

# Using Gamification to Enhance Preparatory Schoolers' Grammar Learning

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## Using Gamification to Enhance Preparatory Schoolers' Grammar Learning

This study aimed at investigating the effectiveness of using gamification to enhance preparatory schoolers' grammar learning. It adopted the pre/ post-test quasi-experimental research design. The participants were 46 first year schoolers at Al-Sayedna Nafisa Preparatory School for Girls, Kom Ombo Administration, Aswan Governorate. They represented two classrooms which were randomly selected and assigned into two groups: an experimental group (n=32) and a control group (n=32). The researcher designed the Grammar Achievement Test (GAT) and a gamification based program. The experimental group received instruction on grammar lessons by using guided discovery with the gamification program, while the control group was taught the same grammar lessons by following guided discovery as provided in the Teacher's Guide. The statistically analysis of the obtained data confirmed a large effect size 0.98 of using the gamification program in enhancing grammar learning. Based on these results, it was revealed that the experimental group enhanced grammar learning because of teaching them grammar by using the gamification based program.

**Key Words:** Gamification Based Program, Grammar Learning, Preparatory Schoolers.

## المستخلص

استخدام تقنيات الألعاب التحفيزية لتحسين تعلم قواعد اللغة الإنجليزية لدى طلاب المرحلة الإعدادية

هدفت الدراسة الحالية إلى بحث فاعلية استخدام تقنيات الألعاب التحفيزية في تحسين تعلم القواعد لدى طلاب المرحلة الإعدادية. تمثلت مجموعة الدراسة من ٦٤ طالبة تمثلن فصلين من فصول الصف الأول الإعدادي بمدرسة السيدة نفيسة الإعدادية بنات بإدارة كوم امبو التعليمية بمحافظة أسوان . تم اختيار الفصلين وتقسيمهما عشوائياً إلى مجموعتين، ٣٢ طالبة كمجموعة تجريبية و ٣٢ طالبة كمجموعة ضابطة . استخدمت الدراسة الحالية المنهج شبه التجريبي ذو المجموعتين. و للتأكد من تكافؤ المجموعتين في مستوى القواعد قبل إجراء التجربة قامت الباحثة بالتطبيق القبلي لإختبار القواعد. درست المجموعة التجريبية دروس قواعد اللغة الإنجليزية من خلال دمج الاكتشاف الموجه بالبرنامج القائم على استخدام تقنيات الألعاب التحفيزية، بينما درست المجموعة الضابطة نفس دروس قواعد اللغة الإنجليزية بإتباع خطوات تدريسها القائمة على الاكتشاف الموجه والمتاحة في دليل المعلم لمادة اللغة الإنجليزية للصف الأول الإعدادي. وبعد الإنتهاء من التجربة تم تطبيق اختبار القواعد بعدياً على المجموعتين الضابطة و التجريبية وتم جمع البيانات ومعالجتها إحصائياً، وجاءت النتائج مؤكدة على فاعلية البرنامج القائم على تقنيات الألعاب التحفيزية في تحسين تعلم القواعد للمجموعة التجريبية ، وكان البرنامج القائم على استخدام الألعاب التحفيزية حجم تأثير مرتفع ٠.٩٨ في تحسين تعلم القواعد باللغة الإنجليزية.

**الكلمات المفتاحية:** برنامج قائم على تقنيات الألعاب التحفيزية، تعلم القواعد، طلاب المرحلة الإعدادية.

## Introduction

English Language is necessary for learners for their present and future life. In order to master a language, grammar skills are a necessity. English grammar is the principal upon which (EL) is built. It is important for EL learners in general and preparatory schoolers in particular to learn English grammar. This is because grammar helps them use words, verbs, phrases and sentences in a proper way. Therefore, English grammar is vital for better and effective communication. It is considered an important language component that leads to mastering all language skills.

Grammar is the study of the ways words work together as related to social and pragmatic functions (Larsen-Freeman, 2003). It is an indispensable part of any language, when speaking or writing. Without grammar, any language will be completely illegible. This is because grammar plays a significant role in Foreign Language (FL) learning, since it is the heart of language as claimed by (Saaristo, 2015). Moreover, grammar is necessary to convey expressions precisely in oral or written discourses because it ties closely into vocabulary in learning and using the FL as well as it can evolve from the learning of chunks of language (Agape, 2015).

Grammar is the foundation for communication which helps in understanding the meaning and the intent of a message. Correct grammar keeps from being misunderstood and allows language users to effectively express their thoughts and ideas (Praise & Meenaksh, 2015). It enables learners to communicate meaningfully and develop their communicative skills. Grammar, as an important element of language learning, has a significant role in mastering a language. Azar (2007) pointed out that grammar is considered as the starting point for the development of all language skills. All skills of EL such as listening, speaking

reading and writing can not be enhanced without a solid knowledge of grammar (Sun, 2017).

Gamification refers to the application of digital game mechanics to non-game situations to motivate users' behaviors (Deterding, Dixon, Khaled, & Nacke, 2011). It not only uses game elements and game design techniques in non-game contexts, but also empowers and engages its user with motivational skills towards a learning approach and sustaining a relaxed atmosphere (Werbach & Hunter, 2012). According to Abuzied (2019), gamification increases participation of the learner, and makes the learning process more effective, efficient, attractive and funny.

### **Context of the Study**

The researcher works as an English as a Foreign Language (EFL) teacher in Aswan Governorate. She noticed that most first year preparatory schoolers used to write incorrect sentences and face several grammatical problems during learning English. Their grammatical problems were evident in their inability to use correct grammar in some communicative situations. They avoided answering grammatical assignments. Moreover, their teachers complained that their first year preparatory schoolers used to face several grammatical problems while learning English.

To document the problem, the researcher interviewed 20 first year preparatory schoolers. Most of the interviewed students complained about the weakness they have in grammar. They mentioned that they always forget the grammatical rules taught to them, although they comprehend them quickly. They added that they can not use grammar correctly during speaking or when they write in English.

The researcher interviewed 6 EFL teachers of the preparatory stage and 3 EFL supervisors of the preparatory stage to know

their viewpoints regarding first year preparatory schoolers' weaknesses in grammar learning. All of the interviewed teachers and supervisors confirmed that first year preparatory schoolers suffer from weaknesses in this area. They indicated that first year schoolers' weaknesses in grammar learning were represented in their inability to use grammatical structures in a correct way. They could not use some verb tenses correctly and they could not put words together in a right order. Besides, they could not form correct questions, sentences and phrases.

The researcher used a pilot study where she tested the students in grammar. The results of the grammar test showed that 80% of the students made grammatical mistakes in tenses, prepositions, use of articles etc. This result revealed that first year preparatory schoolers are in a real need to enhance their grammar learning.

The researcher reviewed some previous studies which were implemented in Egypt on grammar learning. It was revealed that the studies of Abd-Alaaty (2015), Ali (2016) and Mekawy (2016) were conducted because many EFL preparatory schoolers in Egypt suffer from weaknesses in grammar learning.

### **Statement of the Problem**

The majority of first year preparatory schoolers used to write incorrect sentences and face several grammatical problems during learning English. The researcher investigated the effectiveness of using gamification program to enhance grammar learning of first year preparatory schoolers.

### **Review of Related Literature**

#### **Nature of Grammar Learning**

Gartland and Smolkin (2016) defined grammar as " a set of rules that explain how a system operates, and in language, grammar typically refers to syntax (the arrangement of words and phrases to create well-formed sentences in language), morphology (the study of how words are formed in a language)

in addition to semantics (the meaning of words and the vocabulary choices a person employs)"(p.1). Abu Shammala (2019) mentioned that grammar is defined as "the basic of the language that helps learners use keywords, make questions, and employ forms of tenses correctly to produce comprehensible utterances"(p.7).

### **Importance of Grammar Learning**

Many researchers in the field of EL learning and teaching emphasize the role which grammar plays in language learning. Meatty (2020) revealed that grammar is not only a set of rules that clarifies how words are used to construct sentences, but it is also the way to communicate. This means that grammar is a method for communication which helps the speaker understand the language and produce proper utterances. On the other hand, when practicing reading, it is noticed that if learners do not know grammar, they cannot understand the reading text at the sentence level, even if they know the vocabulary of the reading text.

The grammar of a language is the main backbone of a language up on which the entire language system is built. In most cases, a collection of content words cannot become meaningful unless they are combined with the right forms and structural words (Abune, 2019). This is the major rationale for the inclusion of grammar in EFL teaching and learning process.

### **Difficulties of Learning English Grammar**

Learning EFL represents a big challenge for its learners. The most challenging part is when learners find the language systematic. It means that EFL learners need to equip their knowledge of language with a certain amount of rules in order to be proficient. Lack of grammar knowledge causes not to achieve an appropriate proficiency level of a FL. Hence, knowing a certain amount of structure is mandatory. Language learners face grammar difficulty when the rules are presented by the teachers,

and such difficulty is more challenging especially for EFL learners because the language is not spoken in their daily life (El-Garhy, 2017).

Many students have difficulties and problems to express what they really mean to say and write. A fundamental reason for this is that they have difficulties and problems to internalize the meaningful grammar points and use the right grammar that conveys the correct meaning in practice. Besides, constant explanation of grammar rules and decontextualizing grammar are a quick way for EFL teachers to demotivate their students, which in turn, causes many problems to those students. (Ahmed, 2018)

These challenges were founded because of many factors. Al-Ghafri (2018) revealed that some factors which directly affect students' grammar learning are such as studying in crowded classrooms and having limited chances of practicing EL inside and outside the classroom. Another factor is when the Teacher's Guide is designed to direct teachers to present grammar lessons explicitly to their students through only introducing grammar rules directly to students and providing them with some examples.

## **Guided Discovery Grammar Instruction**

### **Nature of Guided Discovery**

Guided discovery is an approach where the learner must find the rules independently, and with the help of the teacher's provided materials or examples of a language item (Alfieri, Brooks & Aldrich, 2011). Saumell (2012) defined guided discovery as "a modified inductive approach in which there is exposure to language first, inference, explicit focus on rules and practice." (p.2)

### **Benefits of Guided Discovery**

Guided discovery is a valid and useful Teaching English as a Foreign Language (TEFL) method at all levels of language



learning (Saumell, 2012). It increases learners' understanding of grammar structures while helping them reach higher levels of comprehension; such as application, analysis and creation (Belkina, Geykhman, & Yaroslavova, 2015). It helps learners retain the discovered grammar structures more constantly, since it merges with the notion of consciousness-raising which is based on building tasks in a way that learners practice pattern identification by figuring out the targeted feature of the language (Thornbury, 2011).

### **Steps of Guided Discovery**

Saumell (2012) and Caprario (2013) introduced the following steps of guided discovery:

- Exposure to language through examples or illustrations: This could be through isolated sentences, sentences in context or photos.
- Observation and analysis of the language through guided questions: In this step, the teacher can ask learners to complete the gaps in sentences or rules; or to match examples and rules.
- Statement of the rule: Here, the construction of the new knowledge takes place by eliciting the rule from the learners.
- Application of the rule in practice tasks graded by difficulty or complexity: In this step, the teacher should vary the tasks from controlled practice to free practice.

### **Nature of Gamification**

Zichermann and Cunningham (2011) defined gamification as the "process of using game thinking and mechanics to engage audiences and solve problems" (p.14). Frey (2012) defined gamification as "the incorporation of game-like elements into contexts that normally do not have game-like elements for the purpose of creating greater engagement and improving user experience"(p. 40).

### **Components of Gamification**

Healy (2013), Flores and Francisco (2015) presented the following regular and mostly used game elements as follows:

- Points: They are visible signs of success with which learners can monitor their progress through the gamified experience.
- Badges: They are awarded for achievements or nonlinear accomplishments.
- Leaderboards: They are boards used for displaying the learners who have earned the most points in a gamified task.
- Quests: The tasks which learners have to perform in a game.
- Levels: There are three levels for a gamified task. The basic level in which the learner is guided and learns the experience. The intermediate level where most learners can participate since it is neither too hard nor too easy. The hard level in which learners must know what they are doing without help or guidance.
- Avatars: Visual representation of a player such as a racing car.
- Rewards: Awards to motivate learners to accomplish the task in the game.

### **Merits of Using Gamification in Language Learning**

The use of gamification has resulted in various advantages. Gamification increases participation and motivation of the learner. It has an active role in learning process; it enhances learning and engages students as a technological advancement that is necessary and relevant to today's learner. Thus, the learning process will be more effective, efficient, attractive and fun. Besides, game applications give the sensation not being criticized or judged, activate a better memory by increasing levels of learning, stimulate creativity in problem solving accelerating the innovation processes and build a customized knowledge (Bozkurt, 2017).

The application of game design techniques and mechanics to problem- solving can motivate students to overcome obstacles to

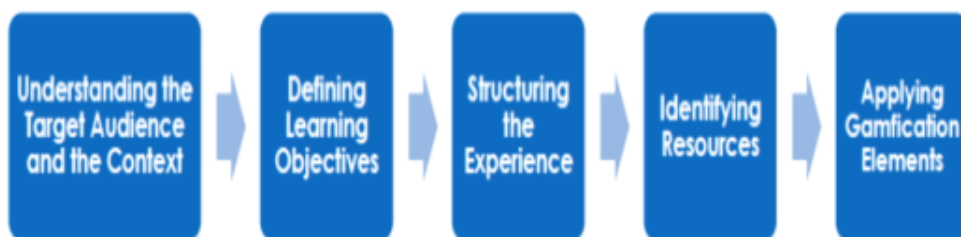
reach desirable goals. The success of gamification in the corporate world has set a new standard for using strategic thinking to find creative solutions to the most baffling problems which a student can face, including the discovery of new ways to overcome her/ his real life challenges (Abuzied, 2019).

Gamification can motivate students to engage in the classroom, give teachers better tools to guide and reward students, and get students to bring their full selves to the pursuit of learning. It can show them the ways that education can be a joyful experience, and the blurring of boundaries between informal and formal learning can inspire students to learn in life wide, lifelong, and life deep ways (Lee & Hammer, 2011).

### **Steps of Implementing Gamification**

In order to implement gamification in EL learning, teachers can apply a five steps model. Figure 1 summarizes the educational gamification five steps model according to (Huang & Soman, 2013, p.7):

**Figure 1: Educational Gamification Five Step Model**



(Source: Huang & Soman, 2013, p.7)

These steps can be applied as follows:

1. Understanding the target audience and the context: In this step, the teacher should choose both the participants and the learning context. She/He should also define the factors which can disturb the participants' progress such as: the group size, educational environment, and motivation.

2. Defining Learning Objectives (LOs): To manage the process of gamification, the teacher should plan accurately for the intended learning outcomes.
3. Structuring the experience: The teacher divides the context logically into parts from easy to difficult keeping in touch with students' levels and needs. She/He should motivate students to compete.
4. Identifying resources: In this step, the teacher should define the following:
  - a) Following the students' progress formula. If there is a deadline for the task, the formula is time. If there is a rank, the formula is points, etc.
  - b) Level for the accomplishment of the LOs, so that learners can move on to the next task or lesson.
  - c) Rules that students can follow to get an effective and organized gamified lesson
  - d) Students' feedback and responses, so that they can check out what went right and what went wrong. Accordingly, they could avoid any misunderstanding.
5. Applying gamification elements: The teacher should define the gamification elements that can guide students to get focused and motivated. The most well-known game elements are avatars, badges, leaderboards, levels and time restrictions. There are social elements such as competition, co-operation and achievement badges.

### **Hypotheses of the Study**

1. There would be statistically significant differences between the mean scores of the experimental group and the control group on the post-Grammar Achievement Test (GAT) in favor of the experimental group.

2. There would be statistically significant differences between the mean scores of the experimental group on the pre- and post-GAT in favor of the post-GAT.

### **Aim of the Study**

The present study aimed at investigating the effectiveness of using the gamification based program in enhancing grammar learning of first year preparatory schoolers.

### **Significance of the Study**

The results of the present study could be significant to:

1. First year preparatory schoolers because it provides them with a new strategy which is based on using gamification for learning English grammar to help them enhance their grammar learning.
2. EFL teachers of first year preparatory schoolers as they may be encouraged to apply gamification at their classrooms for enhancing their students' grammar learning.
3. Course designers and developers who can benefit from the designed gamification based program in planning and designing English curriculum of first year preparatory schoolers to include grammar activities which are based on using gamification.

### **Method**

#### **Design of the Study**

The present study followed the pre/ post-test quasi-experimental research design which was based on making use of two groups: an experimental group and a control group.

#### **Variables**

The independent variable of the present study is the gamification based program, whereas the dependent variable is grammar learning of first year preparatory schoolers.

#### **Operational Definitions of the Terms**

##### **Gamification**

In the present study, gamification is operationally defined as a game-based process that can empower Aswan prep schoolers' grammar learning and achieve their positive learning outcomes.

### **Grammar**

Grammar is operationally defined as the system in which words, phrases, conjunctions and expressions are combined together to help Aswan prep schoolers produce correct sentences.

### **Participants**

The participants were first year General Secondary Stage at Al-Sayeda Nafisa Preparatory School for Girls, Kom Ombo Administration, Aswan Governorate. They represented two classrooms which were taught by the same teacher. They were randomly selected and assigned into an experimental group (n=32), and a control group (n=32). For equivalence in the grammar level of the experimental group and the control group before implementing the treatment, the researcher pre-tested them by using the pre-GAT. The researcher taught the experimental group and the control group himself to have a better control of the study variables. The results of the pre-GAT on the experimental group and the control group revealed that there were no statistically significant differences on grammar. This showed that the experimental group and the control group were equivalent in their grammar before carrying out the experiment. Table 1 showed t- value of the difference between the experimental group and the control group on the pre-GAT

**Table 1: t- Value of the Difference between the Experimental Group and the Control Group on the Pre-GAT**

Group	N	Mean Score	S.D	T-Value	D.F	Sig.
Experimental	32	10.31	2.28	1.24	62	0.01
Control	32	11.09	2.73			

**Delimitations of the Study**

The present study was delimited to the following:

1. A group of 64 first year preparatory schoolers who are learning EFL at a governmental preparatory school named Al-Sayeda Nafisa preparatory School for Girls at Kom Ombo Administration, Aswan Governorate where the researcher lives.
2. Six units from the first year preparatory schoolers' Textbook New Hello, English for Preparatory Schools, Year One, First Term.
3. English grammar that first year preparatory schoolers at public schools in Egypt study during the first school term such as pronouns, possessive adjectives, the present simple tense, adverbs of frequency, the possessive, have got/ has got, can/can not, using the verbs "enjoy/ like/ love", there is/ there are, the present continuous tense, imperatives, the past simple tense, countable and uncountable nouns, and should/should not.
4. First term of the school year 2022/2023.

**Instrument** (Available upon request from the researcher)

In order to fulfill the aim of the present study, the researcher designed the GAT to be used as a pre/ post-test to assess the English grammar learning level of the experimental group and the control group before and after conducting the experiment.

### **The GAT Validity**

In order to validate the GAT, it was submitted to a panel of jury members, Professors of TEFL and linguistics at some Faculties of Education in Egypt, EFL supervisors and EFL teachers of the preparatory stage to give their opinions and to provide their modifications on the test. The jury members agreed on the GAT items and recommended few modifications to make it valid and appropriate for the purpose it was intended to. All the suggested modifications were taken into consideration and the validity of the GAT was asserted.

### **The GAT Reliability**

In order to assess the reliability of the GAT, it was administered to a pilot group of 45 students who are not included in the participants of the present study. After the administration of the GAT, the researcher used Pearson Correlation to determine its reliability. The Pearson Correlation showed that the reliability of GAT was 0.96. This value can be trusted and indicated that the GAT was reliable.

### **Timing of the GAT**

The researcher recorded the time that each student in the pilot sample spent in answering the GAT. The time needed for the students to answer the test was determined by calculating the time taken by each student in the pilot sample divided by the number of all the pilot sample. The GAT time was estimated in the following way:

$$\frac{\textit{Summation of the taken by all students}}{\textit{Number of the students}}$$

1705

Thus, the GAT time=  $\frac{1705}{45} = 37.89 + 5$  minutes for the test instructions.



**Material of the Study** (Available upon request from the researcher)

The gamification based program included grammar lessons from 6 units provided in first year preparatory schoolers' Textbook New Hello, English for Preparatory Schools, Year One, First Term. At the beginning, the researcher devoted an introductory lesson in order to introduce and explain the term gamification, and the concept grammar learning to the experimental group. The remaining 13 lessons were designed to teach the grammar lessons by using the gamification based program.

## **Experimental Procedures**

### **The Pre-Administration of the GAT**

The GAT was pre-administered on 1/10/2022. The experimental group and the control group were given 45 minutes to answer the GAT.

### **Implementing the Gamification Based Program**

The lessons for applying the program were held with the experimental group. The application started on 3/10/2022 and ended on 6/11/2022.

### **The Post-Administration of the GAT**

After implementing the gamification program to the experimental group, the GAT was post-administered to the experimental group and the control group on 14/11/2022. The post-testing conditions were relatively the same as those of the pre-administration of the GAT.

## Results of the Study

### Results Related to the First Hypothesis

In order to verify the first hypothesis of the present study which stated that there would be statistically significant differences between the mean scores of the experimental group and the control group on the post-GAT, the t-test was used to check the difference in the mean scores between the experimental group and the control group on the post-GAT.

**Table 2: t-Value of the Difference between the Mean Scores of the Experimental Group and the Control Group on the Post-GAT**

Group	N	Mean Score	S.D	T-Value	D.F	Sig.
Experimental	32	28.69	1.55	27.97	2.66	0.01
Control	32	12.44	2.99			

The result of Table 2 showed that the mean score of the experimental group on the post-GAT was 28.69 with a standard deviation of 1.55 while the mean score of the control group on the post-GAT was 12.44 with a standard deviation of 2.99. This result revealed that the difference in the mean scores between the experimental group and the control group on the post-GAT was statistically significant ( $t=27.97$ ,  $p < 0.01$ ). Based on the above result, the first hypothesis of the present study was accepted and the development of the experimental group's grammar learning was due to the training they received by using the gamification program.

## Results Related to the Second Hypothesis

The researcher used the t-test in order to verify the second hypothesis of the present study which stated that there would be statistically significant differences between the mean scores of the experimental group on the pre- and post-GAT.

**Table 3: t-Value of the Difference between the Mean Scores of the Experimental Group on the Pre- and Post- GAT**

Group	N	Mean Score	S.D	T-Value	D.F	Sig.
Pre-Experimental	32	10.31	2.28	37.71	2.74	0.01
Post- Experimental	32	28.69	1.55			

The result on Table 3 showed that the mean score of the experimental group on the pre-GAT was 10.31 with a standard deviation of 2.28 while the mean score of the experimental group on the post-GAT was 28.69 with a standard deviation of 1.55. This result revealed that the difference in the mean scores of the experimental group between the pre- and post-GAT was statistically significant ( $t=37.71$ ,  $p<0.01$ ). Hence, the second hypothesis of the present study was accepted and the enhancement of grammar learning of the experimental group was due to the training which they received by using the gamification program.

The effect size of using the program which was based on using gamification for the purpose of enhancing grammar learning of the experimental group was computed by using Eta squared ( $\mu^2$ ) and it showed a large effect size on grammar learning as was revealed in Table 4

**Table 4: The Effect Size of the Gamification Based Program on Grammar Learning of the Experimental group**

Dependent Variable	t <sup>2</sup> Value	D.F	Eta Squared $\mu^2$	Effect Size Level
Grammar Learning	1422.27	31	0.98	Large

Additionally, the results of applying the effect size formula showed that the effect size of using the program which was based on using gamification on enhancing grammar learning of the experimental group was 0.98 which is considered higher than the value of the large effect size 0.8. This means that using the gamification program had a large effect size on enhancing the experimental group's grammar learning. Moreover, the researcher used the Blake formula to ensure the effectiveness of using the gamification program on enhancing grammar learning of the experimental group. Using the Blake formula showed that the gain ratio was 1.55 which is more than 1.2, the accepted level of effectiveness. Therefore, the present study fulfilled its aim regarding enhancing grammar learning of the experimental group by using gamification.

### **Discussion of the Study Results**

The results of the present study were encouraging and promising. They revealed that the gamification based program led to a remarkable progress in the experimental group's grammar learning. The results of the post-GAT indicated that implementing the program which was based on using gamification in learning grammar had a large effect size on the experimental group's grammar.

Using the gamification based program represents an innovative way of using technology which led to an outstanding advancement in teaching grammar learning. By using gamification, the students were excited and motivated to learn English grammar because the provided gamified tasks matched their interests and needs. They learned in a stress-free environment and they collaborated together to accomplish the gamified tasks. They felt happy by the end of implementing the gamification program and they were encouraged to reach the next levels through gaining points, rewards and badges.

The program which based on gamification involved different types of enjoyable activities in which students were motivated to learn English grammar. The students were encouraged to work individually, in pairs and co-operatively in small groups to tackle these activities. They discussed ideas on the gamified tasks with the researcher and together. They expressed their opinions and brainstormed ideas to accomplish the gamified tasks.

The gamification program included some different teaching aids and materials with selected colorful pictures, suitable audios and videos which had a positive effect on the students' understanding of the gamified activities and on enhancing their grammar learning. The gamification program contained varied types of evaluation questions which made the students aware of their progress and encouraged them for more achievement and progress. Evaluation questions were selected to address all the grammar taught to the students by using gamification and the questions were varied and of different levels of difficulty. During implementing of the gamification program, the students gave some positive comments on the program. They indicated that they were happy to learn English grammar by using the gamified tasks. They mentioned that learning with gamification helped them understand grammar without fear from criticism.

The results of the superiority of the experimental group on the post-GAT came in accordance with studies carried by Abdel Rahim (2014), Ali (2016), El Khalyfa (2019), Guirgius (2020), Ahmed (2021), Gaber (2021) and Allam (2022). These studies highlighted the importance of enhancing English grammar, by using technology in general and using gamification in learning English .

## **Conclusions**

It can be concluded from the present study that using the gamification based program helped the experimental group enhance their grammar learning.

## **Recommendations**

Based on the results of the present study, the following recommendations were formulated:

1. EFL teachers of the preparatory stage should reconsider their methods of teaching grammar.
2. EFL teachers of the preparatory stage should enhance their students' grammar learning by using novice strategies of TEFL such as using gamification.
3. EFL teachers of the preparatory stage should be trained on the use of gamification in teaching and learning English grammar.
4. EFL supervisors of the preparatory stage should draw EFL teachers' attention of the importance of using gamification in teaching English grammar to preparatory stage students.
5. Curriculum developers should include gamified tasks for teaching grammar in preparatory stage students' textbook.

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