

Word Order Learning in EFL Learners Through Gamification Using Wordwall

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Abstract

This study explores the effectiveness of gamification in enhancing word order learning among Arabic-speaking English as a Foreign Language (EFL) learners through the interactive platform Wordwall. Participants were divided into two groups: one is an experimental group that used the gamified Wordwall platform, while the other is a control group, engaged in traditional teaching methods. Pre- and post-tests were administered to assess improvements in performance, underlining the impact of the gamification approach on learners' engagement. The results revealed that the experimental group using Wordwall significantly improved their word order accuracy compared to the control group. Moreover, learners in the experimental group reported higher levels of motivation, engagement and enjoyment throughout the learning process. The gamified approach fostered collaboration, enabling learners to interact and learn from one another effectively. This study highlights the advantages of integrating gamified learning tools in EFL learning and offers valuable insights into innovative teaching methodologies. By incorporating such tools, educators can create a more dynamic and effective learning environment, ultimately promoting greater engagement and success among learners.

Keywords: Gamification, language acquisition, teaching methodologies, word order, wordwall.

Introduction

Word order is a fundamental aspect of English grammar that significantly influences meaning and clarity in communication. For English as a

Foreign Language (EFL) learners, mastering word order is essential for effective expression and comprehension. Unlike some languages that allow for more flexible word arrangement, English follows a relatively strict Subject-Verb-Object (SVO) structure. This inflexibility can pose challenges for EFL learners, particularly those whose first languages have different syntactical rules.

Understanding and applying correct word order is essential not only for speaking and writing but also for listening and reading comprehension. Therefore, effective teaching strategies that address word order are vital for EFL learners to communicate successfully in English (Dehghanzadeh et al., 2021). EFL learners often encounter significant difficulties in grasping and applying correct word order. Incorrectly placed words can lead to misunderstandings and hinder effective communication, which can be discouraging for learners. These challenges arise from various factors, including interference from their native language, lack of exposure to the target language, and insufficient opportunities to practice. Traditional teaching methods have valuable merits, but they may benefit from more engaging approaches to better connect with EFL learners and provide the context needed for effective word order practice. Therefore, exploring innovative teaching approaches can enrich learners' experiences and strengthen their understanding (Zhang & Hasim, 2023).

In examining word order acquisition among Arabic-speaking EFL learners, it is essential to consider the syntactical differences between Arabic and English. English predominantly follows a Subject-Verb-Object (SVO) structure, which contrasts with a relatively flexible syntax of Arabic, often using Verb-Subject-Object (VSO) or Subject-Verb (SV) order. This discrepancy poses significant challenges for Arabic-speaking learners, who may struggle with the rigidity of English word order, leading to common errors in sentence construction.

The main aim of this study is to assess the effectiveness of Wordwall platform in enhancing word order learning for EFL learners. This study employed the Wordwall platform due to its unique interactive features that enhance learner engagement and motivation. Unlike other educational tools, Wordwall allows educators to create customisable, game-like activities that cater to diverse learning styles. This adaptability is particularly beneficial in a language learning context, where engagement is key to improving proficiency. By utilising Wordwall gamified learning tool, this research seeks to assess whether an interactive

approach can improve learners' understanding and application of word order rules. Also, the study explores how Wordwall creates a dynamic learning environment that motivates learners and encourages active participation, leading to improved learning outcomes. Furthermore, this study aims to enrich the understanding of EFL teaching methods and the impact of gamification in language learning. This research may offer strategies for blending gamified elements into traditional teaching methods. As technology continues to shape education, there is a need to adapt innovative teaching methods to meet the diverse needs of learners, ensuring they develop effective communication skills in English.

Literature Review

The integration of gamification in educational practices, particularly in language learning, has gained significant attention in recent years. Educators are increasingly seeking innovative methods to enhance learners' engagement and motivation. Gamification transforms language learning into engaging activities by applying game design elements, such as points, badges, and challenges, fostering active participation (Deterding et al., 2011).

Constructivism and game-based learning (GBL) underpin the use of gamification in language acquisition. Constructivism posits that learners build knowledge through experiences and reflections. Jean Piaget emphasised two processes: assimilation, where new information is integrated into existing knowledge, and accommodation, where understanding is adjusted for new ideas. In language learning, this means engaging with the language through activities that promote critical thinking and problem-solving. Lev Vygotsky expanded on this by introducing the Zone of Proximal Development (ZPD), which highlights how social interaction can enhance understanding. Gamification creates engaging environments where learners can explore language concepts, such as word order, through interactive activities and teamwork (Piaget, 1976; Vygotsky, 1978). GBL enhances learning experiences by incorporating games that leverage competition and rewards to boost engagement. It allows learners to practise language skills in realistic contexts, improving proficiency and confidence (Gee, 2003; Prensky, 2001).

Research indicates that gamified learning environments can significantly improve motivation, engagement, and retention. Hamari et al. (2016) found that gamification positively influences learners' attitudes towards their studies, leading to increased participation and improved

outcomes. Immediate feedback in gamified settings helps learners identify their progress and areas for improvement, which is crucial for language acquisition and learning (Kapp, 2012). Studies have shown that gamification can boost vocabulary acquisition and grammar understanding among EFL learners, with research by Dehghanzadeh et al. (2021) highlighting significant improvements in engagement and motivation.

Understanding English word order is crucial for EFL learners, especially given the differences in syntactical rules between their native languages and English. For instance, languages like Japanese and Korean use a Subject-Object-Verb (SOV) order, leading to confusion in English, which follows a Subject-Verb-Object (SVO) structure (Ellis et al., 1994). Incorrect word placement can change sentence meaning, making it essential for learners to grasp English syntax. Research by Ortega (2009) shows that clear instruction in word order improves performance in both spoken and written English.

Gamification can effectively address these challenges. Educators can create interactive activities using gamified tools like Wordwall to help learners arrange words into grammatically correct sentences, reinforcing their understanding of syntax while making the learning process enjoyable. Immediate feedback on these platforms allows learners to recognise and learn from mistakes, enhancing overall language proficiency.

Mastering word order directly influences EFL learners' ability to communicate effectively. A solid grasp of syntax enables learners to form coherent sentences, essential for effective communication. The integration of gamification in language learning offers a promising method for enhancing EFL learners' understanding of these concepts. Additionally, the syntactical differences between Arabic and English significantly impact Arabic-speaking EFL learners' acquisition of English word order. In Arabic, flexible word placement allows varied sentence constructions, whereas English relies on a fixed SVO structure, leading to frequent errors. Explicit instruction on these syntactical differences can facilitate better understanding and usage of English word order, improving communication skills (Ortega, 2009).

Wordwall

Wordwall is an interactive online platform designed for educators to create engaging and customisable learning activities. It allows educators

to transform traditional lessons into dynamic, game-like experiences that enhance learners' participation and motivation. Educators can create a variety of activities, like quizzes, matching games, flashcards, and word searches, all tailored to specific learning objectives.

Wordwall has several key benefits as a gamification tool in educational settings. These include:

- *Engaging Learning Experience:* Wordwall transforms traditional learning into an interactive and enjoyable experience, encouraging learners to participate actively in their learning process.
- *Variety of Activities:* The Wordwall platform offers a wide range of customisable activities, including quizzes, matching games, and sentence unscrambling, catering to different learning styles and preferences.
- *Immediate Feedback:* Wordwall provides instant feedback on learners' responses, enabling them to identify areas for improvement and reinforce their understanding of concepts in real-time.
- *Flexibility and Accessibility:* As an online tool, Wordwall can be accessed from various devices, allowing learners to engage with the material anytime from anywhere, accommodating diverse learning environments.
- *Supports Learning Needs:* Wordwall allows educators to tailor activities to meet the varying needs of learners, making it easier to implement differentiated instruction in the classroom.

Research Objectives

The study explores how Wordwall can enhance word order learning among EFL learners. It specifically examines its impact on learners' understanding of word order, as well as their engagement and motivation in the language learning process. The aim is to evaluate the effectiveness of Wordwall in teaching English as a foreign language, focusing on selection of the appropriate word order, rearrangement of jumbled words, and identification of appropriate sentence structures.

Research Questions:

- i. Is there a significant difference between the pre-test scores and post-test scores of experimental group and control group in terms of selecting appropriate word order?
- ii. Is there a significant difference between the pre-test scores and post-

test scores of experimental group and control group in terms of rearranging jumbled words?

- iii. Is there a significant difference between the pre-test scores and post-test scores of experimental group and control group in terms of identifying appropriate sentence structures?

Methodology

This quantitative study employs an experimental design to evaluate the impact of gamification on word order learning among Arabic-speaking EFL learners. The sample consisted of 40 learners enrolled in language programmes at the University of Technology and Applied Sciences, Al Musanna, Oman. Participants ranged in age from 18 to 25 years, and their proficiency levels were assessed using a standardised language assessment, categorising them as beginner to intermediate learners. Participants were selected through random sampling and divided into two groups: an experimental group and a control group.

Both groups participated in a pre-test and a post-test to assess their understanding of word order. The assessments consisted of 15 questions requiring participants to choose the correct word order, rearrange jumbled words, and identify correct sentence structures. To ensure consistency in measurement, both the pre-test and post-test were designed with the same format, allowing for a direct comparison of results between the two phases. The tests were administered using a paper-based format with a duration of 30 minutes. The pre-test was conducted for both groups during the same period.

Following the pre-test, the experimental group engaged in a series of interactive word order learning activities using the Wordwall platform for 10 consecutive sessions. Wordwall was chosen for this study due to its unique features that enhance the learning experience for English as a Foreign Language (EFL) learners. Unlike many other educational tools, Wordwall offers a variety of interactive activities specifically designed for language learning, such as quizzes, matching games, and sentence unscrambling tasks. These activities promote active engagement, allowing learners to practice word order in a fun and dynamic environment. Additionally, Wordwall's user-friendly interface enables both instructors and students to easily navigate the platform, making it accessible for learners with varying levels of technological proficiency. The ability to customise activities allows teachers to tailor

content to meet specific learning objectives, addressing the diverse needs of EFL learners. Furthermore, the gamification aspect of Wordwall fosters motivation and competition among learners, which can lead to increased participation and improved retention of language concepts. In contrast, many other tools lack the same level of interactivity or customisation, which can limit their effectiveness in language learning. Therefore, Wordwall's combination of engaging content, ease of use, and gamification makes it a superior choice for teaching word order to EFL learners.

As part of the study, the researcher used Wordwall to teach concepts to the experimental group. Participants in this group engaged in various activities, including completing sentences, matching items, taking quizzes, and unscrambling sentences. These tasks required learners to make guesses, select correct answers, and rearrange words to form coherent sentences. The experimental group participated in multiple exercises on the Wordwall platform specifically designed to enhance their understanding of word order. Once all the participants had completed their activities, the quiz results were displayed, highlighting the highest scorer and declaring the winner of the game.

In contrast, the control group received traditional teaching methods for learning word order. This included direct instruction where the instructor provided explicit explanations of word order rules, focusing on the Subject-Verb-Object (SVO) structure in English. Instruction was followed by guided practice using exercises from textbooks, where students identified correct word order and rearranged jumbled sentences. Additionally, students completed worksheets that required them to write sentences with the correct word order, allowing for independent practice. The instructor provided feedback on their work, correcting common errors and reinforcing rules, and periodic review sessions were held to ensure a solid understanding of the concepts before the post-test. The control group participated in conventional activities such as writing sentences and completing worksheets without the interactive elements found in the experimental group's activities.

After 10 sessions, both groups took a post-test to evaluate the effectiveness of Wordwall in improving learners' understanding of word order. The main purpose of the post-test was to assess the impact of the gamified approach on word order learning.

Analysis and Findings

This analysis explores the impact of gamification on language learning, specifically emphasising word order among English as a Foreign Language (EFL) learners. The goal is to identify key trends and outcomes associated with various instructional methods, providing valuable insights into how gamification enhances learning.

The data compares the effectiveness of gamification in teaching word order to EFL learners by contrasting an experimental group using Wordwall with a control group receiving traditional instruction. This study addresses the three research questions regarding the differences in learning outcomes between the two groups.

RQ1: Is there a significant difference between the pre-test scores and post-test scores of experimental group and control group in terms of selecting appropriate word order?

The data shows a notable improvement in the experimental group's performance in selecting the appropriate word order. Initially, descriptive statistics were presented, and inferential statistical analyses were conducted using a t-test to evaluate the similarity of the pre-test scores between the two groups, confirming no significant differences. Paired t-tests revealed that the experimental group's post-test scores demonstrated a statistically significant improvement compared to their pre-test scores, indicating that the gamified approach effectively enhanced their understanding of word order. Additionally, an independent t-test showed a significant difference in post-test scores

Figure 1. *Selecting Correct Word Order*



between the experimental and control groups, further supporting the effectiveness of the gamification strategy. The experimental group began with a pre-test score of approximately 2.0, which increased to nearly 4.0 in the post-test, suggesting that the gamified approach, using Wordwall, significantly improved learners' understanding of word order.

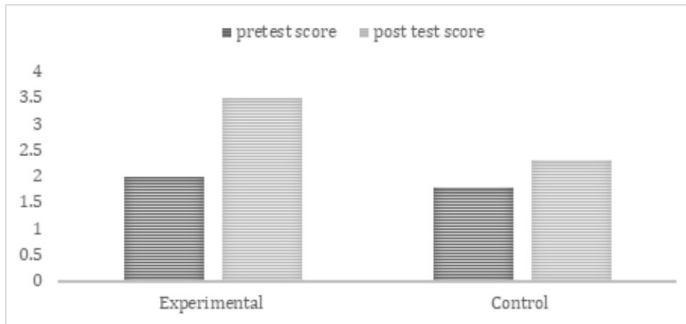
In contrast, the control group exhibited less improvement, with a pre-test score around 1.6 and a slight increase to about 2.0 in the post-test. This minimal rise highlights the effectiveness of the gamification strategy in the experimental group. The interactive features of Wordwall likely contributed to a more engaging learning environment, enabling learners to actively explore and practise word order in an enjoyable manner. These gamified elements may have provided immediate feedback and a sense of achievement, further motivating learners to engage with the material. In contrast, the traditional instructional methods used in the control group may not have fostered the same level of engagement or understanding.

Overall, the analysis suggests a significant difference between the pre-test and post-test scores of the experimental group compared to the control group, reinforcing the notion that gamification can enhance learning outcomes in EFL contexts.

RQ 2: Is there a significant difference between the pre-test scores and post-test scores of experimental group and control group in terms of rearranging jumbled words?

The data reveals that the experimental group demonstrated notable progress in rearranging jumbled words. Their pre-test scores increased from around 2.0 to 3.5 in the post-test, indicating a substantial improvement. This rise suggests that the gamified approach effectively facilitated learning in this area.

In comparison, the control group showed only modest improvement, with a pre-test score of 1.8 and a post-test score of 2.3. This minimal rise highlights the effectiveness of the gamification strategy employed in the experimental group. The interactive nature of the gamified exercises along with the immediate feedback it provides are essential for effective language acquisition. Such feedback may allow learners to understand their mistakes and correct them in real time, promoting better retention of concepts.

Figure 2. *Rearranging Jumbled Words*

Moreover, the game-like environment created by the gamification strategy likely made learners more comfortable participating and taking risks in their learning. This aspect is particularly important in language learning, where learners often feel hesitant to engage for fear of making errors. By developing a supportive and engaging atmosphere, the experimental group was encouraged to experiment with rearranging words without the fear of judgment.

Overall, the analysis indicates a significant difference between the pre-test and post-test scores of the experimental group compared to the control group. The findings suggest that incorporating gamified elements in language instruction not only improves performance but also enriches the overall learning experience.

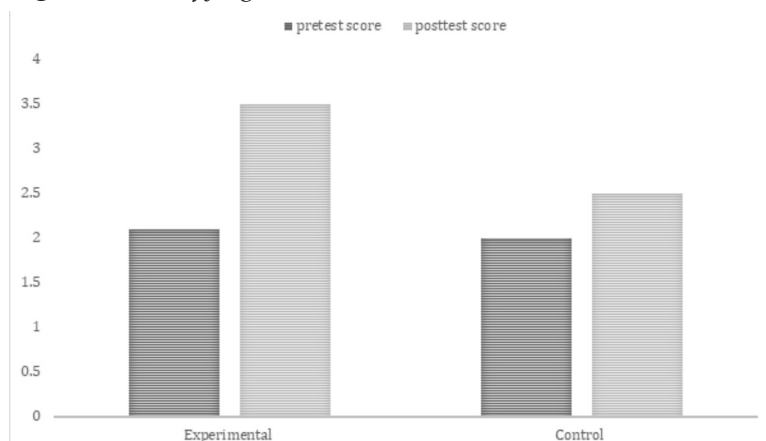
RQ 3: Is there a significant difference between the pre-test scores and post-test scores of experimental group and control group in terms of identifying appropriate sentence structures?

The analysis of the data reveals that the experimental group achieved a pre-test score of approximately 2.1, which increased significantly to a post-test score of approximately 3.5. This consistent upward trend across all sections highlights the effectiveness of the gamification approach in enhancing language learning outcomes.

In contrast, the control group exhibited limited improvement. Their pre-test score was around 2, and their post-test score increased slightly to 2.5. This minimal rise indicates that their method of instruction provided less level of engagement or effectiveness. The difference between the two groups highlights the advantages of gamified learning environments. The interactive and enjoyable nature of the activities likely contributed

to greater motivation and participation among the experimental group, allowing them to practise and reinforce their understanding of sentence structures more effectively.

Figure 3. *Identifying Correct Sentence Structures*



The gamification elements, such as immediate feedback and competitive aspects, may have played a crucial role in this process. Learners in the experimental group could identify their errors quickly and learn from them, which is important for mastering complex language concepts.

Overall, the analysis suggests a significant difference between the pre-test and post-test scores of both experimental and control group. This reinforces the hypothesis that gamification not only boosts immediate learning outcomes but also aids in retaining a better grasp of language structures over time. The findings advocate for the integration of gamified methods in EFL instruction to enhance learners' understanding and application of correct sentence structures.

Discussion

The results from the three research questions highlight the effectiveness of gamification in enhancing language learning within EFL contexts. Learners in the experimental group showed significant improvements in skills such as selecting the correct word order, rearranging jumbled words, and identifying correct sentence structures. This aligns with findings from the literature, which emphasise that gamification can transform traditional learning into engaging, interactive experiences (Deterding et al., 2011).

One key finding is that the experimental group's post-test scores were significantly higher than their pre-test scores. This suggests that gamified learning not only accelerates understanding but also fosters deeper comprehension over time. As noted in the literature, active participation and motivation are crucial for effective learning, especially in language acquisition (Piaget, 1976; Vygotsky, 1978). The principles of constructivism and social interaction support this, indicating that learners benefit from engaging content in a supportive environment.

In contrast, the control group exhibited minimal progress, highlighting the limitations of traditional teaching methods in effectively engaging learners or providing necessary feedback. This underscores the importance of incorporating interactive strategies, as highlighted by Hamari et al. (2016), who found that gamified environments positively influence learners' attitudes and outcomes.

Additionally, the experimental group demonstrated a greater willingness to take risks in their learning. This can be attributed to the supportive nature of the gamified environment, which encourages exploration and experimentation. Literature supports this, noting that gamification fosters spaces where learners can engage with language concepts, such as word order, through interactive activities and teamwork (Gee, 2003; Prensky, 2001).

Overall, these results indicate that gamification enhances immediate learning and supports long-term retention of language concepts. Prior to the intervention, the experimental group exhibited several common errors related to word order, such as incorrect subject-verb placement, with sentences like "Has a big house she," reflecting patterns from their native language. Additionally, many learners misused modifiers, resulting in confusion about meaning, as seen in responses like "Like play game I," instead of the structure, "I like to play games

After implementing the Wordwall platform, these errors significantly decreased. The gamified activities provided immediate feedback and practice opportunities, reinforcing correct sentence structures. For instance, a learner who initially wrote "Has a big house she" revised it to "She has a big house." Similarly, the sentence "Like play game I" was adjusted to "I like to play games," reflecting a better understanding of word order. These examples demonstrate how the gamified approach

not only increased learners' awareness of proper word order but also encouraged real-time application of their knowledge, leading to substantial improvements in their writing and comprehension skills.

Using gamified tools like Wordwall allows educators to create interactive activities that help learners arrange words into grammatically correct sentences. Immediate feedback from gamified platforms is important for helping learners recognise their mistakes and improve their language skills (Kapp, 2012). Thus, the integration of gamification can effectively address the challenges associated with learning word order, ultimately improving overall language proficiency for EFL learners.

Conclusion

This study demonstrates the effectiveness of gamification, particularly through the Wordwall platform, in improving word order learning among EFL learners. The findings indicate that the experimental group achieved substantial gains in comprehension and motivation compared to the control group. The increase in post-test scores suggests that interactive and dynamic learning environments significantly enhance learners' engagement. While the results underscore the benefits of gamification, it is essential to recognise that individual differences and prior exposure to the subject may also influence these improvements. This underlines the need for further research to explore various elements affecting language learning outcomes.

The implications of this study extend beyond word order instruction, suggesting broader applications for gamification in language learning. Educators are encouraged to explore innovative teaching strategies that integrate technology and interactive elements to create motivating and engaging learning experiences. The findings from this research can enhance teaching practices and empower learners to become more skilled and confident in their language abilities.

Further research could focus on the long-term effects of gamification on language learning, explore different gamified tools, and evaluate their impact on various aspects of learner engagement and performance. By adapting innovative teaching methods to meet diverse learner needs, educators can further level up language acquisition effectiveness and foster a lifelong passion for learning.

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