USING THINK-ALOUD STRATEGY TO IMPROVE ENGLISH READING

COMPREHENSION FOR 9TH GRADE STUDENTS IN SAUDI ARABIA

by

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A Master's Thesis
Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Education
Curriculum and Instruction in Inclusive Education
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Fredonia, New York

April 30, 2015

State University of New York at Fredonia

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CERTIFICATION OF PROJECT WORK

We, the undersigned, certify that this project entitled THINK-ALOUD STRATEGY TO IMPROVE ENGLISH READING COMPREHENSION FOR 9TH GRADE STUDENTS IN SAUDI ARABIA by Mohammed Ibrahim Alaraj, Candidate for the Degree of Master of Science in Education, Curriculum and Instruction in Inclusive Education, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.

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Abstract

This study was designed to investigate what effect the incorporation of the Think-Aloud reading strategy into a Saudi Arabian middle school curriculum would have on the reading ability of students, in terms of both information retention and comprehension of material. Two groups of 23 students were studied. One group was designated as the control group, receiving traditional instruction, and the other was the treatment group, which received explicit instruction using the Think-Aloud strategy. A total of four assessments were administered to obtain data, and were then graded on a rubric scale for analysis. The results showed that the students in the treatment group had, in the majority of cases, improved their reading comprehension; as measured by the assessments, while the control group's scores remained the same. These results lead the researcher to conclude that the incorporation of the Think-Aloud strategy has much potential as a topic of research for incorporation into future curriculums in Saudi Arabia.

Dedication

I am dedicating this work to my parents Ibrahim Alaraj and Mody Alaraj, as well as, I would like it to be dedicated to my lovely wife, Albatul Alhammad, who has always supported me. Also, I want to dedicate it to my daughters Lara and Rola.

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Introduction

The purpose of this research is to investigate, through a pretest and posttest experimental

design, the effectiveness of the Think-Aloud reading strategy on reading comprehension for male

9th grade students in Gazan. Students in the Saudi Arabian learning context often have

difficulties in English classes, especially in reading and writing, for a number of different

reasons. These reasons include interference from their native language (Arabic), a lack of

motivation (due perhaps to a lack of contact with English-language culture), and a heavy reliance

on traditional learning methods on the part of their teachers. In a rapidly changing, globalizing

society, it is important to provide the most appropriate metacognitive strategies to assist learners

in their comprehension of literature and to motivate them to succeed. The investigation into the

effectiveness of individual reading strategies and how effective they may be is very significant to

the Saudi Arabian learning context.

Statement of the Problem

According to my experience as a teacher of the English language in Saudi Arabia for

three years, I found that students prefer not to read English and some of them feel bored while

they are reading. In addition, they find it hard to comprehend the meaning of some sentences in

the reading.

The problem that will be investigated is how to increase the level of English reading

comprehension for 9th grade Saudi Arabian students. Students are required to read as part of their

studies. There are many reading strategies students can adopt. Using the appropriate strategy

depends mainly on the type of and purpose for reading. To help students overcome the

difficulties of comprehending a text; and become independent and be metacognitive readers,

researchers have introduced many reading strategies. An effective strategy among these is the Think-Aloud strategy.

Purpose

The purpose of this research experiment is to teach and implement the Think-Aloud strategy in a Saudi Arabian middle school classroom using a pretest and posttest experimental design with a control group, in order to explore and analyze its effectiveness as a learning strategy for these students, versus the control group (See Appendix A).

This research was conducted in Saudi Arabia in February 2015. The administrator implemented this in one protocol treatment class and one control class. The treatment class had 21 students and the control class had 21 students. The dependent variable was a posttest reading comprehension score. The independent variable was the exposure that the treatment (experimental) group had to the direct instruction via the Think-Aloud strategy. Outcomes were assessed through a pretest-posttest methodology, and results were determined through statistical analysis of the scores, comparing the treatment and control groups.

Research Questions

This research was conducted to attempt to answer the following questions:

- Does the metacognitive Think-Aloud strategy improve the reading comprehension of ninth grade males in Saudi Arabia English language classes?

- Does the metacognitive Think Aloud strategy improve the motivation of ninth grade males in Saudi Arabian English classes?

- Does the group that was explicitly taught this metacognitive strategy better retain and comprehend information from a text than the control group?

Theoretical Framework

Ortlieb and Norris (2012) cited the theoretical work of Vygotsky's theory of scaffolding in discussing the theoretical framework of the Think-Aloud strategy. Vygotsky believed that social interaction was important for the development of skills. Specifically for learning, someone with a higher level of skills, such as a teacher, can assist children to reach a higher level of development or mastery in a subject than they could have done alone. When someone with more knowledge (such as a teacher) provides temporary support (such as a skill or strategy) to help the student learn, this is called scaffolding. In other words, the teacher in the classroom creates a bridge between one level of knowledge and the higher level. The goal of introducing the Think-Aloud strategy to students is to help them eventually be able to use it on their own to increase their mastery of reading and increase their skill and love of reading as a result (Ortlieb & Norris, 2012).

Definition of the Think-Aloud Strategy

The Think-Aloud strategy is a strategy whereby the teacher makes his or her thought process part of the presentation. The teacher engages the students in encouraging them to think about what has happened or what will happen through the use of comprehension or prediction questions. Another Think-Aloud strategy is to have students pause and describe what they are thinking when they are reading aloud. This allows a teacher to observe and get insight into what the student is thinking about when reading (McKeown & Gentilucci, 2007; Oster 2001).

Rationale for Utilizing the Think-Aloud Strategy

Literacy is the most essential skill a student should acquire. Strong literacy skills are vital to a student's educational success and their overall achievement in life. Regarding the importance of English, Arabic students of English must learn to read and comprehend quickly,

read critically, and to analyze any written information. Instructors must learn to enthusiastically share a variety of genres, topics, and styles with the students to improve their understanding and provide an enjoyable experience (Zemelman, 1998). There are certain skills and understandings that students are required to be equipped with so they can become competent English readers.

Reading comprehension is the core of the act of reading that is affected by the background knowledge of the reader, the information available in the text, and the purpose for reading. It is a cognitive process in which students interact with the text to generate meaning from it. Understanding a certain text; and recognizing the difficult words within to construct meaning is a dynamic process that requires students to process sentence; and word structure and to make inferences about the text they are reading. To achieve this successfully, students must have the skill to monitor comprehension. In this sense, comprehension is the paramount goal of reading as students can make no progress without understanding what they are reading. Consequently this will hinder future advancement in many aspects.

Monitoring comprehension is a key factor in the process of understanding the text students read. The Think-Aloud Strategy helps students learn to monitor their thinking as they read a text. Think-Aloud (Davey, 1983) directs students to the way they should think when encountering a reading task. Teachers model the way they think by verbalizing their inner thoughts as they read and process information. Students interact with their teacher, strive to elicit the meaning of hard words, and get involved in direct interaction with the text in hand. The responses of good readers can help other ineffective students realize how and what good readers think of while reading.

The Think-Aloud strategy helps students to monitor their thinking and develop their ability to comprehend a text. It also motivates them to interact with and benefit from both the

teacher and other students. In addition, it teaches them to re-read sentences; and look for clues that will help them understand what they read.

English as a Foreign Language in the 9th Grade in Saudi Arabia

The ninth grade in the Saudi Arabian educational system is part of the middle school system, which includes grades 7, 8, and 9. Students at the 9th grade level have taken English classes since they were in 4th grade, and thus have had a total of six years of formal schooling in the English language. However, the students' ability to read in English is still in its beginning stages, because the English curriculum in the fourth to sixth grade is focused on basic skills such as the English language alphabet, speaking tasks, and so on; only very simple (one or two sentence) reading tasks are typically given. Students are not required to complete reading assignments until they are in the 8th grade. The 9th grade is the first grade where reading becomes an important focus of their English as a foreign language (EFL) curriculum.

The curriculum for English is standardized; and is the same throughout the country of Saudi Arabia. The textbooks attempt to engage students through the assortment of readings, which are designed to stimulate interest through the selected topics. There is a vocabulary list at the beginning of each lesson to give the students a chance to learn the words appearing in the reading before they start. Classes are typically taught through a traditional learning approach. Recent changes in the curriculum; and a deeper understanding of the need to promote English language learning have created a movement in Saudi Arabia to try to improve the learning outcomes for students.

Significance

The Think-Aloud strategy gives students the opportunity to improve their reading skills. Many studies were conducted using the Think-Aloud strategy at different levels, but according to

Ortlieb and Norris (2012), quantitative research into the effectiveness of the Think-Aloud

strategy is limited. The researcher was not able find studies using the Think-Aloud strategy

conducted in Saudi Arabia. This makes this study significant because one of its aims is to fill the

gap in the research regarding the Think-Aloud strategy in Saudi Arabia. Furthermore, to address

some of the problems that EFL students face learning English in Saudi Arabia, such as poor

teaching methods, problems with curricula, and a lack of motivation, The Ministry of Education

in Saudi Arabia has recently created a number of reforms in the education system (Al-Khairy,

2013). This investment has made research into strategies, such as Think-Aloud, timely as well.

Literature Review

Saudi Arabia is an Arabic speaking country located in the Middle East. Saudi students in the 9th grade take English as a Foreign Language (EFL). In Saudi Arabia most information (for example: road signs, radio, and television broadcasting) is provided mainly in the Arabic language. Due to this, in recent times where the world seems to have evolved into a global village, there has been a need for communication improvement between different nations. This need has led to different countries, such as Saudi Arabia, to introduce English learning into their education system. This literature review discusses the Saudi Arabian EFL context; and how students in Saudi Arabia might benefit from the introduction of metacognitive strategies, specifically the Think-Aloud strategy, to increase reading comprehension. The Think-Aloud strategy, its history, its benefits, and how it is typically implemented in the classroom environment are also discussed. In support of this study to investigate the effectiveness of the Think Aloud strategy with 9th grade students, and answer the following questions:

- Does the metacognitive Think-Aloud strategy improve the reading comprehension of ninth grade males in Saudi Arabia English language classes?

- Does the metacognitive Think Aloud strategy improve the motivation of ninth grade males in Saudi Arabian English classes?

- Does the group that was explicitly taught this metacognitive strategy better retain and comprehend information from English text than the control group?

Teaching English in the Saudi Context

English language has been taught as a foreign language in Saudi Arabia's schools since 1925 (Al Nofaie 2010; Al-Ahaydib, 1986). According to the educational policy in Saudi Arabia, the aim of teaching English has been to improve the students' proficiency by teaching them at

least one living language in addition to the Arabic language. English instruction was given a great deal of attention in order to help Saudis students become more technologically developed (Alresheed, 2008). The educational policy also aims to enable students to develop knowledge, arts and useful contrivance.

The objectives behind the introduction of English teaching in Saudi Arabia are stated in the Saudi Policy of Education. Article 50 states that "*Furnishing the students with at least one of the living languages . . . to enable them to acquire knowledge and sciences from other communities and to participate in the service of Islam and humanity" (Hajailan, 2003, p.23).* In Saudi Arabia, there have always been different barriers in English learning among the Saudi students, for instance language barriers. Factors that may influence English being taught in the Saudi context include socio-cultural factors, religious factors, little to no motivation of students, inefficient and ineffective teaching policies and strategies, and differences in English and Arabic forms of writing (Elyas & Michelle, 2010). These barriers and other factors have led to the English language being taught in Saudi school context and has also led to the development of more effective teaching mechanisms by professional English teachers in order to overcome these barriers.

The teachers must master the English language education coursework themselves to impart comprehension-reading skills to their students. In English language teaching, course books are an essential resource for (a) providing language components, (b) practices, (c) stimulating concepts, and (d) self-directed education. In some contexts, they are applied as a syllabus and a motivation for educators with less experience. Initially, teaching English was not necessary but due to scholarship issues or overseas employment, it has become a necessary component of teaching in Saudi Arabia. Arabic is the main language of Saudi Arabia and apart

from a few institutions it is the means of instruction up to the institution of higher education

level. However, English is taught as a foreign language. Initially, little significance was attached

to learning and teaching English in the Saudi educational structure (Rahman & Alhaisoni, 2013).

English became an obligatory subject from seventh grade until the end of high school,

but rarely did the students give any importance to acquiring competency in English; rather, they

regarded it as a language "to pass the test". The state of English in Saudi Arabia is completely

currently different. Due to the international necessity and English being the main language of

technology and science, commerce and business, the significance of English language grew fast

(Rahman & Alhaisoni, 2013). Currently, it is one of the key subjects in the educational system of

Saudi Arabia, and is therefore, implemented as a compulsory topic in the schools (Rahman &

Alhaisoni, 2013).

According to Al-Shumaimeri (2003), teachers indicated that students were completing

the high school without the capability of carrying out a short chat in English. After learning the

language for several years, the students achieved little in terms of language competencies

resulting in a huge number of teachers and students wasting their time and energy.

Nooh and Mosson-McPherson's (2013) conducted research in Saudi Arabia concerning

the effectiveness of presently applied strategies of teaching English reading tactics in the nation.

The study took into consideration the perceptions of students and teachers. The results highlight

important discrepancies between the different perceived effectiveness of regular strategies. One

challenging area recognized is the lack of a support system that should encourage the classroom

education of reading skills (Nooh & Mosson-McPherson, 2013).

Reading Comprehension

As an important component of reading, comprehension has been among the most discussed topics by many researchers for the last few years (Cassidy & Ortlieb, 2011; Cassidy, Valadez, & Garrett, 2010; Dymock, 2007; Ortlieb & Norris, 2012). Students who are taught comprehension interpretation strategies are more successful (Keene & Zimmermann, 2007). According to Keene and Zimmermann, (2007) the students should be encouraged to read and use the Think-Aloud strategy. Planning should be used to allow the students to associate the text with previous information and experience and gain an overview of the text. Instructors must allow the students to infer, make connections, and draw conclusions from the comprehension (Keen & Zimmermann, 2007). Additionally, to boost the students' interest and understanding, they have to be helped to summarize important elements and themes of the text. The purpose of reading should be meaningful.

Keene and Zimmermann (2007) also state that for students to enjoy comprehension and retain most of the knowledge gained from reading, they should be challenged to visualize, synthesize, and retell what they read. However, unlike Mutawa & Kailani, (2009) who perceive the text structure as unimportant in reading, (Keene & Zimmermann, 2007) hold that the structure of the text is significant in determining the students' overall understanding of the text. Keene and Zimmermann (2007) direct instructors to assist students in understanding the elements of text that are put together and how they interrelate; as this will enable them to efficiently and critically analyze the text. Consequently, their understanding and love of reading comprehension improves. Keene and Zimmermann (2007) term the described methods of reading comprehensions as metacognitive strategies whose contribution in the field of education cannot be disregarded.

Reading vocabulary. The mastery of vocabulary words plays a very vital role in the development of the thinking ability of students. The appreciation for vocabulary must be present due to its capacity to improve their thought processes (McGuiness, 2004). It is imperative to ensure that students have broad vocabularies because they lead to a boost in language and literacy, and this places them in a position to overcome particular challenges in life. Teaching vocabulary should focus on understanding a small numbers of words, their elements, and related words in rich contexts (Kelley, Lesaux, Kieffer, & Faller, 2010). According to Kelley et al. (2010), this differs from the old practices of teaching large amounts of vocabulary words which resulted in relatively shallow knowledge that is rarely maintained for long. During vocabulary instruction it is important to use words that students will use a lot instead of words that do not appear very often (Kelley et al., 2010).

Motivating Adolescents to Read

Adolescent students asked to fill out reading and writing approach surveys often rate reading for enjoyment as last on the list. It is fundamental to encourage learners to read more to improve literacy knowledge. Fluency, vocabulary skills, and comprehension knowledge can only expand when frequently exercised. Reading strategies advocated by content area teachers and literature-oriented language arts procedures are fundamental, however, cannot offer the total reading promotion that is significant for the adolescents of today (Nancy & Patricia, 1998). Motivating learners to read for pleasure, knowledge, and understanding of the context is necessary. Specified reading moments, the application of intriguing resources, and the assistance of a teacher are also necessary to adolescent reading growth. The information era has produced learners who expect instant satisfaction, colored pictures, and mood music to convey all learning practices. The elements require resources. However, adolescent strategies cut as funds and

human resources directed to initial intervention strategies. Funding requirements, state and division need, substances, attitudes and potential all have an effect on programs for adolescent learners (Nancy & Patricia, 1998).

Think-Aloud Strategy

The Think-Aloud strategy is a constructivist strategy designed to increase learners' initiative to become involved in the literacy practice of reading (Bentley, 2012). Researchers, such as Harris and Hodges (1995) defined the strategy as a technique in which a teacher verbalizes feelings aloud while reading a paragraph orally, thus framing the procedure to increase comprehension (Bentley, 2012). As teachers structure the application of Think-Aloud, learners can suit independent customers of the policy, promoting in-depth association making. It enables readers to pause and reflect on the items to comprehend a text, and associate these literacy procedures orally (Bentley, 2012). Think-Aloud prompts activate learners' capability of articulating and provide practice in order to be more successful in the future. In order to increase comprehension via the use of the Think-Aloud strategy, the grade level and age of students and the texts being read must be assessed (Bentley, 2012). Think-Aloud prompts allow learners to understand a text by over assessing the context, seeking important information, and connecting it with the author's larger vision. Furthermore, it helps activate prior acquaintance, placing self as a feature in the content, predicting future and acknowledging author is writing approach. In addition, it helps in determining word meanings, questioning, noticing innovations in a text variety and formulating the author's communication, making self-to-text connections, and making text-to-text connections (Bentley, 2012).

The Think-Aloud strategy that has been researched and found to be useful for developing reading comprehension. (McKeown & Gentilucci, 2007). Jahandar, Khodabandhlou, Seyedi, and

Abadi (2012) stated that one of the difficulties facing teachers is knowing whether or not their students are using learning strategies correctly, as it is difficult for a teacher to know what a child is thinking, or how he or she is processing information. Jahandar et al. (2012) suggested that the Think-Aloud strategy is one way to verify whether the child is just reading, or actually comprehending the text. The Think-Aloud strategy has two parts. The first involves modelling by the teacher by reading and engaging with the text. The teacher models "strategic behaviors for struggling readers by thinking aloud for them while they read…raising their awareness of what it means to be a strategic reader" (Jahandar et al., 2012, p.1). The second part is having the students actively reflect on what they read while they are reading. This has several advantages. By giving the teacher insight into the thinking and learning process of the student, and their use of learning strategies; this knowledge can help inform instruction (McKeown & Gentilucci, 2007). Next, because a student using the Think-Aloud strategy is constantly asking questions about what is happening in the text, the metacognitive awareness that this strategy helps develop, allows the student to understand what it means to be a good reader. A good reader is constantly thinking about their own understanding of the text (Jahandar et all. 2012).

According to Ortlieb and Norris (2012), comprehension of reading material is developmental in that it starts with a learner's capability of paying attention and making sense of language. While listening comprehension is frequently the precursor towards reading conception, some learners maintain complexities in listening comprehension all through education and into maturity. Ortlieb and Norris (2012) engaged in a quasi-experimental study that investigated the efficiency of employing a Think-Aloud strategy to enhance students' reading comprehension in science in a kindergarten learning environment (Ortlieb & Norris, 2012). Results demonstrated that with Think-Aloud used as a during-reading practice, significantly boosted a learner's

comprehension of science concepts. The research findings give relevant information concerning

employing Think-Aloud as an instructional instrument for teachers at the middle school levels

(Ortlieb & Norris, 2012).

Researchers have stated that Think-Aloud is a useful strategy to measure student's

cognitive reading process (McKeown & Gentilucci, 2007; Oster, 2001). Other teachers use it as

instruction to teach the students how to read in the English language (Oster, 2001; Dunston &

Headley, 2002). McKeown and Gentilucci (2007) state that teachers should not assume that all

strategies are good teaching methods for all students because each student learns differently.

Also, teachers should not apply the same strategy to all levels of readers. According to Jennifer

Dori (2007), children become aware of their own thought processes when they are introduced to

the Think-Aloud strategy. Readers become more successful when they are able to maximize their

understanding. This is achieved when the child is engaged in the activity with their own

thoughts. Afflerbach and Johnston (1984) established the fundamental basis for developing the

Think-Aloud strategy, first as a methodology of spanning the cognitive reading process, then as

an instrument in the analysis of learners' own thinking processes in which readers use the tool to

keep track of their perception. McKeown and Gentilucci (2007) cited Think-Aloud as one of the

"mutual strategies" as it requires both teachers and students to work together to elicit meanings

and build comprehension of the text they are dealing with. Unlike other reading strategies in

which readers independently try to grasp meaning from text relying on their prior knowledge,

interests, motivations, and goals for reading, learners who use the Think-Aloud strategy give an

opportunity to other learners within the group to investigate and examine other viewpoints and to

react to them. Kucan and Beck (1997) noted that the Think-Aloud Strategy successfully carries

out three goals: (1) It is a key factor in perceiving the reading cognitive process. (2) It is an

effective approach to learning. (3) It is a tool of social interaction. The Think-Aloud Strategy, as

discussed in Gambrell et al. (2007), expands an understanding of reading because it promotes

building meaning through social interaction.

   According to Bentley (2012) in order for students to succeed in reading and

comprehension they must be motivated to read. Bentley (2012) suggests that in order to motivate

students' texts and activities must be age level and grade level appropriate. That is because

Think-Aloud strategy is a skill that appears at earlier ages and persists all though the readers

lifetime (Alexander, 2006; Dooley, 2010). Gambrell et al. (2007); state for successful reading

development students have to have meaningful use of the language in all areas of life including

the home, community and school. The Think-Aloud strategy is considered a best practices for

teaching reading comprehension (Bentley 2012). Think-Aloud allows the teacher to engage with

the students, and the students with the material in a number of ways. Teachers may incorporate

some or all of the following ideas into their instruction when using the Think-Aloud strategy in

the classroom: looking for important information, building and activating background

information and connecting it to the text, role playing, thinking of oneself as a character in the

text, predicting plot, reviewing and guessing word meanings, analyzing the author's style or word

choice, determining the moral of the story or the writer's goals, asking questions, and so on

(Bentley, 2012; Block & Israel, 2004).

Think-Aloud Strategy Instruction

   The teacher's responsibility throughout the foundational phase involves the systematic

structure of the application of literacy ideas, skills or approaches in order to boost the

comprehension of the content. Comprehension of a text starts before learners reach a predictable

level of reading (Bentley, 2012). As a result, thinking aloud is a helpful approach in an emergent

literacy learning environment. It is an instrument to establish young learners' metacognition and allows them to actively supervise their thoughts to augment their comprehension (Bentley, 2012). Gambrell et al. (2007) indicating that joining Thinking aloud with interactive conversations leads to rising comprehension of the narrative.

Oster (2001) effectively used the Think-Aloud strategy in her classroom. According to her experience, in teaching the reading she gave students many opportunities to use the Think-Aloud strategy. Those opportunities included whole class instruction, pair work, and individually. Furthermore, she encouraged her students to write their questions and comments as they were reading.

In modeling Think-Aloud strategy the teacher should instruct the students to think while they are reading. Comprehension is required to be explicitly instructed to students and modeled long term at various grades (Block & Pressley, 2002; Ortlieb, & Norris, 2012). Research suggests that if reading is taught to students earlier in their school careers, they will be ready to understand and engage with more complicated, challenging texts (Moss, 2005).

Oster (2001) provides several important factors to consider when reading. The first factor is "what they notice" if they find some important points. The second is "facts and possible facts about characters or the story". Then "predictions" if the students imagine what is next. The next factor is "questions they have" about anything in the story. The last factor is "personal reactions" on how they feel about the story. Finally, Oster (2001) in her classroom demonstrated the Think-Aloud strategy using a short story and discussed the process with the class.

Wilhelm (2001) also shares the same views. According to Wilhelm (2001) for students to love reading, instructors must recognize and implement action approaches for reading comprehension. After working with Arabic middle class students, Wilhelm (2001) realized the

value of Think-Aloud strategies. Such strategies can be very effective in making the students

retain knowledge, and be self-directed selective learners. Wilhelm (2001) also believed that in

order to be more involved citizens of the Information Age, students needed to be able to

determine if the information that they encounter is appropriate and valid, and they must have the

skills to know how to apply it to their lives, and that Think-Aloud strategy could help students

reach these goals.

Students should not be made to associate reading with work but should rather be made to

see reading comprehension as pleasure. To keep Arabic students from losing the desire to read,

curiosity and interest as basis of reading and understanding comprehension must be enhanced.

Since many Arabic students have a poor foundation in English, reading ought to be introduced to

them when they are still young so that it develops within them as they grow.

The Think-Aloud strategy permits learners to verbalize their judgment as they study and

bring into the open the approaches they are using to comprehend a text. Educators of reading and

language arts require evaluating students' weaknesses and strengths in reading and in an

approach to teaching them to become enhanced readers and take pleasure in what they read

(Oster, 2001). Reading comprehension relies on productively and suitable application of a

number of strategies for attaining prior acquaintance and creating mental imagery of the context.

In addition, making prediction and conclusions, monitoring comprehension and using fix-up

approaches when necessary must be implemented (Oster, 2001). Teaching the Think-Aloud

strategy in school comprise creating a framework that help learners to connect reading to the text

(text-to-text), self-to-text and text-to-world. A teacher creates a model where a paragraph is read

in a class with Think-Aloud strategies. The teacher reads one sentence aloud at a time and asks

students to comment according to the Think-Aloud strategies provided, using students as Think-Aloud models for each other and producing authentic thinking (Oster, 2001).

Literature Review Summary

In this chapter, teaching English in Saudi Arabia was analyzed from different perspectives. The first part concerns teaching English in Saudi Arabia. Here, a number of researchers' findings concerning teaching modes in Saudi Arabia were provided. According to Rahman & Alhaisoni (2013), Arabic is the main language of Saudi Arabia, and apart from a few institutions it is the means of instruction up to the higher levels of education. However, English is taught to all students as foreign language. While initially, little significance was attached to learning and teaching English in the Saudi educational context, there has been a push in recent years towards developing the English language abilities of students. To address the needs of students, a variety of studies on English as a foreign language learning strategies have been conducted in Saudi Arabia, including those investigating reading comprehension.

The other focus of the literature review was to discuss the Think-Aloud strategy as a means to improve English reading comprehension. The findings reveal that a Think-Aloud is a constructive strategy to initiate learners to their metacognition while being involved in a literacy practice like reading. Teaching students metacognitive skills through the Think-Aloud strategy in school comprises of creating a framework that helps learners to connect reading to the text (text-to-text), self-to-text and text-to-world. The literature suggests that Saudi Arabian English teachers can successfully teach ninth graders comprehension skills through the Think-Aloud strategy.

Methodology

Research Design

This study employs a pretest-posttest quasi-experimental design. A quasi-experimental design, unlike a true experimental design, does *not* use a random sample for reasons such as practicality, convenience, or other factors; such as targeting a specific population. Specifically, the researcher used a convenience sampling method to select participants as he was familiar with the school and its teachers before research began. Quasi-experimental designs are popular in education where it is typically impractical to remove students from classes to form random groups (Kraska, 2010).

A quasi-experimental design is weaker than a true experiment because it effects the study's reliability, or limits the ability of the researcher to state a causal relationship between factors (Baldwin & Berkeljon, 2010). Matching, such as making sure that the treatment and control participant groups are evenly matched in terms of their abilities and other factors; so that they are similar as possible is one way to control for the lack of randomization (Kraska, 2010).

The null hypothesis that will need to be disproven in this study is that there will be no positive relationship between the independent variable (instruction of the Think-Aloud strategy) and the dependent variable (reading comprehension).

H_0: The Think-Aloud strategy will not positively impact Saudi Arabian students reading comprehension.

H_1: The Think-Aloud strategy will positively impact Saudi Arabian students' reading comprehension.

Participants

        The participants of this research project were 45 male students studying in the 9th grade in the city of Gazan, which is in southern of Saudi Arabia. Their ages ranged from 14 to 15 years old. All of the participants were Saudi citizens who are native Arabic speakers, and who study English as a foreign language. This group of students were chosen for several reasons. First, these participants, though still adolescents, are more mature in middle school than elementary level students. According to Lightbown and Spada (2006), mature students have greater access to metacognitive strategies such as, (the Think-Aloud strategy) and would thus have a greater ability to obtain benefits from them. Secondly, the participating teacher, is currently teaching this grade of student, and has access to the practical means of conducting this research as well as support from administration.

        The students come from a variety of socioeconomic backgrounds. There is no dominant SES in the group. These students are in their third year of intermediate study of the English language, but in grades 4 to 6, they had introductory experiences to familiarize them with the alphabet and other basic concepts.

        The two classes, with 42 total participants, were chosen through a non-probability; convenience sampling method (making this study's design quasi-experimental). Unlike probability sampling (true experimental designs), non-probability samples such as this one are not randomly chosen. While a random sampling is generally preferable, because the results may be more generalizable, convenience sampling often has the advantage of being more practical in terms of money, time, or other factors (Phua, 2004). This limitation and what effects it may have on reliability will be addressed in the discussion section of this study.

In summary, for practical reasons, a random sampling would have been impossible. The researcher chose an English as a foreign language teacher; currently at the school to help him to select two classes that are close to the same ability level. The treatment group (that receives the Think-Aloud strategy intervention) and the control group were randomly selected between these two classes.

Research Site

The middle school system in Saudi Arabia lasts for three years, from grade 7 to grade 9. King Fahad middle school is located in Gazan. The participating teacher has more than seven years' experience teaching in this school. The classes have access to Smart Board technology. This school typically has 120 students attending and each grade in this school has two classes. Each class has 21 students. There is one English teacher who teaches all the English classes in this school. Unlike the USA; where students are randomly assigned to classes, here the students stay in the same classroom and the teacher goes to teach them.

Data Collection

The research question this study was designed to investigate was: How effective is the Think-Aloud strategy in improving the reading comprehension of 9th grade male students in Saudi Arabia? To begin the data collection phase of this process, the researcher contacted a teacher who was interested in the Think-Aloud strategy. The researcher met this teacher while they were both studying in the same American university in the northeast area of the USA. This participating teacher (also referred to as the administrator of the study), has a Master's of Science in Teaching English to Speakers of Other Languages (TESOL), and was familiar with the Think-Aloud strategy, which he learned about through his studies in America. This teacher was given the materials that the researcher wanted to use in the study, including the pre-tests, post-tests, the

formative assessments, grading rubrics, as well as specific information regarding which sections of the class textbook to use. The participating teacher was also given directions regarding procedural steps that the researcher wanted him to follow to ensure that the Think-Aloud strategy was being used appropriately in the class. However, given the educational background of the participating teacher, and his previous experience and understanding of this metacognitive strategy; as well as the explicit instruction, that extensive face-to-face training between him and the researcher was not required. Furthermore, the researcher was prepared and available to answer any questions that the participating teacher might have.

The research began in February of 2015 and continued throughout the month, for a total of three weeks. As the classes met four days a week, this study was conducted over 12 lessons in total. The participating teacher met with the researcher to organize the classes according to the research design. Two classes of students were chosen: a control group of about 21 students, which were taught using the typical method of instruction (as determined by the teacher of the class) and the treatment group, which received direct instruction using the Think-Aloud strategy. The participating teacher taught both the control groups and treatment group's classes. Which class received the control group instruction and which one the strategy instruction intervention was decided randomly.

Before the Think-Aloud strategy was introduced to the students, the control group and the treatment group were given a pretest that served as a baseline assessment of their levels before instruction. The pretest consisted of a reading passage that included a series of short-answer comprehension questions. Grades were given on a rubric from a scale of 0-2, based on whether they were correct (0 for incorrect or questions not answered), and their clarity and completeness (1-2 points). The grades of this assessment were recorded as the pretest results.

Once the pretest data was obtained, instruction in both the treatment group and control group began. Both groups were taught by the participating teacher to maintain consistency of results. The participating teacher met with the students of each group's 12 classes, conducted over three school weeks. There was instruction for both the treatment and control group classes for 45 minutes in each class, four days a week for three weeks, for a total of 450 minutes (7.5 hours) of total instruction for each group. There were weekly tests on Thursday (the last day of the Saudi school week) on weeks one and two, and a final posttest on the third week (the end of the study). A time series pretest-posttest design was used to determine the level of effectiveness (if any) of the intervention (the Think-Aloud strategy) over a period of time (Kraska, 2010). Therefore, there was a total of four assessments collected: one pretest, and three weekly posttests.

During the three weeks of this study, the participating teacher gave a posttest assessment of each group by using the same type of reading comprehension assessment given in the pretest. These assessments consisted of a reading passage with a series of short answer questions to determine the level of understand the students had about the article. The main idea was to determine what degree of effect, if any, the direct instruction of the Think Aloud strategy had on reading comprehension for the participants.

Treatment and control group instruction. The first day of the study began with the pre-test, and the different instruction for the control group and the treatment group started on the second day. The participating teacher employed the Think-Aloud strategy with the treatment group and typical lecture-style class strategy for the control group for the remaining ten days of classes (the study lasted for three weeks; but the class only met for four days a week).

For the first twenty minutes of the classes with the treatment group, the participating teacher read the daily lesson and asked questions about what was happening in the text. The questions were predominantly to make predictions about what would happen in the text, or to describe what has happened in the story or text. Asking oneself comprehension questions and predicting are an important part of the Think-Aloud strategy.

The participating teacher repeated the same method for all twelve days of instruction. After these twenty minutes of demonstrating the Think-Aloud strategy, the students were split into pairs. One student read to the student next to him and the partner asked the reader questions about what he had read. After ten minutes of one student reading, the participating teacher switched the role of reader to the other partner.

During the last five minutes of each class, the participating teacher gained an overview of the students' understanding of the events of the story by asking some questions about the general idea of the story and asked students to share their answers as a group.

Data Analysis

The research data was analyzed by taking the short-answer reading comprehension test results obtained by the weekly post tests and comparing them to the results of the pretest to determine growth. The overall averages of the control group versus the treatment group were obtained through grading each paper and recording the grades onto a Microsoft Excel spreadsheet. The data was then put into a chart to show trends in achievement. In addition to obtaining overall grades for each test and comparing them in charts, specific test items were analyzed separately through item analysis to determine if the treatment group was able to more accurately answer some of the test questions than the control group. This analysis gave more

insight into the degree to which the Think-Aloud strategy was able to assist the participants of

the research in their learning comprehension.

Findings

This study was designed to investigate the effect that introducing the Think-Aloud strategy had on the reading comprehension skills of 9th grade students in Saudi Arabia. Two classes of students were selected through convenience sampling methods; a control group and a treatment group. The treatment group was introduced to the Think-Aloud strategy, and the control group was not. A total of four assessments were administered to each group: a pretest, two weekly assessments, and a final posttest. Besides the pretest, which was given on the first day of the study, the assessments were given at the end of each of the three weeks to each group. The content of the test were the same for the control and treatment group.

Table 1

Summary of Data: Think-Aloud Strategy & 9th Grade ELLs: Treatment Group*

Participants: Treatment Group	T_0	T_1	T_2	T_3
ELT_1	3	3	4	4
ELT_2	2	4	4	4
ELT_3	2	2	3	5
ELT_4	3	3	3	4
ELT_5	1	2	3	3
ELT_6	0	2	4	4
ELT_7	0	4	4	4
ELT_8	2	3	5	3
ELT_9	4	5	5	5
ELT_{10}	1	4	5	4
ELT_{11}	2	3	5	5
ELT_{12}	2	3	4	3
ELT_{13}	1	1	4	3
ELT_{14}	0	1	2	5
ELT_{15}	0	4	2	4
ELT_{16}	1	3	5	5
ELT_{17}	0	2	3	3
ELT_{18}	2	3	3	5
ELT_{19}	3	1	2	2
ELT_{20}	1	3	5	5
ELT_{21}	5	2	5	5
Mean Score	1.67	2.76	3.81	4.05

Standard Deviation (SD)	1.39	1.09	1.08	0.92
Median Score	2	3	4	4
Modal Score	2	3	5	5
Range of Scores	0-5	1-5	2-5	2-5

*ELT = English Learner. T=Treatment (Experimental) Group

Table 2

Summary of Data: Think-Aloud Strategy & 9th Grade ELLs: Control Group

Participants: Control Group	T_0	T_1	T_2	T_3
ELC_1	1	2	1	1
ELC_2	0	2	2	2
ELC_3	1	1	1	1
ELC_4	1	1	2	2
ELC_5	1	2	2	2
ELC_6	2	5	3	3
ELC_7	4	3	2	2
ELC_8	2	1	0	0
ELC_9	1	1	0	0
ELC_{10}	1	3	1	1
ELC_{11}	2	2	2	2
ELC_{12}	2	2	3	3
ELC_{13}	5	4	5	5
ELC_{14}	3	0	0	0
ELC_{15}	1	1	1	1
ELC_{16}	0	0	1	1
ELC_{17}	1	2	2	2
ELC_{18}	2	0	2	2
ELC_{19}	0	1	2	2
ELC_{20}	1	0	1	1
ELC_{21}	2	1	1	1
Mean Score	1.57	1.62	1.62	1.62
Standard Deviation (SD)	1.25	1.32	1.69	1.16
Median Score	1	1	2	2
Modal Score	1	1	2	2
Range of Scores	0-5	0-5	0-5	0-5

*ELC = English Learner. C=Control Group

Test 0

      A test 0 was administered by the participating teacher in order to get an understanding of the students' levels, and to help determine if, when compared with the scores from future tests, whether progress had been made. Both the control group and the treatment group received the same assessment. The results can be seen in Figure 1; below.

      From the pretest, the researcher found that the two groups of students were similar in terms of scores. Only two students, (one student from each group) were able to achieve a score of 5 out of 5. Five students from the treatment group, and four students from the treatment group received a score of 0 out of 5. While the groups had a similar distribution of high and low scores, the mean scores were different, but still comparable. The treatment group's mean score on this assessment was 1.66; the mean score for the control group was 1.52. The results of the pretest suggest that both groups of students have similar abilities regarding their reading comprehension skills.

Figure 1. Test 0 assessment (Prestest) results. This figure shows the scores of the pretest assessment, administered to the control and experimental groups.
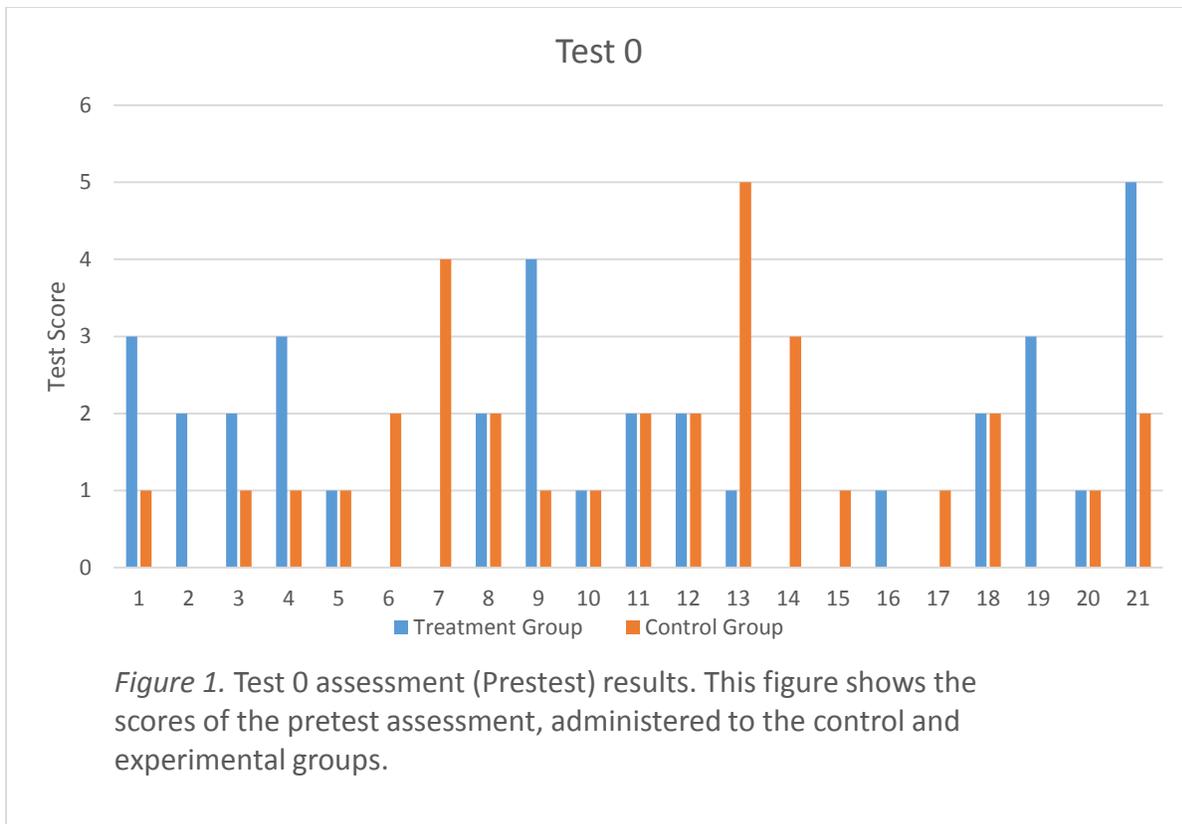
Test 1

The first of the weekly assessments was administered on the last day of the first week of the study. The results of the study were quite impressive. The control group, which had been taught according to traditional, teacher-centered methods, had a mean score of 1.62. This score was a modest improvement over their mean score in the pretest (1.57). The treatment class, however, showed a very dramatic increase in their groups' mean score from 1.66 to 2.76. As indicated in the pretest, both groups had a similar pretest result, suggesting that the increase was due to the introduction of the Think-Aloud strategy to the class, and how it was implemented in the classroom. With the exception of students who received a score of 5 on the pretest, all of the students were able to either improve their scores or maintain a high score; no student got lower than a score of 3 (see Figure 2, below). The interaction between the students and the teacher, and

the teacher's efforts to motivate them to read and understand the questions, and to continue

asking questions about the text, may have lead the students to consider the questions more before

answering, and perhaps gave them a better knowledge of how questions are asked in English.

Figure 2. Figure shows the results of the first assessment given after Test 0 (pretest), administered one week after the start of the study.
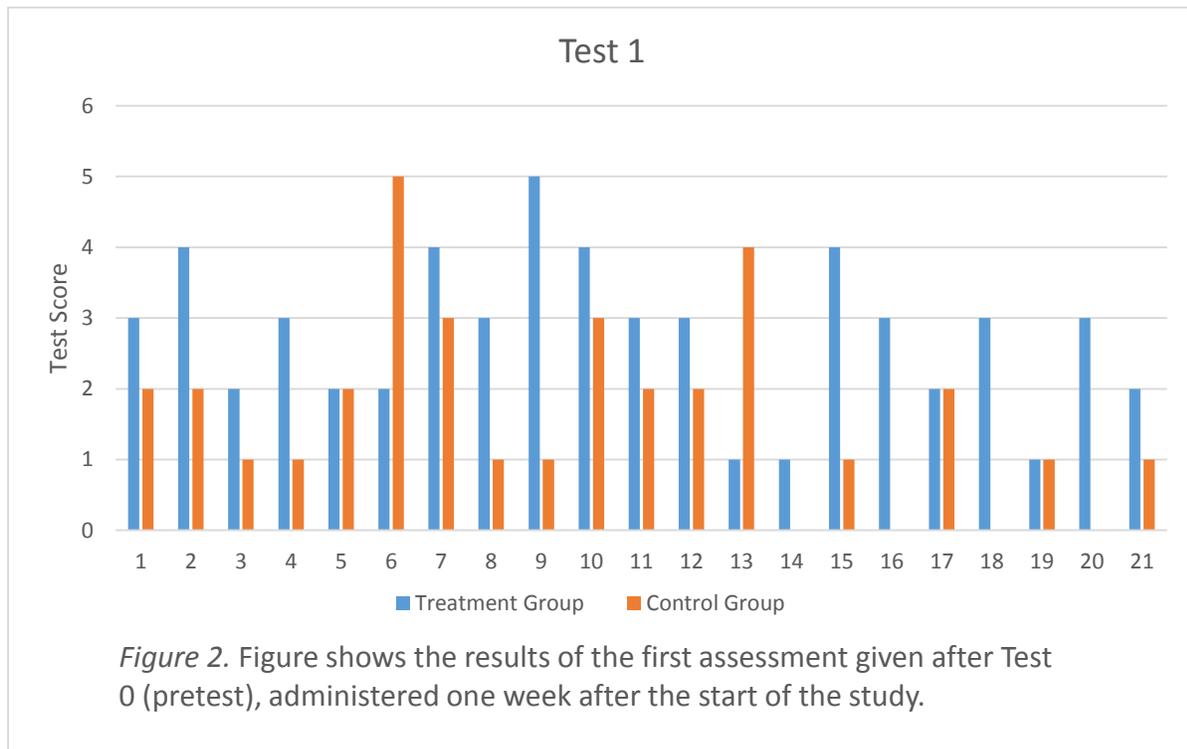
Test 2

On the second week of the study, the students in the control group and the treatment

group continued to be taught using either traditional, teacher-oriented, lecture-style classes

(control), or with the explicit instruction and application of the Think-Aloud metacognitive

strategy (treatment). At the end of the second week of the study, a third assessment was given to

students, weekly assessment 2.

The results of this assessment can be seen in Figure 3, below. The results of this

assessment for the treatment group continued to be very positive, as all students in this group

showed improvement from both their pretest scores and first weekly assessment scores (see

Figure 1 and Figure 2; above). The treatment group's mean score on this assessment was 3.801

an improvement of nearly 1 point from the previous week's assessment. The control group did

show an increase in their scores from the previous weeks' scores, keeping a mean of 1.62. The

differences in scores, between the treatment group and the control group, can been seen in Figure

3; below.

In summary, while the first weekly assessments suggested that students were able to gain

some benefits from their introduction of this strategy compared to their peers in the control

group, this second weekly assessment suggests that as students gain more practice, they become

better able to answer questions regarding the texts. One possibility is that the students become

more familiar with the metacognitive strategies that they can use with the text to understand what

is happening, such as understanding context clues, previewing, etc. (Bentley, 2012).

Another advantage is that, as time progressed through the study, the participating teacher

had more of a chance to fully demonstrate how the Think-Aloud strategy works in a wider

variety of applications, so that students were able to gain even more of an advantage over their

classmates who were not exposed to this strategy (see Figure 3; below).

Figure 3. Scores from the Test 2, the third assessment, taken at the end of the second week of the study.
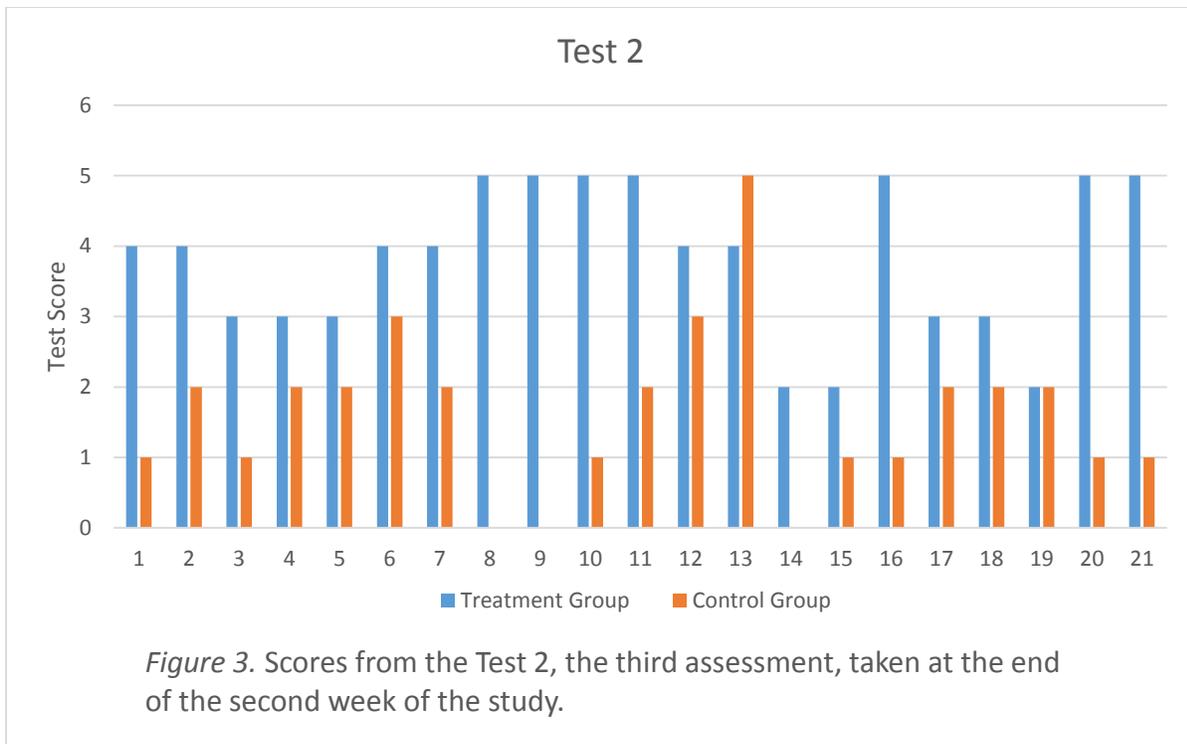
Test 3

A final posttest was given to both the control group and the treatment group on the last day of the study. This posttest assessment was given to both the control group and the treatment group. The posttest assessment results followed the trend which had developed throughout the weekly assessments. The control group did not display a greater degree of improvement, as students received the same score that they had obtained from the first weekly assessment, with a final posttest score of 1.62. The treatment group, on the other hand, continued improving their scores, with a final posttest score of 4.04. While there was not as dramatic of an increase between the posttest score (4.04) and the previous test score of 3.81, the final results were still remarkable, for two reasons. First, this mean score was higher than the other weekly assessment scores, and, secondly no participant got lower than a score of 3 on this assessment.

Figure 4. Results of Test 3 (Postest). Chart shows the results of last assessment, administed on the last day of the study.
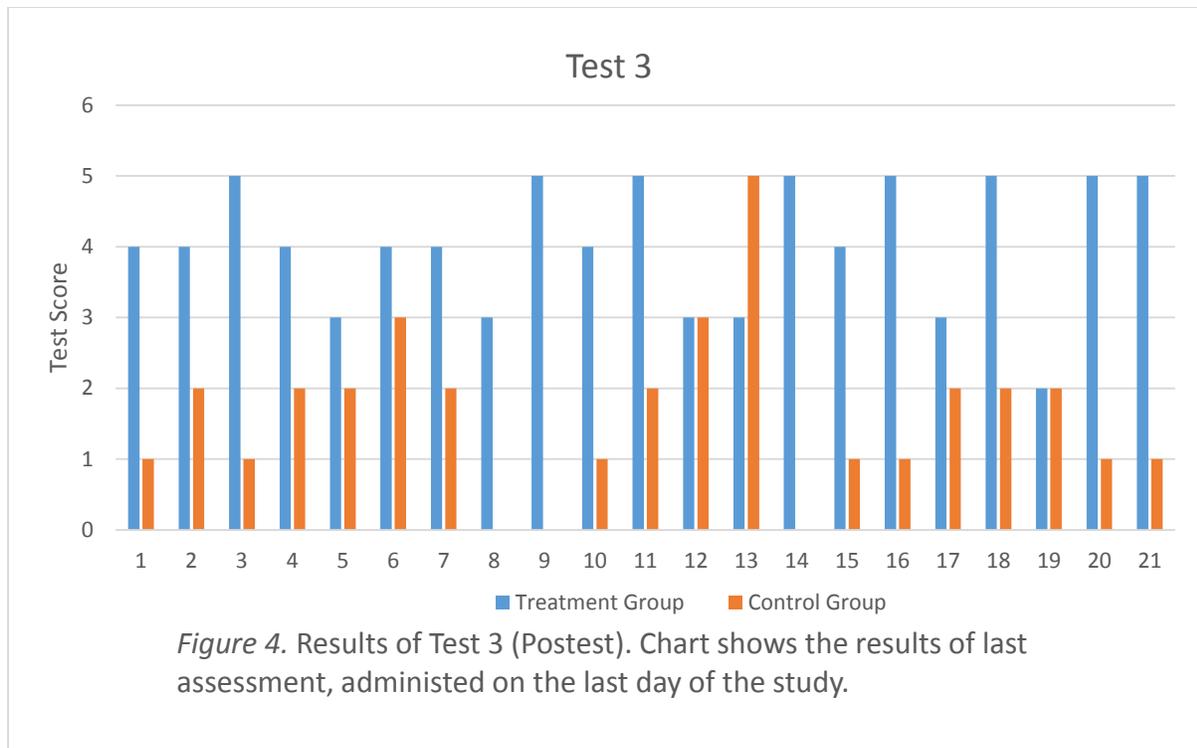
Summary of Results for Individual Students in the Control and Treatment Groups

In order to get a better understanding of student scores; and trends in the data, the researcher assigned each student in each group a number, and collected their results throughout the study. These numbers were put into two graphs, one for the treatment group; and the other for the control group. These graphs allow the disparity between the two groups to be easily viewed by the reader, and allows for an instant comparison of each students' scores throughout the study.

The treatment group. The graph below (Figure 5) shows, in many cases, a strong improvement from the pretest (Test 0) to the final assessment (Test 3). Each number on the x-axis represents a student, and the four lines above each number represent an assessment score. While a few students were varied in their scores, doing worse on some scores than others, with the exception of Student 19, no student experienced a noticeable decline in grades throughout

the study In fact, some, such as Students 10, 14, and 20 showed a dramatic improvement, immediately after being introduced to the strategy. (see Figure 5 below).

Figure 5. Summary of assessment scores for the Treatment Group, by student number, to show progress for individual students.
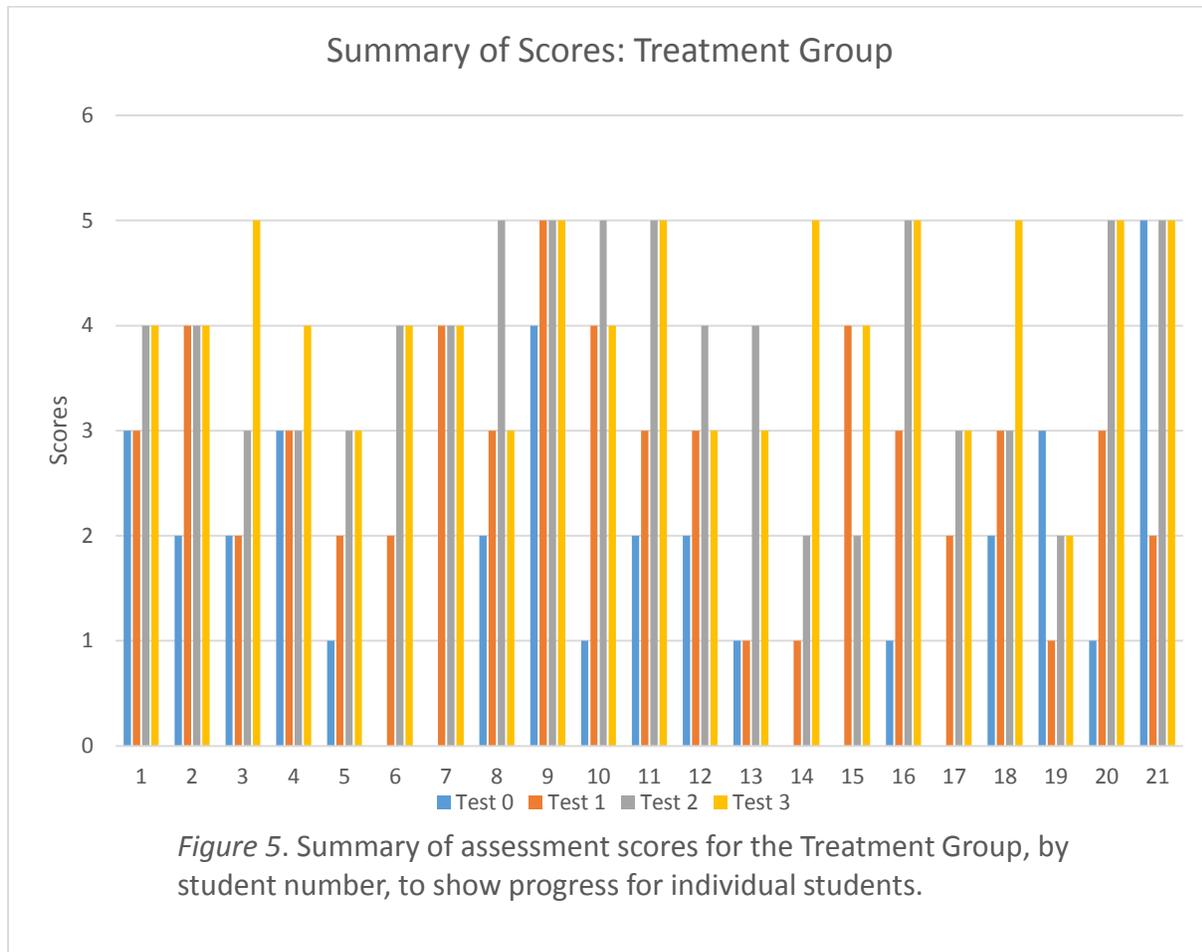
The control group. The control group, which received instruction through the use of traditional teaching strategies, did not experience a significant increase or decrease in scores throughout the study (see Figure 6, below). With the exception of Student 13, who, due to his much higher grades was a clear outlier in this study, students remained fairly consistent in their scores, with Test 2 and Test 3 results higher for many students than previous tests. However, the mean scores remained steady throughout the study for this group (See Figure 6 below).

Figure 6. Summary of assessement scores for the Control Group, by student number, to show progress for individual students
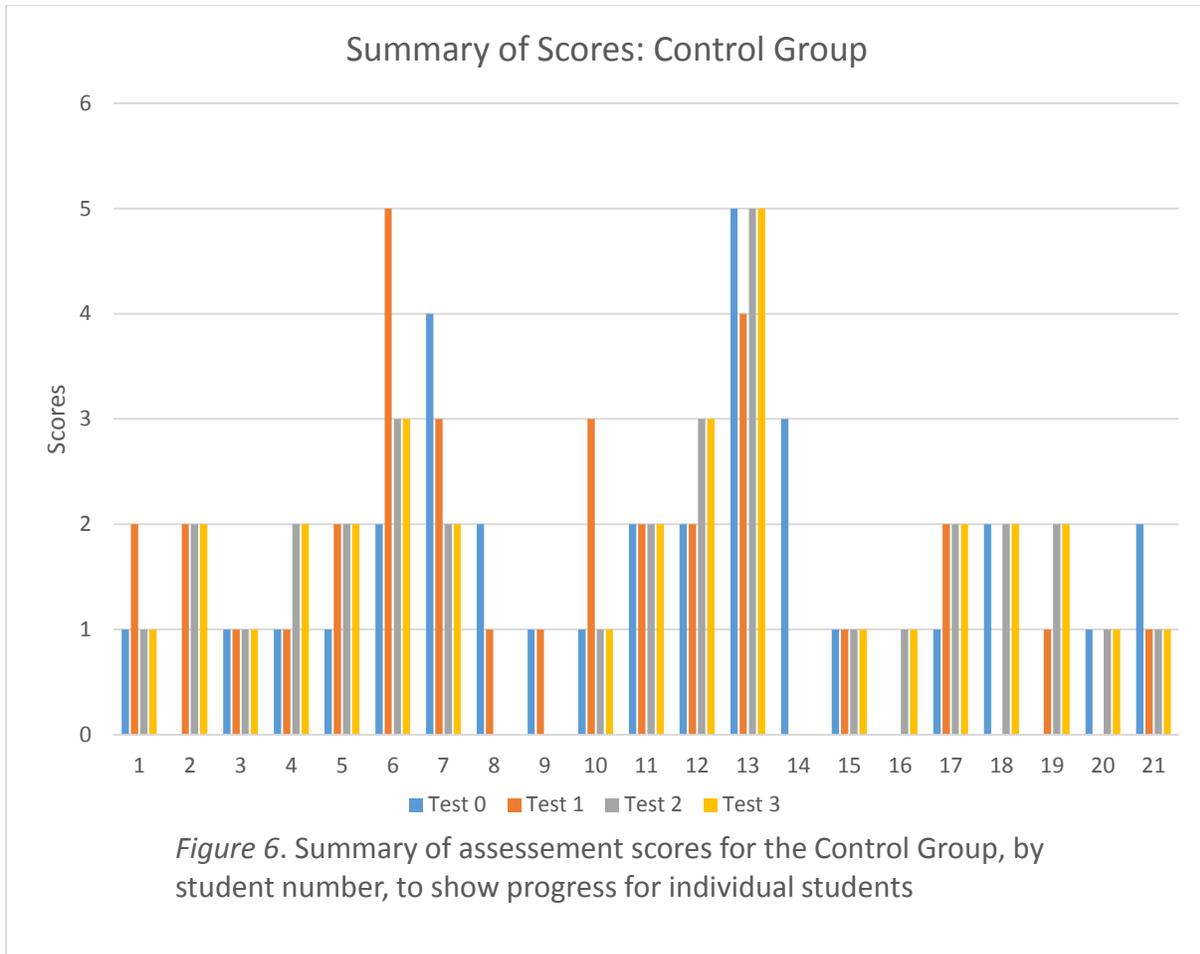
Analysis of Overall Study Assessment Scores

In the final analysis, both the control group and the treatment groups' participants were able to show an improvement between their final pretest and posttest scores. There was a significant difference in the degree of improvement among the treatment group in comparison to the control group, however. The control group improved their mean score from 1.52, to 1.62, demonstrating a very modest increase of .1. (see Table 3, below).

Table 3

Control Group Statistical Analysis

Test	X	SD	s^2	$\tilde{x}$	Mo
0	1.57	1.25	1.55	1	1
1	1.62	1.32	1.74	1	1

2	1.62	1.69	1.35	2	2
3	1.62	1.16	1.34	2	2

Note: X=Mean. SD=Standard Deviation. s^2=Sample Variance. $\tilde{x}$=Median. Mo=Mode.

The treatment groups' scores, throughout the study, increased dramatically for the first

weekly posttest and remained high throughout the study. From the pretest mean score of 1.66 to

the posttest mean score of 4.04, there was an increase of 2.38 points, which was very significant

(see Table 4 below).

Table 4

Treatment Group Statistical Analysis

Test	X	SD	s^2	$\tilde{x}$	Mo
0	1.67	1.39	1.93	2	2
1	2.76	1.09	1.19	3	3
2	3.81	1.08	1.16	4	5
3	4.05	0.92	0.84	4	5

Note: X=Mean. SD=Standard Deviation. s^2=Sample Variance. $\tilde{x}$=Median. Mo=Mode.

When presented in graph format, the differences in achievement between the two groups,

were quite obvious. The control group continued making progress throughout the study, even if

progress eventually slowed (see Figure 7 below).

Figure 7. Line chart demonstrating trends, and comparing results of study through the mean scores of the Treatment vrersus Control Group, from Test 0 to Test 3.
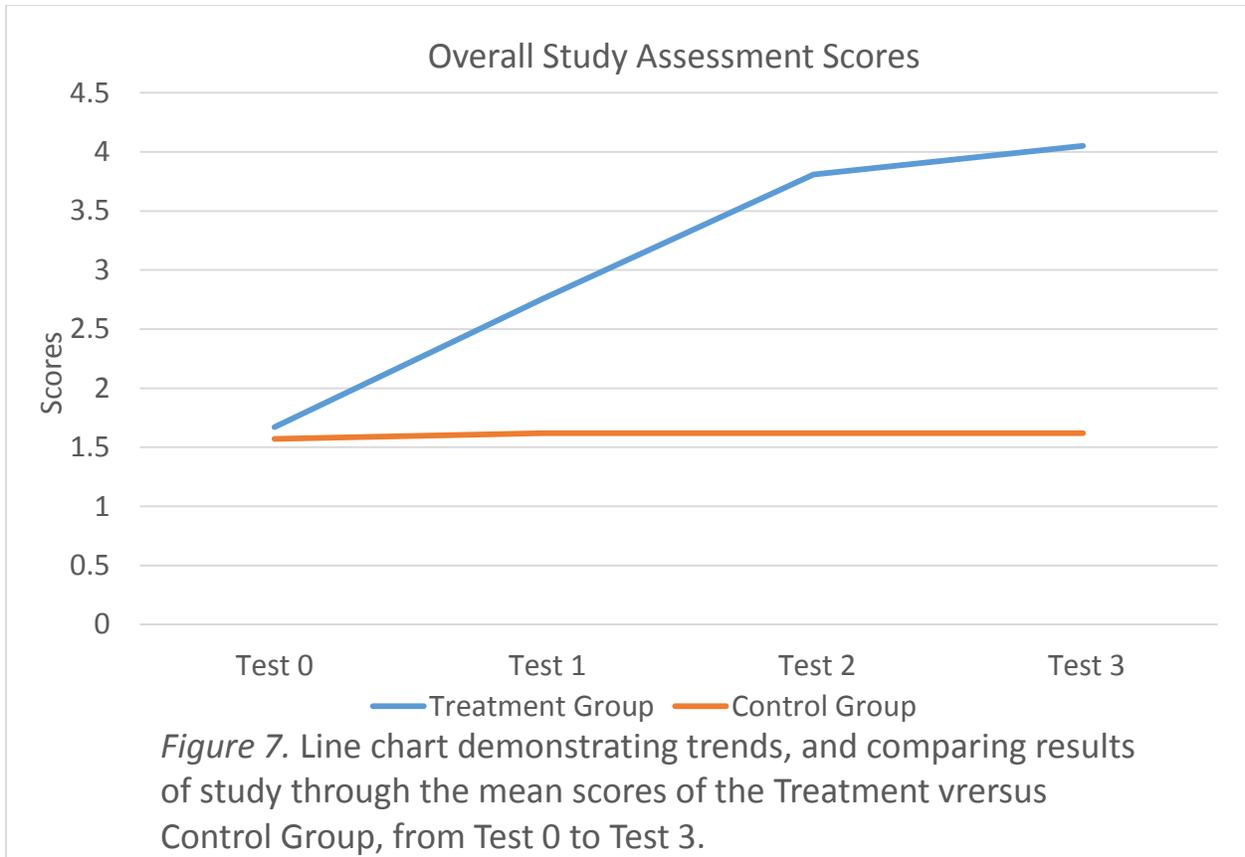
Conclusion/Discussion

This research was conducted to attempt to answer the following questions:

- Does the metacognitive Think-Aloud strategy improve the reading comprehension of ninth grade males in Saudi Arabia English language classes?

- Does the metacognitive Think Aloud strategy improve the motivation of ninth grade males in Saudi Arabian English classes?

- Does the group that was explicitly taught this metacognitive strategy better retain and comprehend information from a text than the control group?

Summary of Findings

The first question that this study was designed to address was whether the metacognitive Think-Aloud Strategy could improve the reading comprehension of 9th grade mles in Saudi Arabian English language classes. To answer this question, the researcher, with the help of a local cooperating teacher, conducted a three week study at a middle school in Saudi Arabia. A control group and an treatment group were selected through convenience sampling methods, and a series of four total reading comprehension assessments were administered for each group of students.

When analyzed and compared between groups, the data collected throughout the study suggested a strong, significant relationship between being exposed to the Think-Aloud strategy and higher rates of accuracy when responding to assessment items. Students who received the independent variable, instruction in the Think-Aloud strategy, received higher scores when compared to the control group, who did not receive the treatment, and received a more teacher-

focused, traditional instruction instead. The inclusion of the control group allowed the researcher to contrast the results between the traditional methods and the treatment group.

Discussion of Results

The first question that this study was designed to investigate was whether the reading comprehension of 9th grade males in Saudi Arabia was improved through instruction of the Think-Aloud strategy. The higher scores on the assessments can be attributed to the wide number of possible advantages of the Think-Aloud strategy, as discussed in previous research and the literature review. The advantages of the Think-Aloud strategy include such benefits as increased metacognitive awareness, a more developed rapport between students and their teacher, a better understanding of what it takes to be a good reader, and what types of questions to ask oneself when reading a passage, book, or story. The Think-Aloud strategy is involved with metacognition and the way the mind works and processes information, which are very internal, difficult to observe actions. Therefore, it is extremely difficult to know how or which of the benefits of the strategy affected learning.

While the internal thought process of students may not have been directly observable when students are working alone on the assessments, one of the most important advantages of the Think-Aloud strategy is that because, once it has been modelled and taught as a skill, the teacher can then observe the thought process of students as they read a passage. As a result, the Think-Aloud strategy allows the teacher to observe how students interact and think about the material, and then provide support, guidance, and feedback based on the student's performance. In this way, the teacher can have a much better understanding of the student's level of reading skill than he may have had through assessment alone. The teacher can then adjust the lesson to meet the needs of the student, as well as clarify misunderstandings.

While the researcher is aware that proving causation is extremely difficult, and can only be suggested, the different pretest and posttest scores of the students that had received the intervention (exposure to the Think-Aloud strategy) compared to the control group, strongly implies that the Think-Aloud strategy had a significant effect on the reading comprehension ability of students, as measured by the assessments in this study.

The second research question that this study attempted to answer was whether students were more motivated to study English and read through the use of the Think-Aloud strategy. While we can suppose that success or ease in doing a task successfully may be motivating to some or all of the students, the study itself was not able to assess, with accuracy, whether there was an effect on motivation or not. Although motivation has been known to be a central factor in success for language acquisition, the study itself was not able to measure this quantitatively. The teacher who implemented the lessons reported that students in the treatment group, who received instruction in the Think-Aloud strategy, seemed more enthusiastic towards reading and working with the classroom materials, but this evidence is not scientifically valid.

The third research question this study was designed to investigate was whether instruction and practice using the Think-Aloud strategy had a positive impact on student learning through increased retention of information. The Think-Aloud strategy is used to help in the development of metacognitive skills and how students remember and think about their learning. Students who have strong metacognitive skills are able to reflect on their knowledge and think about what gaps they may have in their understanding of a subject or topic. Students who have the metacognitive tools to properly reflect, and take the time to reassess and revise their knowledge, will have a greater comprehension skill than those who do not, because the latter will simply try to absorb information without using the energy to make sure they are correct.

Increased comprehension and understanding of a concept, create a greater likelihood that the information will be remembered and be utilized later.

In this study, the assessments themselves were different than what the students had been exposed to earlier in the week when they were reading and interacting with their textbook. However, much of the vocabulary and concepts from those readings in their textbooks were incorporated into the weekly assessments. Students who retained knowledge about these words and concepts would have an advantage over those students who did not recall this information, and their grades would be higher than those who did remember. The much higher assessment grades on the part of the treatment group suggest that those students not only were able to read the questions and know how to answer them from the book, they also had an increased level of retention of factual information and concepts.

Recommendations for Future Research

Previous research into the Think-Aloud strategy has revealed that metacognitive development is positively impacted through the use of of this approach. This study has worked toward taking that research and applying it to the Saudi Arabian context, for middle school students, specifically. The results reinforce previous research on this topic, and have several potential implications for future research questions.

Saudi Arabia, as a country that recognizes English as a global language, and with its especially strong recent commitment to the English language learning for its school-age children, is motivated to develop a curriculum that is both effective and promotes higher order thinking skills. Students who have a strongly developed metacognitive awareness, as promoted by strategies such as the Think-Aloud approach, are at an advantage when it comes to reaching

these goals. Therefore, teachers and researchers in Saudi Arabia, and elsewhere, would find the Think-Aloud strategy a worthwhile and powerful tool to enhance learning and reading comprehension.

While conducting this research, other potential research questions that might be explored arose. First, students in different grades might be studied to get a broader sense of how the strategy works for other groups of children, and perhaps, even adults learning English might benefit. The researcher also believes that, while he was not able to examine the effect of the Think-Aloud strategy on motivation and enjoyment of reading, this could be assessed through a more complex study over a longer period of time, perhaps with another group of students. It is the researcher's belief that Saudi Arabian schools do not have a strong enough commitment to promoting reading skills, and this may be part of a problem in encouraging students to read. If the metacognitive development of the student as a "good reader" could be promoted and an identity as a reader created and encouraged, reading skills and motivation might improve as well.

Limitations

This study was designed to determine whether the metacognitive Think-Aloud strategy improve the reading comprehension of students, if the group that was taught using this strategy comprehended and retained information better than the control group, and if they were more motivated to learn. While the study was able to show results that suggest a relationship between the instruction of the Think-Aloud strategy and student achievement as measured by the study's assessments (which were taken from the school curriculum), this study has a number of limitations that affect its generalizability and validity.

There are a number of limitations common in educational research that this study also suffers from. The sample was a convenience sample, which is not randomized, and therefore is less generalizable than a true experimental sampling method. Convenience sampling has the added drawback of being open to potential bias, as one class could have been favored in one way over the other. The researcher tried to control for bias through a random selection of which of the two classes available was chosen as the treatment group. The results of the study were so dramatic between groups that it is unlikely that the difference in scores, validity is still challenged by the sampling method. Also, the length of time in which the research was conducted was not as long as it could have been. A longer study may have allowed students to really examine the effect of the introduction of the Think-Aloud strategy on reading comprehension.

A limitation for this particular study was that the researcher was not able to be physically present to conduct the classes himself. To control for this, the papers were graded according to a rubric to keep the marks consistent, and the researcher gave detailed instructions as to how to conduct the Think-Aloud strategy in the classroom truly consistent between the control and the treatment groups.

Future research could overcome these limitations by conducting the research over a longer period of time, perhaps with a larger, more detailed assessment. This would allow a more precise measure of progress than a 1 to 5 mark scale. Another potential solution to some of the limitations of this study would be to conduct it over time with a larger group of students, which may alter the generalizability of the findings. Future research might also be able to more effectively examine the effect that the Think-Aloud strategy has on reading comprehension by

creating a script that would allow the teacher to be both more consistent in how the strategy is

presented to students.

References

Afflerbach, P., & Johnston, P. (1984). On the use of verbal reports in reading research. *Journal of Reading Behavior*, 16, 307-322.

Al-Ahaydib, M. E., 1986. Teaching English as a foreign language in the intermediate and secondary schools of Saudi Arabia: Diagnostic study. (Unpublished doctoral thesis). University of Kansas, Kansas.

Alexander,P.A.(2006). The path to competence: A lifespan developmental perspective on reading. *Journal of Literacy Research, 37*(4), 413-436.

Al-Khairy, M. H. (2013). English as a foreign language learning demotivational factors as perceived by Saudi undergraduates. *European Scientific Journal, 9*(32), 365-382. Retrieved from file:///C:/Users/alar4306/Downloads/2035-5920-1-PB.pdf

Al-Nofaie, H. (2010). The attitudes of teachers and students towards using Arabic in EFL classrooms in Saudi public schools: A case study. *Novitas-Royal*, *4*(1).

Al-Shumaimeri, Y. A. N. (2003). *A study of classroom exposure to oral pedagogic tasks in relation to the motivation and performance of Saudi secondary learners of English in a context of potential curriculum reform.* Unpublished Ph.D.Thesis, University of Leeds, Leeds.

Alresheed, S. (2008). EFL program of the secondary schools in Qassim region (Saudi Arabia): Problems, causes and solutions. Retrieved from http://faculty.mu.edu.sa/public/uploads/1357382794.1003EFL%20P%20R%20Q%20%D8%A8%D8%AD%D8%AB%20%D9%83%D8%A7%D9%85%D9%84%20PdF.pdf

Baldwin, S., & Bereljon, A. (2010). Quasi-experimental design. In N. J. Salkind (Ed.), *Encyclopedia of research design* (Vol.3, pp. 1171-1176). Thousand Oaks, CA: SAGE Publications, Inc.

Bentley, K. L. (2012). *The effect of metacognitive think-aloud strategy on reading comprehension of kindergarten students* (Unpublished master's thesis).

Block, C. C., & Israel, S. E. (2004). The ABC's of performing highly effective think-aloud. *International Reading Association,* 154-167.

Block, C. C., & Pressley, M. (Eds.) (2002). *Comprehension instruction: Research-based best Practices.* New York, NY: Guilford Press.

Cassidy, J., & Ortlieb, E. (2011). Literacy – The first decade of the new millennium. Reading Horizons, *51*(2), 93-102.

Cassidy, J., Valadez, C. M., & Garrett, S. D. (2010). Literacy trends and issues: A look at the five pillars and the cement that supports them. The Reading Teacher, *63*(8), 644-655.

Davey, B. (1983). Think aloud: Modeling the cognitive processes of reading comprehension. *Journal of Reading*, 44-47.

Dooley, C. (2010). Young children's approaches to books: The emergence of comprehension. *Reading Teacher, 64*(2), 120-130.

DorI,J.(2007). Increase your teaching power. *YC*: *Young Children, 62*(4), 101-105.

Dymock, S. (2007). Comprehension strategy instruction: Teaching narrative text structure awareness. The Reading Teacher, *61*(2), 161-167.

Dunston, P. J., & Headley, K. N. (2002). *Think – Alouds.* In B. J. Guzetti (Ed.), *Literacy in America: An encyclopedia of history, theory, and practice*. London, England: ABC-CLIO, Inc.

Echevarrria, J., Vogt, M., & Short, D. J. (2010). *Making content comprehensible for secondary English learners: The SIOP model*. New York, NY: Allyn & Bacon.

Elyas, T., & Picard, M. (2010). Saudi Arabian educational history: Impacts on English language teaching. *Education, Business and Society: Contemporary Middle Eastern Issues*, *3*(2), 136-145.

Harris, T. L., & Hodges, R.E. (Eds.). (1995). *The literacy dictionary: The vocabulary of reading and writing*. Newark, DE: International Reading Association.

Gambrell,G. B., Morrow, L. M. & Pressley, M.(2007). *Best practices in literacy instruction.* (3rd ed.). New York, NY: The Guildford Press.

Guth, N., & Heaney, P. (1998). A challenge for school administrators: Motivating adolescents to read. *NASSP Bulletin, 82*(600), 34-40.

Hajailan, T. A. (2003). Teaching English in Saudi Arabia. *Riyadh: Aldar Alsawlatia*.

Keene, E. O. & Zimmermann, S. (2007). Mosaic of thought: Teaching comprehension in a reader's workshop. Portsmouth, NH: Heinemann.

Khodabandehlou, M., Jahandar, S., Seyedi, G., & Abadi, R. M. D. (2012). The impact of self-directed learning strategies on reading comprehension. *International Journal of Scientific & Engineering Research*, *3*(7), 1.

Kraska, M. (2010). Quantitative research. In N. J. Salkind (Ed.), *Encyclopedia of research design* (Vol. 3) (pp. 1171-1176). Thousand Oaks, CA: SAGE Publications, Inc.

Kucan, L., & Beck, I. L. (1997). Thinking aloud and reading comprehension research: Inquiry, instruction, and social interaction. *Review of Educational Research*, *67*(3), 271-299.

Kucan, L., & Beck, L. (2013). Thinking aloud and reading comprehension research: Inquiry, instruction, and social interaction. *Review of Education Research.* Retrieved from http://rer.sagepub.com/content/67/3/271.short

Lesaux, N. K., Kieffer, M. J., Faller, S. E., & Kelley, J. G. (2010). The effectiveness and ease of implementation of an academic vocabulary intervention for linguistically diverse students in urban middle schools. *Reading Research Quarterly*, *45*(2), 196-228.

Lightbown, P.M. & Spada, N. (2006). *How languages are learned.* (3rd. ed.). Oxford, England: Oxford University Press.

McGuinness, D. (2004). *Early reading instruction: What science really tells us about how to teach reading?* Cambridge, Mass: MIT Press.

Mckeown, R. G., & Gentilucci, J. L. (2007). Think-Aloud strategy: Metacognitive development and monitoring comprehension in the middle school second-language classroom. *Journal of Adolescent & Adult Literacy*, *51*(2), 136-147.

Moss, B. (2005). Making a case and a place for effective content area literacy instruction in the elementary grades. *The Reading Teacher, 59*(1), 46-55. doi:10.1598/RT.59.1.5

Mutawa, N., & Kailani, T. (2009). Methods of teaching English to Arab students. Harlow, UK: Longman.

Nooh, A. A., & Mosson-McPherson, M. (2013). The effectiveness of reading techniques used in a Saudi Arabian secondary school classroom as perceived by students and teachers: A study of methods used in teaching English and their effectiveness. *Arab World English Journal 4*(3), 331-345

Ortlieb, E., & Norris, M. (2012). Using the Think-Aloud strategy to bolster reading comprehension of science concepts. *Current Issues in Education*, *15*(1), 1-10.

Oster, L. (2001). Using the think-aloud for reading instruction. *The Reading Teacher* 55(1), 64-69.

Phua, V. C. (2004). Convenience sampling. *The SAGE Encyclopedia of Social Science Research Methods*. doi:http://dx.doi.org/10.4135/9781412950589.

Rahman, M. M., & Alhaisoni, A. (2013). Teaching English in Saudi Arabia: Prospects and challenges. *Academic Research International 4*(1), 112-118.

Wilhelm, J. D. (2001). Improving comprehension with think-aloud strategies. New York, NY: Scholastic Professional Books.

Woolfolk, A. (2007). *Educational psychology* (10th ed.). New York, NY: Pearson Education, Inc.

Zemelman, S, Daniels, H, & Hyde, A (1998). Best Practice: New Standards for Teaching and Learning in America's Schools. Portsmouth: Heinemann.

Appendix A

Pretest (T_0)

Post. Test 1 (T_1)

Post. Test 2 (T_2)

Post. Test 3 (T_3)

Pretest (T₀)

Mohammed Alaraj
SUNY at Fredonia

5

……………. School.   **February, 2015**

Your Name: ……………………………………………………….…

....

Read the passage and answer the questions:-

One evening, a hungry fox came to a farm house. There was a big dog lying outside the house. It was tied with a rope to tree. A woman came out to of the house and put a plate of meat on the ground. She put it near enough for the dog to reach it, but the dog wasn't hungry so it didn't eat the meat. The fox hadn't eaten for three days, but it was afraid that the dog might attack it if it tried to eat the meat. The fox began to walk slowly round the tree and the dog followed it. The rope was also, going round and round the tree and so becoming shorter and shorter. At last, the rope was too short for the dog to reach the plate. Then the fox ate up the meat and ran away.

Answer the following questions:

1-Where was the dog lying?

 ……………………………………………………………………….

2- What did the fox want?

………………………………………………………………………….

3- Could the fox eat the meat at the last?

…………………………………………………………………………..

4-Why the woman came out of the house?

………………………………………………………………………………

5- What was in the plate?

…………………………………………………………………………..

Post Test 1(T$_1$)

Mohammed Alaraj
SUNY at Fredonia

5

……………. School. **February, 2015**

Your Name: ………………………………………………………….…

Read the passage and answer the questions:-

Tariq is a fisherman. He is hard-working. Yesterday afternoon he and three men started the

motor and the boat moved away from the beach. Half an hour later, they reached the fishing

ground. Ten minutes they caught fourteen big fish and ten small fish. When they started the

motor to go back, the wind suddenly began to blow and a heavy rain began to fall. When they

reached the beach, they were very wet and very cold but they were very happy.

 Questions:-

1-How many people were in the boat?

……………………………………………………………………….

2-When did they leave?

....

3-How many fish did they catch?

………………………………………………………………….....

4- What happened to them when they started to go back home?

……………………………………………………………………….

5- How did they feel when they arrived home?

……………………………………………………………………………

Post Test 2 (T₂)

Mohammed Alaraj
SUNY at Fredonia

……………. School.   February, 2015

Your Name: ………………………………………………………….…

Read the passage and answer the questions:-

Nobody likes staying at home on a public holiday, especially if the weather is fine. Last August, some boys decided to spend the day in the country. The only difficulty was that millions of other people who had exactly the same idea. There were a lot of cars on the road. The boys moved out of the city slowly behind a long line of cars, but at last they came to a quiet country road and stopped at a lonely farm. They got their food out of the car and sat down near a path at the foot of a hill. It was very peaceful in the cool grass, until they heard bells ringing at the top of the hill. They picked up their things and ran back to the car. About two hundred sheep were coming down the path!

Answer the following questions:

1 - Where did the boys decide to spend the day last August?

……………………………………………………………………………….

2 – What were there on the road out of the city?

………………………………………………………………………………...

3 - What did the boys get out of the car when they stopped at the farmhouse?

……………………………………………………………………………….

4-Were there cars on the road?

………………………………………………………………………………

5- How many sheep were coming down the path?

………………………………………………………………………………

Post Test 3 (T₃)

Mohammed Alaraj
SUNY at Fredonia

5

……………. School.   February, 2015

Your Name: ………………………………………………………….…

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 Read the passage and answer the questions:-

        David Copperfield is a beautiful story. It is about a boy whose father died before he was born. The boy lived his early years happily with his mother, Carla. A few years later, his mother got married to Edward Mudstone, who was very cruel. David's stepfather used to beat him then he sent David to boarding school. David's mother died and the boy was sent to work in London. After finishing school he trained to become a lawyer. He later married to beautiful woman named Dora, but few years after they were married, she died. David went to Switzerland to find comfort on the Alps. While living there he worked on his book. His friend eventually published it. He became a famous novelist.

Answer the following questions:

1-Did David Copperfield ever meet his Father?

……………………………………………………………………………..

2-Where did David live in his early years?

………………………………………………………………………………….

3-Who was David's stepfather?

………………………………………………………………….

4-Why was David sent to London?

…………………………………………………………………………………………..

5-What did David do after his wife died?

………………………………………………………………………………….

Appendix B

Grading Rubric of the Tests

Grading Rubric for Short Answer Questions

Pretest (T$_0$)

Question	0 Did not answer question, or incorrect information.	1 Answer not clear or minimal details.	2 Answer clear and complete
1			
2			
3			
4			
5			

Post Test 1 (T$_1$)

Question	0 Did not answer question, or incorrect information.	1 Answer not clear or minimal details.	2 Answer clear and complete
1			
2			
3			
4			
5			

Post Test 2 (T$_2$)

Question	0 Did not answer question, or incorrect information.	1 Answer not clear or minimal details.	2 Answer clear and complete
1			
2			
3			
4			
5			

Post Test 3 (T$_3$)

Question	0 Did not answer question, or incorrect information.	1 Answer not clear or minimal details.	2 Answer clear and complete
1			
2			
3			
4			
5			