Enhancing Preparatory Schoolers' Motivation towards English Language Learning through Using Gamification

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Enhancing Preparatory Schoolers' Motivation towards English Language Learning through Using Gamification

This study aimed at investigating the effectiveness of using gamification in enhancing motivation towards English Language (EL) learning of preparatory schoolers. It adopted the pre/ post-test quasi-experimental research design. The participants were 64 first year schoolers at Al-Sayed 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 experimental group received instruction by using the gamification program, while the control group was taught the same lessons as provided in the Teacher's Guide. The researcher designed a Motivation Towards EL learning Scale (MTELLS) which was validated and administered to both groups for equivalence in their motivation towards EL learning before carrying out the experiment. The MTELLS was post-administered to the two groups. The statistically analysis of the obtained data confirmed a large effect size 0.96 of using the gamification program in enhancing motivation towards EL learning of the experimental group. Based on these results, it was revealed that the experimental group enhanced their motivation towards EL learning because of using the gamification based program.

Key Words: Gamification Based program, Motivation towards English Language Learning, Preparatory Schoolers.
المستخلص
تحسين الدافعية لتعليم اللغة الإنجليزية لدى طلاب المرحلة الإعدادية باستخدام تقنيات الألعاب التحفيزية

هددت الدراسة الحالية إلى بحث فاعلية برنامج قائم على استخدام تقنيات الألعاب التحفيزية في تحسين الدافعية لتعلم اللغة الإنجليزية لدى طلاب المرحلة الإعدادية. تمثلت مجموعة الدراسة من 64 طالبة تمثل فصول من فصول الصف الأول الإعدادى بمدرسة السيدة نفيسية الإعدادية بنات إدارة كوم امو التعليمية بمحافظة أسوان اللاتى تم اختيارهما وتسميمها عشوائيا إلى مجموعتين, 32 طالبة كمجموعة تجريبية و 32 طالبة كمجموعة ضابطة. استخدمت الدراسة الحالية المنهج شبه التجريبي، وللتأكد من تكافؤ المجموعتين في مستوى الدافعية لتعلم اللغة الإنجليزية قبل إجراء التجربة قامت الباحثة بالتطبيق القبلى لقياس الدافعية لتعلم اللغة الإنجليزية. درست المجموعة التجريبية الدروس المقررة بإستخدام تقنيات الألعاب التحفيزية، بينما درست المجموعة الضابطة نفس الدروس بإتباع خطوات تدريسها المتاحة في دليل المعلم لمادة اللغة الإنجليزية للصف الأول الإعدادى. وبعد الإنتهاء من التجربة تم تطبيق مقياس الدافعية لتعلم اللغة الإنجليزية بعدما على المجموعتين الضابطة و التجريبية ونجم البيانات ومعالجتها إحصائيا، واجات النتائج مؤكدة على فاعلية البرنامج القائم على تقنيات الألعاب التحفيزية في تحسين الدافعية لتعلم اللغة الإنجليزية للمجموعة التجريبية، وكان للبرنامج القائم على استخدام الألعاب التحفيزية حجم تأثير مرتفع 0.96 في تحسين الدافعية لتعلم اللغة الإنجليزية لدى المجموعة التجريبية.

الكلمات المفتاحية: البرنامج القائم على تقنيات الألعاب التحفيزية, تعلم القواعد, الدافعية لتعلم اللغة الإنجليزية, طلاب المرحلة الإعدادية.
Introduction

Learning a language represents an important process which aims at communicating thoughts and experiences with others. Motivation plays a significant role in the process of learning a language. Language teachers cannot effectively teach a language, if they do not understand the relationship between motivation and its effect on language learning. They should encourage their students and raise their motivation towards EL learning.

Motivation is a psychological concept in human behavior and it describes a predisposition reward a particular (Dejnozka & Kapel, 1991). Anjomshoa and Sadighi (2015) posited that for a learner to succeed in learning a Foreign Language (FL), motivation is required. They indicated that students’ motivation towards English Language (EL) learning can influence their learning results. Rajab, Far and Etemadzadeh (2012) mentioned that without motivation, even gifted learners cannot accomplish long-term goals, regardless of whatever the curriculum and whoever the teachers are. Saville-Troike (2006) noted that a high correlation exists between achievement in FL learning and motivation. The stronger the motivation is, the higher the chances of success to acquire the language are.

Motivation has an important role in any educational context; as no learning situation can be completed without students being motivated to learn (Baublitz, 2010). Some studies related to motivation towards EL learning were conducted because of the usefulness of motivation for developing academic achievement of FL learners. Examples of such studies are the studies conducted by (Shaaban & Ghaith, 2008; Wimolmas, 2012; Kitjaroonchai, 2013; Al-Khasawneh, 2015; & Faraj, 2019). Therefore, it is important for EFL teachers to reinforce motivation in their students. That is because of the positive effects which motivation can do in developing students' language learning. Besides, EFL
teachers should find innovative ways to enhance their students’ motivation to language learning.

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 it also empowers and engages the learner with motivational skills towards a learning approach and sustaining a relax atmosphere (Werbach & Hunter, 2012). According to Abuzied (2019), gamification increases the active 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 had low levels of motivation towards EL learning which was represented in their unwillingness to study English. To document the problem, the researcher interviewed 20 first year preparatory schoolers. They indicated that their motivation level towards EL learning is low. They mentioned that they only study English to pass English exams. They also stressed that they do not study English to know the foreign cultures of other nations or to talk with native speakers of 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' low motivation towards EL learning. All of the interviewed teachers and supervisors confirmed that first year preparatory schoolers suffer from weaknesses in this area. They pointed out that their students’ problem with low motivation was shown in their dealing with EL as a school subject to be summarized and memorized in order to pass English tests.
The researcher tested a group of 25 first year preparatory schoolers at Al-Sayeda Nafisa Preparatory School for Girls, Kom Ombo Administration, Aswan Governorate by using the motivation towards EL learning scale designed by Gardner (1985). The researcher translated this scale and its instructions into Arabic to be easier for the pilot study students to answer. Reasons for selecting Gardner's (1985) motivation towards EL learning scale is revealed in its validity, reliability and appropriateness for the pilot study students. The results of piloting the motivation scale showed that 80% of the pilot study students' motivation towards EL learning is very low. These results revealed that first year preparatory schoolers are in a real need to enhance their motivation towards EL learning.

The researcher reviewed some previous studies which were implemented in Egypt on motivation towards EL learning. It was revealed that the study of Ali (2016) showed that a lot of Egyptian EFL preparatory stage students have low motivation towards EL learning.

**Statement of the Problem**

The majority of first year preparatory schoolers had low levels of motivation towards EL learning. In order to overcome low motivation towards EL learning of first year preparatory schoolers, the researcher carried out the present study which was based on using a gamification program intended for enhancing motivation towards EL learning of first year preparatory schoolers.

**Review of Related Literature**

**Language Learning and Motivation**

Alzaytuniya (2016) referred to motivation towards EL learning as "a student's willingness, need, desire and compulsion to participate in, and be successful in the learning process. It is what gets students to engage in academic activities, keeps them trying
Importance of Motivation towards EL Learning

Motivation is considered significant in its role in language learning success. Students’ motivation towards EL learning can, to a certain degree, influence their learning results. It is worth investigating how students become successful or failed in learning English because it might affect their motivation and the way they learn the language. In language learning contexts, learners with high motivation are more enthusiastic, goal-oriented, dedicated, committed, persistent and confident in their learning. They are capable of working hard to accomplish their goal and they do not give up easily till they fulfill that goal (Renandya, 2015).

Motivation directly influences the language learner’s language learning strategies, methods, skills, practices and activities. In other words, motivation has a strong effect on learner’s communication with foreigners, determining the amount of learning, as well as achieving the desired levels of language teaching. It has a clear effect on the quantity and quality of language learning (Susanto, 2018). It provides the primary trigger for learners to start learning FL and later provides the driving force to foster the learning process in the long term (Çankaya, 2018).

Types of Motivation

Intrinsic and Extrinsic Motivation

There are two basic types of motivation: Intrinsic motivation and Extrinsic motivation (Ryan & Deci, 2000). Dörnyei (2001) stated that intrinsic motivation refers to the satisfaction of learning for personal pleasure and fulfillment, while extrinsic motivation is related to external regulations such as rewards, imposed rules or choiceful behavior. In other words, intrinsic motivation is the eagerness and interest to do and take part in some certain
activities, whereas extrinsic motivation is a motivation to do a work or an activity as a means to achieve a goal.

**Instrumental Motivation and Integrative Motivation**

Alizadeh (2016) stated that “the instrumental motivation refers to acquiring a language as a means for obtaining instrumental objectives such as furthering a career, reading technical materials, translation, and so on. The integrative motivation describes learners who want to integrate themselves into the culture of the second language group and become involved in social interchange in that group” (p.12).

This means that the integrative motivation occurs, such as when the learner who is working hard to improve her/his EL, her/his motivation can be the desire that she/he wants to interact with native English speakers and be integrated into English culture, which she/he is fascinated with. On the other hand, the instrumental motivation occurs when the learner is studying hard to get practical benefits from learning a Second Language (L2) or a FL, such as getting a good job, or fulfilling an academic requirement. Hudson (2000) indicated that the instrumental motivation is generally indicated by the aspiration to get practical benefits from the study of a L2.

**Nature of Gamification**

Huotari and Hamari (2012) defined gamification as “a process of enhancing services with (motivational) affordances in order to invoke gamely experiences and further behavioral outcomes in learning process” (p.17). According to Kapp (2012), gamification was defined as “using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems” (p.9).

**Types of Gamification**

According to Kapp (2013), there are two main types of gamification:
Structural Gamification
No changes are made to the content itself to become game-like; however, they are only made with the structure around the content to sound like a game. This type aims at motivating the learners to get engaged in what they learn through rewards. The most common elements in this type are points, achievement badges and levels.

Content Gamification
Changes are made to the content to make it more game-like by applying game elements and game thinking. This type focuses primarily on repacking the language content to make it more attractive and stimulating for learning.

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-Motivation Towards English Language Learning Scale (MTELLS).
2. There would be statistically significant differences between the mean scores of the experimental group on the pre- and post-MTELLS.

Aim of the Study
The present study aimed at investigating the effectiveness gamification based program in enhancing motivation towards EL 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 EL to help them enhance their motivation towards EL learning.
2. EFL teachers of first year preparatory schoolers as they may be encouraged to apply gamification at their classrooms for enhancing their students' motivation towards EL learning.

3. Curriculum 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 some activities which are based on using gamification to develop students' motivation towards EL learning.

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 motivation towards EL 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 grammar learning, solve low motivation problem and achieve positive learning outcomes of prep schoolers at Aswan.

Motivation

In the present study, motivation is operationally defined as the willingness that encourages prep schoolers at Aswan to exert some efforts to achieve goals with satisfaction.

Participants

In the present study, the participants were first year General Secondary Stage at Al-Sayedah 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 motivation towards EL learning of the experimental group and the control group before implementing the treatment, the researcher pre-tested them by using the pre-MTELLS. The researcher taught the experimental group and the control group herself to have a better control of the study variables. The researcher pre-tested the experimental group and the control group by using the pre-MTELLS to be sure that they were equivalent in their motivation towards EL learning before carrying out the experiment.

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

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Score</th>
<th>S.D</th>
<th>T-value</th>
<th>D.F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>32</td>
<td>74.91</td>
<td>4.79</td>
<td>0.73</td>
<td>2.66</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>75.81</td>
<td>4.97</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the pre-MTELLS on the experimental group and the control group revealed that there were no statistically significant differences on motivation towards EL learning. This showed that the experimental group and the control group were equivalent in their motivation towards EL learning before carrying out the experiment. Table 1 showed the t-value of the difference between the experimental group and the control group on the pre-MTELLS.

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 Al-Sayedah 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.


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

In order to fulfill the aim of the present study, the researcher designed the MTELLS to be used as a pre-, post-scale to assess level of motivation towards EL learning of the experimental group and the control group before and after conducting the experiment. The researcher translated the MTELLS into Arabic to be easy for the experimental group and the control group.

**The MTELLS Validity**

In order to validate the MTELLS, it was submitted of specialists, professors of Mental Health and professors of Curriculum and Instruction (TEFL) at Faculties of Education in Egypt and EFL supervisors and teachers of the preparatory stage. The jury members agreed on the MTELLS items and recommended few modifications to make it valid and appropriate for the purpose it was intended to. All the modifications were taken into consideration and the validity of the MTELLS was asserted.

**The MTELLS Reliability**

In order to assess the reliability of the MTELLS, it was administered to a pilot group. After the administration, the researcher used Pearson Correlation to determine the reliability of the MTELLS. The Pearson Correlation showed that the reliability of MTELLS was .71. This value can be trusted and indicated that the MTELLS was reliable.

**Timing of the Scale**
The researcher estimated the MTELLS answering time by submitting it to the same pilot sample and calculating time taken by each student divided by the total number of students.

Thus, the MTELLS time = \( \frac{1299}{45} = 28.86 \) + 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 motivation towards EL 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 MTELLS**

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

**Implementation of the Gamification Based Program**

The lessons of 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 MTELLS**

After implementing the gamification program to the experimental group, the MTELLS 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 MTELLS.
Results of the Study
Results Related to the First Hypothesis

The researcher used t-test so as 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-MTELLS.

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

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Scores</th>
<th>S.D</th>
<th>T-Value</th>
<th>D.F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>32</td>
<td>98.69</td>
<td>1.36</td>
<td>24.40</td>
<td>2.66</td>
<td>0.01</td>
</tr>
<tr>
<td>Control</td>
<td>32</td>
<td>77.25</td>
<td>4.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of Table 2 showed that the mean score of the experimental group on the post-MTELLS was 98.69 with a standard deviation of 1.36 while the mean score of the control group on the post-MTELLS was 77.25 with a standard deviation of 4.70. This result revealed that the difference in the mean scores between the experimental group and the control group on the post-MTELLS was statistically significant (t=24.40, p<0.01). Based on the above result, the first hypothesis of the present study was accepted and the enhancement of the experimental group's motivation towards EL learning was due to the gamification program.

Results Related to the Second Hypothesis

The researcher used 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-MTELLS.
Table 3: t-Value of the Difference between the Mean Scores of the Experimental Group on the Pre- and Post-MTELLS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Score</th>
<th>S.D</th>
<th>T-Value</th>
<th>D.F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Experimental</td>
<td>32</td>
<td>74.91</td>
<td>4.79</td>
<td>26.60</td>
<td>2.74</td>
<td>0.01</td>
</tr>
<tr>
<td>Post-Experimental</td>
<td>32</td>
<td>98.69</td>
<td>1.36</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of Table 3 revealed that the mean score of the experimental group on the pre-MTELLS was 74.91 with a standard deviation of 4.79 while the mean score of the experimental group on the post-MTELLS was 98.69 with a standard deviation of 1.36. This result indicated that the difference in the mean scores of the experimental group between the pre- and post-MTELLS was statistically significant (t=26.60, p<0.01). Thus, the second hypothesis of the present study was accepted and the enhancement of the experimental group's motivation towards EL learning on the post-MTELLS was ensured due to the training they received on the gamification program.

The effect size of the program which was based on using gamification for the purpose of enhancing motivation towards EL learning of the experimental group was computed by using Eta squared (\(\mu^2\)) and it showed a large effect size on motivation towards EL learning as was revealed in the Table 4.
Table 4: The Effect Size of the Gamification Based Program on Motivation towards EL Learning of the Experimental group of the Experimental group

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>$t^2$ Value</th>
<th>D.F</th>
<th>Eta Squared $\mu^2$</th>
<th>Effect Size Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation towards EL Learning</td>
<td>707.56</td>
<td>31</td>
<td>0.96</td>
<td>Large</td>
</tr>
</tbody>
</table>

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 motivation towards EL learning of the experimental group was 0.96 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 motivation towards EL learning.

The researcher also used the Blake formula to ensure the positive effectiveness of using the program on enhancing motivation towards EL learning of the experimental group. Using the Blake formula showed that the gain ratio was 1.73 which is more than 1.2, the accepted level of effectiveness. So, the present study fulfilled its aim regarding enhancing motivation towards EL learning of the experimental group by using gamification.

**Discussion of the Study Results**

The results of the present study revealed that the gamification based program led to a remarkable progress in the experimental group's motivation towards EL learning. The results of the post-MTELLS indicated that implementing the program which was based on using gamification had a large effect size on the experimental group's motivation towards EL learning.
The remarkable high gains obtained by the experimental group on the post-MTELLS may be attributed to the following reasons:

- The content of the gamification program is carefully selected. It enabled students to practice English in different situations.
- The program also included different types of activities. Students worked individually, in pairs and in small groups to do these activities.
- The program used different situations and materials with selected colorful pictures, suitable audios and videos which had a positive effect on students' understanding.
- The varied types of evaluation questions given to the experimental group by the end of each lesson were carefully chosen to address different levels of difficulty.
- Mixing audio with visual aids motivated the experimental group and helped them use multi-senses which finally led to a better understanding to the gamified program.

The results of the superiority of the experimental group on the post-MTELLS confirmed the results of Ali (2016), El Khalyfa (2019), Guirgius (2020), Ahmed (2021), and Allam (2022). These studies highlighted the importance of enhancing using technology in general and using gamification in particular to motivate students to learn English.

Conclusions

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

Recommendations

Based on the results of the present study, the following recommendations have been formulated:
1. EFL teachers of the preparatory stage should enhance their students' motivation towards EL learning by using novice methods of TEFL such as using gamification.

2. EFL teachers of the preparatory stage should be trained on the use of gamification in teaching and learning EL to help students improve motivation towards EL learning.

3. EFL supervisors of the preparatory stage should draw EFL teachers' attention to the importance of using gamification in teaching EL to preparatory stage students to enhance their motivation towards EL learning.

4. Curriculum developers should include gamified tasks for teaching EL in preparatory stage students' textbooks to be used to improve their motivation towards EL learning.

References


