



## The Impact of Using Micro-selection as a Learning Model on Iraqi College Student's Achievement in Reading Comprehension

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### ABSTRACT

The reading process is considered to be a mean of learning that hold highly efficient mean improve and master the language. It is seen as fundamental skill to learn in the classroom that aims at teaching language [1]. The main purpose of reading is to comprehend the new subjects. Many students at the universities face some difficulties when dealing with comprehending. In this study, the researchers have investigated how Micro Selection (MS) improved the 'achievements' related to English reading comprehension of Iraqi college students. This investigation was limited to the 2nd-year students from the English department at Imam AL-Khadum college, Baghdad, Iraq, during their current academic year (2022-2023). For fulfilling all the objectives of this study, the researchers hypothesised that there was no significant difference between the average scores of the 'achievements' of Group 1 students who used Micro Selection (i.e., **finding key words and main ideas**) and Group 2 students who employed the conventional reading techniques. In order to test the two hypotheses, the researcher chose a sample of (82)students in their second year in English department at Imam AL-Khadum college in Baghdad for the second half of academic year 2022-2023. Theresearchers selected the population sample randomly and then categorised them into 2 groups. Group 1 or the Experimental group included the students who used the Micro Selection technique, while Group 2 or the Control group included the students who did not use this technique. The numbers of the students in the experimental group are (32) and the control group (32). After the experiment has ended, the researcher conducted an achievement test in reading comprehension to check students' achievements before and after. A t-test formula is employed for the two groups' results. The results of this study highlighted the statistically significant differences between the average scores of the above groups. It was noted that the students in the experimental group showed a higher score compared to those in the control group.

**Keywords:** *Micro-selection, Achievement, Reading Comprehension*

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### INTRODUCTION

#### Aim of this Study

In this study, the researcher has determined the effect of applying a **Micro-selection** as learning model while teaching reading comprehension to Iraqi EFL college students.

#### Hypotheses of the study

In this study, the researchers have categorized the students, who are learning English reading comprehension, into the experimental and control groups, and thereafter evaluated their performance scores. The students in the Experimental group were taught with the help of a Micro Selection learning model, whereas the students in the control group were taught using traditional techniques like books. The researchers proposed a null hypothesis in the study that no statistical and significant difference existed between the performance scores of the students in the experimental and control groups.

#### Limitations of this Study

A few limitations of this study have been presented below:

- 1) The population sample used in the study was very small, as the researchers only focused on the 2nd year students in the English Department, Imam Al-Kadhum University College, Baghdad, Iraq, who had to attend 2 classes (i.e., morning sessions). They selected 60 students for the study.
- 2) The academic year 2022-2023
- 3) The instructional material is confined to prescribed text book (select reading) level two intermediate by Linda Lee and Erik Gundersen.

#### Value of the Study

The findings of this study could help the following individuals:

- 1) **Teachers:** Each teacher can use the Micro-selection learning model for improving their student's ability to read and understand English texts increase their performance scores.
- 2) **Students:** The findings of the study could allow the students to enhance their reading comprehension performance. Furthermore, they would also not get bored while learning.
- 3) **Future researchers:** In future, the researchers can derive a lot of knowledge and experience while teaching reading with the help of the Micro-selection learning model.

### **Procedures**

The procedures outlined below will be used to meet the goals of the current study.

- 1) Before experimentation, the researchers conducted a writing pre-test for determining the comprehension level of the students in both groups.
- 2) The 2nd-year students (≈ 60) were categorised randomly into 2 groups, i.e., experimental and control groups. The students in the experimental group were taught with the help of the Micro Selection learning model, whereas the students in the control group were taught using traditional techniques like books.
- 3) After this experiment, the researchers asked the students in the two groups to undertake a post-test for determining the effect of the technique.

## **THEORETICAL BACKGROUND**

### **Definition of Reading**

Reading comprehension is described as a procedure that involves the simultaneous extraction and construction of the meaning of the written text with the help of a reciprocal and holistic exchange of ideas between the message and interpreter [2].

### **Nature of Micro-selection (Finding key words and main ideas):**

Micro-selection, or the capacity to locate key words in every sentence, is a necessary skill that must be possessed by the pupils for understanding the process of deriving the primary idea in long reading passages [3]. Students can gradually learn this skill by starting with single sentences and subsequently transferring this ability to long text passages. The students' ability to determine key words in the sentences and understand the primary idea in a passage is a vital skill for many reasons. This ability makes it more likely for them to remember the significance of the text passage if they can determine and recall the primary idea, instead of attempting to remember every detail since they did not prioritise the information that they read. After identifying the primary idea, they can easily paraphrase the meaning of the sentence instead of memorizing the written text. Micro Selection is implemented at a sentence level in many ways before it is extended to determine the primary purpose of the passages and paragraphs. Students are trained to recognise crucial words before paraphrasing the meaning of the sentence. They learn how to recognise terms that are new to them, as well as how to look up meanings. For this purpose, they are instructed to use several resources, such as dictionaries, the Internet or seek the help of other people like teachers, peers, etc. Though Micro Selection [4] focuses on understanding specific words, phrases, and sentences, additional skills, such as detecting significant words and paraphrasing are equally crucial for comprehending the meaning of paragraphs or long passages.

### **Definition of the term 'Achievement'**

The term 'Achievement' refers to the skills, efforts and practice needed by the people for fulfilling a goal or mastering a technique. According to Hornby, 'achievement' is something that is accomplished effectively, especially with work and talent. Taxonomy Bloom described 3 components of learning achievement, i.e., cognitive, affective, and psychomotor [5]. These components are based on the fact that the students' accomplishments determine what they have learned over their educational journey. It is not easy to achieve something. It depends on the efforts put by the students for deriving knowledge from their surroundings. The Learner Oxford Advance Dictionary mentioned that the term 'Achievement' is derived from the word 'Achieve' described below:

- a) Successfully reaching a specific status, goal, or standard, based on their efforts, courage and skill.
- b) A task or process for achieving something, wherein the achievements of the students were dependent on their activity, process and success while learning a new educational activity.

Thus, a student's achievement highlights his progress while learning something new. An achievement does not only indicate the student's progress, but it also determines the teacher's success in teaching the students [6].

## **METHODOLOGY**

### **Design of the Experiment**

The researcher has presented the experimental technique used in the study. The experimental technique refers to a process where educational research is conducted so that the researcher can test and verify an idea or hypothesis of a causal effect after setting a situation and then comparing the results derived from the treatment and control groups. In this

study, the researchers used this experimental research technique for determining if the micro-selection learning model affects the students' reading comprehension process.

In this study, the researcher carried out the study in 2 groups, i.e., control and experimental groups. The students in the experimental group were taught descriptive writing with the help of a peer study group, while the control group students were taught using traditional techniques. The primary experimental design consisted of an experimental group that was offered treatment, whereas the control group did not receive any form of treatment. Here, the researchers established the experimental design that included nonrandomised, experimental-control groups using a pre-test and post-test design based on the objectives and nature of the study. All subjects in the control and experimental groups were asked to undergo a pre-test in reading comprehension, that was conducted 2 days before their training lectures.

**Table 1: Experimental Design [7]**

Group	Test	Treatment	Post test
Experimental	Pre test	MS	Post test
Control	Pre test	-----	Post test

### **Population and Sample Administration:**

#### ***Population***

Richard et al. [8] defined a population as a set of items, individuals, etc., which presented similar sampling properties. The population sample that was used in the study included second-year students from the English Department, of Imam AL-Kadhumi College, Baghdad, Iraq. This study was carried out during Semester 1 of their academic year (2022-2023).

#### ***Sample***

The population sample that was used in the study included second-year students, who were studying in 2 different classes in the English Department, Imam AL-Kadhumi College, Baghdad, Iraq. The researchers included 66 students in the study, who were further categorised into 2 groups, i.e., Experimental Group (MS) or Section A which included 33 students; and Control Group or Section B which included the rest of the 33 students. Here, the researchers integrated all the students in the 2 classes and selected the students for the 2 groups randomly, by drawing lots.

### **Data Collection**

For collecting valid data to carry out proper analysis, the following process was used in the study:

#### ***Test***

A test refers to a technique for measuring the individual's knowledge, ability and performance in a specific domain. It is an asset that includes a set of questions that have to be answered by the students. Their answers can be used for determining their achievement and improvement in the reading comprehension process. A pre-test and post-test analyses are conducted. The students are asked to submit a pre-test before their teacher implements the MS learning model while teaching reading comprehension. Thereafter, a post-test is carried out after the implementation of the MS learning model. For determining the face validity of the pre- and post-tests, the researchers asked the experts in the fields of Linguistics and ELT to examine the primary version of the test and establish its validity. Based on their expert opinion, the researchers concluded that all the items (except three) were valid. The 3 invalid items were thereafter replaced. The final version of the tests included 40 items. For ensuring the clarity of all test instructions, and after estimating the time needed by the students to answer the test items, the researchers asked 20 second-year students from Section A to answer the test on the 19th of February, 2022 at the Department of English, Imam AL-Kadhumi College, Baghdad. This was regarded as the pilot test in the study. The pilot test revealed that the students did not note any serious ambiguity related to the reading comprehension test. They further needed 60 mins for completing the test. The researchers determined the reliability of the test with the help of the Pearson Correlation Coefficient Formula, which presented the correlation coefficient between the students' scores, by comparing the scores of the odd-numbered and the even-numbered test items. The reliability coefficient was seen to be 0.92. Thereafter, the researchers conducted the pre-test and post-tests for understanding the differences between the reading comprehension skills of the students in both groups and to determine the impact of the MS learning model on their reading comprehension.

#### ***Reading Comprehension Pre-test achievement***

Any difference between the reading comprehension abilities of the students in the 2 groups noted in the pre-test, was determined using the t-test formula. The experimental group students showed an average reading comprehension score of 58, while the control group showed 57.2. The estimated t-value of 0.27 was lesser than the t-table value of 2.00, under 58 degrees of freedom at a significance level of 0.05. This indicated that there was no statistically significant difference between the reading comprehension scores of the 2 groups, during their pre-test (Table2).

**Table 2:** T-Values of the Experimental and Control Subjects' Achievements during the Reading Comprehension Pre-test

Group	N	X	S	df	Computed T-value	Tabulated T-value	Level of Significance
Exp.	32	58	23.8	58	0.27	2.00	0.05
Cont.	32	57.2	16.4				

**Experiment Applications**

The experiments were initiated on 16th February 2022 and were continued for 4 weeks during Semester 1 of the current academic year (2022-2023), up to 6th April 2022. All students in the control group were offered training lectures on Sunday, while the experimental group students were asked to attend lectures on Thursday.

**Control Group**

The students in the control group were taught by the researchers who used conventional techniques for teaching reading comprehension for 2 hours every week. The study material that was used for teaching reading comprehension to the control group students, included the passages in the textbooks prescribed to them for their reading activity at the second level. Here, the instructor read the assigned passage loudly to the students or asked the students to read the passage. Thereafter, she asked the students to answer a few comprehension questions, cleared their doubts regarding their vocabulary, and also explained the key structures that were used in the passage after identifying the difficulties they faced in understanding the passage.

**Experimental Group**

The following steps were implemented while teaching Micro Selection to the Experimental Group students:

- **Introducing the Micro Selection concept:** The students are taught that understanding the meanings of a few significant words used in the sentence was essential for understanding the complete sentence. One cannot remember each phrase or word that he has read or heard, however, if he learns to identify the key words, he can easily understand the meaning and sentiments behind the sentence. It is necessary and easy to discuss the vital concepts presented in the sentence, instead of memorising the whole sentence.
- **Model the identification of key words:** The teacher reads a sentence from the reading section for the students. For instance, in the social studies text, the teacher can read the sentence "The role of women in industry changed dramatically due to their widespread participation in traditional male jobs during World War II." The teacher can depict the process by pointing out key words in this sentence, such as women, industry, and World War II, and writing them on the board. Then, the teacher shows how by remembering only the key words, the students can rephrase the complete sentence, while maintaining the meaning of the sentence even if it is not written exactly as before. You might say, "I can restate the main idea in my own words by saying, During World War II, women proved they could work in any job in industry by performing tasks usually done by men."
- **Guiding the students in practicing Micro Selection:** The teachers can guide the students and help them practice by asking them to read a specific sentence and determine the key words to remember. Then, the students are asked to describe the meaning behind the sentence without copying the exact words used in the sentence. This exercise is repeated multiple times till a majority of the students have understood the process. The teachers then plan extra guided practise sessions for the students who require further instructions.
- **Pairing students for further practice:** Then, the teacher places the students into pairs, and ensure that two weak or struggling English learners are not placed within the same pair. The students are given a reading assignment and every student pair is asked to read every sentence of the passage slowly, identify the key words used in the sentence and rephrase the sentence in their words based on their understanding. The students have to read the sentences silently, and one student in the pair needs to identify the key words while the other student rephrases the sentence. After identifying the key words, the students need to write them on a separate paper or highlight them in the text using a highlighter. Then, the partners have to take turns identifying the key words and rephrasing the sentences. The teacher uses this time for offering guided practice to the students who require additional support.
- **Discussing the process:** The teacher gets the group together and asks every student pair to reveal the key words that they identified. If there is a disagreement, the students are asked to defend their choice.

**Final Administration of Reading Comprehension Post-Test**

After the experiments, the students in both groups were asked to answer the post-test on 6th April 2022. This post-test was conducted to assess the effect of the novel MS teaching model on the reading comprehension skills of the students from the experimental group compared to the control group students who were taught using traditional techniques.

The post-test results for the reading comprehension indicated that the experimental group students (i.e., Micro Selection) achieved a higher score than the control group students, i.e., 277 vs 25.2, respectively. Hence, a statistically significant difference was observed in regards to the reading comprehension skills of the two groups. As a result, the first hypothesis is rejected, whereas the alternate hypothesis is approved. The current study's findings show that employing the micro selection learning modal can help students improve their reading comprehension skills.

**Table 3:** T-Values for the post-test results related to the reading comprehension skills of the Experimental and Control Group students

Group	N	X	S	df	Computed T-value	Tabulated T-value	Level of Significance
Exp.	32	277.03	84.83	58	2.99	2.00	0.05
Cont.	32	25.2	144.6				

## CONCLUSIONS

Teachers have often recognised the difficulties faced by the students while identifying the primary idea presented in the passage. The students need to identify the key words in the passage to understand the passage. Micro Selection plays an important role in helping the students understand the process of identifying the key words in the sentence and thus, the primary idea expressed in the passage. The English language students face more difficulty owing to their limited vocabulary. If they are offered instructions, demonstrations and guided practise sessions to identify the important words, and are allowed to discuss the meaning of the words, all the students, especially the English language learners, would be significantly benefited.

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