The effect of metacognitive strategies on students' comprehension skills

Asst. Lect. Nagham Ahmed Falah

Nagham_ahmed@ijsu.edu.iq

Asst. Lect. Somaya Jafar Mnati

somaya.jafar@ijsu.edu.iq

Asst. Lect. Rusul Haider Jari

rusul.haider@ijsu.edu.iq

Imam Jaafar Al-Sadiq University/ Maysan Branch

Abstract

Reading comprehension is a very important skill. Teachers can use metacognitive strategies to develop university students' reading comprehension skill. The purpose of this study was to investigate the impact of metacognitive strategies on university students' reading comprehension skill. For this, 60 university students participated in the study. They were randomly selected to form an experimental group and a control group. To test reading ability, all 60 students took the TOEFL reading test with a reliability factor of 0.80. The experimental group was instructed in metacognitive strategies to promote their reading comprehension skill, and the control group received non-metacognitive strategy procedure for their reading comprehension skill. The post-test results showed that participants in the experimental group performed better than those in the control group. Therefore, it should be noted that metacognitive strategies have a significant impact on university students' reading comprehension skill.

Keywords: Metacognitive Strategies, Reading Comprehension Skill, University Students.

أثر استراتيجيات ما وراء المعرفة على مهارات الفهم لدى الطلبة

م.م نغم أحمد فالح

م.م سميه جعفر مناتي

م.م رسل حيدر جري
جامعة الأمام جعفر الصادق ع فرع ميسان

الملخص

القراءة والفهم هي مهارة مهمة جدا. يمكن للمدرسين استخدام استراتيجيات ما وراء المعرفية لتطوير مهارة الفهم القرائي لدى طلاب الجامعة. هدفت هذه الدراسة إلى معرفة أثر استراتيجيات ما وراء المعرفة على مهارة الفهم القرائي لدى طلبة الجامعة. ولهذا شارك في الدراسة ٦٠ طالبًا جامعيًا. وقد تم اختيارهم عشوائياً لتشكيل مجموعة تجريبية ومجموعة ضابطة. ولاختبار القدرة على القراءة، أجرى جميع الطلاب البالغ عددهم ٦٠ طالبًا اختبار القراءة TOEFL بمعامل موثوقية قدره ٠.٨٠. تم تعليم المجموعة التجريبية استراتيجيات ما وراء المعرفية لتعزيز مهارة فهم القراءة لديهم، وتلقت المجموعة الضابطة إجراءات استراتيجية غير ما وراء المعرفية لمهارة فهم القراءة لديهم. وأظهرت نتائج الاختبار البعدي أن أداء المشاركين في المجموعة التجريبية كان أفضل من أداء المشاركين في المجموعة الضابطة. ولذلك تجدر الإشارة إلى أن استراتيجيات ما وراء المعرفة لها تأثير كبير على مهارة الفهم القرائي لدى طلبة الجامعة.

الكلمات المفتاحية: الاستراتيجيات المعرفية، مهارة فهم القراءة، طلبة الجامعة.

Statement of the Problem and Purpose

Improving reading comprehension in general and using the right metacognitive techniques has become a big deal for people who want to learn English and get better at reading comprehension, both in and out of school.

As soon as EFL students start reading books in a foreign language, they need to use a dictionary to look up new words and ask questions about what they are reading. But for EFL students to fully grasp the material, they need to do more. Not only do the students need to do more, but so do their teachers. They need to help and guide their students in using the right learning methods both in and out of the classroom. To make sure that EFL students can use problem-related derivation, memorization, and analysis in their learning, these roles need to be shown.

It's too bad that people haven't thought about how these strategies can help students understand what they're reading; right now, students' only

knowledge of text is limited to their word definitions. For EFL students, reading different kinds of texts helps them build a dictionary and learn how different kinds of texts are used in different texts. They can also read more to improve their reading comprehension and use that understanding to get them to read more. But most people fail when it comes to reading texts and asking questions about them.

Hong (2007, p. 15) says that "reading comprehension is influenced by many factors, such as the characteristics of the reader, the nature of the reading material, and the learning task." Say Willingham (2006, pp. 42–43) says that control, sentence coherence, and connecting words to what the reader already knows are three important parts of reading comprehension. As another way to get students to connect what they read with what they already know, Willingham (2006) says that prior knowledge gets students to think about what a book is about before they use or read into it what they know from their own lives. he. Willingham says that vocabulary comprehension helps students decide what words mean by letting them use what they already know to make intelligent guesses.

With the help of teachers, getting students to use the right techniques is an important part of improving their reading comprehension. So, teachers should talk about strategies that might help EFL students until the students understand how to use them and can use these strategies in other situations that are similar. This isn't done very often, though, because many classrooms let teachers read texts and say what they understand based on comprehension and/or knowledge.

This could be a problem that makes it hard for you to understand what you're reading. As a metacognitive strategy to improve reading comprehension, summarizing, memorizing, and analyzing don't seem to be taken into account, and the only tasks that are based on text comprehension are used. So, we need to teach kids the right ways to

improve their reading comprehension so that they can keep track of and test their ability to understand a range of academic and non-academic texts.

Figure out how to study while you're studying. This person is mentally the same as others, but has some traits that make them unique. Some of these things might or might not change how well you understand what you read, no matter what approach you use. Readers need to know what they are reading and why they are reading it, based on what kind of motivation they have. Most people think that a good reader will guess what a new word means instead of looking it up in a dictionary. Clues from the surrounding text help the reader understand what they are reading. So, to help students understand the text better, it is important to teach them about the text's background information.

When it comes to reader traits, McCarthy (1991) says that a good reader always thinks about how speech is divided and what will happen next. Problem-solving, specializing in a wide range of areas, etc. For some models, like Singhal's (2001, p. 1), "reading strategies are important because they show how readers handle their interactions with text and how these strategies relate to understanding text." Birjandi, Mosallanejad, and Bagheridous (2006, p. 1) say.... It used to be that reading was a way to learn a language, and teachers would use reading tools to teach vocabulary and grammar. But now, learning to read is seen as a way to communicate.

So, the teacher's job is to teach the kids better ways to learn. Willingham (2006, p. 39) says that teaching reading techniques, which have been the subject of more than 500 studies in the last 25 years, is a great way to make it important. There are, however, ways to improve reading comprehension other than using reading comprehension strategies. These strategies are like a bag of tricks that can help with reading comprehension. It's easy to learn these tricks, and students

should be able to figure them out well. It is impossible to know how well a certain learning approach works without trying it out. Once the right learning strategy for the group of students has been chosen, it is important to test the students' ability to understand what they are reading, the way the strategy is used, and how well it works. Noonan (1999, pp. 250–265) says that Chinese university teachers have come up with one of the most complete ways to help students learn.

They found that people who read in a second language could greatly improve their reading speed and understanding if they knew which strategy to use with each type of text and for each reason. So, picking the right approach to improve reading comprehension might be a good idea. Noonan (1999) says that the way a reader chooses to read relies on their goals. Sometimes people read for fun, and other times they skim to remember what happened in a piece of writing. It is also possible to get specific details by scanning.

Objectives and Significance of the Study

This Study guides help English as a foreign language (EFL) students understand how important it is to use metacognitive strategies to improve and support reading comprehension, especially three metacognitive strategies to remember and analyze reading comprehension. It also shows how useful metacognitive strategies are for teaching and helps EFL teachers help and guide students in choosing the right metacognitive strategies to improve EFL learners' reading comprehension. Not only do students who want to improve their reading comprehension need to pay attention to this study, but so do teachers and people who make material.

1.4 Research Question

The present investigation tries to answer the following study question:

RQ: Do metacognitive strategies promote university students' reading comprehension skill?

Research Hypothesis

The research question is put in the following research null hypothesis:

H0: Metacognitive strategies do not promote university students' reading co Participants

The current study used two intact classrooms. 60 university students participated in the study. There were 30 university students in each class. One class was randomly chosen to form the experimental group and the other class was randomly chosen as the control group. To confirm learning ability and homogeneity, all 60 university students took the reading test of the official TOEFL textbook (McGraw-Hill, 2013) according to alpha of 0.80. According to the results obtained, all 60 students showed almost the same reading comprehension. The experimental group was then instructed on metacognitive strategies for developing reading skills, and the control group received non-metacognitive instruction in reading comprehension. The participants were both male and female.

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Instruments and Materials

The following tools and materials were used in the study:

1. The reading comprehension test from the official TOEFL guide (McGraw-Hill, 2013) was used as a pre-test so that the researcher could check the participant's reading comprehension. To verify the reliability coefficient, the test was tested and administered to 15 university students. The reliability coefficient of the test was 0.80 due to Cronbach's Alpha. The tests are presented in Appendix A.

2. Another reading comprehension test based on the official TOEFL guide (McGraw-Hill, 2013) was used as a post-test. In addition, this test was conducted with the same 15 university students at different

times to confirm reliability. The reliability coefficient of the post hoc test was calculated using Cronbach's Alpha (0.80). It is in Appendix B.

Data Collection Procedure

The current research was conducted at the university. 60 university students from two classes participated in the study. All were men and women between the ages of 25 and 42. The researchers randomly divided them into experimental and control groups. Before testing the participants' reading skills, the researchers tested their reliability by administering the TOEFL reading test (McGraw-Hill, 2013) to 15 university students.

After calculating the results, the reliability coefficient of the test was 0.80 using Cronbach's Alpha. This test was used as a preliminary test. Subsequently, 15 university students took the TOEFL reading test (McGraw-Hill, 2013), and the reliability coefficient of this test was 0.80 using Cronbach's Alpha, which was used as a follow-up test.

Then, 60 university students from the experimental and control groups were pre-tested to examine their reading ability. Pretests showed that all participants had nearly identical reading comprehension skills. The current study was assumed that university students from metacognitive procedure were trained to use these strategies.

The metacognitive strategies were chosen based on exercises commonly used in English textbooks for students. They are as follows:

Summary: In this metacognitive strategy, we restore the author's unspoken assumptions. It can also be used for other purposes. The writer asks the reader about the facts, the purpose of the argument, etc. Pending specific unspecified conclusions (Nuttall, 1996, pp. 114-115).

It is important to predict what can predict this legal strategy and what can happen to world education about what can happen to us and world education.

Memorization: According to Hoang and Hien (2006, p. 3) in this metacognitive strategy, memorization strategies empower language learning. It develops repetition that strengthens bonds. By using memorization strategies, students are more involved in encoding and integrating language materials and more actively retrieving information for use when needed.

Analysis: Depending on the analysis strategy, Brown (2001, p. 172) Analyzes the relationship between parts and the whole and how to analyze parts through common questions such as identifying types of structures, drawing, mapping, reasoning, differentiating and classifying them.

Using an analysis strategy is important because it allows you to work with the speaking part of the words in the text and try to understand why the author used a certain type of structure and what role the words play in the reading passage. In Analytical Strategies, Shang (2006, p. 2) states that "analysis is very important because it helps students make decisions based on synthesis and analysis." In the study, these metacognitive strategies were used by subjects in an experimental group to improve their reading comprehension. Readers learn to use while reading to understand the text.

Specific guidelines for an experimental group using the three metacognitive strategies are as follows:

Summary: The teacher summarized each of the 12 readings, provided a brief summary to activate students' general knowledge of the topic, and then asked students to discuss what was difficult to read in the first place. With the help of the teacher, I wanted the students to explain as much as possible in the target language. The new words in the text tried to guess their meaning according to the context. At the end, the students were given a test (test) of 30 questions, and their confidence was calculated (r=.80).

A week later, the students were given the same test (retest) to check their reliability. Memorization: The teacher learned new words by reading the 12 texts explaining and providing synonyms and antonyms in the target language and also wanted the students to intentionally say as much meaning as possible with the help of the teacher.

Analysis: The teacher marked some words in the text to work with suffixes, conjunctions and parts that talk about their function in context. An attempt was also made to understand the role of some structures in students' understanding of the passages.

A week later, the students were given the same test again (retest) to check their reliability. However, readers in the control group were not instructed to use the aforementioned metacognitive reading strategies. Thus, they followed reading comprehension instructions without strategic training.

A week later, the students were given the same test (retest) to check their reliability. Education continued for one semester. During this period, participants in the experimental group did their best to practice and use metacognitive learning strategies of derivation, memory, and analysis to promote reading comprehension.

Another thing to note is that participants in the experimental group were constantly reminded of the metacognitive learning strategies they needed to follow throughout the semester when reading comprehension.

Data Analysis Procedure

The present investigation utilized the following statistical procedures to analyze the data:

1. Cronbach's Alpha which is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. In this study, it was used to calculate the reliability amount of both the pretest and the posttest.

2. Independent Sample T-test which was employed to compare the means of both the experimental group and the control group's performances on the posttest in order to determine whether there was statistical evidence that the associated population means were significantly different.

Results of the Study

Both Groups' Performances on the Pretest

Table 4.1 Both Groups' Performances on the Pretest

Groups	N	Mean	Sig. (2-tailed)
Experimental	30	10.78	.438
Control	30	11.02	

As regards the performance of both the experimental and control groups on the pretest, the mean scores of both groups' participants were close to each other. The mean score of the experimental group is 10.78 and that of the control group is 11.02. According to table 4.1, the Sig. (2 tailed) value is .438, referring to the fact that it is more than 0.05. Thus, there remained no statistically significant difference between the two groups in terms of their reading comprehension ability in the pretest.

Both Groups' Performances on the Posttest

Table 4.2 Both Groups' Performances on the Posttest

Groups	N	Mean	Sig. (2 tailed)
Experimental	30	17.89	.000
Control	30	12.58	

The results of the posttest revealed that the participants of the experimental group outperformed their counterparts in the control group. Therefore, it should be pointed out that metacognitive strategies had a positive impact on students' reading comprehension skill. Thus, the

hypothesis of the study which claimed that metacognitive strategies do not promote university students' reading comprehension skill was rejected.

Discussion

In this section of the chapter, the question raised earlier in the study is answered and discussed.

RQ: Do metacognitive strategies promote university students' reading comprehension skill?

The results of the posttest revealed that the participants of the experimental group outperformed their counterparts in the control group. Therefore, it should be pointed out that metacognitive strategies had a positive impact on students' reading comprehension skill. Thus, the hypothesis of the study which claimed that metacognitive strategies do not promote university students' reading comprehension skill was rejected.

According to Willingham (2006, pp. 42-43), the three important components of reading comprehension are control, sentence coherence, and linking the sentence to the reader's background knowledge. In terms of strategies that encourage students to connect sentences with what they already know, Willingham (2006) adds that prior knowledge encourages students to consider the topic of a text before applying or reading into the text what they know from own life. he. Through vocabulary comprehension, Willingham argues that students are encouraged to use their background knowledge to make educated guesses about the meaning of unfamiliar words.

This person is cognitively equivalent to others, but with certain individual characteristics. Some of these characteristics may or may not affect reading comprehension regardless of the strategies used. To develop reading skills, readers need to know what they are reading and for what purpose they are reading, which depends on their type of motivation. A

good reader is generally thought to guess the meaning of a new word instead of looking it up in a dictionary. Contextual clues help the reader understand the reading passage.

Therefore, in order to understand the text better, it is necessary to teach the students about the contextual clues of the text. Regarding reader characteristics, McCarthy (1991) states that a good reader is one who always considers the division of discourse and predicts what will happen.

For some models such as strategies for developing reading comprehension have been studied by the following researchers: Most of the research cited in academic books and articles on reading development and comprehension has been conducted in native settings where people learn to read in their native language (Noonan, 1999, p. 256). According to Bagheri and Tavakoli (2001, p. 11), the use of certain strategies and techniques is considered successful for overall understanding. These strategies are good because they give readers the information they need to answer their reading questions.

Singhal (2001, p. 1) suggests that "reading strategies are important because they indicate how readers manage their interactions with written texts and how these strategies relate to text comprehension." According to Birjandi, Mosallanejad and Bagheridoos (2006, p. 212), reading was seen as a language learning process where teachers use reading materials to teach vocabulary and grammar, but now they see reading as a communicative process. Learning the meaning of reading. Therefore, the teacher's role is to teach students learning strategies that enable them to learn at a higher level.

Willingham (2006, p. 39) He said that it is very meaningful to teach reading comprehension strategies that have been the subject of over 500 studies over the past 25 years. However, reading comprehension is not built through reading comprehension strategies, which are only used

as a pack of tricks to indirectly improve reading comprehension. These tricks are easy to learn and students should be able to decipher these strategies effectively.

The effectiveness of a particular learning strategy cannot be determined without experimentation. Assuming that an appropriate learning strategy has been selected for the group of students, the students' reading performance, the type of strategy implementation, and the effectiveness of the strategy should be evaluated experimentally.

According to Noonan (1999, pp. 250-265), Chinese university teachers have developed one of the most comprehensive types of learning strategies. They found that second language readers can significantly improve their reading speed and comprehension if they choose the most appropriate strategy for different texts and purposes. Therefore, choosing an appropriate strategy for improving reading comprehension may be indicated. According to Noonan (1999), the choice of reading strategies depends on the readers' goals. Readers can have a reading goal for enjoyment or choose a skimming strategy to make sure they remember what happened in the written passage. Scanning is also used as a strategy to retrieve specific information.

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The use of metacognitive strategies in reading comprehension has a long history. In different areas of language teaching, strategies have received different attention in both language teaching and reading comprehension. The concept of reading comprehension itself is important to the meaning of reading comprehension.

One of the most useful facts about using metacognitive strategies is that they are about thinking about what might happen in a reading passage and predicting and predicting what the passage means through reading and/or rereading.

Conclusion

The current study used two intact classrooms. 60 university students participated in the study. There were 30 university students in each class. One class was randomly chosen to form the experimental group and the other class was randomly chosen as the control group. To confirm learning ability and homogeneity, all 60 university students took the reading test of the official TOEFL textbook (McGraw-Hill, 2013) according to alpha of 0.80.

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not promote university students' reading comprehension skill was rejected.

Pedagogical Implications of the Study

Many language teachers in the university context traditionally teach reading comprehension. They tend to ignore the insights that can be communicated to language learners using language learning strategies in general and metacognitive reasoning and analysis strategies in particular, and they tend to ignore the teachings of these skills. It is the task of methodologists and applied linguists to help understand the value of synthesizing and analyzing reading strategies.

Suggestions for Further Research

Here are some suggestions and insights on metacognitive strategies and reading comprehension: Psychological, biological, pedagogical and geographical factors play an important role in metacognitive language learning strategies and reading comprehension. This was not considered in this study. Second/foreign language learning can be greatly influenced by these factors, so researchers are encouraged to pay attention to these factors.