenarios where they must use grammatical structures to navigate challenges or complete tasks. Thus, gamification offers a useful way to apply Krashen's theory (1985), encouraging a low-stress, learner-centered setting that improves grammatical structure acquisition in English Language Learning (ELL).

b. Sociocultural Theory: The sociocultural theory of Vygotsky (1978) places a strong emphasis on the value of social interaction and scaffolding in the educational process. This theory states that students learn best when they work together with others, especially more experienced classmates or teachers, to acquire new information and abilities. The method of scaffolding involves giving students supportive frameworks to help them finish tasks they are unable to execute on their own, then progressively reducing that support as their ability increases. By encouraging group projects and peer interactions—two factors that are critical to learning—gamification reinforces Vygotsky's notion. Students frequently collaborate in groups during gamified grammar lectures, taking part in group challenges or competitions that call for problem-solving and communication skills, thus encouraging collaborative learning. By encouraging students to exchange techniques, learn from one another, and support one another while playing, these activities foster a social learning environment. Gamification supports Vygotsky's Sociocultural Theory (1978) by fostering peer interaction, collaborative learning, and scaffolded advancement, which creates a rich environment for language learners' social and cognitive growth.

c. Communicative Language Teaching (CLT): Through interactive, meaningful tasks, Communicative Language Teaching (CLT) encourages students to utilize language in real situations, highlighting the value of communication as the main objective of language learning. CLT places more emphasis on the development of communicative competence than traditional methods, which emphasize rote memorizing of grammatical rules. In this approach, language is learnt through its actual use in communication. By incorporating grammar teaching into communicative challenges that mimic real-life experiences, gamification supports CLT. By making grammar instruction more engaging and relevant, this method raises student engagement, which benefits long-term language acquisition and retention.

Thus, by transforming grammar instruction into an interesting, interactive experience, gamification successfully complements the CLT approach.

Methodology

This research examines how gamification can be applied to the teaching of grammar and whether it fosters a deeper understanding and retention of grammatical rules among English language learners at the tertiary level. The research design for this study is ethnographic which is a qualitative approach, as the primary aim is to explore and understand the experiences, perceptions, and attitudes of English Language learners towards the use of gamification in grammar instruction. This design is chosen to capture in-depth insights into the subjective experiences of students and teachers, allowing for the exploration of factors that influence their engagement with learning and teaching through gamified grammar activities. The study intends to give a comprehensive understanding of how gamification affects language acquisition and engagement by conducting interviews, watching student-teacher interactions, and engaging participants in the classroom setting. The data were collected from 27 students through convenient sampling from one university in Bangladesh, and 5 teachers through snowball sampling from two universities in Bangladesh who have experience or interest in gamification. Teachers shared their valuable insights on how gamification is implemented in the classroom, its perceived effectiveness, and the challenges they face when applying this method to grammar instruction. The students were enrolled in a tertiary-level and had been currently or previously exposed to gamified English language learning environments.

Individual interviews were conducted with each participant to explore their personal experiences with gamification. The interviews were guided by a set of open-ended questions that aim to uncover students' perceptions of the gamified activities, the challenges they faced and the benefits. Classroom observation was used to collect data in order to efficiently record student-faculty interactions, levels of engagement, and classroom dynamics during gamified activities. Overall engagement with the learning process was also observed. Questionnaires were used to find out participants' opinions and attitudes (refer to Appendix). The questionnaires were thoughtfully created to complement the goals of the study and guarantee that the information gathered would yield accurate and significant insights. Classroom observation was used to collect data in order to efficiently record student-faculty interactions, levels of engagement, and classroom dynamics during gamified activities. In this

study participants were informed of the study's purpose, their right to confidentiality, and the voluntary nature of participation. Consent forms were provided to all participants. Participants' identities and responses have been kept confidential, data has been anonymized to ensure privacy, and all personal information has been securely stored.

Findings and Discussion

This section presents and analyzes the empirical findings from students, teachers, and classroom observations regarding the implementation and impact of gamification on grammar learning in Bangladeshi tertiary-level ELL classrooms. The discussion is integrated throughout, explicitly connecting the findings to the established literature review and theoretical frameworks.

Engagement and Motivation: A Transformative Shift

There was a stark contrast between student and teacher perceptions of traditional and gamified grammar classes. All 27 student participants unequivocally described traditional grammar instruction as "boring," "monotonous," and focused on "repetitive learning" through lectures, textbooks, and worksheets. They reported low concentration and motivation in these settings. On the other hand, gamified courses were consistently described as "dynamic," "fun," "interesting," and "enjoyable."

Students explicitly credited this shift to the intrinsic nature of gamification: "The competition, challenges, and rewards motivated me to learn more," one student stated. Another student answered in-depth, "Learning grammar in a gamified class is much more interesting because it learns grammar in a humorous and easy way. The focus is mainly on communication and actual usage." Teachers backed this modification. One teacher characterized the conventional class as having "less interaction" and being "monotonous" due to "text-based and repetitive materials," while gamified classes stimulated "remarkable attention" in students, making them "more present in the moment." Another teacher witnessed gamification "transform the experience by making grammar learning dynamic and engaging," fostering "active participation, collaboration, and creativity." All the instructors reported that students were "more active and responsive," with "greater motivation and enjoyment," competitive elements reinforcing a "sense of accomplishment." Classroom observations also vivified this high energy, with students

demonstrating "high levels of enthusiasm and collaboration," actively discussing answers and learning from peers while engaging with Mentimeter quizzes and word games.

These findings firmly corroborate the literature on the limitations of traditional, rule-based grammar instruction (Chung, 2017) and the potential of gamification for engaging and motivating (Deterding et al., 2011; Hamari et al., 2014; Seaborn & Fels, 2015). The students' characterizations of traditional classes as disengaging receive direct resonance in the critique of methods that fail to hold attention, leading to inefficient retention and application (Norris & Ortega, 2000). This shift to enjoyment in gamified settings supports Anderson and Rainie's (2012) and Caponetto et al.'s (2014) arguments that gamification renders learning more interactive and dynamic.

Those specific motivators that students identified – competition, challenges, rewards (points, leaderboards), and a sense of achievement – align perfectly with the game design elements that were identified by Deterding et al. (2011) and motivational models that combine intrinsic enjoyment and extrinsic rewards (Deterding et al., 2011; Nicholson, 2015; Keller, 2010). This increased engagement provides the requisite foundation for more effective learning, supporting Krashen's (1985) Input Hypothesis as it sets a receptive state for comprehensible input ($i+1$) through enjoyable interaction. Furthermore, collaboration and peer interaction observed on tasks resonate with Vygotsky's (1978) sociocultural theory of learning through social interaction.

Tools, Activities, and Theory Alignment

Both teachers and students reported using various digital tools and activities. Mentimeter was the most referenced platform, used for live grammar quizzes (MCQs, fill-in-the-blanks), polls, and word clouds. Google Classroom was used for submission of grammar exercises with game-like features like adjustable deadlines and leaderboards. Other tools that were cited were Kahoot! for competitive quizzes and Duolingo for organized practice. Students particularly enjoyed tasks on application in context rather than rote memorization. As one student noted, "I use the grammar rules when I am having conversations and giving speeches now because the games made us practice like that." Teachers developed activities like using Kahoot for "quick grammar reviews" and creating "dialogue based on specific grammar structures."

The choice and implementation of these tools and activities clearly demonstrate the theoretical foundations underpinning effective language learning. Mentimeter is able to provide feedback and real-time quizzes with "comprehensible input" (i+1) according to student response, directly applying Krashen's Input Hypothesis (Krashen, 1985) through gradual challenge and instant correction. Collaborative word clouds and interactive polls are also encouraging an active environment that alleviates anxiety, facilitating intake. Leaderboards and adaptable deadlines in Google Classroom apply Deterding et al.'s (2011) game mechanics (points, status) to facilitate engagement and monitoring of progress.

Above all, activities like role-playing and impromptu speaking are at the center of Communicative Language Teaching (CLT) (Richards & Rodgers, 2001). They force students to use grammar functionally for real communicative ends, bridging the gap between knowledge and ability that Norris and Ortega (2000) described. As the students' feedback on the use of tenses in a restaurant complaint illustrates, these activities make grammar "relatable and easier to apply in real-life situations." Cooperative games also embody Vygotsky's (1978) Sociocultural Theory in that they provide scaffolding through peer collaboration and teacher support within a social environment. The sequencing commonly seen in these activities, starting with the simpler and progressing to more challenging, echoes the concept of the Zone of Proximal Development (ZPD) (Vygotsky, 1978). This multifaceted approach with readily available tools like Mentimeter and Google Classroom answers the literature review's invitation for innovative solutions that make grammar learning interactive and practical (Anderson & Rainie, 2012; Borges & O'Neill, 2018).

Effectiveness: Retention, Application, and Feedback

Both students and teachers reported significant benefits regarding grammar understanding, retention, and application. Most students stated gamification helped them understand grammar rules better. Teachers saw that "interactive and repetitive nature of games" made "reinforcing learning" easier. In the words of one teacher, games provided "gigantic exposure to vocabularies" and enabled students to "learn from errors and reward systems" and be motivated to "do better in the next level." Nicknaming in the course of games was also seen to "reduce anxiety and enhance class participation," indirectly by enabling more practice. Practical application was emphasized by the students. One of the students stated explicitly, "I use rules of grammar when I am speaking and making speeches." Others highlighted ways in which activities made rules "more applicable."

Teachers confirmed this, reporting increased ability to apply grammar in communicative activities following practice by gamification. The classroom observation noted students to be "focusing on winning games but also eager to justify answers and learn from others," demonstrating active processing and application. Also, for the purpose of instant feedback, another student participant stated: "The scores and leaderboard encourage me to play more aggressively because I know immediately what went wrong and try harder the next time." This was indicated as an important strength across the board. Students "appreciated instant scores," which enabled them "to gauge their progress", "see which grammar rules they had mastered," and "immediately correct their errors." Teachers employed means like Mentimeter and Kahoot! specifically for their capacity to provide instant feedback, considering this as crucial to "fast error correction" and maintaining momentum.

These findings provide strong evidence for the literature on gamification's positive impact on learning outcomes (Kapp, 2012; Hamari et al., 2014; Nicholson, 2015). The retention gain observed is in line with conceptualizations that assign salience to the role of active recall, spaced repetition, and active practice in establishing long-term memory (Gee, 2003; Deterding et al., 2011). This reinforcement is facilitated by the gamified environment, through interactive and repetitive practice without boredom (Surendelegh et al., 2017; Keller, 2010). The most important finding addressing practical application directly addresses the core fault of conventional methods discussed in problem statement and literature review (Norris & Ortega, 2000; Ellis, 2006; Chung, 2017).

By placing grammar practice within authentic, communicative tasks like role-plays and emergent speech (CLT principles), gamification allows students to internalize framework for flexible application, transcending decontextualized rule knowledge. The students' statements about the use of grammar in speech and conversation illustrate this successful transfer. The power of immediate feedback is a foundation of effective gamification (Hattie & Timperley, 2007; Hamari et al., 2014) and CLT. Evidence attests to its role in offering immediate error correction, dissolving misconceptions, prompting further effort, and allowing learners to track improvement – all of which are crucial in both understanding and retention. This creates the "iterative learning process" described by Hamari et al. (2014), with incentives directly linked to learning improvement.

Challenges and Implementation Barriers

Despite interest and promised benefits, significant barriers were reported, typically technological and logistical. Technological infrastructure was the most frequently cited restriction by teachers and students alike. Students identified "technical issues, for instance, connectivity or unfamiliarity with tools" and "limitation of access to smartphones." A student explicitly quoted: "I had problems with network connectivity in the Kahoot quiz, which was frustrating."

Teachers related to this, stating "technical issues occur a lot", blaming these on the "absence of tech support, and the proper resources." Slow internet, costly subscription and limited access to reliable devices (smartphones, tablets, computers) were the general issues. Along with all these, both instructors and students mentioned unfamiliarity with the gamified tools as problems. The classroom observation recorded some students "struggled to use the gaming app as a first-time user," requiring teacher guidance. Teachers also mentioned the "lack of training" for themselves and varying levels of student digital literacy.

The teachers particularly mentioned the cost barrier in terms of premium aspects of well-known tools. Cost of subscription of some software like Kahoot was emphasized, as one teacher noted: "It is no longer possible to continue using it because of the costly subscription fee without the institution's support." Another instructor said: "The time required to explain the game rules and ensure that everybody understood it, took up extra time." Seamlessly integrating gamified activities within curricular boundaries and ensuring that they met definite learning objectives was also noted to be an issue. Another instructor noted problems saying, "Weak students have difficulty understanding or achieving the tasks given in class, and there is a need for better differentiation."

These findings directly correspond to issues expressed in the literature review regarding implementing gamification in developing contexts like Bangladesh (Bourgonjon et al., 2013; Severino & Karcher, 2016; Liu et al., 2017). The technology constraints – irregular internet, no computer, high costs of tools – correspond to "infrastructural constraints" and "digital accessibility" constraints defined as significant challenges (Kumar & Ghosh, 2019; Chowdhury, 2020).

The issues of digital literacy and training also reflect Bourgonjon et al. (2013) and Liu et al. (2017) calls for varying levels of digital competence to impact effectiveness. The issue of cost, particularly for subscription-based services like Kahoot!, is an indicator of the "resource limitations" that were

discovered to impede equal access (Bourgonjon et al., 2013). The time it took to set up, describe rules, and accommodate varied student needs in game-like activities reflects the pragmatic "teacher preparedness" and "curricular integration" concerns reported in the literature (Tan & Lee, 2020). The danger of duplication underscores the need for well-designed, varied gamified content as reported by Keller (2010) and Anderson and Rainie (2012). These issues collectively highlight the variance between gamification promise and the conditions of the Bangladeshi tertiary context, confirming that cultural, technological, and institutional considerations significantly impact its deployment (Liu et al., 2017).

For the first research question, there is evidence from the findings that is strong in support of the effectiveness of gamification in this context. It significantly enhances the level of student interest and motivation over that of the conventional methods, making learning grammar an interactive and thrilling process. This is achieved through competition, challenges, rewards, and engaging instruments such as Mentimeter and Kahoot!. The provision of immediate feedback is a vital driver of this effectiveness, enabling prompt error correction and progress monitoring.

Supporting answer to research question 2, the principal challenges are infrastructural and technological in character, i.e. unreliable internet connection, limited student access to devices (tablet/smartphones), lack of institutional tech support, and the prohibitively high cost of high-end tools or subscriptions, e.g. Kahoot!. Poor digital literacy among teachers and students as well as inadequate training in the use of gamified software and designing effective activities is a serious hurdle. A few pedagogical and logistical challenges include time required for activity preparation and rules clarification, difficulty in incorporating gamification smoothly with lesson targets, as well as managing diverse student requirements (e.g. lagging students struggling to cope with the tempo or intensity). Synthesis of findings and discussion reveals that gamification has promising potential to revitalize grammar education in Bangladeshi tertiary ELL.

While gamification has been investigated globally in the context of ELL, its immediate use in teaching grammar at the tertiary level in a developing world setting like Bangladesh was commonly under-researched. By implementing game mechanics like challenges, rewards, competition, and immediate feedback through tools like Mentimeter, Google Classroom, and Kahoot!, it can significantly improve students' enjoyment, motivation, and participation, directly countering the disengagement caused by conventional strategies (Seaborn & Fels, 2015). More importantly, it ensures improved

understanding, enhances active and repetitive repetition in low-anxiety settings (Surendeleg et al., 2017), and above all, enables the use of grammatical rules in functional communicative settings (CLT) by eliminating the theory-practice divide (Norris & Ortega, 2000). This effectiveness is also well facilitated by Krashen's (1985) Input Hypothesis via engagement of $i+1$ input, Vygotsky's (1978) Sociocultural Theory via collaboration and scaffolding, and CLT principles via contextualized, communicative practice. However, the realization of this potential is subject to the surmounting of great impediments.

The Bangladeshi situation provides huge barriers, primarily weak technology infrastructure (uncertain internet, absence of devices), tool expense too great, low digital literacy, and deficiency of teacher training (Bourgonjon et al., 2013; Liu et al., 2017; Chowdhury, 2020). Time, curriculum integration, and addressing diverse learners' needs logistical complexities further complicate implementation. These challenges highlight that gamification is not a matter of plug-and-play but is context-dependent, resource-sensitive and support-sensitive. These issues can be addressed by institutional investment, specific training, blended learning strategies and finding cost effective or open-source options, if necessary. It is imperative to unlock the full transformative potential of gamification in Bangladeshi higher education grammar teaching. This study, in closing a vital knowledge gap and providing detailed grounded understating offers rich evidence and advice for instructors, institutions, and policy-makers looking to innovate ELL practice in Bangladesh and beyond.

Conclusion

This study explored how gamification affected tertiary level English language learners' acquisition of grammar, specifically in the context of Bangladesh. The results show that adding game-based components to grammar training greatly improves student motivation, engagement, and grammatical structure retention. Gamification makes grammar learning more efficient and pleasurable by giving students clear input ($i+1$) emphasizing the significance of interactive, scaffolded, and feedback-driven learning; it also encourages group learning, and utilizes positive reinforcement. Traditional approaches to grammar teaching, involving sometimes reduced exercises and rote memorization, proved weaker in keeping students engaged and fostering practical application. On the contrary, gamification creates a student-centered and more interactive learning space by activating interactive learning through

digital technologies like Mentimeter, Kahoot!, Google Classroom, etc. The research did also reveal, however, that gamified teaching presents a number of challenges such as low digital literacy, technical issues, integration into the curriculum, and uneven access to reliable devices and the internet from both students' and teachers' sides. The findings indicate that although gamification has tremendous potential to enhance the grammar education of English language learners, its implementation will require pedagogical and infrastructural challenges to be addressed. Educational institutions need to invest in teachers' training, technological resources, and blended models of learning to achieve highest potential of gamification. Policymakers can strategize to integrate gamified pedagogy into national curricula. Further research is also recommended to investigate the long-term retention capacity of gamification as a pedagogical tool for teaching English. Altogether, this research points towards gamification being an innovative and effective method for transforming the study of grammar into an exciting, interesting, and worthwhile learning experience for English language learners at the tertiary level in Bangladesh.

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Appendices

Appendix A

Questionnaire for Students

1. Can you describe your experience of learning grammar in a traditional English language class vs a gamified class?
2. What gamified activities or tools have been used in your grammar classes?
3. Do gamified activities affect your effectiveness in learning grammar, e.g. any moments where you felt more or less engaged? If yes, please specify.
4. How do you think gamification helps (or doesn't help) you understand and apply grammar rules in real life?
5. How does feedback during gamified activities (e.g., immediate results, and scores) impact your learning process?
6. Can you describe any challenges you've faced while using gamified activities for grammar learning?

Appendix B

Questionnaire for Teachers

1. Can you describe your experience of teaching grammar in a traditional English language class vs a gamified class?
2. What specific gamified activities or tools have you implemented to teach grammar?
3. How did students respond to these activities?
4. How do you perceive the effectiveness of gamified grammar learning on students' engagement?
5. How does gamification influence the understanding and retention of grammar rules among students?
6. What challenges have you faced when implementing gamified activities for grammar teaching?
7. What additional support or resources would help you implement gamification more effectively in your classroom? Please specify.