Zagazig University
Faculty of Education
Dept. of Curriculum and
Instructional Technology.

The Effect of Gamification Strategy on
Developing Some Sixth Grade Primary Schoolers'
EFL Reading Comprehension Skills
Prepared by
Mohamed Mahmoud Ahmed Mohamed
supervised by

Prof. Dr.                   Prof. Dr.
Hussein El Ghamry Mohammad  Micheal Abdel Maseeh Awad
Professor of Curriculum and
Instruction (TEFL), Faculty of
Education, Suez Canal University
Associate Professor of Curriculum
and Instruction (TEFL), Faculty of
Education, Zagazig University

2023
Abstract

The Effect of a Gamification Strategy on Developing Some Sixth Grade Primary Schoolers' EFL Reading Comprehension

Author: Mohamed Mahmoud Ahmed Mohamed

Supervisors

Dr. Hussein El Ghamry

Dr. Michal Abdel Massieh

Source: Faculty of Education, Zagazig University, Egypt.
Year: 2023 Nationality: Egyptian. Degree: MA in Education.
Specialization: Curriculum & Instruction (TEFL).

The present research aimed at investigating the effect of a gamification strategy on developing EFL primary stage pupils' reading comprehension skills. The research adopted the quasi-experimental design. Participants of the research were (eighty) sixth year primary school pupils from Hassan Elwan primary school, Fakous, Al Sharqia Governorate, Egypt. They were divided into a control group (n=40) and an experimental (n=40). The experimental group was taught the prescribed EFL course (Time for English 6) through the gamification strategy, whereas, the control group was taught the same course using regular instruction. To achieve the aim of the research, the researcher designed a questionnaire for determining the target reading comprehensions skills. Based on these reading comprehension skills, a pre-post reading comprehension test was designed. The data obtained were statistically treated. The findings of the research revealed that the gamification strategy had a positive effect on developing sixth year primary pupil's reading comprehension skills.

Keywords: Gamification Strategy - Reading Comprehension Skills
1.1 Introduction:

Reading comprehension is an interactive process in which readers receive, process and understand the author's message or text. It does not mean the ability to recognize words individually or in a separate way because this will not convey the meaning or achieve the purpose of reading, which is comprehension.

Alipanahi and Mahmoudi (2014) indicated that reading comprehension has come to be viewed as the “essence of reading”, essential not only to academic learning but also to lifelong learning. According to McNair et al. (2019), if there is no comprehension there is no reading.

According to Alqarni (2015), reading in a foreign language such as English is not an easy task and might be a problem for some people. Therefore, learners who have difficulty in reading at the primary school may struggle reading until the end of their school life or may have more difficulties to read. Reading is a major skill that has a significant effect on learners' achievement at the primary level.

Moreover, Rosiana, & Khofshoh, (2023) pointed out that EFL learners face problems while they read. Additionally, their results showed that reading comprehension skills should be developed as they are not taught effectively, which leads to low in the learners’ level of EFL primary learners reading comprehension skills.

According to Albertazzi et al. (2019) gamification is a strategy that has proved to be used in the majority of papers in the field of education and EFL learning. Dicheva et al. (2015) and Dicheva et al. (2017) highlighted the importance of improving EFL learning through gamification. They stated that Gamified learning elicit engagement, which is the most important predictor of student academic achievements, because gamification makes education attractive and learners engaged.

According to Lamrani & Abdelwahed (2020), Some of the potential benefits of successful gamification initiatives in the
classroom included giving learners ownership of their learning, opportunities for identity work through taking on alternate selves, freedom to fail and try again without negative repercussions, chances to increase fun and joy in the classroom, making learning visible and inspiring learners to discover intrinsic motivators for learning. So, previous studies concluded that gamification was recommended to be used as an effective teaching strategy that enhances learners’ abilities in reading comprehension lessons.

Accordingly, the current research sought to develop the reading comprehension skills of EFL primary school learners by using a gamification strategy.

1.2 Context of the problem:

English language is taught in the primary stage from grade one to grade six. The EFL course prescribed for primary schoolers is called "Time For English" and the special course prescribed for sixth grade primary schoolers is called "Time For English 6" which aims at developing the EFL four skills. However, Being an EFL teacher at the primary stage for fifteen years, the researcher noticed that EFL primary pupils lacked some basic reading comprehension skills.

This problem of the current research was confirmed in the following ways:

1) - Reviewing some previous studies related to reading comprehension skills such as; Mohamed (2022), Salama (2022), Abdallah (2023), Aboulfotoh (2023), These studies revealed that
comprehending a passage is a challenge and not an easy task, especially for EFL primary schoolers.

2) - To make sure that there was a real problem, an exploratory study was conducted on 40 male and female learners from the sixth-grade, from Hassan Elwan primary school, Fakous, Al Sharqia Governorate during the academic year (2022 – 2023). A reading comprehension test was used to measure their levels in some reading comprehension skills: guessing meanings of words from context, skimming for the main idea of the text, scanning for specific information, identifying the sequence events and incidents, identifying synonyms and antonyms.

The results clarified that the learners had weakness in their reading skills and they suffered from difficulties when reading.

Table 1

**Title: The Results of the Reading Comprehension Skills Exploratory Study**

<table>
<thead>
<tr>
<th>Reading Comprehension Skills</th>
<th>percentage of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)- Guessing meanings of words from context.</td>
<td>76%</td>
</tr>
<tr>
<td>2)- Skimming for the main idea of the text</td>
<td>65%</td>
</tr>
<tr>
<td>3)- Scanning for specific information.</td>
<td>73%</td>
</tr>
<tr>
<td>4)- Identifying the sequence events and incidents.</td>
<td>68%</td>
</tr>
<tr>
<td>5)- Identifying synonyms and antonyms.</td>
<td>78%</td>
</tr>
</tbody>
</table>
Note. This Table shows the percentage of errors in the reading comprehension skills exploratory study

According to Table (1), the results of the exploratory study was obvious that EFL sixth grade learners showed an evident weakness in their reading comprehension skills and their grades were below 40% in the targeted skills. These results were supported by the previous studies such as; Mohamed (2022), Salama (2022), Abdallah (2023), Aboulfotoh (2023), who revealed that comprehending a passage is a challenge and not an easy task, especially for EFL primary schoolers.

Therefore, utilizing gamification strategy was a remedy for the weakness of EFL sixth grade schoolers in the reading comprehension skills.

1.3 Statement of the problem:

The problem of the current research was determined in the low EFL reading comprehension skills, as well as the weakness of reading engagement among sixth-grade primary schoolers as reviewed by the pilot study. As a result, the current research sought to answer the following main question develop reading comprehension skills and engagement by using gamification.

1.4 Questions of the Research

"What is the effect of a gamification strategy on developing some sixth grade primary schoolers' EFL reading comprehension skills?"

Out of this main question, the following sub-questions were derived:
1. What are the target reading comprehension skills that need to be developed among sixth grade primary schoolers?

2. What is the gamification framework to be used for the targeted skills?

3. How can gamification strategy develop reading comprehension skills?

1.5 Aim of the Research:

The current research aimed at developing the reading comprehension skills required for EFL sixth year primary schoolers via utilizing a gamification strategy. It provided also EFL teachers with new insights into how to use a gamification strategy to develop the EFL targeted reading comprehension skills. Moreover, it offered a framework illustration how to use gamification strategy for developing reading comprehension skills.

1.6 Significance of the research:

The importance of the current research emerged from the following points:

1) For EFL teachers, the research might help EFL teachers to apply the gamification strategy in their EFL classrooms based on
learners' learning preferences and reading interests to develop their reading comprehension skills.

2) For researchers, the gamification strategy might help other researchers and specialists in TEFL to conduct other studies in different language areas.

3) For learners, the research might help in developing learners' reading comprehension skills so that their academic success and progress in English might be increased throughout the school years.

4) For curriculum designers, the research might help curriculum designers to enrich the EFL course and the teacher's guide of EFL sixth year primary schoolers with a variety of activities and practices based on the gamification strategy.

**1.7 Instruments of the research:**

To collect data, the following instruments were designed and administered:

1. An EFL Reading comprehension skills checklist.
2. An EFL Reading comprehension skills test.

**1.8 Delimitations of the research:**

The present research was delimited to

1) Two groups of sixth grade primary schoolers from Hassan Elwan primary school, Fakous, Al Sharqia Governorate during the
academic year (2022 – 2023) were selected to represent the experimental and the control groups.

2)- Five EFL reading comprehension skills (guessing meanings of words from context, skimming for the main idea of the text, scanning for specific information, identifying the sequence events and incidents, identifying synonyms and antonyms)

1.9 Hypotheses of the research:
1- There is a statistically significant difference at 0.05 level between the mean scores of the experimental group in the pre and the post reading comprehension test, in favor of the post test.

2- There is a statistically significant difference at 0.05 level between the mean scores of the experimental and the control groups in the post administration of the reading comprehension test, in favor of the experimental group.

1.10 The Research Procedures
1. Reviewing the relevant literature and previous studies related to the research variables:
   a- gamification strategy to frame the research experiment.
   b- Reading comprehension to conclude the skills.

2. Analyzing the content of the English language text book taught to EFL sixth grade primary schoolers to recognize the targeted skills
3. Selecting the participants of the research and dividing them equally into two groups, one is the experimental and the other is control one.

4. Preparing a list of reading comprehension skills for the EFL sixth grade primary school pupils and validating them by jury members.

5. Designing the instruments of the research which include;

   (A) EFL reading comprehension skills test.

6. Submitting the previous instruments to the panel of jury members to be validated.

7. Designing the strategy based on gamification to be implemented for developing reading comprehension skills.

8. Submitting the proposed strategy to the jury members to be validated.

9. Pre administrating the research instrument to both groups.

10. Teaching the proposed strategy that is based on gamification to the experimental group only.

11. Post administrating the research instruments to both groups to investigate the effect of the suggested strategy.

12. Comparing the pre and post results of the research instruments for both groups.

13. Performing the statistical analysis of the data collected to test the hypotheses.
14. Interpreting the results and providing conclusions, recommendations and suggestions for further research.

1.11 Definition of Terms:
Some terms were repeatedly used in the current research after reviewing the related literature and previous studies, These were:

1.9.1 (A) - Gamification:
According to Werbach and Hunter (2015), gamification is the use of game elements and game design techniques in non-game contexts. According to Landers (2019), Gamification is the process of transforming anything that is not a game by using a game or its elements (dynamics, mechanics, and components), together with the fun generated and the role of the teacher, is crucial for increasing student motivation and commitment to the subject, as well as their learning.

The term” gamification was used in this research to mean a learning strategy that incorporates fun game design elements and techniques, such as points, badges, leaderboards that was adopted to develop EFL sixth grade primary schoolers’ reading comprehension skills.

1.9.2 (B) - EFL Reading comprehension:
According to Idayanthi (2021), it is defined as the process of understanding written ideas through meaningful interpretation and
interaction with language. The degree of understanding a text is what is meant by reading comprehension. This comprehension results from the interaction between the written words and how they elicit information outside the text (Pandiangan et al., 2020, p165).

In the current research reading comprehension referred to EFL sixth year primary schoolers' ability to read and extract meaning, understanding and comprehend the overall targeted EFL reading comprehension texts. Reading comprehension is the process in which EFL sixth grade primary schoolers simultaneously extract and construct meaning via interaction and involvement with the written text. They achieve text comprehension when they extract pieces of information from the reading text and integrate them into their prior knowledge.

1.12 Results of the research:

Results show that, in spite of the low performance of the participants in the pretest, there were significant differences at 0.05 level between the pre-and-post mean scores of the experimental group in the targeted five reading comprehension skills of the test, in favor of the post-test as shown in table 12. Thus, the first hypothesis was validated. Results also show that, there were a statistically significant differences at 0.05 level between the mean scores of the
experimental and the control groups in the post administration of the reading comprehension test, favoring the experimental group. So, the second hypothesis was validated too. These results mean that gamification strategy instruction led to significant improvement in the participants' targeted reading comprehension skills. This improvement may be due to the use of gamification strategy. These results agree with the conclusions of Abusa’aleek and Baniabdelrahman (2020) who concluded that there were statistically significant differences at 0.05 level between the experimental and control group students’ mean scores on the overall reading comprehension post-test and in each level of reading comprehension favouring the students in the experimental group who were taught by using gamification strategy. They are also supported by El Khalyfa (2019) who revealed that gamification had a great impact on developing reading comprehension skills. Accordingly, as concluded by Sari et al. (2022), adopting a gamification strategy instruction can significantly improve EFL learners' reading comprehension skills, compared to using the traditional teaching.

Another reasonable explanation why gamification strategy developed the participants' reading comprehension skills is that classroom collaboration, as well as participation, have been promoted by gamification, which are crucial components of an effective educational environment. These results also may be
attributed to the fact that, compared the control group, the participants of the experimental group were encouraged to collaborate with the teacher and their peers to develop the targeted reading comprehension skills. This provided them with different opportunities to negotiate and understand multiple perspectives and points of views different from their own. Thus, the participants used to construct their own meaning and comprehend the text through collaboration and interaction. Also, the teacher used to introduce several targeted new vocabulary found in the reading comprehension texts, use them in many gamified activities and elaborate on them with the participants using gamification strategy. In addition, the participants used to work in groups to participate in many games. Such collaborative effort created a scaffolding learning environment which had positive effects on their reading comprehension skills.

A third reason why the participants of the experimental group outperformed their peers in the control group is that the teacher helped pupils narrow the gap between what they already knew (their prior knowledge), what they could perform and the intended reading objectives, by providing them with scaffolding. Before the pupils could complete the reading activities on their own, their teacher might interfere by using scaffolding to give them hints, coaching, as well as guidance in addition to the required material.
A fourth possible interpretation is that, the gamification strategy enabled the participants to move from lower levels of cognition, such as memorization and repetition of textual information while reading, to higher levels of cognition, which increased their active participation in the reading process through integrating new information with prior knowledge and applying appropriate reading strategies. As an illustration, at the pre-reading stage, the participants were required to preview the text, track headers and subheadings, compare previous knowledge with the newly learned material, suggest questions, and guess the content of the upcoming text, at the during reading stage the participants were taught to self-monitor and self-regulate their reading performance, develop and change their meaning, and then understand the text. At the post-reading stage, the participants were requested to express their opinions of the text, give their responses to the predetermined questions, and practice some gamified activities using game elements. This actually answered the research main question "What is the effect of a gamification strategy on developing some sixth grade primary schoolers' EFL reading comprehension skills?" These results agree with previous conclusions about the positive effects of gamification strategy on reading comprehension skills (El Khalyfa, 2019; Zhu et al., 2019; Abusa’aleek and Baniabdelrahman, 2020; Sari et al., 2022; Páez-Quinde et al., 2021; Nitiasih et al., 2022;
AlZuhair and Alkhuzaim, 2022; Chaidir et al., 2023 and Yoshania, 2023).

1.13 Conclusion:

The current research sought to investigate the effect of gamification strategy on EFL sixth-grade primary schoolers' EFL reading comprehension. According to the findings of this research, it can be concluded that the results are encouraging regarding the effect of the gamification strategy on participants' EFL reading comprehension skills. It is noteworthy that gamification strategy integrated game elements in the reading comprehension texts which greatly helped students to improve their reading comprehension skills. This integration was of a great support for the students not only in understanding and applying the targeted skills but in planning for their tasks and monitoring their performance as well. This was clear in students' answers and responses to the post reading activities at the end of every session. In addition, compared to traditional instruction, gamification strategy instruction was more effective in improving the participants' EFL reading comprehension skills. The superiority of gamification strategy instruction over traditional instruction, theoretically, highlights the beneficial role of such a strategy in teaching EFL reading comprehension skills to primary stage pupils and implies that, pedagogically, gamification
strategy instruction is a better choice for EFL teachers at the primary stage. These results substantiate the importance of integrating gamification strategy instruction into the EFL courses as it proved to be conducive to better EFL reading comprehension skills through its features and elements which enabled the participants to move their vocabulary and comprehension to new situations as needed for improvement. In addition, it concluded that participants thought about different ways to overcome the difficult reading questions, motivate action by activating their prior knowledge about the reading topic, answered the reading questions themselves rather than be told the answer, thought hard to guess meanings of words from the reading context, exerted more effort to study the difficult reading parts not only the easy ones and stayed focused while scanning for specific information in the reading text. These results emphasize the importance of incorporating gamification strategy into the EFL courses at the primary stage. Additionally, they offer support for creating an enjoyable, friendly learning environment for EFL primary school pupils, where the teacher scaffolds all learners and encourages them to cooperate, engage, self-monitor, and self-regulate their comprehension skills while reading. Students take charge of their own education in this situation and actively participate in the reading process and this improved EFL reading
comprehension skills among the participants of the experimental group.

1.14 Recommendations

Based on the results of the current research and the above mentioned conclusions, the following recommendations are suggested:

- Gamification strategy should be used as a successful teaching strategy and it is recommended to be implemented in teaching reading comprehension skills in EFL classrooms.

- Primary stage EFL teachers should be encouraged to adopt gamification strategy in their classrooms.

- Primary stage EFL teachers should be trained to use gamification strategy on teaching English at primary stage.

- EFL teachers should encourage all elements and mechanics of gamification strategy (challenges/tasks, points, levels, badges, avatars, ranking, leaderboards ...etc.)

- EFL Curriculum designers should pay attention to the effect of gamification strategy on developing English language in general and EFL reading comprehension skills in particular.

- Gamification strategy should be integrated into the teaching strategies proposed in The Teacher's Book.
- Reading comprehension skills should be prioritized to be enhanced from the start of learning a foreign language at primary stage.
- Gamification strategy should be used as a new way of controlling learning processes that would support language learning chances in general and reading comprehension skills in particular.
References


المستخلص
جامعة الزقاقية، كلية التربية
قسم المناهج وطرق التدريس باللغة الإنجليزية

فاعليّة استراتيجيّة التلعب في تنمية بعض مهارات الفهم القرائي في اللغة الإنجليزية كلغة أجنبية لدى تلاميذ الصف السادس الابتدائي

المشتركون
أ.م.د/ هيشيل عبّد الوسيح عوض
أ.د/ حسين الغمري محمد

أ.م.د/ ميشيل عبد المكيه عوض
أ.د/ المناهج وطرق تدريس اللغة الإنجليزية بكلية التربية - جامعة قناة السويس

هددت الدراسة الحالية إلى بحث أثر استراتيجيّة التلعب في تنمية بعض مهارات الفهم القرائي لدى تلاميذ الصف السادس الابتدائي الدارسين للغة الإنجليزية كلغة أجنبية. تم استخدام المنهج التجريبي ذو التصميم شبه التجربي القائم على استخدام مجموعتين مجموعة تجريبية وأخرى ضابطة. تكونت عينة الدراسة من (80) طالب وطالبة من طلاب الصف السادس الابتدائي بمدرسة حسن علوان الإبتدائية التابعة لإدارة فاقوس التعليمية، محافظة الشرقية حيث تم تقسيمهم إلى المجموعة التجريبية (40) والمجموعة الضابطة (40). وقد أعد الباحث واستخدم استراتيجيّة التلعب لتنمية وتدريس مهارات الفهم القرائي للمجموعة التجريبية بينما درست المجموعة الضابطة بطريقة المعتادة واشتملت أدوات الدراسة على اختبار الفهم القرائي. وأظهرت نتائج الدراسة تفوق المجموعة التجريبية على المجموعة الضابطة في اختبار الفهم القرائي.

الكلمات المفتاحية: استراتيجيّة التلعب، مهارات الفهم القرائي