The Effect of Imagination Strategy on the Achievement of EFL University Students in Reading Comprehension and the Development of their Creative Thinking

Reem Hazim Sulaiman
Department of English/ College of Basic Education / University of Mosul

Arwa Luay Abdulkhaleq
Department of English/ College of Basic Education / University of Mosul

Abstract
This research aims at investigating the effect of the imagination strategy on the achievement of EFL university students in reading comprehension and the development of their creative thinking in the second semester of the 2022–2023 academic year. A random selection of third-year students in the English Department, College of Basic Education made up the study’s sample. It comprises (80) subjects: 40 students are the experimental group, taught according to the imaginative strategy, and 40 students are the control group, taught according to the conventional method. The pretest- posttest equivalent groups have been used by the researchers as the experimental design. The researcher have created an achievement test, employed the verbal image (A) of the Torrance test for creative thinking to validate the research hypotheses. Following the application of the T-test of two distinct groups to the statistical data, the results indicate statistically significant differences between the two groups, with the experimental group outperforming the latter in the achievement and creative thinking tests.

Keywords: Imagination, Comprehension, Creative thinking

Article Information
Article History:
Received November 14, 2023
Reviewer December 7, 2023
Accepted December 23, 2023
Available Online June 1, 2024

This is an open access article under the CC BY 4.0 license (http://creativecommons.org/licenses/by/4.0/).

Arather استخدم استراتيجية التخيل في تحصيل طلبة اللغة الإنجليزية بوصفها لغة أجنبية في مادة القراءة الاستيعابية وتنمية تفكيرهم الإبداعي

ريما حازم سليمان* أروى لوي عدالخالق**

المستخلص
يهدف البحث الحالي إلى معالجة أثر استراتيجية التخيل في تحصيل طلبة الجامعة في اللغة الإنجليزية كليغة أجنبية في القراءة الاستيعابية وتنمية التفكير الإبداعي لديهم في الفصل الدراسي الثاني للعام الدراسي 2022-2023. وقد تم اختيار العينة عشوائيا من طلبة الصف الثالث في قسم اللغة الإنجليزية كليغة التربية الابتدائية. وقد تم استخدام اختبار الإدراك من (80) طالباً (40) طالباً يمثلون "المجموعة التجريبية" والتي درست باستخدام استراتيجية التخيل و (40) طالباً يمثلون "المجموعة الضابطة" التي درست باستخدام الطريقة التقليدية. تبين الباحثين الاحتفاظ التجريبي ذا المجموعتين المشتركتين ذوي الاختبار القليل والبعدي وأعاد البحث بتقييمه وتم استخدام

* مدرس/ قسم اللغة الإنجليزية / كلية التربية الأساسية / جامعة الموصل
** مدرس/ قسم اللغة الإنجليزية / كلية التربية الأساسية / جامعة الموصل
1. Introduction

Creative thinking is considered one of the aims of the 21st century (Grafit, 2005: 9). "We live in a world that is changing at an unpredictable pace. The twenty-first century is a period of uncertainty" (Falconer et al., 2018). To face these unpredictable and unknown challenges successfully, we need creative thinkers. Creative thinking is important for both societies and individuals. It is a key to the development of any society and the success of any individual.

Across the curriculum, instructional practices can be employed to foster creative thinking. Any class can foster creative thinking if it involves students coming up with ideas, presenting theories, using their imaginations, and coming up with novel or creative solutions and Imagination strategy is one of these tactics (Fisher 2005: 77).

The use of imagination in the classroom enhances academic achievement and helps in problem-solving. Imagination skills are correlated with better memory in challenging learning scenarios and with better success in verbal and visual educational environments. Furthermore, the use of imagination techniques enhances one’s level of attention span, scientific concept familiarity, and sophisticated information processing. (Youssef, 2020: 69)

2. Statement of the Problem

Educational institutions are suffering in the current area of low educational outcomes, so educators are seeking to find methods and teaching strategies that help to improve education outcomes, and enhance the direction of modern education in that the learner is the focus of the educational process. As a result, the need arose to use teaching methods and strategies that increase learning effectiveness and develop thinking skills, including creative thinking, and the problem of attempting to know the effect of using the imagination strategy, especially since studies related to the imagination strategy are few in general, especially in the English language.

3. Significance of the Study
The study is of high importance as it indicates the following:

1- Identifying the effect imagination strategy uses on the EFL students’ achievement in reading comprehension material in the third year in the Department of English.

2- Providing modern teaching methods for English language teachers.

3- Developing student’s creative thinking, as imagination helps to investigate thinking and creativity.

4. The Aim of the Study

This study aims to investigate the effect of imagination strategy on the achievement of EFL students at the College of Basic Education/ University of Mosul in reading comprehension and the development of their creative thinking.

5. Hypotheses

In this study, it is hypothesized that

1. "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using the imagination strategy and the control group taught by using the conventional method in the achievement test".

2. "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using imagination strategy in the pre and post-tests in creative thinking".

3. "There is no statistically significant difference will be found between the mean scores of the control group taught by using conventional methods in the pre and post-tests in creative thinking".

4. "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using imagination strategy and the control group taught by using the conventional method in the creative thinking test".

6. Scope

This research is determined by a sample of third year students in the English Department, College of Basic Education at the University of Mosul during the second term of the academic year (2022-2023). It is also limited to the reading comprehension course (Fluency in English), units 8, 9, and 10.

7. Definitions of Basic Terms
In this section involves some basic definitions related to the current study.

7.1 Imagination Strategy

Mahmoud (2012: 23) defines imagination strategy as "a strategy in teaching in which an imaginary scenario is formulated that accompanies students on an imaginary journey and urges them to build several mental images in a series of ideas that are read by the teacher in which the eyesight, hearing, emotions and feelings are integrated".

7.2 Creative Thinking

Dictionary of English (2010) defines the creativity is "a process of producing something new that requires intelligence and imagination".

Ruggiero (1993:34) says creative thinking is "inventing something new, thinking up something from scratch and putting things together in a new way".

7.3 Achievement Test

Richards et al. (1992:3) define an achievement test as "a test which measures how much of a language someone has learned with reference to a particular course of study or programme of instruction".

8. Theoretical Survey

This section involves some important issues concerning the imagination strategy and creative thinking followed by a literature review of the most relevant studies on our topic under consideration.

8.1 Importance of Imagination as a Teaching Strategy

Cunningham (2015) mentions the following points:

1. Imagination raises an active and real participation of the student because when the student imagines himself as a poet, scientist or child, he becomes an active player in the behaviour of things.

2. What we learn with imagination is more like a real, live experience that will remain in our memories for a longer period

3. Imagination learning is perfect learning because we live and enjoy the event.
4. With imagination, abstract ideas can be transformed into a sensory image that is easy for students to deal with.

5. Imagination is a way to improve student memory and to restore information to students comprehensively and rapidly.

6. Imagination helps the students to create new meanings for the student’s ideas, to link between previous and new education and to generate new imaginative products.

8.2 The Relationship of Imagination and Creativity

Imagination is one of the means of creative thought. It needs to be motivated and trained to grow in the individual since his childhood. Creativity cannot appear without imagination, the deeper imagination, the more that indicates the presence of a great creative and imagination ability, as imagination helps to create new relationships from previous experiences and shape them with a new and unfamiliar image. (Cunningham, 2015: 15).

Imagination is a form of associative thinking, meaning that it is characterized by the interconnection between ideas, and the child’s expression of imagination is usually associated with his creative thinking. The relationship between imagination and creativity is very strong. Simonton (2000: 153) considered that imagination is a basis for creativity, and imagination has a great contribution to the creativity process. The mental activity of stimulating visualization is very important in enriching the creativity process, as the intellectual and emotional forces interact and help stimulate attention and create creative work.

Creativity doesn’t happen without imagination, the deeper imagination, the greater the individual's ability to be creative. Science is the fruit of imagination and creativity is its result. Imagination is an essential and effective element in the system of thinking and mental activity. (Al-Hariri, 2010: 25).

Gaut & Livingston (2003: 279) state that "imagination and creativity are related and their basic relationship is that they are both based on reality for providing alternatives and possibilities for innovations and original changes".

8.3 The Roles of Teachers in Imagination Strategy

A set of roles related to the teachers can be stated according to the imagination strategy. Robert (2007) cited in (Abu-Nada, 2018: 30-31) mentions the following roles:

1- The teacher sets clear goals based on imagination.
2- The teacher evaluates the ability of his students to imagine the subject of the lesson, and this is done by discussing his students in the mental images that have been formed.

3- The teacher encourages students who can imagine to invest these skills in other subjects.

4- The teacher invests the cognitive background of the students that supports the imagination of the reading topic.

5- The teacher makes use of some of the aids to support imagination, such as pictures and diagrams.

**8.4. Literature Review**

This section presents some previous studies which have related to the present study.

Talafha (2012) investigated the effect of using strategy of imagination on the development of creative thinking in teaching history and attitudes towards it by sixth-grade students in Jordan. The sample of the divided into experimental and control groups and its included 60 students, with 31 in the first group taught using the imagination strategy, and 29 in the second group taught using traditional methods. The "Abbasi era" unit in the history textbook was modified according to the imagination strategy, and an attitudes scale was developed. The Torrance test for creative thinking, verbal image (A), was used to measure creative thinking abilities. The findings revealed that the experimental group demonstrated statistically significant enhancements in both creative thinking abilities and attitudes towards history compared to the control group. Moreover, a positive and statistically significant correlation between students' creative thinking test scores and attitudes scale was observed.

Razoqey's (2015) study aimed to examine the effectiveness of employing the creative imagination strategy on reinforcing the performance of EFL college students in composition writing. The sample comprised 100 students from the 2nd year class of the English department at the College of Basic Education, University of Diyala. The students were divided into (50) students as an experimental group which is taught by the use of the creative imagination strategy and (50) students as a control group which is taught according to the traditional method. Composition writing tests were prepared. The Statistical analysis of the results revealed that the creative imagination strategy was the effective strategy for enhancing composition writing performance.

Al-Anbaki & Alwans' (2022) study investigated the impact of the imagination strategy on the academic achievement and existential intelligence of second-grade students in science. The research sample included two groups: an experimental group consisting of 40 students, and the other represented the control group consisting of 36. The study was conducted at Al-Hassan bin Ali High School in Diyala.
Governorate, Baquba. The researchers utilized an empirical design and conducted equivalence testing between the two groups before applying the research tools. Data from both groups were statistically analyzed using the T-test for two independent groups. The findings indicated that students in the experimental group demonstrated higher performance than the students in the second group in both tests.

9. Method

This section gives a detailed account of the methodology of the current study.

9.1 The Empirical Design

Van Dalen (1979: 232) states that "Selecting an appropriate design for a research work is one of the most important decisions that a researcher should make". Therefore, the researchers adopted the experimental design. This research has been built on the design of pretest-posttest equivalent groups (Best, 1981: 70).

9.2 The Population of the Study

The population of the present research has involved the third-year students at English Department / College of Basic Education during the academic year (2022-2023).

9.3 The Sample of the Study

The sample for this study has been randomly selected from the third-year students. Two groups were selected out of 4 groups, with (40) students for each group. The first group was selected as the experimental group taught by using the imagination strategy, while the second group was the control group taught by the conventional method.

9.4 Equivalence of the Groups

The researchers have made a parity of the groups according to the following variables:

9.4.1 Ages of the Students

Students’ ages were measured in years. The statistical results are demonstrated in table (1):
The statistical analysis of the data shows that the groups considered equivalent in this variable.

2.9.4 Students’ Degrees in Reading Comprehension Material for the Preceding Year:

The scores of students in Reading Comprehension material in the last year was calculated as revealed in table (2):

<table>
<thead>
<tr>
<th>Groups</th>
<th>No.</th>
<th>Mean</th>
<th>S.D.</th>
<th>T-Calculated</th>
<th>Sig. Value</th>
<th>Significance level at 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>40</td>
<td>21.05</td>
<td>0.11</td>
<td>0.44</td>
<td>0.65</td>
<td>No statistically significant difference</td>
</tr>
<tr>
<td>Control</td>
<td>40</td>
<td>21.02</td>
<td>0.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two groups were equivalent in this variable according to the statistical operations shown in table 2.

9.4.3 Pretest

The creative thinking test was applied on the two groups for the purpose of parity. The scores were computed as presented in Table (3):
The absolute value for $T$-calculated was (0.20), and Sig-value was (0.98) higher than (0.05). Hence, there were no statistically significant differences between the two groups, and that they both were equivalent in this variable.

10. Tools of the Research

To collect the data for the study, some tools have been utilized as shown below:

10.1 Lesson Plan

In this study, every lesson plan has been created using two different teaching strategies: the traditional method for the control group and the imaginative strategy for the experimental group (See Appendix 1). Two designs have been submitted to a group of methodology and education specialists. The designs were approved by the specialists, who also offered some recommendations that the researchers took into account.

10.2 Achievement and Creative Thinking Tests

The researchers themselves prepared by the achievement test by relying on the curriculum book of the reading comprehension course (Fluency in English) (Alexander, 1970) (See Appendix 2). The Achievement test items were presented to jury of members in the field of education and methodology to make sure that they were suitable.

The researchers used the Torrance test for creative thinking the verbal image (A) (Torrance, 1962). Torrance developed this test in 1966, and it is one of the widespread tests. It can be used from kindergarten until university.
10.2.1 Validity

According to Brown (1980: 212), validity is the extent to which the test captures the information it is meant to capture. Face validity has been used by the researchers in this study. As a result, a panel of specialists was given the research's last test to ensure its validity. Ninety percent of the specialists gave the exam their approval.

10.2.2 Reliability

"A test is reliable if it consistently yields the same results when repeated measurement of a property are taken of the same entities under the same conditions" (Van Dalen, 1979: 138). In the current research, the reliability was computed by using Person Correlation Coefficient with Spearman-Brown prophecy formula, and it was 85% coefficient.

10.2.3 Pilot Study

After the researchers finished preparing items of achievement and creative thinking tests, they applied the tools on a pilot group consisted of (42) students in the third year/section (c). The tools were found to be good and acceptable by the students.

11. The Experiment

After achieving equivalence between two groups, the teacher started teaching reading comprehension to both groups according to the daily plans prepared by the researchers. The experiment lasted five weeks and ended on the 23rd of March, 2023.

On 26th of March 2023, the post-tests of achievement and creative thinking were applied to the two groups.

12. Results and Discussion

This section presents the results obtained from the collected data followed by their discussion according to the hypotheses of the study.

According to the first hypothesis that "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using imagination strategy and the control group taught by using the conventional method in the achievement test,". The results are presented in Table 4.
The results presented in table (4) indicated that the first hypothesis is rejected because the Sig-value is less than (0.05). This is due to the effectiveness of the imagination strategy in presenting the material in an interesting way that attracted students' attention and increased their motivation to learn English.

The results for the second hypothesis, "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using imagination strategy in the pre and post-tests in the creative thinking," are shown in Table 5.

According to the result presented in Table 5 the second hypothesis is refused. This is due to the imagination strategy procedures that facilitated the learning process for students, gave them a sense of responsibility and increased their creative thinking.

To examine the third hypothesis that "There is no statistically significant difference will be found between the mean scores of the control group taught by using conventional method in the pre and post-
tests in the creative thinking," the scores of pre-and post-tests were calculated and tested as revealed in table 6.

It is obvious from the values presented above that there was no difference between the pre & post-tests of the control group in creative thinking. This is because the Sig-value is more than (0.05). So, the third hypothesis is verified.

To verify the fourth hypothesis that, "There is no statistically significant difference will be found between the mean scores of the experimental group taught by using imagination strategy and the control group taught by using the conventional method in the creative thinking test", the T and Sig values were calculated as presented in Table 7.

Based on Table 7, it is clear that the Sig-value is less than (0.05). Hence the fourth null hypothesis is rejected.

Based on the results obtained, it can be said that the superiority of the experimental group over the control group in the creative thinking test is due to the effectiveness of imagination strategy in stimulating students’ mental processes such as attention, thinking, linking, perception, and creativity.
Conclusions

Based on the results of the current study, the researchers conclude that:

1. The imagination strategy has an efficient effect on the students' creative thinking.
2. The use of imagination strategy increases the students’ achievement.
3. The imagination strategy helps the teacher achieve the lesson objectives as it reduces effort and time, and keeps the information in the students’ minds.

Recommendations

The researchers recommend the following:

1. Training English language teachers to use the imagination strategy because of its importance in developing creative thinking among university students.
2. Distributing an illustration booklet containing models of imagination to English language teachers.
3. Recommending teachers to use activities that stimulate students’ imagination in teaching English.

Suggestions for Further Studies

To conduct further studies, the researchers suggest:

1. Conduct a similar study on critical thinking.
2. Conduct a similar study using another teaching strategy on creative thinking.

References

-Cunningham, Ch. (2015) "Imagination: Active in Teaching and Learning" Theses, Student Research, and Creative Activity: Department of Teaching, Learning and Teacher Education.


Textbook: Fluency in English          Day:
Level: Third Stage/English Dept. /College of Basic Education  Date:
Topic: Education  
Method: Imagination Strategy

(1) Behavioural objectives: at the end of the lesson, the student is expected to:

-1 know the meaning of some words (pursue, employment, acquires, textile areas, customary, widespread, substantial, dominant, accrue.(

-2 distinguish between (home - house), (clothes - cloths), (bake - roast), (earn - win), (follow - watch),
(greet - salute), (prevent - avoid), and (still – yet)

-3 combine sentences to make one complex statement, and

-4 differentiate between the use of (used to) and (be used to)

(2) Teaching Aids: whiteboard and coloured pictures.

(3) Presentation of the Lesson:

a- Introduction: the teacher prepares an introduction for an imaginary activity telling students that they are going to have a fun activity that requires absolute quietness. They close their eyes and imagine what the teacher reads to them after showing the pictures. The students must listen, focus and relax because they will enjoy a lot with the fictional pictures that are drawn by the teacher in their minds.

b- Applying imaginary activity: take a deep breath, close your eyes, relax, relax, relax… You can be at my house after school. Your father isn't here because he is at his work… your mother also isn't there because she is at her work. Suddenly you felt hungry… How to get food? Will you take ready-made? …
or go to a restaurant? Do you buy it cooked? … or canned or reserved? Your clothes are dirty… Who will wash them? End of the journey open your eyes.

c- The teacher asked students to talk about what they saw in the imaginary journey in general, let two or three students talk. Then the teacher asks the following questions to know the mental pictures of the students such as:

Q1 Was the house comfortable without your parents?
Q2 Can you cook your food? or buy it ready-made?
Q3 Is it necessary to have parents at the house?
Q4 Could you wash your clothes?
Q5 Are financial benefits given by your parents enable you to live without them?

Then, the teacher explains to the students the subject and their imaginary pictures of this journey.

d- Evaluation: to know the degree of students’ comprehension, the teacher chooses one of the students to talk about the subject orally in front of his colleagues using imaginary activity and answer the question … (explain the role of parents at the house.)?

e- Writing the subject: the teacher asks the students to write three sentences using their own words about what they have learnt from this imaginary activity.
1- The purpose of the passage is to
a. explain how Lake Vostok was discovered
and b. present an unexpected aspect of Antarctica’s geography
c. discuss future plans for Lake Vostok

2- The word lies could be replaced by
a. sleeps          b. sits             c. inclines

3- The ice could not be flat if
a. there were no lake b. the lake were not so big c. radio waves were not used

4- The word microbes could best be replaced by
a. pieces of dust    b. trapped bubbles  c. tiny organisms

5- The word downside is closest in meaning to
a. bottom level     b. negative aspect    c. buried section

Q2 Complete the following sentences with the appropriate words in brackets.
(20 Marks)

1- She --------- him with a smile. (greeted, saluted)

2- How many new --------- have been installed? (machines, engines)

3- She showed no --------- for good music. (appreciation, estimation)
4-Some words have many------ of meaning. (shades, shadows)

5-I like ------- more roses. (a few, few)

6- He --------- collect stamps when he was a boy. (used to, be used to)

7- He left -------- at the age of sixteen. (home, house)

8- Temples are places of --------- . (warship, worship)

9-Try to -------- danger. (avoid, prevent)

10-Bats could locate --------- . (obstruction, obstacles)

Q3 Give the meaning of the following words. (20 Marks)
textile areas, vicinity, substantial, widespread, pigeonholes, accrue, apparatus, dominant, strictly utilitarian, elapse .

Q4 Use the following words and expressions in sentences. (20 Marks)
roast, echo, one another, follow, regard, invention, neat, latest, steer, estimation .

Q5 Write a composition of about 80 words on only one of the following topics.
1- Family may suffer when mother goes out for work.
2- Application of the principle of echo-location.