The Effect of Using E-Learning on improving Vocabulary and Grammar Skills among Academic English Language Students

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Abstract:
Objective:
In the 21st century, the advancement of technology plays essential role in the field of education and schooling. The term e-learning refers to electronic learning which an alternative of the traditional education system is.

Subjects and methods: In this study, eighty four second stage EFL students at College of Arts, AL Mustansiriyha University randomly allocated into two groups. The first group (n=43) received New words of the English textbook without using E-Learning. The second group (n=41) involved the use of E-Learning to enhance vocabulary and grammar skills for the same period and served as the interventional group. This study adopted (pretest-posttest).. After the end of the tests, the results have been analyzed.

Results
The researcher compared the mean score of the EG (45.302) and that of the CG (41.024). By utilizing the t-test formula for two independent samples, it has found that the computed t-value is 3.376, which is higher than the tabulated t-value (1.99), at the 0.05 level of significance and 82 degrees of freedom. That indicates there is a statistically significant difference between the two groups in favor of the EG.

Conclusion
The use of E-Learning could enhance vocabulary and Grammar skills in Iraqi universities English students.

Keywords: E-Learning, Vocabulary, Grammar.
Section One: Introduction

1.1 Introduction

In the 21st century, the advancement of technology plays essential role in the field of education and schooling. The term e-learning refers to electronic learning which an alternative of the traditional education system is. E-learning plays a crucial role in benefiting the learners, teachers, professionals and educators. According to Alqahtani (2015), a language is based on words and teaching words with its meaning plays a crucial part in learning the language. Learning English as a foreign language involves developing a stronger vocabulary and grammar skills. It is not possible to communicate in English without learning words and grammar (Nassim, 2018). Students will have better learning of the language even if their vocabulary skill is better than their grammatical knowledge. The findings of earlier studies show that non-native English teachers find difficulty in teaching the Iraqi students and improving their vocabulary and grammatical skills with the traditional teaching methods.

The increasing use of the Internet and the development of computer technology assist unlimited learning opportunities beyond a classroom. E-learning is the fastest growing trend in this period of pandemic and online platforms like social media and YouTube have a huge impact on learning and improving EFL. E-learning provides unlimited learning resources in audio, video or written materials to the EFL learners (Vitaz, 2019). It encourages the EFL learners to learn independently and improve their vocabulary and grammatical skills without a teacher’s help. The social networking sites influence EFL learners to learn new words every day by joining groups that are mainly created for learning vocabularies (Pakzadian, 2012). EFL learners make use of YouTube to improve their skills by watching vocabulary and grammar learning videos. The internet provides the EFL learners an opportunity to learn and communicate with the native speakers who can assist them to improve their language skills and to speak fluently (Mohammed, 2019). This research is intended to decide the effect of using E-Learning on improving vocabulary and grammar skills among Iraqi English language students. This study experiments with eighty four students by teaching them new words with and without using E-learning and analyzes their (pre-test) and (post-test) results. Based on the results and discussions, This study...
provides a conclusion on the effect of use E-Learning on improving EFL learners' vocabulary and grammar skills.

1.2 The Aim
The current study aims to examine the impact of E-learning on the academic performance in vocabulary and Grammar skills.

1.3 The Hypotheses
To attain the main aim of the current study, the following hypothesis applies:

There is no statistically significant difference between the performance of Academic students in vocabulary and grammar on (pretest) and that of the (posttest).

1.4 Stages
To achieve the aim of the current study, this study applies the following steps:

- Selecting a sample that is representative of the study’s population.
- Constructing and administering a test to determine the students’ proficiency level in vocabulary and grammar skills.
- Establishing an analytic scoring scheme to guarantee the test’s accuracy.
- Evaluating the students’ outcomes analyzing the findings and drawing some sort of conclusion.
- Presenting a conclusion and suggestions.

1.4 Limitations of the Study
The study is only applicable to the following:

1. The study was conducted during the academic year 2020/2021.
2. It was applied to and executed on the college students in the second level.

1.5 Basic Terms Definitions
1.5.1 Vocabulary Skill

The term vocabulary refers to the words needed in communication for both speaking and listening. It is defined as the total amount of words in language that have meaning. The definition of vocabulary skill is the understanding of words and word meanings required to comprehend, express and communicate in a language (Ismael & Mehmet, 2018). It is stated as the ability of an individual, class or profession to use the accurate stock of words for successful communication. The Knowledge of both receptive and
productive vocabulary is included in the vocabulary skill. The ability to recognize and comprehend words used in a context is referred to as having receptive vocabulary. The vocabulary skill is also stated as the knowledge of understanding, pronouncing, speaking and writing the words in a language. The vocabulary skill is important for EFL learners to communicate fluently and accurately (Alqahtani, 2015).

1.5.2 E-learning

The conceptual definition of E-learning is stated as a method of learning through the use of digital electronic tools and media (Chou, 2012). E-learning is supported by the advancement of computer network technology mainly the internet to provide information to individuals. It uses the internet and all sort of electronic devices namely, computer, smartphones, laptops, CD players to assist the learning and teaching process beyond the classroom. E-learning offers various learning applications including web-based online learning, virtual classroom learning, computer-based offline learning and digital collaboration. E-learning is stated as learning through web-based training features like virtual classrooms and universities to support distance learning through the collaboration of digital media and technology innovations. E-learning plays a vital role in enhancing the educational growth of nations (Basak, et al. 2018).

1.5.3 Grammar

Grammar is seen as a skill that needs to be learned. Incorporating it into theories about language teaching and learning requires one to be able to follow the steps of Skill-Theory-Based Instruction, which Ur identified. In point of fact, Larsen Freeman (2001) states that “By thinking of grammar as a skill to be mastered, rather than a set of rules to be memorized, we will be helping ESL/EFL students go a long way toward the goal of being able to accurately convey meaning in the manner they deem appropriate. “This is point that Freeman makes.

Section two: Procedures and Methodology.

2.1 The Experimental Design.

In this experimental design, two intact classes are randomly chosen, and a pre-test is used to determine whether the groups are equivalent on the dependent measure or variable before the experimental and control treatments
are administered. At the conclusion of the therapy period, a post test is administered.

Tow intact classes were used in this investigation, and they were divided into the experimental group (EG) and the control group (CG) The same pre-test was administered to both groups ,and the findings were statistically analysed to ensure that they had the same effect on the dependent variable. When the CG was instructed using the conventional method, the EG received treatment in accordance with the independent variable (E-learning). Both groups took the identical post-test at the conclusion of the experiment to determine the impact of using the independent variable “E-learning”. On the students’ performance in “vocabulary and grammar” (see table 2.1)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Treatments</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>E-learning</td>
<td>The Post –test</td>
</tr>
<tr>
<td>Control group</td>
<td>Traditional technique</td>
<td>The Post –test</td>
</tr>
</tbody>
</table>

2.2 Sample and Population Selection

Kothari (2004) defined sampling as the technique of learning knowledge about a whole population by simply looking at a portion of it. In Al Mustansiriyah University Libraries and Information department/College of Arts, there were two sections. (A) and (B). Section (A) contained 46 students, and section (B) contained 44 students. There were 90 students. Sections (A) was chosen at random to be the (CG) and section (B) to be the (EG) .This random choice was based on drawing lot. One students from (B) was omitted from the experiment because she left the collage before the (post-test) ,and five students from (A) and (B) were excluded because there were repeaters. Three students from (A) and three from (B) were excluded from the experiment, one from B because she left the collage before the post-test and five because there were repeaters. During the time of exclusion, the excluded subjects were maintained in their classes.
(Table 2.2) The Study Sample

<table>
<thead>
<tr>
<th>Groups</th>
<th>Section</th>
<th>Subjects before exclusion</th>
<th>Subjects after exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG</td>
<td>A</td>
<td>46</td>
<td>43</td>
</tr>
<tr>
<td>CG</td>
<td>B</td>
<td>44</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>84</td>
</tr>
</tbody>
</table>

2.3 Equivalence of the Subjects in the Sample
The two groups of participants have been equalized according to the following variables in order to assure better equivalence of the sample.  
The subjects' ages, their English test scores from the first course of the same academic year, their pre-test results,

2.3.1 The Subjects ‘Age (Measured in Months)
The computed t-value is 0.728 while the tabulated value is 1.99 under 82 degrees of freedom and at 0.05 level of significance, meaning that the two groups are equal in age. By using the t-test formula for two independent samples, it is discovered that there is no significant difference in age between the EG and CG.

(Table 2.3)
The t-Test Statistic for the Subjects’ Age

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t-value computed</th>
<th>t-value table</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(EG)</td>
<td>43</td>
<td>187.720</td>
<td>4.890</td>
<td>82</td>
<td>0.728</td>
<td>1.99</td>
<td>0.05</td>
</tr>
<tr>
<td>(CG)</td>
<td>41</td>
<td>186.878</td>
<td>5.706</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3.2 The Subjects' English First Course Scores
The students' English test results from their first course exam from the same academic year were also taken into account. The EG average score is 68.116, while the CG average score is 66.170. The calculated t-value is determined to be 0.857 when applying the t-test formula for two independent samples, but the tabulated t-value is 1.99. At 0.05 level of significance and 82 degrees of freedom.
freedom, the t-test demonstrates that there is no statistically significant difference between the two groups.

(Table 2.4) T-Test Statistics for Subjects' Scores in English for the First Course

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t-value</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG</td>
<td>43</td>
<td>68.116</td>
<td>10.637</td>
<td>82</td>
<td>0.857</td>
<td>1.99</td>
</tr>
<tr>
<td>CG</td>
<td>41</td>
<td>66.170</td>
<td>10.143</td>
<td></td>
<td>0.05</td>
<td></td>
</tr>
</tbody>
</table>

2.3.3 The Pre-Test Results for the Subjects
The student's pre-test performance is another crucial factor. Using the t-test technique to compare the mean scores of the EG and CG in the pre-test reveals that there is no statistically significant difference between the performance of the two groups in the pre-test. Although the typical score for the CG is 15.024, the mean score for the EG is 15.348. At a threshold of significance of 0.05 and 82 degrees of freedom, the estimated t-value is determined to be 0.311.

T-Test Statistics for the Subjects' Pre-Test Scores (Table 2.5)

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-value</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG</td>
<td>43</td>
<td>15.348</td>
<td>4.540</td>
<td>82</td>
<td>0.311</td>
<td>1.99</td>
</tr>
<tr>
<td>CG</td>
<td>41</td>
<td>15.024</td>
<td>5.027</td>
<td></td>
<td>0.05</td>
<td></td>
</tr>
</tbody>
</table>

2.3.4 The Education Level of Parents
The chi-square formula is used to determine whether there is a meaningful difference between the subjects of the two groups in terms of the educational attainment of their father. 1.316 level of significance and 4 degrees of freedom are the calculated values. This indicates that there is no discernible change in this characteristic between the two groups, as demonstrated by

(Table 2.6)

The Chi-square Statistics for the Subjects' 'Fathers' Education

| Groups | No. | The Primary and lower | The Intermediate and preparatory | Institute | University | df | X2 value |
|--------|-----|-----------------------|---------------------------------|-----------|------------|    |          |
|        |     |                       |                                 |           |            |    | computed | table    |
| EG     | 43  | 5                     | 5                               | 12        | 5          | 4  | 1.316    | 9.49     |
| CG     | 41  | 5                     | 5                               | 12        | 8          |    |          |           |
| Total  | 84  | 10                    | 10                              | 24        | 37         |    |          |           |
The degree of mother's education is compared between the groups using the chi-square method once more to see if there is any discernible difference. At a level of significance of 0.05 and 4 degrees of freedom, the calculated value is 1.747 while the tabulated value is 9.49. This means that this variable does not significantly differ between the two groups, as indicated in (Table 2.7)

(Table 2.7) The Chi-square Statistics for mother Education subjects

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>The Primary and below</th>
<th>The Intermediate and preparatory</th>
<th>Institute</th>
<th>University</th>
<th>df</th>
<th>X2 value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>computed</td>
</tr>
<tr>
<td>EG</td>
<td>43</td>
<td>4</td>
<td>15</td>
<td>9</td>
<td>15</td>
<td>4</td>
<td>1.747</td>
</tr>
<tr>
<td>CG</td>
<td>41</td>
<td>5</td>
<td>19</td>
<td>6</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>9</td>
<td>34</td>
<td>15</td>
<td>26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section three Discussion, Result , Conclusion and suggestion

3.1 Discussion

It is necessary to test the null hypothesis, which states that "there is no statistically significant difference between the mean scores of the student who is taught English using E-learning and those who are taught English using traditional techniques," in order to achieve the goal of this study, which is examining the impact of using E-learning on improving Grammar and Vocabulary skills of academic EFL students, the difference between the CG's (41.024) and EG's (45.302) mean scores. The computed t-value is 3.376, which is greater than the tabulated t-value of 1.99 at the 0.05 level of significance and 82 degree of freedom, according to the t-test formula for two independent samples. This shows that the EG is the group that is statistically different from the other two groups (see Table 3.1)

T-Test Data for the Subjects' Scores in the Post-Test ( Table 3.1)

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>mean</th>
<th>sd</th>
<th>df</th>
<th>t-value</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>computed</td>
<td>table</td>
</tr>
<tr>
<td>EG</td>
<td>43</td>
<td>45.302</td>
<td>5.659</td>
<td>82</td>
<td>3.376</td>
<td>1.99</td>
</tr>
<tr>
<td>CG</td>
<td>41</td>
<td>41.024</td>
<td>5.956</td>
<td>82</td>
<td>1.99</td>
<td></td>
</tr>
</tbody>
</table>

As a result, there is a statistically significant difference between the EG and the CG, the null hypothesis of the current study is rejected and the alternative hypothesis is accepted.
3.2 Result

The findings of these studies implicated that E-learning serves a greater role in enhancing the grammar and vocabulary skills. These findings have some implications that everyone use mobile phones nowadays and use E-learning app could support foreign language learners. Many students prefer to learn through E-learning rather than reading book (Abid, 2017). Many prefer to learn through e-learning rather than reading book.

The significance of the study varies from EFL learners to informal language learners as everyone has mobile phones in which they can download E-learning app to enhance their grammar and vocabulary skills. This study is used in the scientific literature. It also considers an important applications for teaching techniques used in the language courses. In the digital world, the increase amount of reading data as it is essential to integrate new strategies for teaching and reading skills (Al-Omairi, 2020). By having these skills, the learners are connected globally. Strength of the study is that it holds essential implications for Iraqi language learners and language teaching strategies used in Iraq.

3.3 Conclusion and suggestion

The study findings implicates that use of E-learning is essential for enhancing the grammar and vocabulary skills among EFL2 students which exhibits the capability of using mobile phone, computer or other forms of applications that can be provided by E-learning. The use of technology is necessary to complete classroom sessions and strengthen the teaching process and also improve the academic student’ foreign language. This study also helps to enhance the language teaching strategies as well.

References


تأثير استخدام التعليم الإلكتروني على المفردات وهمايات النحو في اللغة الإنجليزية لدى طلبة الجامعة

قسم اللغة الإنجليزية / كلية التربية الأساسية / الجامعة المستنصرية / العراق

مستخلص البحث:
الهدف:
في القرن الحادي والعشرين، يلعب التقنيات التكنولوجية دوراً حيوياً في مجال التعليم والتدريب.
يشير مصطلح التعلم الإلكتروني إلى التعلم الإلكتروني الذي يعد يطيل لنظام التعليم التقليدي.
الأشخاص وطرق العامل
في هذه الدراسة، تم تقسيم أربعة وثمانين طالب من طلاب المرحلة الثانية في كلية الآداب
بالمجتمع المستنصرية بشكل عشوائي إلى مجموعتين. المجموعة الأولى (43) تلقت كلمات جديدة
بدون استخدام التعلم الإلكتروني. المجموعة الثانية (41) تضمنت استخدام التعلم الإلكتروني لتعزيز
مهارات الاستيعاب والمفردات النحوية لنفس الفترة وعملت كمجموعة تدفينة. اعتمدت هذه الدراسة
(الاختبار الفعلي- البدعي) في نهاية التجربة. تم تحليل النتائج المحسوبة.

النتائج:
قامت الدراسة بمقارنة نتائج المجموعتين وجد أن درجة المجموعة التجريبية هي
(45.302) ودرجة المجموعة الضابطة هي (41.024) وبدأت معادلة اختبار t لعينتين مستقلتين
وجد أن قيمة t المحسوبة هي 3.376 وهي أعلى من قيمة t المجدولة (1.99) عند مستوى أهمية
0.05 وجد درجة حرية 82. هذا يشير إلى وجود فروقات إحصائية بين المجموعتين لصالح
المجموعة التجريبية.

الاستنتاج:
استخدام التعليم الإلكتروني يمكن أن يزيد مهارات المفردات اللغوية وال نحو لدى طلبة اللغة
الإنجليزية في الجامعات العراقية

كلمات المفتاحية: التعليم الإلكتروني، المفردات، النحو.

March (2023)