The Directed Reading Thinking Activity for Enhancing Reading Comprehension and Metacognitive Awareness among English Department Faculty of Education Students

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Abstract

The present study aimed at investigating the effectiveness of using the Directed Reading Thinking Activity (DRTA) on enhancing English reading comprehension skills and metacognitive awareness among first year English Department students at the Faculty of Education. It was a one group pre-, post-test, quasi- experimental design. The participants were thirty-eight first year English Department students at the Faculty of Education, Aswan University. The instruments were an English reading comprehension skills test and a metacognitive awareness scale for assessing the experimental group's reading comprehension skills and metacognitive awareness before and after the experiment. The researcher taught reading comprehension passages to the experimental group by using the DRTA. The obtained data was statistically treated by using the SPSS. The results revealed that the experimental group's reading comprehension skills and metacognitive awareness were enhanced as a result of using the DRTA in teaching them reading comprehension. Therefore, the DRTA was found to be effective in enhancing reading comprehension skills and metacognitive awareness among first year English Department Faculty of Education students.

Keywords: DRTA, reading comprehension skills, metacognitive awareness.

المستخلـــــص

القراءة الموجهة بنشاط تفكير لتحسين الفهم القرائى والوعى ما وراء المعرفى لدى طلاب شعبة اللغة الانجليزية بكلية التربية

هدفت الدراسة الحالية إلى فحص اثر استخدام القراءة الموجهة بنشاط تفكير فى تحسين الفهم القرائى والوعى ما وراء المعرفى لدى طلاب الفرقة الاولى بشعبة اللغة الانجليزية بكلية التربية. تكونت مجموعة الدراسة من ثمانية وثلاثين طالبًا من طلاب شعبة اللغة الإنجليزية الفرقة الأولى بالعام الجامعى ٢٠١٩–٢٠٢٠. وقد تم استخدام المنهج شبه التجريبى ذى المجموعة الواحدة، كما تم التدريس للمجموعة التجريبية الفهم القرائى باستخدام إستراتيجية القراءة الموجهة بنشاط تفكير. واشتملت أدوات البحث على اختبار مهارات الفهم القرائى باللغة الإنجليزية ومقياس الوعى ما وراء المعرفى الذى تم تطبيقه قبل استخدام القراءة الموجهة بنشاط تفكير وبعدها. وتمت معالجة البيانات إحصائيا باستخدام برنامج (SPSS). وقد أشارت النتائج إلى التحسن الملحوظ فى مهارات الفهم القرائى باللغة الانجليزية والوعى ما وراء المعرفى لدى مجموعة الدراسة بعد إستخدام القراءة الموجهة بنشاط تفكير. وبالتالى ظهرت فاعلية استخدام القراءة الموجهة بنشاط تفكير فى تنمية مهارات الفهم القرائى فى اللغة الإنجليزية والوعى ما وراء المعرفى لدى طلاب الفرقة الاولى شعبة اللغة الانجليزية بكلية التربية.

كلمـــات مفتاحيــــة: القراءة الموجهة بنشاط تفكير، مهارات الفهم القرائى باللغة الانجليزية، الوعى ما وراء المعرفة.

Introduction

Reading, as one of the four language skills, is very important to master in the context of Teaching English as a Foreign Language (TEFL). It is an important skill by which people begin to understand the surrounding world more and gain knowledge and experience. Reading is also a tool of communication and it is one of the most important tools we use every day to connect with each other. The ability to read is a vital skill because it helps expand the mind and develops the imagination. Reading is also essential for students because it allows them to study language and develop their language skills. Through reading learners can get information, expand vocabulary, be able to follow instructions, and be in touch with the word.

Mullis, Kennedy, Martin, and Sainsbury (2006) indicated that reading is fundamental to all forms of personal learning and intellectual growth. Ibrahem (2016) and Al-Soufi (2017) agreed that reading is crucial to learning as it allows achieving three important goals: building knowledge, acquiring information for accomplishing tasks, deriving pleasure and feeding our interests.

Reading comprehension is the ability to a process text and understanding its meaning. In this regard, Yuill and Oakhill (1991), Kingham (2003), Al Odwan (2012), and Conderman, Hedin, and Bresnahan (2013) indicated that reading comprehension is often described as constructing meaning from written words. Roe, Stoodt, and Bums (1987) listed the major aspects of comprehension as prediction, schemata, inferencing, and Meta cognition. For academic success, educators should develop students' reading comprehension as a study skill.

The link of metacognition to reading comprehension includes self-knowledge by the student of personal reading and learning abilities as well as strategies to accomplish the reading task and monitor comprehension of the content read. Effective readers use metacognitive

strategies to maximize learning through reading. They actively control cognitive activities while engaging in reading using metacognitive strategies to match their own concepts and goals for reading to the details of the text, monitoring, and revising reading and study skills as needed to accomplish the desired outcome (Volet, 1991; Hodge, Palmer, & Scott, 1992; Applegate, Quinn, & Applegate, 1994; Cook, 2006).

Metacognitive awareness is about becoming aware of one's strengths and weaknesses as a learner. It is about planning, monitoring, and evaluating. It is easily integrated into the thinking processes before, during, and after reading a lesson. Metacognition means cognition about cognition. So if cognition involves perceiving, understanding, remembering, and so forth, then metacognition involves thinking about one's own perceiving, understanding, remembering, etc. These various cognitions about cognitions can be termed 'meta perception', 'meta-comprehension', and 'meta memory' with 'metacognition' still the super ordinate term (Zheng, 1998; Fogarty, 2007; Christian, 2014).

Developing students' metacognitive awareness is essential for their success. Metacognition helps students be aware of what they have read and what is learned, and hence they succeed in text comprehension. Clearly, students with good metacognitive awareness are able to monitor and direct their own learning processes (Boyraz & Altinsoy, 2017).

One of the most important teaching strategies for student's professional success, improving their performance and promoting their motivation to read is Directed Reading Thinking Activity (DRTA). It may be an effective strategy for developing reading comprehension skills and metacognitive awareness among students.

Russell Stauffer (1969) developed the DRTA as a model to guide students to read critically and to reflect on their reading. The DRTA is a comprehension strategy that guides students in asking questions about a text, making predictions, and then reading to confirm or refute their

predictions. The DRTA encourages students to be active and thoughtful readers, enhancing their comprehension (McKenna & Robinson, 2002; Tierney & Readance, 2005; Al Odwan, 2012; Hans & Hans, 2015).

The DRTA is a framework that prepares students for reading, guides their interactions with texts, and helps them clarify and extend meaning of the text. It has two components: process and product. The process component consists of the following elements: (1) identifying purposes, (2) guiding the reader's adjustment of rate to fit his/her purposes and the material, (3) observing the reading in order to diagnose difficulties and offer help, and (4) developing comprehension. The product component is described as consisting of skill building activities. Prediction is also a central skill to most descriptions of comprehension monitoring and is regarded as a component of several successful programs for teaching metacognitive strategies (Witherspoon, 1995; Vacca & Vacca, 1996; Renn, 1999).

Context of the Problem

The researcher's work as a demonstrator at Aswan Faculty of Education revealed to her that most first year English Department students at Faculty of Education suffer from weaknesses in English reading comprehension skills. She also noticed that most first year English Department students do not have awareness through reading. They are not able to make correlations and predictions, while they are reading the text. This leads them to read without understanding what is read. Therefore, they are passive learners who do not interact with any text they read and they do not comprehend it.

To make sure of the existence of the problem of reading comprehension and metacognitive awareness among first year English Department students, the researcher discussed this problem with 3 professors of Linguistics. They indicated that in spite of the importance of reading comprehension and metacognitive awareness for first year

English Department students, many students suffer from weaknesses in both reading comprehension skills and metacognitive awareness. They indicated that these skills don't receive the required attention and focus during teaching reading comprehension.

The researcher checked previous studies conducted on university students' weaknesses in reading comprehension. She found out that many Egyptian studies discussed this issue. Examples are the following studies (Serag, 2000; El-marsafy, 2002; Abdel-Hack, 2006; Shehata, 2006; Naser, 2007; El-Ghandour, 2008; Mansour, 2010). El-Ghandour (2008) pointed out that students' failure in academic reading may be a result of not being instructed and trained to using suitable strategies for enhancing reading as a study skill.

It was also revealed to the researcher that these previous studies generally agreed that reading comprehension is indeed a process which must be taught to students. And, there are different factors which cause the students' low reading comprehension. Among these causes were: lack of prior and background knowledge. Furthermore, students do not utilize proper reading strategies. For academic success, students must be able to read effectively (Applegate, Quinn, & Applegate, 1994; Hart, 1996; Costa & Skeen, 1999; Renn, 1999; Alexander & Jetton, 2000; Alyousef, 2006; and Doolittle, Hicks, Triplett, Nichols, & Young, 2006).

The researcher also conducted a pilot study during the academic year 2017-2018 on a pilot sample (N=50) from first year English Department students at Aswan Faculty of Education. The researcher adopted a reading comprehension test from Educational Testing Service (2017). It contained three reading comprehension passages with twenty questions. The questions of the reading passages in this test measured the following reading comprehension skills: identifying the title, identifying the main idea, identifying specific stated information, identifying unfamiliar words from context, making predictions, and

summarizing the text. The result of this pilot test revealed that the pilot students' marks were very low.

In order to assess the pilot study students' metacognitive awareness level, the researcher adopted the Metacognitive Awareness Inventory designed by (Mokhtari & Reichard, 2002). She used it with the same pilot study students. The results revealed that they suffer from low metacognitive awareness.

Statement of the Problem

The pilot study conducted by the researcher revealed that first year English Department students at the Faculty of Education suffer from weaknesses in English reading comprehension skills and their metacognitive awareness is very low. Thus, the present research was carried out to investigate at the effectiveness of using the DRTA on enhancing reading comprehension skills and metacognitive awareness among first year English Department students at Faculty of Education.

Questions of the Study

1- What are the English reading comprehension skills required for first year English Department students at Faculty of Education?

2- What is the framework of the DRTA which will be used to develop English reading comprehension skills and metacognitive awareness among the experimental group?

3- What is the effectiveness of using the DRTA on enhancing English reading comprehension skills among the experimental group?

4- What is the effectiveness of using the DRTA on enhancing metacognitive awareness among the experimental group?

Hypotheses of the study

1- There would be a statistically significant difference in the mean scores of the experimental group between the pre- and post-overall reading comprehension skills test in favor of the post-test.

2- There would be a statistically significant difference between the mean scores of the experimental group on the literal level of the pre- and post- reading comprehension skills test in favor of the post-test.

3- There would be a statistically significant difference between the mean scores of the experimental group on the inferential level of the pre- and post- reading comprehension skills test in favor of the post-test.

4- There would be a statistically significant difference between the mean scores of the experimental group on the critical and evaluative level of the pre- and post-reading comprehension skills test in favor of the post-test.

5- There would be a statistically significant difference between the mean scores of the experimental group on the pre- and post- Metacognitive Awareness Scale in favor of the post application.

Objectives of the Study

The objectives of this study are to achieve the following:

▪ Enhancing the experimental group's reading comprehension skills by using the DRTA.

▪ Enhancing the experimental group's metacognitive awareness by using the DRTA.

Delimitations of the Study

1- EFL first year students (N=38) at Faculty of Education, Aswan University.

2- Fifteen sessions during the first semester of the academic year 2019-2020.

3- English literal, inferential, and critical and evaluative reading comprehension skills required for first year English Department students at the Faculty of Education.

4- Metacognitive awareness components are: metacognitive knowledge and metacognitive regulation. Metacognitive knowledge includes three sub processes: declarative knowledge, procedural knowledge and conditional knowledge, whereas metacognitive regulation includes a number of sub processes which are: planning, monitoring and self-evaluation.

Variables of the Study

1- The independent variable is:

- The DRTA.

2- The dependent variables are:

- EFL reading comprehension skills.
- Metacognitive awareness.

Definitions of terms

1- The Directed Reading Thinking Activity

The researcher operationally defined the Directed Reading Thinking Activity as a reading comprehension strategy by which students make predictions before, while, and after reading the text. It activates students' prior knowledge and teaches them to monitor their understanding of the text as they are reading.

2- Reading Comprehension

The researcher operationally defined reading comprehension as the process of constructing meaning, pre-reading, during reading and post reading through analyzing the text by practicing the DRTA.

3- Metacognitive awareness

The researcher operationally defined metacognitive awareness as a high-level mental process which helps students plan to learn, use appropriate strategies and skills to enhance reading comprehension, and make predictions about his/her performance, including the ability to monitor or regulate their reading process.

Theoretical Framework

Reading comprehension

Reading is viewed as a transitive process in which meaning is created by the reader (Weaver, 1994). Then, meaning is established through the transaction between the readers and what they are reading. As a person reads and responds to the text being read, the reader goes through the process of a series of stages by constructing interpretation – known as comprehension. During this transitive process of reading, the meaning is negotiated by the reader in order to comprehend (Renn, 1999).

Henn-Reinke and Chesner (2007) asserted that reading is making meaning, and comprehension is the ability to make meaning of the concepts, ideas, and plot from text. Thus, comprehension is a complex process which involves major factors that contribute to how a reader comprehends, including the reader himself or herself, the text, and the context of the reading situation.

Reading comprehension is identified as the level of understanding of a text/message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message (Hans & Hans, 2015). It is regarded as a thinking activity in which the reader uses his or her mental abilities to interact with the written text (Al-Soufi, 2017). AlUdaini (2011) pointed out that reading comprehension is the process of extracting and constructing meaning through interaction with written material. It is an interactive process in which the reader interacts with the text and employs his/her experience and knowledge to get meaning.

Importance of Developing Reading Comprehension

The importance of developing reading comprehension appears when we compare between reading only and reading with understanding. Hans and Hans (2015) revealed that the overarching goal of reading is comprehension. Yet comprehension is not achieved easily, they also indicated that teaching students how to comprehend texts and

discussions of how comprehension is achieved are important elements of a wide-ranging reading curriculum.

Clearly, reading comprehension is essential for understanding the content that is actually being read; otherwise, readers cannot make sense of what they read and they will have problems in their academic study. Therefore, it is very important to help students develop their reading comprehension skills.

Factors that Influence Reading Comprehension

▪ The reader's background knowledge

Stahl (2008) referred to the importance of using students' prior knowledge to effectively make specific connections to text. Conderman, Hedin and Bresnahan (2013) asserted that deeper comprehension occurs because readers make connections among chunks or sections of a certain text, to other texts which they have already read, and to their background knowledge. This implicit comprehension involves making inferences and managing embedded figurative language.

▪ The reader' awareness of reading process

Since reading a text with comprehension is the main goal of reading instruction, indicators must show students how to build comprehension through the direct instruction of comprehension strategies (Renn, 1999). Readers use many different text comprehension strategies to develop reading comprehension. These include monitoring for understanding, answering and generating questions, summarizing and being aware of and using a text's structure to aid comprehension (Hans & Hans, 2015).

Al-Soufi (2017) indicated that reading comprehension occurs when the reader himself realizes which skills and strategies are suitable for the type of the printed material, and knows how to apply them to accomplish the reading purpose. In the same context, Helwa (2010) pointed out that good readers monitor their reading comprehension and realize how to take strategic action when comprehension fails. They

integrate new knowledge with existing knowledge; know why they are reading (a text), and how to read it (strategies) as these factors significantly affect reading comprehension.

- ▪ **Reading Strategies**

Effective readers use strategies to understand what they read before, during, and after reading. Students should be a strategic reader and thinker and they should be aware of using reading strategies for active reading and studying, and then choose the best one to fit the course.

Comprehension strategies are conscious plans — sets of steps that good readers use to make sense of text. Comprehension strategy instruction helps students become purposeful, active readers who are in control of their own reading comprehension. Reading comprehension strategies such are; monitoring comprehension, metacognition, Graphic and semantic organizers, Answering questions, Generating questions, Recognizing story structure, and summarizing (Armbruster & Osborn, 2001). Metacognitive reading strategies and reading motivation play a significant role in enhancing reading comprehension (Meniado, 2016).

Metacognitive Awareness

Metacognitive awareness refers to the person's knowledge or perceptions about three variables: person, task, and strategy. The person variable refers to any knowledge or awareness about how one learns and processes cognitive activities. As for the task variable, it represents knowledge about the nature of the task. The third variable strategy includes the strategies needed for attaining the goals (Çakici, 2018).

Components of Metacognitive Awareness

The term metacognition refers to the knowledge and control of own cognitive system which encompasses of two main components, namely, metacognitive knowledge and metacognitive regulation. The metacognitive knowledge includes three sub processes that facilitate the reflective aspect of metacognition. The first sub process is declarative knowledge which means knowledge about self and about strategies. The

second sub process is procedural knowledge which refers to knowledge about how to use strategies. The third sub process is conditional knowledge that represents knowledge about when and why to use strategies. On the other hand, metacognitive regulation includes a number of sub processes that facilitate the control aspect of learning which are; planning, monitoring and self-evaluation (Flavel, 1979; Christian, 2014).

Importance of Developing Metacognitive Awareness

Developing students' cognitive and metacognitive skills helps them become self-directed learners, responsible for their learning, capable of self-instructing themselves, able to understand the reading comprehension texts by the minimum help of the instructor (Abou-Hadid, 2000). Moreover, researchers revealed that developing metacognitive awareness is very important not only for students but also for teachers (Thomas & Barksdale-Ladd, 2000).

Although special education programs stress on implementing student centered classrooms, they did not employ metacognitive strategies. Therefore, students are dependent learners who are less aware of what they need. Students rely upon their instructors for constant support. Integrating metacognitive reading and strategies into content instruction could help students learn material more efficiently, retain information longer, and generalize skills (Christian, 2014).

Reading Comprehension and Metacognitive Awareness

Reading process is done in many ways for many reasons. It includes many contexts, skills, interactions, and metacognitive tasks (Fogarty, 2007). Metacognition helps control cognitions through the actions and interactions of metacognitive knowledge, experiences, and strategies. Since 1979, metacognition has been extensively studied and found to be an effective tool for learning. In reading, metacognition is associated with improved vocabulary, reading awareness, strategies, comprehension, and task performance. Metacognition can be successfully taught to EFL learners. However, it has a limited influence on classrooms because classroom instruction lacks pedagogies of metacognition (Ozturk, 2017).

Guo (2008) emphasized that readers must use metacognitive awareness and invoke the conscious use of reading strategies, to comprehend a text successfully. He also asserted that many researchers have agreed that awareness and monitoring of reader's comprehension processes are critically important in predicting reading comprehension. Moreover, El-Marsafy (2002) stressed that without possessing comprehension skills and awareness of reading process, reading will be a mere chain of words used hypocritically until it becomes habitual and develops into a kind of mental illness till it becomes like an endemic disease.

Description of the DRTA

The DRTA was intended to develop students' ability to read critically and reflectively. Stauffer (1969) based his notions upon the belief that reading is a thinking process involving the reader in using his or her own experiences to reconstruct the author's ideas (Renn, 1999).

In fact, the DRTA guides students in making predictions about a text and then reading to confirm or refute their predictions. It encourages students to be active and thoughtful readers, enhancing their comprehension. When implementing the DRTA, teachers should follow these steps as was mentioned in (Directed Reading Thinking Activity, 2015)

- **D — DIRECT**: Teachers direct and stimulate students' thinking prior to reading a passage by scanning the title, chapter headings, illustrations, and other explanatory materials. Then, teachers should use open-ended questions to direct students as they make predictions about the content or perspective of the text (e.g., "Given this title, what do you think the passage will be about?"). Students should be encouraged to justify their responses and activate their prior knowledge.

- **R—READING**: Teachers should have students read up to the first preselected stopping point in the text. The teacher, then, prompts the students with questions about specific information and asks them to evaluate their predictions and refine them if necessary.

This process should be continued until students become able to read each section of the passage.

- **T—THINKING**: At the end of reading, teachers should have students go back through the text and think about their predictions. Students should verify or modify the accuracy of their predictions by finding supporting statements in the text. The DRTA may be implemented individually, in a small group, or with a whole class.
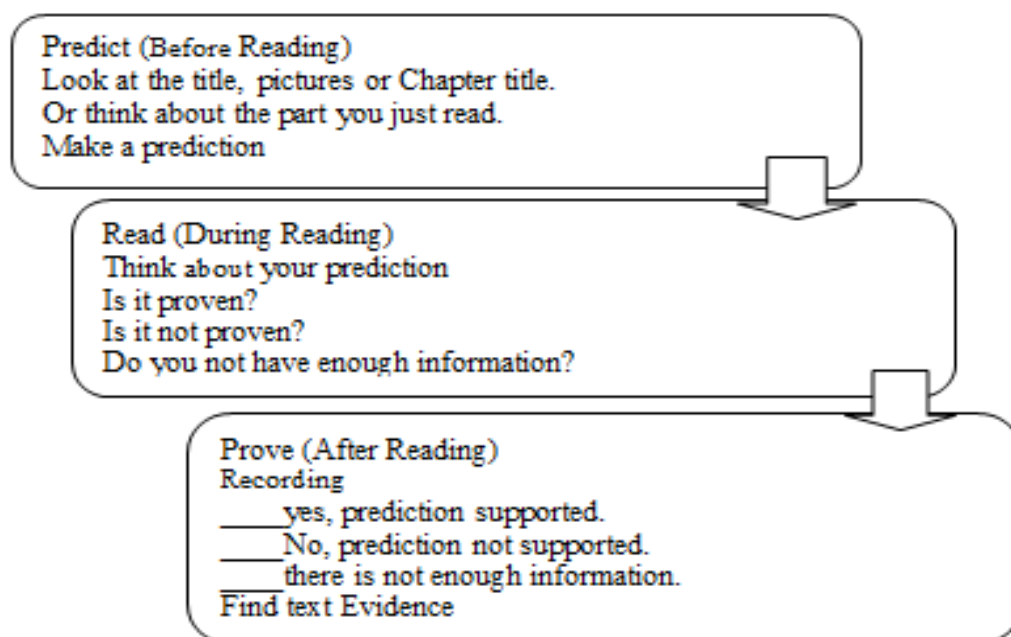
Importance of the DRTA Strategy

The DRTA can help the reader create a link between his prior knowledge and the text. Hence, the DRTA may provoke thinking activity and may be more stimulating to the student (Youssef, 1988). The DRTA is a useful strategy that can be used to help students enhance their comprehension, vocabulary, fluency, and word recognition skills (Singleton, 2009).

Hans and Hans (2015) also explained the importance of the DRTA indicating that the DRTA encourages students to be active and thoughtful readers. It activates students' prior knowledge and teaches them to monitor their understanding of the text as they are reading, and it helps strengthen reading and critical thinking skills.

Steps of the DRTA Cycle

The DRTA can be used for supporting text predictions. It is a generic strategy which can be implemented with almost any passage or story. It is based on a cycle in which students make a prediction, read a section of the text, decide if their prediction is supported or not, and then find evidence from the text to support their prediction. Then, this cycle (See: Figure 1) is repeated until the story or the passage is finished (Mesmer, 2016).

Predict (Before Reading)
Look at the title, pictures or Chapter title.
Or think about the part you just read.
Make a prediction

Read (During Reading)
Think about your prediction
Is it proven?
Is it not proven?
Do you not have enough information?

Prove (After Reading)
Recording
_____yes, prediction supported.
_____No, prediction not supported.
_____ there is not enough information.
Find text Evidence

Figure (1) The Directed Reading Thinking Activity (DRTA) Cycle
(**Source**: Mesmer, 2016, P. 96)

The DRTA and Reading Comprehension

Students need an effective strategy or approach to develop their learning and achieve academic success. Thompson (2007) asserted that if students are not benefiting from traditional instructional approaches, then educators have to consider another approach suitable for all learning styles that will prepare students for academic success. Educators must consider students' learning styles and teach skills, strategies, and techniques that produce high level of achievement for all learners.

Renn (1999) stated that reading experts agree that a systematic and research-based instructional approach that directly teaches students the skills or strategies which are essential to comprehend the reading material is necessary, if students are to comprehend what they are reading. The DRTA is regarded as an approach which is built around the core components of direct reading comprehension instruction.

Design of the Study

This study adopts the pre-, post-test quasi-experimental design that involves one experimental group.

Participants

The participants of the present study were 38 first year English Department students at Aswan Faculty of Education enrolled in the academic year 2019/2020. They represented one experimental group that the researcher taught by using the DRTA throughout all the sessions of the experiment.

Instruments

The researcher prepared and used the following instruments to fulfill the objectives of the present study:

1- An English reading comprehension test which was used as a pre-, post-test to assess the experimental group's reading comprehension skills before and after the experiment. (Available upon request from the researcher)

2- A metacognitive awareness scale which was used as a pre-, post-scale to assess the experimental group's metacognitive awareness level before and after the experiment. (Available upon request from the researcher)

Material

A framework of the DRTA which will be used to develop English reading comprehension skills and metacognitive awareness among the experimental group. (Available upon request from the researcher)

Procedures of the Study

The following procedures were followed to carry out the present study:

1- Reviewing literature and previous studies related to English reading comprehension skills, metacognitive awareness, and the DRTA.

2- Assigning the participants who represented one experimental group from first year English Department students at Faculty of Education, Aswan University.

3- Preparing an initial checklist of reading comprehension skills required for first year English Department students and submitting it to a jury of specialists to confirm its validity.

4- Designing an English reading comprehension skills test to assess the experimental group's reading comprehension skills before and after the experiment.

5- Submitting the English reading comprehension skills test to the same jury members to verify its validity.

6- Assessing the reliability of the English reading comprehension skills test by using the test/retest method.

7- Developing a metacognitive awareness scale to measure the level of metacognitive awareness among the experimental group before and after the experiment.

8- Submitting the metacognitive awareness scale to the same jury members to verify its validity.

9- Assessing the reliability of the metacognitive awareness scale by using the test/retest method.

10- Preparing the framework of the DRTA in terms of objectives, content, tasks and steps.

11- Submitting the framework of the DRTA to the same jury members to ensure its validity.

12- Preparing a teacher's manual and a student's manual considering the DRTA aims, activities, and evaluation.

13- Submitting the teacher's manual and the student's manual to the same jury members to confirm its validity.

14- Administering the reading comprehension skills test to the participants to assess their level in reading comprehension skills before implementing the experiment.

15- Administering the metacognitive awareness scale to the participants to assess their level in metacognitive awareness before implementing the experiment.

16- Teaching the participants reading comprehension passages by using the DRTA.

17- Administering the reading comprehension skills test to the participants to measure their level in reading comprehension skills after implementing the experiment.

18- Administering the metacognitive awareness scale to the participants to measure their level in metacognitive awareness after implementing the experiment.

19- Treating the obtained data statistically.

20- Analyzing and interpreting the results of the study.

21- Providing the conclusion, recommendations and suggestions.

Results of the Study

Hypothesis One Results

The first hypothesis stated that there would be a statistically significant difference in the mean scores of the experimental group between the pre- and post- overall reading comprehension skills test in favor of the post-test. The researcher used the t-test to test the significance of the difference in the mean scores of the experimental group between the pre- and post- overall reading comprehension skills. The difference was statically significant. Table (1) indicates that the mean score of the participants in the overall reading comprehension skills post-test is higher than their mean score in the pre-test, where the t-value is 10.236 which is significant at the (.01) level of significance. Consequently, the first hypothesis was confirmed. The effect size for the difference was (1.364).

Table (1) The t-value of the difference in the mean scores of the experimental group between the pre- and post- overall reading comprehension skills test

Skill	Measurement	N	Mean	S.D	t-value	Df	Sig.
Overall reading comprehension skills	**Pre**	38	8.868	2.462	10.236	37	0.01
	Post	38	12.605	2.331			

Hypothesis Two Results

The second hypothesis stated that there would be a statistically significant difference between the mean scores of the experimental group on the literal level of the pre- and post- reading comprehension skills test in favor of the post-test. The researcher used the t-test to test the significance of the difference in the mean scores of the experimental group on the literal level of the pre- and post- reading comprehension test. The difference was statically significant. Table (2) shows that the mean score of the participants on the literal level skills post-test is higher than their mean score in the pre-test, where the t-value is 7.879 which is significant at the (.01) level of significance. Thus, the second hypothesis was confirmed. The effect size for the difference was 1.278.

Table (2) The t-value of the difference between the mean scores of the experimental group on the literal level of the pre- and post- reading comprehension skills test

Skill	Measurement	N	Mean	S.D	t-value	df	Sig.
literal reading comprehension skills	Pre	38	3.394	1.386	7.879	37	0.01
	Post	38	5.342	1.236			

Hypothesis Three Results

The third hypothesis stated that there would be a statistically significant difference between the mean scores of the experimental group on the inferential level of the pre- and post- reading comprehension skills test in favor of the post-test. The t-test was used to test the significance of the difference in the mean scores of the experimental group on the inferential level of the pre- and post- reading comprehension test. The difference was statically significant. Table (3) shows that the mean score of the participants on the inferential level skills post-test is higher than their mean score in the pre-test, where the t-value is 3.932 which is significant at the (.01) level of significance. Hence, the third hypothesis was confirmed. The effect size for the difference was 0.637.

Table (3). The t-value of the difference between the mean scores of the experimental group on the inferential level of the pre- and post-reading comprehension skills test

Skill	Measurement	N	Mean	S.D	t-value	df	Sig.
Inferential reading comprehension skills	Pre	38	3.0789	1.0999	3.932	37	0.01
	Post	38	3.815	0.9545			

Hypothesis Four Results

The fourth hypothesis stated that there would be a statistically significant difference between the mean scores of the experimental group on the critical and evaluative level of the pre- and post-reading comprehension skills test in favor of the post-test. Table (4) illustrates that the mean score of the participants on the critical and evaluative level skills post-test is higher than their mean score in the pre-test, where the t-value is 5.957 which is significant at the (.01) level of significance. Hence, the fourth hypothesis was confirmed. The effect size for the difference was .966.

Table (4) The t-value of the difference between the mean scores of the experimental group on the critical and evaluative level of the pre- and post- reading comprehension skills test

Skill	Measurement	N	Mean	S.D	t-value	Df	Sig.
Critical and evaluative reading comprehension skills	Pre	38	2.3947	1.1517	5.957	37	0.01
	Post	38	3.4474	1.1317			

Hypothesis Five Results

The fifth hypothesis stated that there would be a statistically significant difference between the mean scores of the experimental group on the pre- and post- Metacognitive Awareness Scale in favor of the post application. Table (5) shows that the mean score of the participants on the post-Metacognitive Awareness Scale is higher than their mean score

on the pre-application, where the t-value is 3.293 which is significant at the (.01) level of significance. Hence, the fifth hypothesis was confirmed. The effect size for the difference was .534.

Table (5). The t-value of the difference between the mean scores of the experimental group on the metacognitive awareness scale

Scale	Measurement	N	Mean	S.D	t-value	Df	Sig.
The metacognitive awareness scale	Pre	38	102.368	14.415	3.293	37	0.01
	Post	38	111.868	12.997			

Discussion of the Results

The main objective of the present study is to develop English reading comprehension skills and metacognitive awareness among first year English Department students at Faculty of Education, Aswan University by using the DRTA. The present study included various activities and tasks that were based on using the DRTA and were introduced to the experimental group. The results of the present study showed that the DRTA improved the experimental group's English reading comprehension skills and their metacognitive awareness. These improvements can be due to the usefulness of using the DRTA as an effective model for developing reading comprehension skills and metacognitive awareness among first year English Department students at the faculty of education. This result is consistent with the results of previous studies such as (Stahl, 2008; Singleton 2009; Riper, 2010; Al Odwan, 2012; Friska, 2015; Ulfah, 2016; and Agustine, 2018). Figure (2) shows that the DRTA enhanced the experimental group's literal, inferential, and critical and evaluative reading comprehension skills.
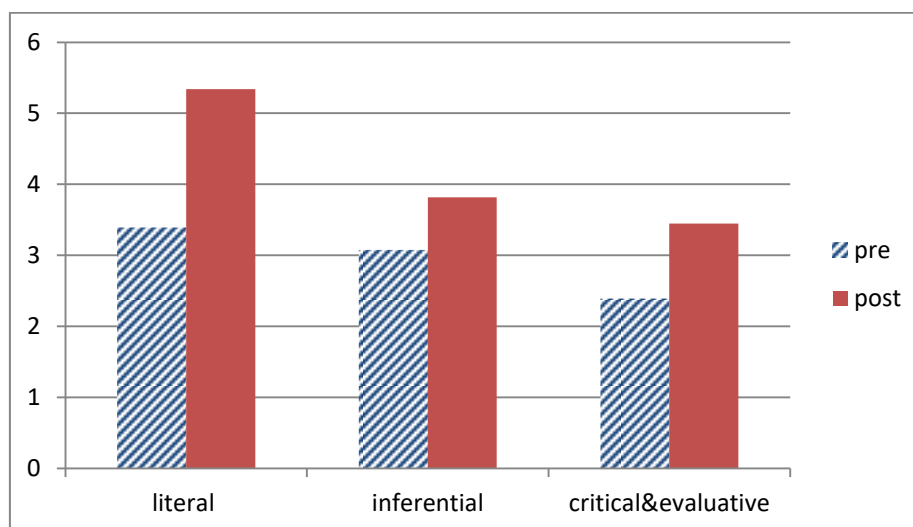
Figure (2). The mean scores of the experimental group on the literal, inferential, and critical and evaluative levels of the pre- and post- reading comprehension skills test

Recommendations

In the light of the findings of the present study, the following recommendations are suggested:

1- More attention should be given on how to develop the following reading comprehension skills; literal, inferential, critical and evaluative among university students when planning their EFL programs.

2- More care should be provided to implementing strategies of developing metacognitive awareness when designing EFL programs offered to university students.

3- Training programs should be provided to university instructors on the use of the DRTA in teaching English reading comprehension to their students.

4- Linguistic instructors at Egyptian universities should be trained on how to develop metacognitive awareness among their students.

Suggestions for Further Research

The following studies are suggested for further research:

1- Investigating the effectiveness of using the DRTA on developing critical reading skills among English Department Faculty of Education students.

2- Exploring the effectiveness of using the DRTA on reducing reading anxiety among English Department Faculty of Education students.

3- Studying the effectiveness of using the DRTA on developing motivation towards English reading among English Department Faculty of Education students.

4- Investigating the effectiveness of using the DRTA on developing English reading comprehension skills among general secondary stage students.

5- Examining the effectiveness of using the DRTA on developing metacognitive awareness among general secondary stage students.

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