



## Effect of Gamification Method on Students Listening Skill in English Language in Maiduguri Metropolis, Borno State

Mohammed Waziri Bularafa<sup>1</sup>

**Email:** bularafa@unimaid.edu.ng

Muhammad Ali Mustapha<sup>1</sup>

Iya Aliyu Gana<sup>1</sup>

Mohammed Goni Bukar<sup>1</sup>

<sup>1</sup>Department of Education, Faculty of Education, University of Maiduguri

### Abstract

Traditional methods of teaching listening often fail to engage students fully, leading to passive learning experiences. In contrast, gamified approaches can create immersive and enjoyable learning experiences that enhance listening skills and promote a positive attitude towards language learning. This study aimed to investigate the effect of the gamification method on students' listening skills in the English language within Maiduguri Metropolis, Borno State. A pre-test and post-test research design was adopted for this study. The population consisted of 107 students, and 46 students were selected using a fishbowl simple random sampling technique. Gamification was implemented through the incorporation of game-like elements such as points, badges, leaderboards, levels, challenges, rewards, and progress bars into listening activities. The results of the t-test analysis revealed a significant improvement in students' listening skill after the gamification intervention. The mean score for the pre-test was 22.32, while the mean score for the post-test was 57.19. The t-value of 19.627 and the p-value of 0.0001 ( $p < 0.05$ ) provide statistically solid evidence that the gamification method significantly enhances students' listening comprehension and performance. In conclusion, this study demonstrates the significant positive impact of gamification on students' listening skills in English language learning. By fostering engagement, improving comprehension, and promoting collaborative learning, gamified approaches offer a promising avenue for enhancing listening instruction and overall language proficiency.

**keywords:** Gamification, Listening skill, English language and Maiduguri Metropolis

### Introduction

Listening is a crucial skill in language acquisition and communication, particularly in English as a second or foreign language (ESL/EFL). However, many students find listening one of the most challenging aspects of language learning (Vandergrift, 2007). This difficulty arises from various factors, including spoken language's ephemeral nature, spoken discourse's complexity, and the cognitive demands of real-time processing (Goh, 2000). Educators and researchers have been exploring innovative methods to enhance students' listening skills in recent



years. One such approach that has gained significant attention is gamification. Gamification refers to applying game-design elements and game principles in non-game contexts (Deterding et al., 2011). In education, gamification involves incorporating game elements such as points, badges, leaderboards and challenges into the learning process to increase student engagement and motivation (Kapp, 2012).

Using gamification in language learning has shown promising results across various language skills. For instance, Flores (2015) found that gamification improved students' vocabulary acquisition and retention. Similarly, Reinders and Wattana (2014) observed an increased willingness to communicate among language learners when game-like elements were introduced into the classroom. In the specific context of listening skills, gamification offers several potential benefits. It can provide a more engaging and interactive environment for listening practice, potentially reducing the anxiety often associated with listening tasks (Xu, 2018).

Moreover, gamified listening activities can offer immediate feedback and opportunities for repeated practice, which are crucial for skill development (Nation & Newton, 2009). However, while the potential of gamification in language learning is widely recognized, empirical research on its effectiveness for improving listening skills in English language learning still needs to be explored. This gap in the literature underscores the need for more focused studies examining the impact of gamification methods on students' listening proficiency.

In the era of digital technology and interactive media, traditional methods of language instruction are being challenged and transformed. One innovative approach that has emerged is the use of gamification in language learning, particularly in developing listening skills in English as a second or foreign language. Listening comprehension is a fundamental skill in language acquisition, yet it remains one of the most challenging skills for many language learners to master (Vandergrift & Goh, 2012). The challenges associated with listening comprehension are multifaceted, ranging from the speed and variety of accents in spoken language to the cognitive load of processing and interpreting auditory input in real time (Buck, 2001).

Gamification, defined as the use of game design elements in non-game contexts (Deterding et al., 2011), has emerged as a potential solution to address these challenges. By incorporating elements such as points, badges, leaderboards, and narrative structures into language learning activities, gamification aims to increase student engagement, motivation, and learning outcomes (Kapp, 2012). The application of gamification to language learning is grounded in several theoretical frameworks. From a motivational perspective, gamification aligns with the Self-Determination Theory (Deci & Ryan, 1985), which posits that intrinsic motivation is fostered by satisfying needs for competence, autonomy, and relatedness. Game elements can provide a sense of progress and achievement (competence), allow for choices and personalized learning paths (autonomy), and facilitate social interaction and competition (relatedness).

Furthermore, gamification in listening instruction can be viewed through the lens of cognitive load theory (Sweller, 1988). By presenting listening tasks in a game-like format, cognitive load may be reduced, allowing learners to focus more on the content rather than the stress of the task itself (Xu, 2018). Recent studies have begun to explore the potential of gamification in



language learning contexts. For instance, Hanus and Fox (2015) found that gamification elements increased student engagement in a university course. In the specific context of listening skills, Yeh et al. (2019) observed improvements in listening comprehension scores when game-based elements were incorporated into listening activities. However, despite these promising initial findings, more comprehensive research on the effects of gamification on listening skills in English language learning still needs to be done. Questions remain about the most effective game elements for listening instruction, the long-term impact of gamified approaches, and how gamification interacts with individual learner differences. This study aims to address this gap in the literature by investigating the effect of a gamification method on students' listening skills in the English language. By examining how gamified listening activities impact various aspects of listening proficiency, this research seeks to provide insights that can inform more effective and engaging listening instruction.

## Hypothesis

There is no effect of the gamification method on students' listening skills in the English language in Maiduguri Metropolis, Borno State

## Methodology

This study adopted a pre-test and post-test research design. This design is a type of experimental or quasi-experimental design in which measurements are taken both before and after an intervention. It is commonly used in various fields, such as education, psychology, and health sciences, to determine the effectiveness of a treatment or intervention (Smith, A. B., Johnson, & Miller, 2020).

The population of this study is one hundred seven (107) students. Fishbowl simple random sampling was used to select one arm of the Junior Secondary School two (JSS 2) class. The students who expressed interest were asked to volunteer to participate in the study. Forty-six (46) students who volunteered were used, using the availability sampling procedure.

## Gamification Method

Gamification is an innovative approach in education that applies game-like elements and design principles in non-game contexts to enhance student motivation, engagement, and academic performance. By incorporating gamification in English language teaching, the aim is to improve students' language skills, increase participation, and promote collaboration through enjoyable and interactive learning experiences. Components used in gamification include points, badges, leaderboards, levels, challenges, rewards, and progress bars. These elements motivate students and make the learning process more engaging.

**Points:** This quantifiable performance measurement can encourage students to participate actively in language learning activities.

**Badges:** Visual representations of achievements that recognize students' efforts and progress.

**Leaderboards:** Public displays of students' rankings or scores to foster healthy competition and encourage continuous improvement.



**Levels:** Stages of progression create a sense of accomplishment and promote growth in language skills.

**Challenges:** These are tasks or activities that require students to apply their knowledge and skills, encouraging problem-solving and critical thinking.

**Rewards:** Incentives or prizes that acknowledge students' accomplishments and reinforce positive learning behaviors.

**Progress bars:** Visual representations of students' advancement, helping them track their progress and stay motivated.

Conduct vocabulary assessments to measure the acquisition of new words related to listening activities before and after the gamified intervention. This includes matching words to definitions or using words in context.

**Results**

**Table 1 t-test summary on effect of gamification method on students listening skill in English language**

variables	N	Mean	S.D	S.E	dF	t	Prob
Pre test	46	22.32	4.12	0.246	45	19.627	0.0001
Post test	46	57.19	6.44	0.436			

(t=19.627,df=45; P= 0.0001)

Table 1 t-test summary on the effect of the gamification method on students' listening skills in the English language. The mean score for the pre-test was 22.32, while the mean score for the post-test was 57.19. This indicates a significant improvement in students' listening skills after the gamification intervention. The standard deviation for the pre-test was 4.12, and for the post-test, it was 6.44. This suggests a wider spread of scores in the post-test compared to the pre-test. The t-value was 19.627, indicating a significant difference between the pre-test and post-test scores relative to the variability within each group. The p-value associated with the t-test was 0.0001, less than the conventional significance level of 0.05. Since the p-value (0.0001) is less than the significance level of 0.05, we can reject the null hypothesis. This means there is a statistically significant effect of the gamification method on students' listening skills in the English language in Maiduguri Metropolis, Borno State. The results indicate that the gamification method had a positive and significant impact on students' listening skill in English language. The substantial increase in mean scores from pre-test to post-test suggests that the gamified activities effectively enhanced students' listening comprehension and performance. The results of this study provide strong evidence that the gamification method has a significant positive effect on students' listening skills in the English language in Maiduguri Metropolis, Borno State.

**Discussion**



Gamification increases student engagement by making listening activities more enjoyable and interactive. Research indicates that students are likelier to participate in gamified learning environments, leading to improved listening practice (Kapp, 2012). For example, incorporating game elements such as points, badges, and leaderboards can motivate students to participate actively in listening exercises. Gamified activities often require students to listen for specific information, answer questions, or complete tasks based on audio content. This focused listening practice can enhance comprehension and retention of information. Studies have shown that students who engage in gamified listening tasks perform better on comprehension assessments than those who participate in traditional listening exercises (Huang & Soman, 2013). Gamification can promote the development of critical listening skills by encouraging students to analyze, evaluate, and respond to audio content. For instance, role-playing games that require students to listen to scenarios and make decisions based on what they hear can foster critical thinking and analytical skills (Gee, 2003). Many gamified approaches encourage collaboration among students, allowing them to work together on listening tasks. This collaborative environment can enhance peer learning, where students can share insights and strategies for improving their listening skills (Johnson & Johnson, 2009). Gamification often incorporates immediate feedback mechanisms, allowing students to assess their performance in real time. This feedback can help learners identify areas for improvement and motivate them to refine their listening skills (Shute, 2008).

## Conclusion

In conclusion, this study demonstrates the significant positive impact of gamification on students' listening skills in English in Maiduguri Metropolis, Borno State. The results of this study provide strong evidence that the gamification method has a significant positive effect on students' listening skills in English in Maiduguri Metropolis, Borno State. The substantial improvement in mean scores from the pre-test to the post-test highlights the potential of gamification in enhancing listening comprehension and performance.

## Recommendations

Based on the findings the following are recommended for Enhancing Listening Skills Through Gamification in Maiduguri Metropolis

1. Incorporate gamified listening activities into the English language curriculum at various educational levels. Activities should include game elements such as points, badges, and leaderboards to motivate students and enhance engagement.
2. Provide training workshops for teachers on gamification principles and effective strategies for implementing gamified activities in listening instruction. This training should focus on designing engaging and educational games that align with learning objectives.
3. Leverage digital tools and platforms that facilitate gamification in language learning. Applications and software that support interactive listening exercises can enhance the learning experience and provide immediate feedback.

## References



- Baker, R. S., D'Mello, S. K., Rodrigo, M. M., & Graesser, A. C. (2010). Better to be frustrated than bored: The incidence, persistence, and impact of learners' cognitive-affective states during interactions with an intelligent tutoring system. *International Journal of Human-Computer Studies*, 68 (4), 223-241.
- Buck, G. (2001). *Assessing listening*. Cambridge University Press.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.
- Deterding, S. (2012). Gamification: Designing for motivation. *Interactions*, 19 (4), 14-17.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification". In Proceedings of the 15th International Academic MindTrek Conference: *Envisioning Future Media Environments*, 9–15.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining" gamification". In Proceedings of the 15th international academic MindTrek conference: *Envisioning future media environments*, 9–15.
- Flores, J. F. F. (2015). Using gamification to enhance second language learning. *Digital Education Review*, 27, 32-54.
- Gee, J. P. (2003). What Video Games Have to Teach Us About Learning and Literacy. *Computers in Human Behavior*, 19 (1), 1–4.
- Goh, C. C. (2000). A cognitive perspective on language learners' listening comprehension problems. *System*, 28 (1), 55–75.
- Hamari, J., Koivisto, J., & Sarsa, H. (2016). Does gamification work? A literature review of empirical studies on gamification. In *2014 47th Hawaii International Conference on System Sciences*, 3025-3034. *Ieee*.
- Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. *Computers & Education*, 80, 152–161.
- Hollands, R. G., & Tirthali, D. (2014). MOOCs: Expectations and reality. *International Review of Research in Open and Distributed Learning*, 15 (2), 1-19.
- Huang, W. H. D., & Soman, D. (2013). A practitioner's guide to the gamification of education. Rotman School of Management Working Paper.
- Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Psychologist*, 44 (2), 100–112.
- Kapp, K. M. (2012). *Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education*. John Wiley & Sons.
- Kapp, K. M. (2012). *The gamification of learning and instruction: Game-based methods and strategies for training and education*. John Wiley & Sons.
- Nation, I. S. P., & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. Routledge.
- Piaget, J. (1976). *The Child and Reality: Problems of Genetic Psychology*. Viking Press.
- Reinders, H., & Wattana, S. (2014). Can I say something? The effects of digital gameplay on willingness to communicate. *Language Learning & Technology*, 18(2), 101-123.



- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68–78.
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, 78 (1), 153–189.
- Sweller, J. (1988). Cognitive load during problem-solving: Effects on learning. *Cognitive Science*, 12 (2), 257–285.
- Sweller, J. (1988). Cognitive load during problem-solving: Effects on learning. *Cognitive Science*, 12 (2), 257–285.
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching*, 40 (3), 191-210.
- Vandergrift, L., & Goh, C. C. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge.
- Xu, Z. (2018). Problems and strategies of teaching English listening in college. *Theory and Practice in Language Studies*, 8 (8), 938–945.
- Yeh, Y. L., Chang, C. H., & Chen, Y. M. (2019). Using game-based learning to enhance students' listening comprehension and learning motivation in English as a foreign language. *International Journal of Game-Based Learning*, 9 (4), 1–15.