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Enhancing Critical Thinking Skills to Improve Reading Comprehension Progress

By

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Dedication

I dedicate my work

To my caring parents
And my loving husband who reinforced and supported me to accomplish my goals.

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ABSTRACT

Teaching English for speakers of other languages is a challenging task, and one efficient way to enhance students' learning of another language is reading. Reading has an excessive influence on the development of language skills and even on learners' educational successes for decades. Reading is not just decoding sounds; actual reading is to comprehend what you read, to understand the author's purpose of writing such a selection, who are the audience, what is the main point behind reading a specific text. In order to enhance such kind of reading, students need to have the ability and the skills to think critically. In this study I exposed students who are struggling in reading comprehension to some comprehension skills and strategies to enhance their critical thinking that may affect their reading comprehension progress, and, accordingly their progress in other subject areas. Participants of the study are fifth grade students of high socio-economic background attending one of the well-known schools in Jeddah, Saudi-Arabia. A sample of 50 female students was conveniently selected. From the aforementioned sample, 25 students served as the study group and the others as a control group. A pre and post-test was administered before and after the intervention to both groups; participant observation was conducted, and a questionnaire was filled in by the

study group. Results show that the effect of enhancing critical thinking skills on fifth grade students' reading comprehension progress was positive. It is recommended to conduct the study on different classes, mixed groups, and on a larger scale.

Keywords: Critical Reading (CR), Reading Comprehension (RC), English for Speakers of Other Languages, Elementary classes

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Chapter one

Introduction

1.1 Background

Teaching English for speakers of other languages is a challenging task. In fact, research showed that one way to enhance students' learning of English or any foreign language is reading (Demiröz & Tercanlioglu , 2015). In order to figure out a proper definition of reading, we need to justify what fluent readers do while reading, how they read, the processes used in their reading, and how these processes work to build a general concept of what they are reading (Grabe, 2009). Reading is a process which encompasses the text, the reader, and the interface between them both (Weir, Huizhong & Yan, 2000, Grabe & Stoller, 2002; Koda 2005). Researchers' incessant attempts to explain how readers interact with the text component and how it influences the results of reading comprehension have tiled the way to notion a number of reading simulations, each focusing on a different aspect of reading skills (Bilikozen & Akyel, 2014).

Reading had an excessive influence on the development of language skills and even on educational success for decades (Cochran-Smith & Lytle, 1993). Ambe, Falconer and Leewer (2004) implied that it is important for second

language learners to master reading in English in order to function properly in different educational settings.

To master the reading skill means that you opened the knowledge window to all other academic fields (Anderson 2003). According to Wassid and Sunendar (2009), reading is a unique language skill that acts as the key of communication in human life. It is suggested to be unique because not all who have the ability to read are capable to develop their skills to comprehend and apply what they have read to their habits (Kargar & Zamanian, 2015). Virtually, all of our knowledge is increased through reading. Thus, the revolution of development these days mandate the creation of an environment which is based on reading not just as a hobby of shallow reading but critical reading (Brozo, Shiel & Topping, 2007). Such societies will attain knowledge with a distinctive perception which will stimulate their intelligence, so they will be more capable to stand for life challenges in the future (Brozo, Shiel & Topping, 2007).

In order to reach that kind of a society, we should have a motivating reading environment by building students' appropriate reading skills in all different stages of schools, to give a chance to all students to have the ability to read, think, criticize and comment (Kirsch, Jong, Lafontaine, McQueen, Mendelovits & Monseur, 2000).

Students acquire reading skills in their elementary school levels where the reading curriculum at this stage follows the basic skills and strategies of

reading comprehension by implementing effective methods in the teaching process (Kayiran & Karabay, 2012). To improve reading, students practice reading skills (Afflerbach, Pearson & Scott, 2008) such as, main idea and key details, theme, author's point of view etc. Unfortunately, while decoding, most of the students do not understand what they are reading. Comprehension strategies help a student to implement a skill in order to comprehend what s/he is reading (Afflerbach et.al, 2008) such as summarize, reread, ask and answer questions, among others. Taking into consideration those skills and strategies will form a critical way of thinking which will provoke the student's understanding of what they read.

In spite of all the efforts that language teachers put to improve students' performance, most of them still do not have adequate and suitable language skills. This difficulty appears to be caused by the traditional way that the majority of teachers use to teach students "what to think" rather than "how to think" (Schafersman, 1991). The concern of integrating critical thinking skills in educational curricula has caused a debate of conflicting ideas about whether this skill can be taught or not (Fahim & Sa'eepour, 2011). Several models and methods of teaching, assessing and measuring such skills and abilities have been established which are discussed by several experts. Despite all these arguments, everyone agrees that thinking critically is an essential goal in education (Reed, 1998).

According to Brown (2004) thinking abilities and language are strongly connected and closely cohesive. In fact, the perfect language curriculum purpose should look beyond the frame of teaching linguistic skills to promote the critical thinking skills among learners. The most crucial role goes to language teachers and especially to the ones who teach second and/or foreign languages. Teachers of second language have more responsibility than first language teachers in enhancing students' critical thinking skills (Davidson 1988). Thus, curriculums of English as a Second Language (ESL) should include the strategies of teaching such skills and give the opportunity for students to express themselves and comprehend what they are learning. Hence, teachers will be required to use various methods in order to introduce different features of critical thinking to help the students acquire these skills during their language learning process (Limpman, 2003).

To manage the overwhelming materials that today's students are exposed to each school day, they must attain critical thinking skills. Thus, one of the most important academic skills for students are critical thinking skills (Stewart & Stoller, 1990). Such skills are required not just for class learning but also for a permanent and lifelong learning (Allen, 2004).

Critical reading is a skill where the individual uses some techniques to think about what they read, analyze, assess and do their own judgment according to their knowledge about the text content (Ozdemir, 2002). During

the reading process, readers should be attentive to what they are reading, how is it written, and the purpose behind writing it; the reader should also be aware of the writer's approach, whether the written data is useful, and what specific words the writer uses to present his/her ideas (Maltepe, 2016). Critical reading can also be defined as "making judgments while reading and questioning what is read according to pre-determined standards" (Haris & Hodges, 1981, p: 74). In contrast to accepting the information and the writer's point of view as it is written, critical reading requires questioning and analyzing the writer's views (DeVoogd, 2007). Critical reading is a way of thinking, and using its skills supports the reader understanding of what is beyond the words that they are reading. Hence, this entails other skills, habits and knowledge of basic reading.

McGraw-Hill Reading Wonders (2014) is a reading language art program which is a segment of a whole curriculum for teaching English Language. This program uses a variety of skills and strategies that work on enhancing students' critical thinking through different techniques. In this study, this program's reading skills and strategies were used to study the improvement of reading comprehension through enhancing critical skills of fifth grade students in a private school in Jeddah, Saudi Arabia.

1.2 Importance of the study

Studies have confirmed that today's learners don't spend much time on reading or studying (Arum & Roksa, 2011). Teachers often complain that their

students don't like to read. This issue is considered to be a significant problem since students' basics of reading aren't founded properly especially in learning English as a second or foreign language. The lack of critical reading skills causes drawbacks in several subject areas and not just in the English language (Geske & Ozola, 2008). In order for students to be Critical Readers, they need to be exposed to skills that help them in analyzing, synthesizing and evaluating what they are reading (Labadie, Wetzel & Rogers, 2012).

In this study, students, who are struggling in reading comprehension, were exposed to some comprehension skills and strategies to enhance their critical thinking. This was done to examine if these strategies affected students' reading comprehension progress, and accordingly their progress (and comprehension) in other subject areas. Thus, working on such studies is important as it may highlight on some vital skills that may lead to a critical reading involved society.

1.3 Research Context

The study was conducted in one of the Saudi Arabian International schools in Jeddah, known as LIS. It is a high-socio-economic school that follows more than one curriculum. The school is qualified to teach both American and British curricula. It is also certified as an IGCSE and SAT test centers.

The school is comprised of six blocks, Preschool mixed gender, primary school from grade 1 to 3 mixed gender, elementary and middle school from grade 4 to 8 girls section and another for boys section, a high school following the British curriculum and another one following the American Curriculum; girls' sections are separated from the boys' ones. The study was conducted at the elementary school which follows the American Curriculum. The main mission of the school is to achieve its goal of "turning today's learners into tomorrow's leaders" by providing a stimulating attractive learning curriculum to fulfill the academic, social and cultural need of the students.

1.4 Research Question

The present study attempted to answer the following research question:

Is there any significant effect of enhancing critical thinking on reading comprehension progress of fifth graders who are learning English as a Second Language?

1.5 Operational Definition of terms

1- **Critical Reading:** *"*Critical reading skills are skills that will help students to be able to analyze, synthesize, and evaluate what is read" (Geske & Ozola, 2008, p. 209).

2- **Reading comprehension:** "The process of simultaneously extracting and constructing meaning through interaction and involvement with written

language" (Shanahan, Callison, Carriere , Duke, Pearson, Schatschneider & Torgesen, 2010, p. 5).

3- **Comprehension skills:** These skills are the ones which students use to analyze the context and connect it to their knowledge to develop a virtuous understanding of what they read (Hudson, 2007).

4- **Comprehension strategies:** Comprehension strategies are considered as a conscious performance that a reader apply during and after reading process in order to formulate a clear understanding of a given text (Davis, 2011)

5- **Critical thinking:** "Critical thinking is the art of analyzing and evaluating thinking with a view to improving it" (Paul and Elder, 2008, p.4).

1.6 Thesis division

This thesis is divided into six main chapters. Chapter one introduces the topic of the study. It highlights the importance of conducting such research, states the research question, and defines the keywords. Chapter two reviews the literature available on the topic. Chapter three clarifies the methodology used in this study. Then, chapter four presents the findings of the study and address the research question. Chapter five includes the discussion, and further is chapter six which deals with the limitations and recommendations, based on the finding of the study, for future act.

For other languages learners, reading ability is considered to be one of the most essential qskills to learn new information, thus it is the reader's access to

learn new information as well, comment and give alternative interpretations about it (Grabe, 2002). Accordingly, the reader should have the suitable comprehension skills and strategies to consume the given information and reflect on it (Sheorey & Mokhtari, 2001). Researchers have attempted to investigate the relationship between reading comprehension and critical thinking where the last has a vital influence on the reader's way of analyzing the data of the read text (Murphy et. al, 2009, Duesbery & Justice 2015, Fahim & Sa'eepour, 2011). To have an evidential base to build this study on, the following chapter will review the literature related to this topic.

Chapter Two

Review of Literature

The learning reading process has been considered of high social quality where it has a vital influence on the individual's social development. Thus, acquiring critical reading skills has been a primary objective in the educational curricula since it is considered to be the basic reference of students' knowledge (Fisher, 2005).

In the current study I highlight the main skills that can be used in the teaching-learning process in order to enhance students' critical thinking as well as to show how this may affect their reading comprehension progress. In the following section, a literature review is presented which attempts to accentuate the studies that discussed the issues of critical thinking and reading comprehension.

2.1 Critical Thinking (CT)

As per Paul, Elder and Bartel (1997), the origin concept of critical thinking goes back to ancient philosophers such as Socrates who determined the method of scrutinizing to people who couldn't reason their thoughts and justify their response of teaching methods (Paul et. al, 1997). As well, during the revolution of the 15th and 16th centuries, several issues were discussed and

critiely thought of such as art, society, religion and human nature, etc. believing that all life aspects need to be analyzed and criticized. In the twentieth century, the need of critical thinking in human's daily life and education was obviously recognized (Kargar & Zamanian, 2015).

Researchers have been trying to find a certain definition of critical thinking (CT). Sanders (1966) stated that any higher mental activity that is post the "comprehension" skill is considered as CT skill. Many researchers have emphasized that CT is highly connected to language learning as they have also conveyed that students who are capable to use such thinking skills have a higher performance on writing and reading (Liaw, 2007). Critical thinking is also defined as "an active and systematic cognitive strategy to examine, evaluate, understand events, solve problems, and make decisions on the basis of sound reasoning and valid evidence" (Levy, 1997, p. 236). Besides Willingham (2008) defined CT by "seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth"(p. 21). And according to Paul and Elder (2008) "Critical thinking is the art of analyzing and evaluating thinking with a view to improving it" (p.4).

Besides, this concept has received a growing emphasis among researchers (Ennis, 1981, Paul, 1985, Beyer, 1995 & Innabi & El Sheikh, 2007) especially

in education departments, who are looking to integrate high analytical skills into their curricula. Most educators are tempted to link CT with higher thinking skills of Bloom's Taxonomy (Sezer, 2008) which are analyzing, evaluating, and creating (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths, & Wittrock, 2001).

In order to develop these higher skills, the first key is to teach the students how to apply the question of "WHY" to any material in hand. Critical thinking is an inside behavior, which by practice will be a routine in an individual's manners. To achieve this level of thinking learners should doubt and discuss every information they read from the reliability of its source to their own opinions and conclusions (Roy & Macchiette, 2005). English second language teachers can incorporate CT skills into their classwork by having the student to be actively engaged in teaching-learning process through exploring debates of any given context, where ESL students have the chance to practice and reinforce such skills (Scott, 2008).

In his research, Richard Paul (2004) emphasizes the relation between reading comprehension and critical thinking. As he declares, "The reflective mind improves its thinking by reflectively thinking about it. Likewise, it improves its reading by reflectively thinking about how it is reading…"(p: 31). For instance, in reading the reflective mind manage how the reader is going to read during the reading process (Paul, 2004). Directly, when the mind has the order to read

with deep understanding, ideas of the given text will be revealed to be paraphrased and meanings will be put to each key sentence that may enhance the reader's understanding (Paul, 2004).

2.2 Reading Comprehension

Reading comprehension (RC) is the extraction of the written words meaning; it had been generally approved that the critical goal of teaching comprehension besides decoding is to let the child read independently (Deborah, Chris & Ong, 2005). Reading comprehension is the students' basic goal to gain the knowledge about their surrounding and themselves in order to react to what they are reading (Tierney, 2005). According to Kintsch and Kintsch (2005) reading comprehension is known as a method of understanding a written selection which includes the ability to integrate previous knowledge and vocabulary understanding in addition to the correct decoding abilities.

The prior learning of ESL provides the students with the necessary skills needed for accurate text decoding and word recognition. Reading comprehension is not only limited to decoding, but it also relies on the access of the students to the meaning of a given text (Kargar & Zamanian, 2015). Considering reading comprehension as an important part of learning English in most of the curricula, Barnett (1989) stated two main reasons for its significance; first, student maintain its skills and transform it to the acquisition of other subjects after they complete their language learning skills. Second, it

promotes the development of their literacy abilities. Moreover, reading comprehension employs several mental skills as Grabe (1991) stated which are analysis, interpretation, synthesis and assessment which are what researchers include as the basic skills of critical thinking.

Many studies were conducted on the students' reading comprehension skills and their progress. There is a debate regarding the most vital skill that may enhance its development (Hannon & Daneman, 2001; Ehrlich, Costes & Loridant, 1993). Some researchers emphasize on word knowledge skills as the major predictor of student's reading abilities (Hannon & Daneman, 2001); others stress on higher language skills which recommend high language comprehension processes as cognitive and metacognitive skills (Ehrlich, Costes & Loridant, 1993).

There are some studies on students' reading comprehension which include poor readers as a sample (Sparks, 2015); other studies focused on students with normal decoding abilities but poor comprehension (Nation, Clarke, Marshall & Durand, 2004). As well, several researches have attempted to explore the relationship between reading comprehension and different variables such as critical thinking, working memory, and language skills etc… (see for example, Goff et al., 2005; Fahim & Sa'eepour, 2011).

2.3 Studies on Critical Thinking and Reading Comprehension

Through the literature we can notice that there is a remarkable progress in the research of comprehension and critical thinking (Rosebaltt, 1995; Murphy et.al, 2005; Duesbery & Justice, 2015). As regards to the effect of formal critical thinking techniques on reading comprehension in the classroom, Rosenblatt (1995) claims that critical terminologies in literacy confuse the reader whereby the productivity of reading is negatively affected through the reading process. She points out that the critical analysis has placed the readers as a passive agents where they extract the embedded meaning that a text already empresses on their minds.

Conversely, other researchers have conducted several studies to prove the opposite where the training of critical thinking skills has a significant influence on language learning especially on literacy. Murphy, Wilkinson, Soter, Hennessey and Alexander (2009) piloted a meta-analysis empirical study which examines the effect of discussion in classrooms, as a method for practicing high thinking skills, on 4th to 5th graders' comprehension outcomes. Results showed that using such approaches produce considerable progress on critical thinking and accordingly on reading comprehension.

Moreover a quasi-experimental study was conducted by Duesbery and Justice (2015) whose attempt was to examine the influence of exposing Mary and William language art curriculum which is based on "…advanced-reading-level literature" on 4th and 5th grade students' reading comprehension. The

researchers selected *Journeys and Destination* unit from the aforementioned curriculum because it stresses on the concept of critical analysis and "advanced language art skills" (p. 153). The outcome of their study indicated that there was a significant progress in students' reading comprehension after the exposure of this unit (Duesbery & Justice, 2015).

In consistent with the studies that assure the positive influence of critical thinking on reading comprehension, a study was conducted by Fahim and Sa'eepour (2011) to examine the impact of teaching critical thinking skills on reading comprehension ability. The researchers applied the debate strategy to enhance the intermediate English language learners' critical thinking. Using an experimental research and according to a pre- post- test results of a control and experimental groups, an obvious difference was revealed between the two groups on reading comprehension test. Thus, integrating the teaching of critical thinking skills in ESL curricula has a vital influence on language learning progress (Fahim & Sa'eepour, 2011).

2.4 Critical Reading Comprehension Assessment

Through the review of literature regarding assessing students' reading comprehension, we find that it needs to encompass several types of comprehension questions as in standardized tests, meanwhile such assessments won't provide the teacher a clear full scale of a student's comprehension abilities and difficulties (Oakley & Barratt-Pugh, 2007 Fiene & McMahon,

2007; Wade, 1990). On the other hand, the day-by-day teacher's classroom assessment may provide him/her with a series of data, to show the student's progress over a period of time. This sort of assessment allows the teacher to have a clear insight about the suitable strategies that should be used in order to inform the instructions in a proper manner at class (Oakley, 2011).

As aforementioned, it's very difficult to find an effective way to assess students' critical reading skills (Israel, Bauserman, & Block, 2005). One of the most essential aspects in assessing critical reading skills is teaching and assessing metacognition; meanwhile, this is what enables students to use and evaluate their cognitive skills. Almasi (2004) stated that students need to be taught and assessed in conditional, procedural and declarative knowledge about comprehension strategies. Declarative knowledge is what the strategy is about, while procedural knowledge is how to use the strategy, as the conditional knowledge is to know when and why to use a specific strategy. All this implicates a high degree of metacognition (Oakley, 2011).

The literature in this field, which is still fairly limited, mentioned several techniques for assessing reading comprehension skills such as think aloud and questioning techniques (Oakley, 2011).

Giving students the chance to think aloud or to verbally express themselves provide teachers with valuable data about their cognitive skills (Wade, Trathern & Schraw, 1990). To think aloud is giving the child the

opportunity to say aloud what they are thinking about as s/he reads a selection or as listening to a text read aloud to him/her. With the aim of having the children to think aloud effectively, the teacher should model this technique and have the students witness such activity during discussing any comprehension text in different fields (Oakley, 2011). The importance of this modeling can't be enough emphasized if the teacher didn't let the student stop and think with her as they are discussing (Annandale et al., 2004). Cooperative learning can be essential in this case; when the teacher observes the students' group discussion s/he may has an insight to the reasoning behind their way of thinking. However, thinking aloud have some boundaries where the student may not be fully aware of their thoughts; besides, some students may have difficulties in expressing their ideas loudly (Oakley, 2011).

Questioning is a common technique of assessing comprehension skills. Different kinds of questions can be used such as 'When you read (or listened) to the text, did it remind you of anything you know about and believe? What? Why did it remind you of that? … Did it remind you of any experiences or things that have happened before (Keene, 2006, p. 55)? To design such questions, the teacher shouldn't focus on the text or its content, rather s/he should concentrate on the student's thinking skills.

Lastly, through every day contact, teachers may analyze students' thinking skills according to their daily work, different discussions and frequent

asked questions. For instance, teachers may assess their mental imagery through their oral discussions or written answers on critical given questions or from students quests on different topics.

In line with the literature, I found that there is a relationship between critical thinking and reading comprehension. For that purpose I will use several skills to enhance students' critical thinking who are struggling in reading comprehension to develop their comprehending abilities.

2.5 Critical literacy strategies

Teaching critical literacy skills gives students the chance to comprehend the word first then accordingly they can understand more their surrounding (Fehring & Green, 2001). The purpose of critical reading is to let each student understand what s/he is reading from his/her own perspective (Malden, 2007). Variety of strategies can be used to enhance meaningful critical reading skills like word strategies, main idea and details, cause and effect, drawing conclusion, synthesizing information in new form and making inference (Perfetti, Landi, & Oakhill, 2005). These strategies are as follows: prediction, WH- questions, bookmark, switching and think aloud strategies.

2.5.1 Prediction

It is a strategy which can be used through the reading process, pre-, during and post reading). In pre-reading, students will try to predict what the selection will be about according to title, illustration, them…etc. During reading students

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will try to figure out what will happen next in consistent to the previous events while in post-reading students will check whether their predictions adjust with the events or information of the whole selection or not (Sylvester & Farrell, 2009). Along these lines, all stages of reading will be interconnected to provide a comprehensible understanding of the given selection (Sylvester & Farrell, 2009).

Several overt attempts to engage the student in prediction actions have verified in positive interest in stories as well enhancing the child's memory to recall the events (Anderson, Wilkinson, Mason, & Shirey, 1987). Another study for Fielding, Anderson, and Pearson (1990) established that such activities promote the understanding of the whole story just if the predictions were compared to the text through reading it. Hence, these researches suggest several productive ways to encourage students to use such technique through their reading to increase their understanding by engaging their prior knowledge to what they are reading. Furthermore they assure on the positive impact of making predictions on narrative story understanding in which topics and themes are nearly familiar (Pearson & Duke, 2002).

2.5.2   Using "WH" questions

This strategy can be accomplished through the stages of reading or in the post-reading stage. Students will be given a chart of "WH" columns (who, where, when, what, why and how) to fill during or after reading a given

selection (Hickey, 1988). This will give the student a full picture of the most importance aspects of the text, thus it will provide him/her with a clear understanding of the whole text.

WH questions are efficient in helping students to understand the read text accurately by restructuring the data of the text, evaluating them, predicting and giving personal responses about what they are reading (Day & Park 2005). Yet, such questions can be used to follow up another forms, as yes/no questions. Particularly the questions "How" and "why" aid the students to respond actively to what they are reading and become interactive readers (Day & Park 2005). Above all "WH- questions" are thus motivating as they may directly endorse vocabulary development by encouraging the child to produce different verbal replies which will promote his reading comprehension progress by having a wider memorial vocabulary (Rowe, Leech & Cabrerab 2016)

2.5.3 Bookmark strategy

According to MacLaughlin and DeVoogd (2004), Bookmark is a helpful strategy in which students can apply through during and post reading stages. They divide or cut a paper into four equal parts. Each will be numbered by bookmark 1 to 4. Then, during reading, students decide what record or information to write with its reference (page and paragraph). Bookmarks will be organized as follows (MacLaughlin & DeVoogd, 2004):

Bookmark 1: Write or illustrate the most interesting part in the passage.

Bookmark 2: Write or illustrate a confusing part in the passage.

Bookmark 3: Write down a word that should be discussed by the whole class.

Bookmark 4: Select from the text an illustration, map or graph that helped to enhance your understanding.

2.5.4 Switching strategy

This strategy helps the student understand the writer's purpose. Some switches are like (MacLaughlin & DeVoogd, 2004):

a- Setting switch: Students will retell some events in different time or place.

b- Theme switch: Students will try to make up a different story by changing the theme for example "force is good instead of peace".

c- Gender switch: They will change the character of the story from a male to female or vice versa and tell how events would change.

2.5.5 Think aloud strategy

Think aloud is a strategy where the child is trained to make his/her thoughts audible in public by mentioning what is going through his/her mind while accomplishing a give task as reading (Pearson & Duke, 2002). Different studies showed the positive influence of this strategy on children's comprehension progress.

Bereiter and Bird (1985) in their study, they proved that students who were trained to think aloud while reading sessions had remarkable improvement in

comprehension in contrast with whom who were trained to use this strategy. Moreover, a convincing study done by Silven and Vauras (1992) confirmed that children who were impelled to think aloud as a part of their reading comprehension daily training had better outcome when they were asked to summarize a given text than children who didn't undergo such training.

In this chapter the reviews of the related literature were discussed to serve as the base of which the research question would rely on to find the suitable result. Critical reading as critical thinking terms were well defined; in addition studies on the relationship of both were presented. In addition, a detailed review of reading comprehension assessment was discussed, and finally some reading comprehension strategies were stated. The following chapter introduces the methodology followed in order to reach an evidential answer of the research question.

Chapter Three

Methodology

In this chapter the research design as well the procedures and methods of the study are presented. Also a presentation of the instruments used for data collection and how the data was going to be analyzed are outlined.

The experimental design was chosen in order to conduct this study. This kind of design is referred to as the "golden standard of research design" since it attempts to examine and establish the relationship between variables (Gorard, 2001, p. 193). This research is designed to study the cause which presents an independent variable and its effect on a dependent variable, where the causal variable can be manipulated (Picciano, 2004). Fraenkel, Wallen and Hyun (2012) stated that the most significant characteristic of such a research is its difference from other designs in two main ways, the "comparison of treatments and the direct manipulation of one or more independent variables by the researcher" (p. 296).

This experimental research technique is the most crucial design to use in order to serve the purpose of this study. Besides, to insure that this study has a high percentage of internal validity, the randomized pretest-posttest control group design was chosen to do the research. Yin (2003) explains that for validity and reliability purposes, it is advised to use multiple instruments to

collect data. I chose various instruments for this study based on a mixed method approach, i.e. both quantitative and qualitative methods as "Using multiple approaches can capitalize on the strengths of each approach and offset their different weaknesses" (Spratt, Walker & Robinson, 2004).

This design relied on two sample groups: an experiment and a control group. The design thus consisted of a pretest, intervention, and a post-test; these measurements, pre-test and post-test data, were collected for both samples at the same time (Fraenkel, et al., 2012) in addition an observation was conducted for both groups after the intervention to gain more data about the difference in both groups outcome. Finally, a questionnaire was given for the experimental group to complete to check their position from the new strategies used as well how they benefit from it in reading comprehension according to their point of view.

3.1 Participants

All fifth grade students attending elementary school at LIS Jeddah in Saudi Arabia were considered as a target population. In order to make a comprehensive implication that is possible to be generalized to the target population, an accessible population should be selected (Fraenkel, et al.,, 2012) . Thus, fifth grade students of high socio-economic background attending (LIS), one of the well-known schools at Saudi-Arabia, Jeddah present the accessible population of this study. The convenience sampling technique was used

(Fraenkel, et al., 2012). Thus, a sample of 50 female students was conveniently selected from the aforementioned sample.

Different teaching strategies were used to enhance the experimental group sample critical thinking. Fifty two 5th grade female students were conveniently selected from the chosen elementary school. Twenty-five students served as a control group and the other twenty seven served as the study group.

3.2 Instrumentation

In the education field, reading comprehension assessment is challenging for teachers, since comprehending skills are based on mind processes (Fiene & McMahon, 2007; Wade, 1990; Oakley & BarrattPugh, 2007). Oakley (2011) found that assessing reading comprehension shouldn't be only based on "comprehension-check questions" (p. 280) as it would not give the teacher a clear detailed picture of the students' progress in critical comprehension. Accordingly, s/he must use several tools to assess the students' improvement in reading comprehension (Oakley, 2011). For the purpose of this study I decided to use three instruments for data collection: Pre-posttest, observation and a questionnaire.

The pre-posttest gave me the main data for my study where results indicated clearly the students' progress. Hence, the study was to test the effect of enhancing critical thinking on reading comprehension progress. As a second tool, I used observation to gain more data about the difference in

comprehension progress between both groups. Finally, the questionnaire was used to show how the study group students react toward such intervention.

3.2.1 Pre- and Post-Tests

I designed two comprehension tests to use as pre-and post-tests (see Appendices A & B). The two tests include two equivalent 5th grade level comprehension passages. To assure their equivalence, passages were selected from Nebraska State Accountability (NeSA) fifth grade reading practice tests (Nebraska Department of Education, 2009). Also, to make sure of their reliability I selected two passages which cover the same theme. These texts were followed with critical questions in order to measure the students' progress after implementing some critical thinking strategies during their daily English learning sessions. The main objective of critical comprehensive reading is to have students who will be able to interact with the words and concepts of given grade level reading texts to construct a meaningful image of what they read.

I designed the questions of both tests according to the fifth grade critical reading standards of *Mac Graw-Hill Wonders Curriculum* (Mac Graw-Hill, 2014).

1. Accurate Understanding
a. Use pre-reading skills and techniques independently such as: use prior knowledge to connect ideas to the title in order to predict what is the text talking about, formulate some inquiries that might be answered during reading…

b. Figure out the main idea in a specific part of the text and locate its supporting details.

c. Use comprehension strategies such as compare and contrast, author's point of view, cause and effect to recall or organize information.

2. Implications and Interpretation

a. Use previous knowledge or experience or even text evidence to draw inference between it and what will be next in the text.

b. Designate the different elements of a character's development in a given reading text and draw conclusions about it according to its actions and qualities.

3. Summary and Generalization

a. Apply the summarizing technique using the main idea and supporting details of each part of a selection to have a summery for the entire text.

b. Back up an argumentative concepts by referring to relevant information of the text and issues across the selection.

c. Organize the ideas of the text in the WH. organizer.

4. Analysis and Evaluation

a. Figure out the main conflict of a given text and its solution

b. Identify the contrast between the events through the text setting

c. Observe all the aspects of a text, make connections, analyze and evaluate its data.

3.2.1 Intervention strategies

The intervention consisted of several approaches that were used during English reading sessions. The aim of these strategies was to enhance students' critical reading skills which may affect positively the progress of their reading comprehension. Furthermore, I emphasized the use of comprehension skills and strategies by using critical literacy strategies such as prediction, wh-questions, bookmark, switching and think aloud strategies.

I used these aforementioned strategies to enhance students' critical reading in order to study its effect on their reading comprehension progress.

3.2.2 Observation

Observation is defined as "the systematic description of events, behaviors, and artifacts in the social setting chosen for study" (Marshall & Rossman, 1989, p: 79). Observation is a data collection instrument which involves a methodical collection and analysis of verbal and nonverbal actions as they occur in different contexts. It is considered as an essential strategy when collecting data when studying students since you can get a variety of information that they can't express through direct testing (Bottorff, 2004).

For the current study, participant observation was used as a second instrument of data collection. According to Dewalt and Dewalt (2002), participant observation is an instrument which enables researchers to gather information

about their study participants while being involved in certain activities in the natural setting of the study.

A checklist was filled in when a given activity took place (see Appendix C). Each activity consisted of a short passage given to the students who were working in groups, then, they had to discuss its content and answer multiple choice questions. Each answer should be supplemented with an evidence from the text and interpretation of why other answers are wrong. Through this activity students used the "think aloud" strategy which gave me the chance to detect students' thinking between the lines.

Think aloud strategy can provide teachers with a clear vision about the students' reasoning thinking process (Wade et al., 1990). On the words of that, I as a participant observer had to fill in the checklist while observing students after giving them a comprehension text to read and then discuss in class. The observation checklist was designed according to Irwin (2007) Reading Rubric (see Appendix D).

3.2.3 Questionnaire

As per Patton (2001) "Triangulation strengthens a study by combining methods, this can mean using several kinds of methods or data, including using both quantitative and qualitative approaches" (p. 247). Hence, to make sure of my study's triangulation I used a questionnaire as a for data collection. It

involves a variety of items that permits the researcher to gather reliable data about the research topic (Collis & Hussey, 2003)

Saunders, Lewis and Thornhill (2007) stated that there are several kinds of questionnaire that a researcher might administer. The latter also mentioned the importance of the participants whom the questionnaire is addressed to when deciding to choose or formulate a questionnaire (Saunders et al., 2007, p 363). Accordingly, I constructed a self-administered questionnaire, since it is easy to be administered and analyzed as well as it minimizes the researcher bias. The questionnaire purpose was to gather data about the students' position from the used intervention (see questionnaire in Appendix E).

3.3 Procedure

One of the reading skills categories is the critical reading skills which enhance students' skills i.e., analyzing, synthesizing and evaluating of what is read (Hudson, 2007). To enhance such skills in class, the teacher should expose students to text that shows the relationships or comparing events; and to adopt a critical attitude toward a given text (Roy & Macchiette, 2005). Consequently, they will be taught to be critical thinkers (Paul 2004). Variety of strategies can be used to enrich expressive critical reading; the purpose of critical reading is to help each student understand what s/he is reading from his/her own perspective (Malden, 2007).

Thus, to study the effect of enhancing critical thinking skills on students' reading comprehension abilities, a pre-test was administered to both control and study groups. Several strategies were used for two months in the study group class, while the control group was taught normally. Afterwards, the post-test was also administered for both groups to analyze the relationship between the intervention and the outcome.

3.3.2 Participant observation

As a second source of data collection, a participant observation was directed in both classes after the intervention to detect the progress between the two groups. I arranged students in class by groups of 5. Each group was given a short passage with number of critical related multiple choice questions. Students were asked to analyze each question, discuss it, find the correct answer, give the evidence why it is correct and prove that the other answers are wrong. I observed the work of each group and filled in a critical reading objective checklist (see Appendix E).

3.3.3 Questionnaire

A short self-administered questionnaire was distributed to the study group after the intervention was done. It provided me with information about the students' reaction toward the used intervention, what were the positive and negative aspects from their point of view.

3.4 Validity and reliability

Recently, both qualitative and quantitative research have been excessively used to explore studies in education (Damien, Walter & Joyce, 1996); yet to get credible result, more complex process should be followed in order to ascertain objectivity in such studies (Fraenkel, et. al., 2012). In regard to objectivity two noteworthy issues are validity and reliability.

In research, triangulation is considered as a high priority technique to determine its internal validity (Gliner, 1994). There are several types of triangulation technique as Miles and Huberman (1994) illustrate; triangulation by data is one of the types that are the combination between two or more kinds of data collection methods, quantitative and qualitative techniques. The latter type was used in this study, in which the data was collected through three different instruments questionnaire, observation and pre- and post-tests. Hopefully this practice leads to a trustworthiness research.

Fraenkel, et al., (2012), alternatively, defined reliability as: "The consistency of the scores obtained – how consistent they are for each individual from one administration of an instrument to another." (p. 157). Using the pre- and post- comprehension tests covering the same level areas with similar questions' objectives to collect data and the consistency in the participants' responses ensured the reliability of this study.

Moreover to assure on the reliability of the observation's data an inter-rater reliability was used where one of the English teachers observed the students at the same time in order to measure the degree to which both observers give consistent estimation of the same behaviors.

3.5 Ethics in education research

Research ethics is a multifaceted concept, basically concerned with the values of right and wrong manner through conducting any research (Gallagher, 2009). According to Robson (2000) ethical issues are highly considered when it comes to work with children on a certain study topic. Thus, most of the governmental laws seek to guarantee that the children sample has special protection with the respecting right of their parents (Robson, 2000).

For that concern, the research ethics was considered while conducting this research study by getting the IRB approval. First of all, I secured an oral agreement from the school's administration after a meeting which revolved around the main purpose of the study and the technique that would be used through implementing the intervention in English classes in the study class. Second, the research purpose was explained in details to each participant taking a role in this study (see appendix H). Additionally, consents were sent to the students' parents to assure their approval on taking their child as a sample of this study (see appendices F&G).

As an important ethical consideration is that I made sure that no physical or psychological harm affects the participant, as well a safe environment was organized in order to conduct the study.

In conclusion, this chapter presented the methodology used in this study and dealt in details with the designed used from sampling technique to the data collection tools as well the procedure. The following chapter displays the results of the collected data demonstrated by tables and graphs to show the effect of the intervention clearly.

Chapter four

Results

Through the history of teaching reading, early childhood curricular objectives stressed on giving time for teaching students decoding strategies rather than comprehending what they read (Owocki, 2003). This issue produced a serious problem in the student's reading comprehension progress at the elementary levels. Accordingly, at this stage the students start to suffer from lack of critical reading which affects their studies in different fields. Hence, the main purpose of this study was to show the effect of enhancing critical reading skills on fifth graders' reading comprehension progress. Three different instruments were used to collect the suitable data to answer the research question.

Is there any significant effect of enhancing critical thinking on reading comprehension progress of fifth graders who are learning English as a Second Language?

4.1 Pre- and Post-Test results

Two comprehension tests were administered to both groups, study and control group, before and after the intervention (see Appendices A & B). The two tests included two equivalent 5th grade level comprehension passages. To ensure the difficulty level of the passages, they were selected from Nebraska

State Accountability (NeSA) fifth grade reading practice tests (Nebraska Department of Education, 2009). The two texts were followed by critical questions to measure the effect of the new strategies used in class.

The results of the test for both groups are shown in the following tables.

Table 1 Control group pretest results

Students	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
S1	1	1	1	1	1	0	1	0	0	0
S2	1	0	0	1	1	0	0	0	0	0
S3	1	1	0	1	0	1	1	0	1	1
S4	0	1	1	0	1	0	1	0	1	1
S5	0	0	1	0	0	0	0	1	0	0
S6	1	1	0	1	1	1	1	0	0	0
S7	1	1	1	1	0	1	1	0	0	1
S8	1	1	0	1	1	0	1	0	1	0
S9	1	0	1	1	1	0	0	1	0	0
S10	1	0	0	0	0	0	1	0	0	0
S11	1	0	0	1	0	1	0	1	0	0
S12	1	0	0	1	0	1	0	0	0	0
S13	1	1	1	1	0	0	1	1	1	0
S14	1	0	0	0	0	0	1	0	0	0
S15	1	1	0	1	0	0	1	0	0	0
S16	1	1	0	0	0	1	1	0	0	0
S17	0	0	1	0	0	0	0	1	0	0
S18	1	1	0	1	1	0	1	0	0	1
S19	1	1	1	1	0	0	1	0	0	0
S20	1	0	0	0	0	0	0	0	0	0
S21	1	1	1	0	0	0	1	1	0	1

S22	0	0	0	0	0	0	0	0	0	0
S23	1	0	0	0	0	0	0	1	0	0
S24	0	0	0	1	1	0	1	1	0	0
S25	1	0	0	1	0	1	0	1	0	0
Total correct answer	20	12	9	15	8	7	15	9	4	5

In table 1 above, a review of the control group sample pre-test results is presented. It shows each student's result on every question included in the test. "0" is for the wrong answer and "1" is for the correct one. In addition a sum of the correct answers for each question is stated in order to show the students' level in different aspects of reading comprehension.

The presented data in table 1, shows that the majority of students were able to answer Q1 "Why the mother refused to let her children adopt a new pet"? As it also reveals that students struggle in Q5 and Q6 which deals with using vocabulary strategies. But the utmost problem was in answering the open question where the students had to reflect in their own words for example Q9 "In the second Paragraph the narrator mentioned a question when the kids were confused which puppy they should choose. "How would we ever decide?" Give one advice for a person to help him/her choose the suitable puppy to raise". Some students tried to fetch the answer from the text and wrote sentences from it, others described a puppy without linking their description to the question and some didn't answer it; for example, students answered as follows "they wagged

their tails as if each had a motor attached", "they joyfully licked every bare inch of skin we had", "Puppies are so beautiful" and "A dog has soft skin with a nice bark sound."

Table 2 control group post test result

Students	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
S1	1	0	1	1	0	1	1	1	0	0
S2	1	0	1	0	1	1	0	0	0	0
S3	1	1	1	1	0	0	0	1	1	1
S4	1	1	1	1	0	1	1	0	0	0
S5	0	0	1	0	0	0	1	0	0	0
S6	1	1	1	1	0	0	0	0	0	1
S7	1	0	1	0	1	1	1	0	1	0
S8	1	1	1	1	0	0	1	1	0	0
S9	1	1	1	0	0	0	0	0	0	0
S10	1	1	0	0	0	0	0	1	0	0
S11	1	1	0	1	0	0	1	0	0	0
S12	1	0	0	1	1	0	0	1	0	0
S13	1	1	0	1	0	0	1	1	0	0
S14	0	0	0	0	0	0	0	0	0	0
S15	1	1	1	1	0	1	0	1	0	0
S16	1	0	1	1	0	1	1	1	0	0
S17	0	0	1	1	0	0	0	0	0	0
S18	1	0	1	0	0	1	1	1	0	0
S19	1	0	0	1	0	1	1	1	0	1
S20	0	1	0	0	1	0	0	1	0	0
S21	1	1	1	1	0	0	1	1	0	0

S22	1	0	0	1	0	0	0	0	0	0
S23	0	1	0	1	1	0	0	1	0	0
S24	1	0	1	1	1	0	0	1	0	0
S 25	1	0	0	1	0	0	1	1	0	1
Total correct answer	20	12	15	17	6	8	12	15	2	4

In table 2, a review of the control group sample post-test results is presented. It shows each student's result on every question included in the test. "0" is for the wrong answer and "1" is for the correct one. In addition a sum of the correct answers for each question is stated in order to show the difference in the students' outcomes through the period of the study.

Through the post-test results' table we can see that the outcome of the students didn't change, they still struggle from problems regarding vocabulary skills and open questions Q5, Q9 and Q10 (see Appendix B)

4.1.3 Students Progress
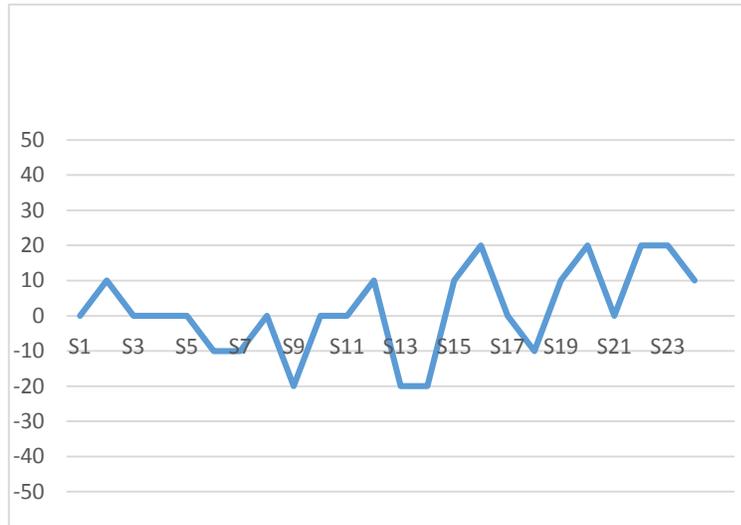
Figure 1 Control group outcome difference between pre and post test

Figure 1 shows the outcome of the control group both tests (pre and Post-test) in percentage for each student and the difference between them. It shows that control group students had a slight and unmentionable progress if not stable. Where 20% of the students had a 20% progress, as 36% of students difference were stable while 44% of the results were decreased.

Table 3 Study group pretest result

Students	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
S1	0	0	1	1	0	1	0	1	0	0
S2	1	1	0	0	0	1	0	0	0	0
S3	1	1	0	0	0	1	1	0	0	0

S4	1	0	0	1	1	1	0	0	0	1
S5	0	1	1	0	0	1	1	0	0	0
S6	1	0	0	0	0	0	0	0	0	0
S7	1	1	0	1	0	0	0	0	0	1
S8	0	1	0	1	1	0	1	0	1	0
S9	1	0	0	0	0	1	1	0	0	0
S10	1	0	0	0	1	0	1	0	0	0
S11	1	1	1	1	0	0	1	0	0	0
S12	0	0	1	1	0	1	0	0	0	0
S13	0	0	0	1	1	0	0	1	0	0
S14	1	0	1	0	1	1	0	0	0	0
S15	1	1	1	0	0	1	0	0	1	0
S16	1	0	0	0	0	0	0	1	0	0
S17	1	1	1	1	0	1	1	0	0	1
S18	0	1	0	1	1	0	1	1	0	1
S19	1	1	0	0	0	1	1	1	0	0
S20	1	0	0	1	0	0	0	0	0	0
S21	1	1	0	1	1	0	0	1	0	0
S22	1	1	0	1	1	1	1	1	0	0
S23	0	1	0	1	0	0	1	0	0	0
S24	0	1	0	1	1	0	1	0	0	0
S25	1	1	1	1	1	1	1	1	1	0
S26	1	0	0	1	0	0	0	1	0	0
S27	1	1	1	0	0	1	1	0	0	0
Total correct answer	19	16	8	16	10	9	14	9	3	4

In table 3, a review of the study group sample pre-test results is presented. It shows each student's result on every question included in the test. "0" is for the wrong answer and "1" is for the correct one. In addition a sum of the correct answers for each question is stated in order to show the students' level in different aspects of reading comprehension.

Results of study group pre-test shows that 70% of the students were able to figure out the cause-effect relationship in Q1 while it is obvious that the study group also struggle in answering questions that require vocabulary skills (Q5 and Q6). Moreover 11 to 14 % of the students have problems in answering the open questions. Most of the students wrote the sentences surrounding the mentioned fragment in the question (for questions see Appendix A).

Table 4 Study group post-test results

Students	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
S1	1	1	0	1	0	0	1	1	1	1
S2	1	1	1	1	0	1	0	1	1	1
S3	1	0	1	1	0	0	0	1	1	1
S4	1	0	1	1	1	0	1	1	1	1
S5	0	0	1	1	0	1	1	0	1	1
S6	1	1	0	0	0	0	0	1	0	0
S7	1	0	1	0	0	0	1	1	0	0
S8	1	1	0	0	0	1	1	1	1	1
S9	1	0	0	0	0	1	0	1	0	0

S10	1	1	1	1	0	0	1	1	1	1
S11	1	1	1	1	1	1	1	1	1	1
S12	1	1	1	0	0	1	1	1	1	1
S13	1	1	1	1	0	0	1	1	1	1
S14	1	0	1	1	0	0	1	1	1	1
S15	1	1	1	0	1	1	1	1	1	1
S16	1	0	1	1	1	0	1	1	1	1
S17	1	1	1	1	1	0	1	1	1	1
S18	1	1	1	1	1	0	0	1	1	1
S19	1	0	1	1	1	0	0	1	1	1
S20	1	1	1	1	0	1	0	0	1	1
S21	1	1	1	1	0	0	1	1	1	1
S22	1	1	1	1	1	0	0	1	1	0
S23	1	1	1	0	1	0	0	0	1	1
S24	1	1	1	1	0	0	1	1	0	0
S25	1	1	1	1	1	0	1	1	1	1
S26	1	1	1	1	1	1	1	1	1	1
S27	1	1	1	1	0	1	1	1	1	1
Total correct answer	26	19	23	20	11	10	18	24	23	22

In table 4 above, a review of the study group sample post-test results is presented. It shows each student's result on every question included in the test. "0" is for the wrong answer and "1" is for the correct one. In addition a sum of the correct answers for each question is stated in order to show the effect of the intervention on the students' comprehension progress.

Through the results of the post-test we can observe that there is an obvious progress regarding answering the open questions Q8 and Q9, but a slight difference regarding the vocabulary question but in all question more approximately 50% and above answers were correct (for questions see Appendix B).
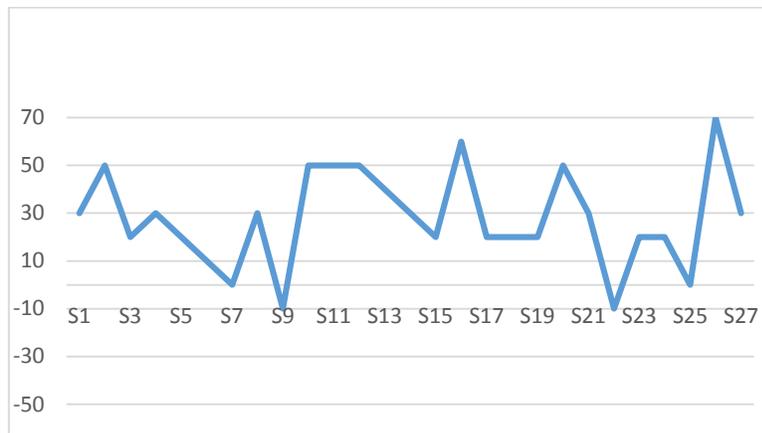
4.1.6 Control group students' progress

Figure 2 Control group outcome difference between pre and post test

Figure 2 shows the outcome of the study group on both tests (pre and Post-test) in percentage for each student and the difference between them to show their progress after the intervention.

It's clearly shown through this chart that the experimental group had an obvious progress. It's true that just 22% of the students had a noticeable progress which range between 50 and 70%, but there is no mentioned decrease in results, and just 7% of the students' results stayed stable.

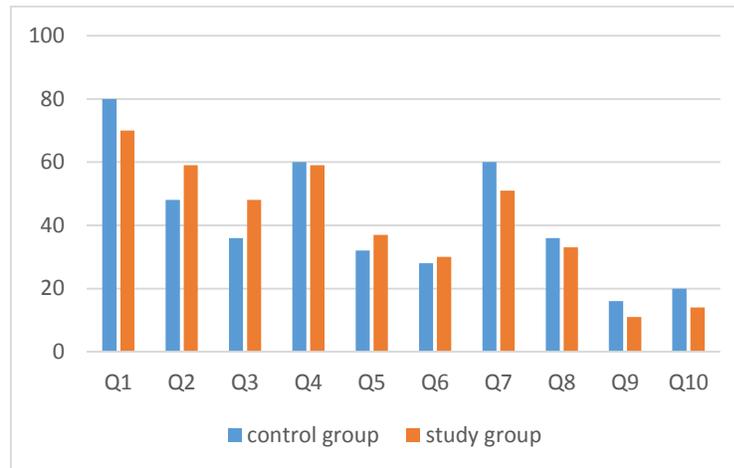## 4.1.7 Pre post-tests results for both groups

Figure 3 pre-test percentage results

The chart shows the percentage of students who answered correctly on each question in pre-test for both groups, control and study group. One can clearly notice through this figure that the percentages on most of the questions are approximately equivalent which confirm that both groups are in the same level in comprehension and they have the same problems as well.

Students' results in both groups indicate that most of the students (70%-80%) were able to identify the cause for a given effect, "why the mother refused to let her children adopt a new pet (Appendix A, Q1)"? While nearly the third of both classes (33-36%) showed that they had difficulty in finding the main idea of the text and applying vocabulary strategies to figure out the meaning of a given word. On top of the recognizable problem regarding the aforementioned

results was in answering the open questions which required from the students to draw a conclusion, make inference and synthesize information in new form.
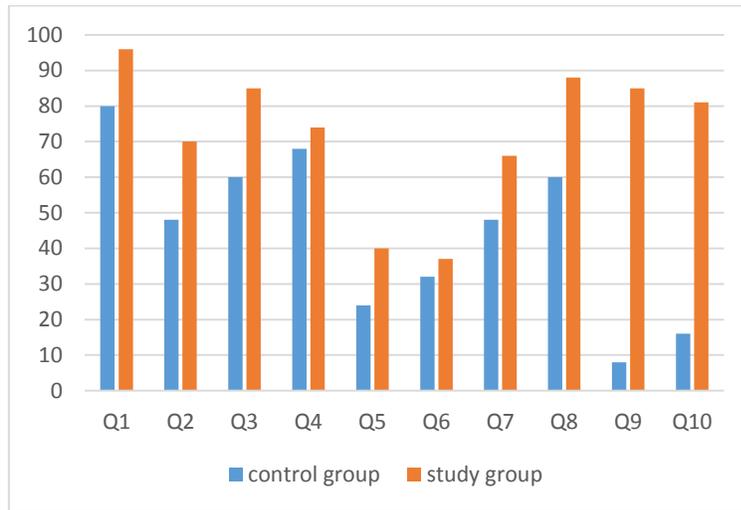
Figure 4 post-test percentage result

The chart shows the percentage of correct answers on each question in post-test for both groups, control and study group. This figure shows that there is evident progress for the study group especially in open questions which require a precise analysis for the text to synthesize the data that they understood in a new way.

In contrast with the control group, the study group data presents progress in different comprehension skills where 81%- 85% of students were able to answer the analysis questions. As for figuring out the main idea 88% of the study group students were able to answer it correctly while 60 % of the

control group were able to answer it. In general, results of the post-test show more progress for the study group sample.

4.2 Observation data

Participant observation was conducted in both classes, as a second source of data collection. Students were arranged in each class by groups of 5. Each group was given a short passage with a number of critical related multiple choice questions. They were asked to analyze each question, discuss it, find the correct answer, give the evidence of why it is correct and prove that the other answers are wrong. I observed the work of each group and filled a critical reading objective checklist.

4.2.1 Control group observation data

Group 1:

Students accurately identified the main idea of the text but they found difficulties to locate its supporting details. They were able to find the correct answers of 2/5 questions, but they faced some complications finding the evidence or the clue from the text. Regarding proving that the other answers are wrong for those two correct answers, they weren't able to give any interpretation for it. Besides, they tried to synthesize some data in a new form relying on some words in the text to write a new title of it. A group cooperative work was obviously observed.

Group 2:

Students in this group tried to find the main idea by relying on some clue words in the text; they as well tried to find supporting details. Just two out of five students were able to discuss clearly and seem to be understanding the main point of the text. They were able to answer 2/5 questions correctly, but they struggled to find the evidence in the text to support them. They couldn't synthesize key ideas in order to use new information as writing a new title for the text.

Group 3:

In this group, students had difficulties in finding the main idea; consequently, they weren't able to locate any supporting details. They tried to offer few reasonable inference by retelling and not discussing some ideas. They answered 1/5 question correctly without giving any evidence. They tried to work as a group to complete the objective, but they were confused from the start point of the group work.

Group 4

The members of this group tried to work individually; each read the text alone and answered the questions. When it came to the discussion, just one out of the five members got the main idea relying on some supporting details. One student

turned to be the only speaking member and tried to explain the text to the others. Therefore, evaluating their work as a group was difficult.

Group 5

Students of this group were able to identify the main idea of the text clearly as well as locate specific supporting details. Besides, they were able to connect the main point to previous information. They answered 3/5 questions correctly but face some obstacles by finding the evidence from the text either for the correct answer or interpreting why the others were wrong. They were able to synthesize important information to write a new title for the text. They worked cooperatively, but it was obvious that there was a leader: one student who made effort to lead the other students to a logical thinking track from the beginning of their work.

4.2.2 Study group observation data

Group 1

Students of this group were able to identify accurately the main idea of the text by tending to rely on some data from the text. As they located some specific supporting details, they omitted some important information. Besides they were able to answer 3/5 answer correctly, but they couldn't interpret or give evidence from the text to explain why one answer was correct and the others were wrong. They tried to synthesize the most important ideas in order to form new information to give a suitable title for the text. As a group, they worked

cooperatively, it was easy to check each students' way of thinking through their discussion.

Group 2

In this group, the members were confused locating the main idea which resulted in having difficulties answering the questions. They weren't able to give inference about any answer as well as they couldn't blend the ideas to produce new info to answer the title question. Due to their confusion, it was difficult to follow each student's way of thinking. They tried hard to work as group and to show how they think aloud, but they couldn't answer any question correctly.

Group 3

Members of this group were able to locate accurately and concisely the main idea as they were able to make logical connection between new information and prior knowledge. They located and recorded the supporting details. In addition, they answered 4/5 questions correctly by giving evidence for the correct answers, but having difficulties to prove that the others were mistaken. Each student in this group was thinking in a logical clear way; they tried to use their knowledge and make inference with the new info to synthesize them in a new form to give a title for the text. It was very easy to check each student's way of thinking through their cooperative discussion.

Group 4

In this group, students were successfully able to locate the main idea and some of the supporting details. They answered 3/5 questions correctly by providing

their evidence from the text. They weren't able to interpret why the others were incorrect. Through their loud thinking, it shows that each member of the group was trying to connect the text info with their previous knowledge to produce a new form of ideas, as they gave a specific title for the text.

Group 5

Students of this group were able to locate clearly the main idea of the text as they were able to locate and record its most appropriate supporting details. Through their work together cooperatively they answered 4/5 questions correctly and made inference with convincing evidence to prove the correct answer and explain why the others were wrong. Furthermore, they could blend the data they had with their previous knowledge to produce information in new form.

4.3 Questionnaire data

A short self-administered questionnaire was distributed to the study group after the intervention was done. It provided me with information about the students' reaction toward the used intervention, what the positive and negative aspects were from their point of view. The questionnaire includes two parts, the first part consisted of closed ended leading questions and the second part entailed two open ended questions.

Table 5 Questionnaire results

Questions	Always	Sometimes	Never
The title and illustration helps me predict what the selection is about.	62%	38%	0
Checking my predictions through the reading process makes me more aware to the selection's details.	59%	41%	0
During reading, when I ask myself the: who, where and when questions, I can picture the characters and the setting of the text clearly.	96%	4%	0
When I ask myself wh- questions I can notice the details of the selection	85%	26%	0
I use the Bookmark Strategy in order to highlight on the main important points that are worth to be discussed in the post reading stage to fulfill my understanding to the selection's main ideas and supporting details.	8%	66%	26%
When I retell the information by changing gender or setting, I can comprehend more the writer's main point	81%	19%	0
When I don't understand a word, I use the information I have already read to guess its meaning.	100%	0	0
I think that the implemented strategies that were recently applied in our English class can be useful in other context.	59%	37%	4%
Using critical reading strategies (Prediction, WH charts, Bookmarks and Switching) engages me to read more in English	37%	37%	26%
When I use the reading strategies, the reader process will be easier and enjoyable	74%	18%	8%

Table 5 shows the percentage of responds of the study group students on each question included in the first part of the questionnaire. 62% of the students used the title and the illustration to predict what the selection would be about as 59% went back and checked their prediction. That means, more than half of the students started to use these strategies to enhance their thinking skills. Between 66% and 81% of the students started to benefit from the intervention strategies which was lately used in class. In addition all the students used context clue strategy to figure out the meaning of a foreign word in a text and 74% enjoyed reading after applying these strategies.

4.3.2   Questionnaire's second part answers.

The responses on this part of the questionnaire varied among students since different strategies were used during the intervention period. 40% of the students liked the bookmark strategies more than other strategies, while the other 60% enjoyed the switching method more. The common response was that these strategies helped them understand the content more and made the lesson more entertaining.

Students' comments about their dislikes regarding the strategies varied. Their main complaint was the timing as they asked for more time to finish each activity used through the strategy. Besides they object on the quantity of writing that they had to write.

4.4 Summary of the Results

The purpose of the current study was to check the effect of enhancing critical thinking skills on fifth grade students' reading comprehension progress. For that purpose, I used pre and post-test as questioning technique as well as an observation to check students' way of thinking as they think aloud through a given group work activity.

The pre- post-test grades of the study group show a noticeable difference while the control group grades were stable. These results indicate that the intervention of enhancing critical thinking skills had an effect on students' outcomes in reading comprehension.

I was interested in observing students' way of analyzing a given data through group work as they are thinking aloud. Through the observation I found a remarkable difference between the study and control group by the way of dealing with a given text to answer different critical questions; where the study group managed to answer the questions and find the evidence for the correct answer, they still faced some obstacles interpreting why the other answers were wrong. On the other hand, the control group had some difficulties finding the correct answers, and if they found it, they weren't able to find the evidence from the text.

As for the questionnaire which was applied on the study group to check their opinion about the strategies used during the intervention stage in the class,

they showed a positive point of view where they agreed on how these strategies help them understand what they read more.

This chapter presented the collected data via charts and tables to show how using a certain intervention to enhance critical thinking skills may affect reading comprehension progress. Results were then interpreted and explained. The following chapter discusses the aforementioned results and relate them to literature.

Chapter five

Discussion

The purpose of my study was to check the effect of enhancing critical thinking skills on fifth graders' reading comprehension progress. A pre- post-test, observation and a questionnaire were used to collect data to serve the purpose of the study. Results will be analyzed to be discussed in this chapter to check the effect of the intervention on the students' reading comprehension progress.

Pre and post-tests were selected from Nebraska State Accountability (NeSA) fifth grade reading practice tests (Nebraska Department of Education, 2009) to be applied on both groups, control and study group. The questions of both tests cover different objectives regarding critical reading comprehension skills which are word strategies, main idea and details, cause and effect, drawing conclusion, synthesizing information in new form and making inference. Thus, we can notice the students' outcome according to each skill.

Results of pre-test show that sample students struggle from different reading comprehension difficulties such as recognizing the main idea, connect it with its supporting details, drawing conclusions as well as blending the info they are reading to express it in their own way. Several critical reading strategies were enhanced during reading comprehension session in the study group class

through the intervention duration; alternatively regular teaching strategies were followed in the control group class.

The main purpose from the strategies used was to motivate the student's critical reading, and to do so the core motto was to let them judge every idea they read. Having the students ask "Why" for each detail they read encouraged their critical thinking. Roy and Macchiette (2005) stated that the first key is to teach the students to think critically by showing them how to apply the question of "WHY" to any material in hand. As an English second language teacher I tried to engage the study group sample in critical thinking activities through classroom discussions of different comprehension texts as well through comprehension question sheet after discussing each text. The results concur with the results of Scott (2008) who stated that English second language teachers may enhance critical thinking skills through debates of any given context, where English second learners have the chance to practice and reinforce such skills. Through these discussions students showed a significant interest to share their ideas and think aloud which facilitate their work through the given activity during the observation period.

The approach used in this study suggested that the effect of enhancing critical thinking skills on fifth grade students' reading comprehension progress was positive. Although students' of study group didn't show a high rating progress,

there was a clear evidence touched through daily contact and the observation method to assure this influence.

   Richard Paul (2004) in his research discussed the relationship between reading comprehension and critical thinking. As well Murphy, Wilkinson, Hennessey and Alexander (2009) confirmed that several studies to prove the opposite where the training of critical thinking skills had a significant influence on language learning especially on literacy. Moreover, Duesbery and Justice (2015) had a study on enhancing critical thinking skills through implementing different strategies on a selected reading unit; the outcome of their study indicated there were a significant progress in students' reading comprehension after the exposure of this unit. These studies showed that there is a significant effect of using critical thinking skills on reading comprehension which is also confirmed through this study where the experimental group sample showed an obvious progress after the intervention in contrast with the control group results which stated stable if not decreased (chart 4.1.3 & chart 4.1.6).

   The main problem that was very obvious in both groups in the results of the pre-test was answering open questions which required some analysis, drawing conclusion and rewriting ideas in their own way. Through comprehension assessment, asking open-ended questions is considered to be the most delicate way to assess the child's thinking skills, since the response is not limited to selected response options (Elbro, Cain & Oakhill, 2014). Reading

comprehension employs several mental skills which are analysis, interpretation, synthesis and assessment which are what researchers include as the basic skills of critical thinking (Grabe, 1991). Thus, such skills were enhanced during comprehension texts discussion through applying different strategies as predicting or switching method by asking different open questions. Results of this study display that the experimental sample has a substantial progress in answering such questions. Besides, the observation data confirmed this assumption where the aforementioned sample was able to synthesize the given information to answer accurately the open question of writing a new title for the given text more than the control sample.

Secondly, the primary data indicated that the students had problems in figuring out the main idea of a given text. Literature in this field stated that many English second language learners face some challenges in identifying the key points of a given reading text (Baxendell, 2003). This is caused by the students attempt to read the whole article once and try to understand it. Though, after reading the text, most of the readers still have some difficulties to comprehend what they have read to answer the comprehension questions (Naidu, Briewin & Embi, 2013). According to the vision of some researchers regarding the critical role of identifying and stating the main idea of a text, it has been the central role of the elementary reading curricula (Jitendra, Cole, Hoppes, & Wilson, 1998). Fielding and Pearson (1994) indicated that "identifying the main idea" has been considered as an essential test to study the

gap between readers who have difficulties and others. To overcome this problem, different strategies were used during the intervention period such as skimming, searching for key words, and summarizing which serve the understanding of the main idea. After the study duration, the post test and the observation revealed that the study group progressed in this field.

One of the prerequisite elements of reading comprehension is vocabulary knowledge (Anderson & Freebody, 1981). Students of both groups have difficulties in figuring out the meaning of a vague word from a given text. Many researchers such as Farhady (2006), Cohen and Macaro (2007) have recognized several vocabulary learning strategies. One of them is the key word method which was excessively practiced by the experimental group and that was assured according to the post-test results.

As it is intensely assumed that teaching critical thinking skills is an essential component of language proficiency progress, here is this study which confirms this assumption and reveals that there is a positive effect of enhancing CT skills on students' reading comprehension progress although it is not a very high progress as it doesn't exceed more than 35% of the outcome. This goes back to the limited duration of the intervention which took place over a period of two months.

In brief, this chapter discussed the results of this study and relate it to literature. The results showed a positive effect of enhancing critical thinking

skills on the experimental group comprehension progress compared with the control group outcome. The following chapter will address the limitations and recommendations for further studies.

Chapter six

Conclusion, Limitations and recommendations

6.1 Conclusion

Can children be taught to think critically? Critical thinking is not an easy task to teach students and have them apply it on different aspects. As a fifth grade English teacher, it was surprising to notice that my students have a real problem in critical thinking which was very obvious through dealing with comprehension texts. Therefore the purpose of this research was to study this issue and check the effect of enhancing critical thinking skills on students' reading comprehension progress.

As the literature presents, this study confirm that there is a positive effect of enhancing critical thinking on reading comprehension progress. As the students benefit from the applied strategies during the intervention period and started to understand and enjoy more what they read.

6.2 Limitations

As a first limitation, there were some principled concerns within the design of this study since I work at the school in which this study was conducted, and the participants in this research were my students. I tried to

avoid the bias especially while conducting the observation. To do so, an Inter-rater reliability was used where one of the English teachers observed the students at the same time in order to measure the degree to which both observers give consistent estimation of the same behaviors.

Another limitation is the fact that this study was based only on a selected sample, i.e. 52 female students in a private school in Jeddah Saudi Arabia, during a specific time; thus, the results of this study cannot be generalized.

An additional limitation of this research is that it was conducted in one school at Jeddah. It is advisable that further studies tackles this topic in more schools across Jeddah and other cities in Saudi Arabia and also schools in Lebanon.

As an English teacher who worked on this study I believe that it's the student's right to be taught how to think critically in order to have the skill and the ability to face their future obstacles and not just their academic progress.

6.3 Recommendations for further research

This study was done on a limited sample, thus it is recommended that such study should be conducted on a large scale group. As well it is conducted on females only where it is more beneficial for further research to be done on mixed groups to generalize their outcome more. According to literature and this study there is a positive effect of critical thinking on reading comprehension,

so piloting such a research on different age groups as well different societies will be advantageous for future related topic studies.

6.4 Reflexivity

Through this study, I enjoyed working differently with my students and see the outcome of my work. Working on such study makes you believe more that changes could happen, and it is all a matter of effort that the teacher give and students gain with their extra work. If I were to redo this research I would change one thing. The intervention would be for a longer duration than two months because I believe that results would obviously and positively be affected.

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Appendix A

Pre-test

Name: _____

Read the selection carefully and answer the following questions.

Part of the Family

We were all so excited to learn that Mom was going to let us adopt and add a new member to our family! My brother, my two sisters, and I had worked for weeks to convince Mom that we were responsible enough to have a new puppy. Many days after school we had visited the library and researched puppy training, the proper feeding of a puppy, how to socialize a new puppy, and even the meanings of names one might choose for a puppy. All of us had selected certain jobs that would need to be performed if we were lucky enough to convince Mom to get a puppy. In order to prove to Mom that she would not be the only person taking care of our new family member, we had divided the jobs among us and created a chart for the first month. Finally, after several weeks of cajoling and wheedling, all our hard work and extra effort had been successful. Mom gave in to our pleas and agreed to let us adopt a puppy!

Now the real work would begin. We decided to visit the Humane Society in order to select just the right puppy to join our family. Of course, once we saw all the puppies and dogs available, none of us could decide on only one. Each little face had its own special charm. Who could resist those big brown eyes? All the puppies were so thrilled we were visiting them, but each was unaware that just one would be leaving with us. They jumped, they yipped, and they wagged their tails as if each had a motor attached. They joyfully licked every bare inch of skin we had. How would we ever decide?

As we strolled through the aisles of kennels, I noticed one little bundle of fur. He sat off to the side of the temporary home he shared with three other rambunctious

puppies. He quietly watched as his unruly housemates tried to be the most outgoing, the cutest, and the perfect pet for us by showing their enthusiasm. As I walked closer to his corner, he peered at me and smiled a crooked puppy grin. His tail wagged his entire body. He tentatively jumped up to greet me with a playful lap of his tongue and I noticed his lopsided ears. One ear stood up just a little straighter than the other, giving the impression he was listening quite closely to the words I was saying.

"Hi there, little buddy. What do you think?" I kind of cooed to him. He seemed to know it didn't matter that he was the smallest and the most **reserved** of the boisterous group of puppies occupying the kennel. I motioned for my siblings to join me at the corner and introduced them to "Buddy."

"This is him, this is Buddy! He needs us, I can tell," I explained to my brother and sisters.

"I don't know, he is so tiny and kind of funny looking," my youngest sister observed.

"He has character," I explained, feeling rather **defensive** of Buddy. He was not funny looking, he was unique! "Look in his eyes. He knows what you are saying and his feelings are hurt!"

My sister looked at the little bundle of fur with the big eyes and the uneven ears. She reached out her hand, and Buddy gave her a lick. "I'm sorry, Buddy, I didn't mean to hurt your feelings," she said.
She looked as if she might cry. "You're right! Buddy has character."

Mom joined our little group and introduced herself to our new friend. "Okay, Buddy, I guess you're it! Do you want to come home with us?"

As I watched the little dog's reaction to her words, I could tell he understood. He again cocked his head to one side and flashed us his crooked puppy smile as if to say he knew he was part of the family.

Choose the correct answer

1- Why the mother refused to let her children adopt a new pet?

a. She will do all the work.

b. It will cost her so much money.

c. She prefers parrots.

d. She got afraid from dogs

2- What is the topic that the kids didn't research about puppies?

a. Puppy's Training

b. Socializing Pets

c. Puppies' Names

d. Puppies Diseases

3- In paragraph 1, what evidence shows that the kids are prepared for a puppy?

a. They did a research about puppy training.

b. They begged and plead with their mother.

c. They got jobs to raise money to buy the dog.

d. They researched personalities of different breeds

4- How did the kid choose one of the dogs?

a. He liked the dog's color.

b. He felt as if the dog is interacting with him.

c. He detected his nice voice while listening to his barking.

d. He chose randomly by counting to ten.

5- The author used the word reserved in the 4th paragraph line 2. Which phrase completes the best analogy? "Reversed is to active as _____."

a. excitable to energetic

b. timid is to rowdy

c. unruly to naughty

d. noisy is to loud

6- In paragraph 7, the author is described as **feeling defensive of Buddy**. Using context clues meaning of this phrase

a. waiting to capture Buddy

b. waiting to tease

c. wanting to protect Buddy

d. wanting to admire Buddy

7- What was the dog's reaction to Mom's words "Okay Buddy, I guess you're it."?

a. He gave her a lick.

b. He jumped to greet her.

c. He acted as if he understood her saying.

d. He barked loudly from his fear.

8- What was the main idea of the story?

a. to learn how to follow the process of adopting a puppy

b. to research the responsibilities of caring for a new puppy

c. to convince mom to allow the adoption of new puppy

d. to learn the criteria of selecting a new puppy

Answer the following questions.

9- In the second Paragraph the narrator mentioned a question when the kids were confused which puppy they should choose. "How would we ever decide?" Give one advice for a person to help him/her choose the suitable puppy to raise.

_____

_____

_____

_____

_____

10- Write another title for the selection.

_____

Appendix B

Post-test

Name: _____

Read the selection carefully and answer the following questions.

Piano Lessons

Susie loved to hear her older sister, Emma, play piano. Listening to the pretty notes and watching Emma's fingers press the keys made Susie want to play music too. But every time Susie asked to play, her mother would tell her how much work it was to learn to play piano well. Emma made it look easy. Susie was sure she could learn to play even though she was a few years younger, so she decided she had to prove to her mother that she was ready for the responsibility. Susie helped her mom around the house by washing the dishes and dusting.

"Mom, can I start taking piano lessons?" Susie asked.

"Susie, as long as you understand that you are going to have to practice every day, you can take piano lessons," her mom said.

Susie was so excited. She could not wait to play "Twinkle, Twinkle Little Star," one of her favorite songs. In no time, she thought, she would play as well as Emma!

Susie was excited and nervous for her first piano lesson. When she finally got there, she was surprised; her teacher had flashcards and a book for her. Emma just had music notes in her piano books. Susie did not know there were so many other things to know about the piano first. She had to learn each of the notes, or the sounds, that the piano makes. Then, she had to learn which key on the piano made each note. There were even Italian words she had to learn! Her teacher showed her everything she had to practice and learn before the next lesson. During that first lesson, Susie never even got to touch a key on the piano.

"Don't people get to play piano at piano lessons?" she wondered.

The next day, when Susie got home from school, her mom had her snack all ready. She ate it fast and started to run outside.

"Where are you going?" her mom asked.

 "Outside to play kickball," Susie said. "Bye mom!"

  "Not so fast, you must study your piano flashcards," her mom said. "Then, you can play." "But mom, everyone is playing kickball," Susie whined.

"Susie, this is what you wanted, now you have to follow through with it," her mom said.

Choose the correct answer

1- How did Susie get her interest in playing piano?

a. She enjoyed the music sound of the piano that her sister plays.

b. She was jealous from her sister's talent.

c. Her mother encouraged her to learn how to play piano.

d. She watched a movie about a pianist whom she admired.

2- Why Susie's mother refused to let her take piano lessons at first?

a. Piano lessons are so demanding for her.

b. She was afraid that Susie's school progress will withdraw.

c. She didn't like Susie's jealousy from Emma.

d. She won't find time to help her with the household.

3- How did Susie convince her mom that she was responsible enough to take piano lessons?

a. She found a job to cover the piano lesson fees.

b. She helped her mother with the household.

c. She tried to learn by observing her sister's playing.

d. She asked Emma to convince her mom that she's responsible.

4- Why did Susie feel excited and nervous before the first lesson?

a. She wanted to learn how to play her favorite song in no time.

b. She was afraid that she would fail.

c. She wasn't ready to all that responsibility.

d. Her mother promised to buy a new piano.

5- Using context clues, figure out what does the word responsible means.

a. Confused

b. Unhappy

c. Dependable

d. Hard-working

6- How can you describe Susie's first lesson from her point of view.

a. Interesting

b. Disappointing

c. Motivating

d. Boring

7- Why was Susie surprised after the first lesson?

a- It was too long in time.

b- She didn't touch the piano.

c- She learned to play several songs in no time.

d- Her teacher was so young.

8- What was the main point of Susie's mom when she sounds stern as Susi told her she was going out to play?

a- Susie's mom was mad at Emma.

b- Susie's mom wanted het be responsible for her decision.

c- She was afraid that Susie may get hurt.

d- She wanted Susie to help her with the dishes.

Answer the following questions.

9- If you were in Susie's place, will you continue the piano lessons? Give two reason for your opinion.

_____

_____

_____

_____

_____

10-   Give another title for the story.

_____

good luck!

Appendix C

Observation Activity (Group work)

Read the following short story. Choose the correct answer and give the evidence from the text. Interpret why the other options are wrong.

Bill and Lee went camping with their parents at a local park one weekend. The park was very crowded. On Saturday afternoon, their father asked them to pick up some litter and then to go into the woods to cut branches for cooking hot dogs. The two brothers did as their father asked. As they stepped out of the woods, a park ranger stopped them. He looked at their sticks and asked, "Don't you know that in the park you should take nothing but pictures and leave nothing but footprints?" The boys were puzzled by what the ranger had said. They told him that their father had asked them to cut the branches for cooking hot dogs. The ranger walked the boys back to their campsite and talked to their father alone. That evening, the ranger joined the family for dinner. Early the next morning, the family packed up and went home.

1-   Why were the boys puzzled?

a.The boys had only done what they were asked to do.

b.   The boys had taken only a few branches from the woods.

c.The boys did not understand the ranger's question.

d.   The boys thought it was okay to cook hot dogs.

2-   What is the most likely reason the ranger talked to the father?

a.to explain that the boys had cut too many branches

b.   to explain proper park behavior

c.to explain why boys should not be alone in the woods

d.   to explain why people should take pictures in the woods

3- What was the MOST LIKELY reason the family went home the day after the

ranger visited?

a. The ranger had told the family to leave.

b. The family had planned to leave that day.

c. The ranger had upset the family.

d. The family had no more sticks for cooking hot dogs.

4-   What did the ranger think when he asked, "Don't you know that in the park

you should take nothing but pictures and leave nothing but footprints"?

a. He thought the boys should have known how to behave in the park.

b. He thought the boys should have been taking pictures.

c. He thought the boys were going to make a fire in the woods.

d. He thought the boys were afraid of getting in trouble.

5-   Write a suitable title for the story.

_____

Appendix D

Observation Rubric

Teacher will fill this rubric according the students' performance within an activity done as a group work according to participant observation.

Comprehension skills	0	1	2	3
Accurately identifies main ideas				
Provides accurate, relevant, and complete supporting details				
Draws reasonable inferences and conclusions about people and events, supported by text evidence and logical reasoning				
Synthesizes key information and ideas in a new form (e.g., newspaper headlines; charts; diagrams, writing in-role, new titles)				
Makes and explains logical connections between the current text and other information				

Grading strategy

I- Accurately identifies main ideas

0- does not identify most main ideas; may be unable to distinguish between main ideas and supporting details
1- accurately identifies most main ideas; may be vague or general in places
2- accurately identifies main ideas; tends to rely on words of the text
3- accurately and concisely identifies main ideas; often using own words to make a precise statement

II- Provides accurate, relevant, and complete supporting details

0- Provides little supporting detail; often incomplete, confusing, or inaccurate

1- Locates and records some specific supporting details; may be vague or omit a great deal of information

2- Locates and records specific supporting details for each main idea

3- Locates and records the most appropriate details for each main idea

III- Draws reasonable inferences and conclusions about people and events, supported by text evidence and logical reasoning

0- Offers few or no reasonable inferences; may be illogical, unsupported, or retell (rather than interpreting)

1- Offers some evidence of inferences, but may omit evidence and/or explanations, or generalize beyond what is reasonable

2- Makes reasonable inferences, supported by evidence and/or explanations

3- Shows insight; makes and supports inferences with convincing evidence and/or explanations

IV- Synthesizes key information and ideas in a new form (e.g., newspaper headlines; charts; diagrams, writing in-role, new titles)

0- Does not synthesize information into adequate representations or responses

1- Synthesizes some information in a new form; may focus on limited information and rely on words of the text

2- Synthesizes important information and ideas in a new form

3- Effectively synthesizes the most important information and ideas in a new form

V- Makes and explains logical connections between the current text and other information

0- Has difficulty telling how the information is like or unlike other information they know

1- Tell some ways the information in a passage is like or unlike other information they know about the topic

2- Makes logical connections between new information and what they already know; gives some explanation

3- Makes logical connections; often compares, questions, or evaluates new information in terms of prior knowledge.

Appendix E

Questionnaire

Comprehension Abilities

The following questionnaire is one of the methods used in the research thesis to collect data which will provide me with further information about how students can evaluate their progress after a given teaching intervention to enhance their critical reading skills. Your answers are so significant for the result of this study, in which it will allow me to acquire a clear understanding of your comprehension developmental   skills.

The estimated time to complete this questionnaire is 10 minutes. You are kindly requested to answer all the questions presented. Your name is optional, and I can guarantee that all your answers will be confidential. All results will be used as a basic information for my master's thesis in education.

Choose one of the options below. Due to the fact that there is no right or wrong answer, please answers honestly.

1- The title and illustration helps me predict what the selection is about.

a- Always

b- Sometimes

c- Never

2- Checking my predictions through the reading process makes me more aware to

the selection's details.

a- Always

b- Sometimes

c- Never

3- During reading, when I ask myself the: who, where and when questions, I can

picture the characters and the setting of the text clearly.

a- Always

b- Sometimes

c- Never

4- During reading, when I ask myself questions as what, why, and how, I can notice the details of the selection and give a clear meaning to its main points.

a- Always

b- Sometimes

c- Never

5- I use the Bookmark Strategy in order to highlight on the main important points that are worth to be discussed in the post reading stage to fulfill my understanding to the selection's main ideas and supporting details.

a- Always

b- Sometimes

c- Never

6- When I retell the information by changing gender or setting, I can comprehend more the write's main point or message.

a- Always

b- Sometimes

c- Never

7- When I don't understand a word, I use the information I have already read to guess its meaning.

a- Always

b- Sometimes

c- Never

8- I think that the implemented strategies that were recently applied in our English

class can be useful in other context.

a- Always

b- Sometimes

c- Never

9- Using critical reading strategies (Prediction, WH charts, Bookmarks and

Switching) engages me to read more in English.

a- Always

b- Sometimes

c- Never

10- When I use the reading strategies, the reader process will be easier and enjoyable.

a- Always

b- Sometimes

c- Never

Answer the following questions on the line below

11- What do you like most about the reading strategies that were recently used in

class?

_____

_____

_____

_____

12- What didn't you like about the reading strategies that were recently used in

class?

_____

_____

_____

_____

_____

_____

Appendix F

Parental Consent Form

Dear Parents,

My name is Zahraa Fadlallah and I'm a graduate student at the Lebanese American University (LAU) currently enrolled in the MA program. I'm studying Education.

The study: The purpose of the study is to examine the effect of enhancing critical thinking on student's reading comprehension progress.

Confidentiality: All the data and the result that will obtain during this research will be remain anonymous and will not affect your child's school records. ***Your child's name will not be written on any document or be kept in any other records. All responses she provides for this study will remain confidential and only the researcher will have access to it. All data will be discarded once the study is done.***

I kindly ask that you read this form before agreeing to have your child participate in this study. Not sending the form back will grant me consent to include your child in my study. You child will be asked to do two tests. Then, she will be observed through a group work activity, and finally she will be asked to fill a questionnaire form.

Thank you in advance for your cooperation; your child's participation is highly appreciated.

If you do **not** want you child to participate please sign this form and send it back with your child.

☐ I do not want my child to be in the class that is being observed.

_____

Name of Child

_____

Signature of Parent(s) or Legal Guardian

_____

Date

For further inquiries about the study, please do not hesitate to contact me at 0508630052 or via email: <u>zahraa.fadlallah@lau.edu</u>

If you have any questions about your child's rights as a participant in this study, or you want to talk to someone outside the research please contact the

IRB Office,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus, Tel: 00961 1 786456 ext. (2546)

Appendix G

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نموذج موافقة الوالدين

جانب الأهل الأعزاء

أود، بكل احترام، تقديم نفسي لكم، أنا زهراء فضل الله، طالبة في كلية التربية في الجامعة اللبنانية الأمريكية، وأعمل على إعداد رسالة ماجستير حول تأثير تنمية مهارة التفكير النقدي في تحسين مهارات القراءة لدى التلاميذ.

الدراسة تتطلب استخدام تقنيات واستراتيجيات، تساعد على تنمية مهارات التفكير وخاصة التفكير النقدي. وعليه ،وفي حال موافقتكم، ستكون طفلتكم ضمن العينة التي ستتلقى لفترة .... هذا النوع من التعليم .مع التأكيد على أن اسم طفلتكم لن يذكر في أي وثيقة مرفقة بالدراسة ولن يطلع أحد على سجلاتها المتعلقة بها، كما أن كل الوثائق المرتبطة بالدراسة ستتلف بعد إنجازها. فضلا عن أن سجل طفلتكم الدراسي في المدرسة لن يتأثر بالدراسة مطلقا.في حال نلت موافقتكم الكريمة على ذلك، فإنه سيطلب من طفلتكم إجراء اختبارين، ومن ثم ستشارك في مجموعة من الأنشطة المتعلقة بالدراسة، وفي الختام، سيطلب منها ملء استبيان رأي حول طريقة التدريس التي تلقتها.

من هنا، فإني آمل منكم الموافقة على أن تكون طفلتكم ضمن مجموعة العينة المشاركة في الدراسة كما أتقدم منك بالشكر الجزيل لتعاونكم، وستنال مشركة طفلتكم مني كامل التقدير.

أود الإشارة إلى أن عدم إعادة هذه الرسالة سيكون دلالة على قبولكم مشاركة طفلتكم في الدارسة، أما في حال عدم رغبتكم إشراكها، فأرجو أن تعاد الرسالة مع ذكر اسم طفلتكم في الخانة المحددة أدناه.

لا أريد لطفلتي المشاركة ☐ في الدراسة.

_____

إسم الطفل

_____

توقيع ولي أمر

_____

تاريخ

للمزيد من لاستفسار حول الدراسة، آمل التواصل معي على رقم هاتف: 0508630052 أو عبر البريد الإلكتروني: zahraa.fadlallah@lau.edu

</div>

لمعرفة حقوق طفلتكم كمشاركة في هذه الدراسة التواصل على*IRB Office*

Lebanese American University
3rd Floor, Dorm A, Byblos Campus, Tel: 00961 1 786456 ext. (2546)

Appendix H

Participant Assent

Dear Participant

I'm asking you to participate in a study conducted by me for my graduate research. The objective of the study is to show the effect of enhancing critical thinking on fifth grade student's reading comprehension.

I'm asking you to complete a pre-test that will take about 30 minutes. Your parents/ legal guardians have already given permission for you to participate in this study, but you don't have to participate if you choose. You may quit this study at any time by simply writing on the test "I don't wish to participate." You participation in this study will not affect your school records and status in anyway. The research intends to cause no physical or psychological harm or offense and to abide by all commonly acknowledgment ethical codes. There are no known risks involved in this study and you will receive nothing for your participation. To protect your confidentiality, your individual result will not be shared with anyone. Only researcher will have access to view any data collected during this research. No one will know if you chose to participate in this project.

You voluntarily agree to participate in this research project by taking this test. You have the right to ask me any question regarding this project. You also have the right to reject participation. You may withdraw from this research anytime you wish.

If you have any question about this study, you can ask me, Mrs. Zahraa Fadlallah.

<u>Agreement</u>

I agree to participate in this research project and I have received a copy of this form.

_____

Participant's Name   *Date*

<u>Statement of person obtaining assent</u>

I have explained to the above name individual the nature and purpose, benefits and possible risks associated with participant in this research. I have answered all questions that have been raised and I have provides the participant with a copy of this form.

_____

Researcher   *Date*