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The Impact of Using Game-based Learning Strategy on Enhancing Engagement and Enjoyment of 3rd Grade Primary Pupils in English Language

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Abstract

This study aimed to investigate the impact of an instructional approach, referred to as "Word Quest," on enhancing engagement and enjoyment in English language learning among 30 3rd-grade primary pupils from Al-Nasser School, Baghdad, Al-Mansour. The research focused on assessing students' feelings, preferences, and experiences related to engagement and enjoyment in the learning process. A pre-test/post-test design was employed, with an experimental group receiving instruction using the "Word Quest" approach and a control group receiving traditional instruction. The results showed that the experimental group reported higher levels of excitement and interest when learning new words, enjoyed vocabulary puzzles and word-building games, preferred practicing English through role-playing and conversations, and found adventure and fantasy books most interesting. Conversely, the control group exhibited lower levels of engagement in certain areas, although they still expressed some degree of interest and enjoyment. The study also found an improvement in vocabulary and grammar acquisition by a rate of 15 points when learning with a game-based strategy, whereas the control group who continued to learn with the traditional methods witnessed an improvement of only 10 points. These findings suggest that the "Word Quest" approach, with its interactive and engaging activities, successfully enhanced student engagement and enjoyment in English language learning.

أثر استخدام استراتيجية التعلم المبني على الألعاب في تعزيز المشاركة والاستمتاع في اللغة الإنجليزية لدى تلاميذ الصف الثالث الابتدائي

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المستخلص

هدفت هذه الدراسة إلى التحقق في أثر استراتيجية التعلم القائمة على اللعب والتي يشار اليها بـ "مهمة الكلمة" على تعزيز المشاركة والمتعة في تعلم اللغة الإنجليزية بين طلاب الصف الثالث الابتدائي. ركز البحث على تقييم مشاعر الطلاب وتفضيلاتهم وتجاربهم المتعلقة بالمشاركة والمتعة في عملية التعلم، استخدمت هذه الدراسة تجربة يتم فيها تقسيم المشاركين إلى مجموعتين: مجموعة التجربة والمجموعة الضابطة، كما تم تصميم الاختبار على مرحلتين أولي ونهائي، حيث تلقت المجموعة التجريبية تعليماً باستخدام نهج "مهمة الكلمة"، بينما تلقت المجموعة الضابطة التعليم التقليدي من دون تغيير. أظهرت النتائج أن المجموعة التجريبية أبلغت عن مستويات أعلى من الحماس والاهتمام عند تعلم كلمات جديدة، واستمتعت بألغاز المفردات وألعاب بناء الكلمات،

وفضلت ممارسة اللغة الإنجليزية من خلال التمثيل والمحادثات، ووجدت الكتب المغامرة والخيال الأكثر إثارة للاهتمام. بالمقابل، أظهرت المجموعة الضابطة مستويات أقل من المشاركة في بعض المجالات، على الرغم من أنها لا تزال تعبر عن بعض درجات الاهتمام والمتعة. وجدت الدراسة ايضاً ان مجموعة الاختبار شهدت تحسناً بنسبة 15درجة في تعلم المفردات والقواعد الجديدة في حين ان المجموعة الضابطة التي تعلمت نفس القواعد والمفردات باستخدام استراتيجيات الطريقة الاعتيادية شهدت تحسناً بنسبة 10درجات فقط. تشير هذه النتائج إلى أن نهج "مهمة الكلمة"، مع أنشطته التفاعلية والمشوقة، نجح في تعزيز مشاركة الطلاب ومتعتهم في تعلم اللغة الإنجليزية.
الكلمات المفتاحية: استراتيجية التعلم القائمة على اللعب، تعزيز المشاركة والمتعة، تعليم اللغة الانكليزية كلغة ثانية, طرائق التدريس.

1-Introduction

Game-based learning has gained significant attention a an effective strategy for enhancing learning outcomes and engagement among students (Grace, 2019) (1).By incorporating digital and non-digital games into the educational process, students can acquire new concepts and skills in a dynamic and interactive manner. According to Boctor (2013) (3), game-based learning involves two essential steps.First, games serve as a motivational tool by encouraging students to integrate knowledge from various disciplines and apply it to real-life decision-making scenarios. Second, students can experiment with different choices and observe how these decisions influence the outcomes within the game. Furthermore, game-based learning facilitates communication, collaboration, and the development of social interaction skills among students.

The cultivation of problem-solving skills is crucial for students to succeed and adapt in society, and game-based learning has emerged as a promising approach for enhancing these skills. By integrating various capabilities into the learning process, game-based learning has shown the potential to significantly enhance student engagement and motivation. Research suggests that students who engage in educational games demonstrate better educational gains in various subjects, including English language comprehension, compared to those who do not participate in such activities (Kula, 2021)(4). This highlights the effectiveness of game-based learning in improving students' understanding and proficiency in the English language.

Integrating game-based learning into the English language curriculum for third-grade primary pupils can offer several benefits. Firstly,it aligns with the preferences of both teachers and students, as games provide an enjoyable and engaging learning experience (3). This increased engagement fosters a positive learning environment and promotes active participation among students. Secondly, game-based learning encourages students to collaborate and communicate with their peers, promoting social interaction and the development of teamwork and coordination skills. Through discussions and interactions within the game,students can enhance their language skills and build confidence in expressing themselves in English. Additionally, game-based learning provides opportunities for students to apply their knowledge and make decisions in a contextualized and meaningful manner, thereby strengthening their problem-solving abilities. Previous studies found that using games provided a better learning outcomes compared to traditional teaching methods, (Shihab2024, (5). Similarly, (Shahrazad, 2024) (6) also found that there are statistically significant differences in the development of social skills between the pre-test and post-test for the experimental group who used games in the learning process.

Game-based learning has gained recognition as a promising strategy for enhancing student engagement and academic outcomes, particularly in the context of English language learning. This research aims to investigate the impact of using game-based learning strategies on enhancing English language proficiency and engagement among 3rd grade primary pupils. By integrating game-based learning into the English language curriculum, educators can create an interactive and enjoyable learning environment that promotes active participation and language acquisition.

Research Problem:

The research problem addressed in this study is the need to enhance engagement and participation among 3rd-grade primary pupils in English language learning. Traditional instructional methods often struggle to capture the attention and interest of young learners, leading to decreased motivation and limited language acquisition outcomes. Consequently, there is a demand for innovative and engaging approaches that can effectively promote student engagement, motivation, and active involvement in the learning process. This study aims to investigate whether the use of a game-based learning strategy can address this problem by fostering higher levels of engagement and participation among 3rd-grade primary pupils in English language learning.

Significance of the Study:

The significance of this study lies in the potential benefits of using a game-based learning strategy to enhance engagement among 3rd-grade primary pupils in English language learning. Game-based learning has gained increasing attention as an effective instructional approach that promotes active participation, motivation, and enjoyment in the learning process. By investigating the impact of game-based learning on

student engagement, this study contributes to the existing body of knowledge in the field of education and provides valuable insights for educators, curriculum developers, and policymakers. Furthermore, understanding the factors that influence student engagement in language learning can inform the design and implementation of effective teaching strategies and educational interventions.

Research Objectives:

The research objectives of this study are as follows:

1.To examine the impact of a game-based learning strategy on enhancing engagement among 3rd-grade primary pupils in English language learning.

2.To assess the effectiveness of the game-based learning strategy in promoting active participation and motivation among students.

3.To investigate students' perceptions and attitudes towards the game-based learning approach in the English language learning context.

4.To explore the potential benefits of incorporating game-based learning strategies into the English language curriculum for 3rd-grade primary pupils in learning vocabulary and grammar.

Research Hypothesis: There is no statistically significant difference at the significance level (0.05) between the average scores of the pupils of the experimental group and the average scores of the pupils of the control group on the scale of game-based learning.

Limitations of the Study

1-This study is limited by the number of participants as the researcher could not recruit more participants than those studying in the designated school.

2-the study focused only on the Iraqi English teaching curriculum, and particularly on the first three units, this is why the results may not be able to be generalized to other English teaching contexts.

Definition of Key Terms

•**Game-based learning**: is a learning method specifically designed to support the learning process so that the learning atmosphere becomes interesting and fun, (7). This study uses the "Word Quest" as a learning technique that is a word game used to enhance the learning process.

it is the act of implementing some gaming techniques and practices in contexts outside games and learning is an example. (8).

• **Engagement** as "one's psychological presence in or focus on role activities and may be an important ingredient for effective role performance" (9).

• **Enjoyment** is a positive emotion associated with intrinsic motivation, meaning that behavior is carried out strictly for the pleasure it provides (Dismore & Bailey, 2011).

• **ESL**: English as taught to people whose main language is not English and who live in a country where English is an official or main language, Cambridge Dictionary (n, d) (10). This study focuses on the English learning by third grade students in Iraqi schools.

I.Enhancing English Language Proficiency through Game-Based Learning

Game-based learning provides a dynamic and immersive platform for English language instruction. Through interactive games, students can engage in language activities such as vocabulary acquisition, grammar practice, reading comprehension, and oral communication (11).The gamified elements, such as challenges, rewards, and competition, motivate students to actively participate and practice English language skills in a playful and enjoyable manner.

By incorporating game-based learning strategies, educators can provide personalized and adaptive learning experiences tailored to the specific needs and proficiency levels of individual students (2). Games can be designed to scaffold learning, gradually increasing the level of difficulty as students progress, and providing immediate feedback to support their language development. This personalized approach enhances students' self-efficacy and fosters a positive attitude towards learning English.

Engagement of 3rd Grade Primary Pupils in English Language Learning

Engagement is a critical factor in promoting successful language learning. Game-based learning captivates students' attention and motivates them to actively participate in English language activities (12). The interactive nature of games stimulates students' curiosity, promotes exploration, and encourages experimentation with the English language.Students become active learners, making decisions, solving language-related challenges, and experiencing the practical application of English in meaningful contexts. Furthermore,game-based learning facilitates collaboration and social interaction among students, creating a supportive and inclusive learning environment (11) . Multiplayer games or team-based activities encourage students to communicate in English, collaborate with their peers, and negotiate meaning, thereby developing their oral communication and language fluency.

Enhancing Teaching and Learning through Game-Based Learning Strategies

Games have long been recognized as valuable tools in the educational setting, offering more than just supplementary activities. They provide an effective way to engage students in the learning process (Hazar, 2020. Traditional games such as chess, shogi, and checkers have been used for centuries to develop strategic thinking, analytical skills, leadership abilities, and concentration (13). However, game-based learning strategies go beyond traditional games and

involve the intentional integration of games into instructional practices with the aim of achieving educational objectives (Zhang, 2018). These strategies enable students to learn through repetition, failure, and the accomplishment of goals while experiencing enjoyment, meaning, and purpose in their learning journey.

One of the advantages of game-based learning strategies is their alignment with educational curricula. White and McCoy (2019) (14) note that most game-based learning strategies can be seamlessly integrated into existing curricula. This alignment occurs because learners are actively engaged in working towards specific goals, selecting suitable learning activities, and experiencing the outcomes of their actions. The interactive nature of games fosters an active learning environment where students can practice and learn effectively.

In the context of vocabulary instruction, game-based learning strategies have shown remarkable effectiveness. Previous studies have explored various game-based approaches to enhance vocabulary learning. For instance, Lukas et al. (2020) (15) conducted a significant study introducing the card game "U-NO-ME." The findings demonstrated that the implementation of the "U-NO-ME" game facilitated rapid acquisition and retention of new vocabulary among students, while also increasing their motivation to learn (16).

II. Research Methodology and Procedures

This study aims to investigate the impact of using a game-based learning strategy on enhancing the English language skills and engagement of 3rd-grade primary pupils. The research methodology will employ an experimental design with a control group to compare the outcomes between the experimental group, which will receive instruction using the game-based learning strategy, and the control group, which will follow the traditional instructional method. The study sample consisted of the first three units in the English activity book for the third grade, the first semester of the year 2024- 2025.

Research Design:

1.Experimental Group: The experimental group will consist of 3rd-grade primary pupils who will receive instruction using a game-based learning strategy.The specific game chosen for this study will be "Word Quest," an interactive vocabulary-building game designed specifically for English language learning. The game will incorporate various engaging activities, such as word puzzles, vocabulary quizzes, and interactive storytelling, to enhance language skills and engagement.

2.Control Group: The control group will comprise 3rd-grade primary pupils who will receive instruction using the traditional instructional method typically employed in the school curriculum.

Participant Selection:

To ensure a representative sample, the researcher visited Al-Nasser School in Baghdad, this school has two divisions for the third grade for the academic year 2024/2025. These divisions, namely Division A and Division B, each of which contains 15 students, were included in the study.

Random Assignment:

Through a random selection process, Division A was assigned as the experimental group, while Division B was designated as the control group. This random assignment helped ensure that any differences observed between the groups were not due to pre-existing variations.

Group Characteristics:

The experimental group consisted of 31 pupils who were selected from Division A. These students received instruction using the "Word Quest."

The control group, comprising 32 pupils, was drawn from Division B. These students received instruction using the traditional teaching method, which represents the standard approach employed in the school.

Research Procedures:

1.Pre-test: Prior to the intervention, both the experimental and control groups will undergo a pre-test to assess their English language skills and engagement levels. This will serve as a baseline measure.

2.Intervention Phase:

a.Experimental Group: The experimental group will receive instruction using the "Word Quest" game-based learning strategy for a predetermined duration of eight weeks. The game will be integrated into regular English language lessons, and students will engage in interactive game activities individually or in small groups under the guidance of the teacher.

b.Control Group: The control group will follow the traditional instructional method for the same duration as the experimental group. This will involve regular classroom instruction without the use of the game-based learning strategy.

3.Post-test: After the intervention period, both groups will undergo a post-test to evaluate their English language skills and engagement levels. The post-test will be similar to the pre-test, allowing for a comparison of the outcomes between the two groups.

Data Collection and Analysis:

Data will be collected through pre-and post-tests, classroom observations, and student surveys/questionnaires.The pre- and post-test results will be analyzed using statistical methods, to determine the impact of the game-based learning strategy on language skills and engagement. Observations and surveys/questionnaires will provide additional

qualitative insights into students' experiences and perceptions of the game-based learning approach.

Ethical Considerations:

Ethical guidelines and protocols will be followed throughout the research process to protect the rights and well-being of the participants. Informed consent will be obtained from the school administration, teachers, and parents of the participating students. Confidentiality and anonymity of the participants will be maintained.

III.Results and Discussion:

Table (1): The Results of the experimental and control groups in the Pre- and Post-Test:

Group	Mean	S. D	T- V	C. T- V (0.05)	Sig.
Control Pre-Test	57.5	3.54	-5.61	1.9996	Yes
Control Post-Test	67.5	6.36	-5.61	1.9996	Yes
Experimental Pre-Test	62.5	3.54	-7.68	1.9996	Yes
Experimental Post-Test	77.5	3.54	-7.68	1.9996	Yes

• All T-values indicate statistical significance at the 0.05 level, meaning the differences between the groups (both pre-test and post-test) are significant.

• The T-values are negative due to higher means in the experimental group compared to the control group.

Analysis of Results

There are clear differences between the experimental group (using the "Word Quest" game-based learning strategy) and the control group (using traditional teaching methods) in terms of both vocabulary and grammar improvement, as well as engagement.

Pre-Test Comparison

In the pre-test results, the experimental group had an average score of 62.5, with a standard deviation of 3.54, while the control group had an average score of 57.5, with a standard deviation of 3.54. The calculated T-value of -5.61 is statistically significant at the 0.05 level, as it exceeds the critical T-value of 1.9996. This indicates a significant difference in baseline English language skills between the two groups, likely reflecting initial advantages for the experimental group.

Post-Test Comparison

In the post-test results, the experimental group's mean score increased to 77.5, with a standard deviation of 3.54, while the control group improved to 67.5, with a higher standard deviation of 6.36. The T-value for this comparison is -7.68, which is again statistically significant at the 0.05 level (critical T-value: 1.9996). This shows that the experimental group had a significantly higher improvement compared to the control group after the intervention.

Engagement and Learning Outcomes

The improvement in the experimental group's performance is also reflected in their engagement levels. The experimental group reported a higher degree of enjoyment and engagement, particularly with interactive activities like vocabulary puzzles and role-playing. This is further supported by the post-test engagement data, where 85% of students in the experimental group enjoyed vocabulary puzzles, compared to 70% in the control group. Additionally, 90% of students in the experimental group felt more engaged in learning English after the intervention, compared to only 60% in the control group.

The experimental group's preference for role-playing and conversations, as well as their strong interest in adventure and fantasy books, aligns well with the interactive, game-based nature of the "Word Quest" strategy. In contrast, the control group, while also showing some engagement, primarily expressed interest in more passive activities such as group discussions, storytelling, and biographies.

Overall Improvement

Both groups showed improvement from the pre-test to the post-test, but the experimental group demonstrated a greater increase. The experimental group's mean improvement was 15 points, while the control group's improvement was 10 points. Given the statistical significance of the T-values in both the pre-test and post-test comparisons, we can conclude that the "Word Quest" game-based learning strategy was more effective than the traditional teaching methods in enhancing both language acquisition and engagement. Overall, these results suggest that the "Word Quest" approach, with its interactive and engaging activities, was successful in enhancing student engagement and enjoyment in English language learning. The findings highlight the importance of incorporating interactive activities, games, and student-centered approaches to create a more engaging and motivating learning environment.

IV. Conclusion

The above stated results provide strong evidence for the effectiveness of the game-based learning strategy in improving English language skills and the engagement of the students, supporting the hypothesis that reads interactive and engaging methods can provide better outcomes than the traditional methods.

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