

**THE EFFECTS OF THINK-ALoud STRATEGY TO IMPROVE READING  
COMPREHENSION OF 6<sup>TH</sup> GRADE STUDENTS IN SAUDI ARABIA**

By

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THINK ALOUD STRATEGY

State University of New York at Fredonia  
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CERTIFICATION OF PROJECT WORK

We, the undersigned, certify that this project entitled THE EFFECTS OF THINK-ALOUD STRATEGY TO IMPROVE READING COMPREHENSION OF 6TH GRADE STUDENTS IN SAUDI ARABIA by MONA ALI ALQAHTANI, 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**

The purpose of this research project is to investigate the effects of the Think Aloud strategy on the abilities of 6th grade Saudi Arabian students in reading comprehension. The Think Aloud strategy is a learning method whereby students voice loudly their inner thoughts as they read. The specific research question answered by this study is: what are the effects of the Think Aloud strategy on the 6th grade students' comprehension in Saudi Arabia? A significant number of students fail to achieve reading comprehension in the country due to the ineffectiveness of the traditional methods. Twenty 6th grade students participated in this quantitative research study. Students in the experimental group, using the Think Aloud strategy consistently scored higher grades compared to the students in the control group taught by traditional methods of reading. In conclusion, the Think Aloud strategy is instrumental in improving reading comprehension and should be considered a potentially valuable alternative strategy to the traditional method of reading in Saudi Arabia.

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The Effects of Think-Aloud Strategy to Improve Reading Comprehension of 6<sup>th</sup> Grade Students  
in Saudi Arabia

**Introduction**

Reading has proven to be an essential tool for learners. It not only helps to improve reading skills, but also enhances listening and writing ability. This is because people's level of thinking may change through constant reading. Within the process of reading there are two significant elements understanding and learning. A wide range of literature has been compiled by many scholars in the attempt to understand the Think Aloud concept. The Think Aloud concept refers to a method of learning where students are required to voice their inner thoughts loudly when they read (Oster, 2001). There is, however, a lack of research into how this concept might impact elementary students' learning in Saudi Arabia. The main purpose of this study is to determine how Think Aloud strategy has impacted elementary students' reading comprehension in the Saudi Arabian elementary school context. The specific research question in this study is: What is the impact of Think Aloud strategy on 6<sup>th</sup> grade students' reading comprehension in Saudi Arabia? The reason for doing this study is because many students in Saudi Arabia are not achieving in reading, the traditional reading methods are also not effective.

Although most scholars have made attempts to understand the way that the Think Aloud strategy affects reading comprehension, there are significant deficiencies that have been identified; hence, there is the need to undertake the current research. Morrell (2013), for example, conducted an inquiry, but he only concentrated on the meaning of the Think Aloud strategy. He did not question how the concept impacted elementary students' learning. His study also concentrated on how Colombian students understood the concept, and it did not look into how Saudi Arabian students understood the concept (Morrell, 2013). Dorl (2007) also carried out

an inquiry about the topic but she only concentrated on understanding how teachers have employed the strategy while teaching but she did not look into how the strategy has impacted students' learning.

While these studies have been useful and have contributed to an understanding of how to implement and conceive the Think Aloud strategy, they were not conducted in Saudi Arabia. In fact, there has been a lack of research into the effectiveness of reading comprehension strategies in the Saudi elementary context; this is because of lack of adequate literature on the issue. This study was significant because it sought to fill in the gap in the research. Secondly, the research that has been conducted has shown that the Think-Aloud strategy has the potential of being useful for students' reading comprehension. The traditional method of teaching is not effective in Saudi Arabia because it does not include means and ways that engage students, getting students in Saudi Arabia into this kind of habit of thinking aloud enhances the classroom discourse and it offers the teacher an important diagnostic and assessment tool. Moreover, Think Aloud strategy may enable the students in Saudi Arabia to be more self-reliant in reading about a new topic that they might not have covered in class. The think aloud strategy is an alternative to the traditional method and it improves student learning and motivate them to read.

The study participants were 20 sixth grade Saudi Arabian students. They took pre and post-tests in order to respond to the study questions. The Think Aloud techniques were employed by their teachers in order to investigate the impact of the strategy on students' reading comprehension.

The research is based on the following null hypothesis and alternative hypothesis:  
H0: Think Aloud Strategy has no positive effect on the students' capability of reading comprehension.

H1: think aloud strategy has a positive effect on the students' capability of reading comprehension.

The purpose of this research is to explore the effects of Think Aloud strategy would benefit the children of Saudi Arabia who are going to school and need to develop skills in reading and comprehension. The literature review investigated how different scholars have defined the concept of Think Aloud strategy and different Think Aloud techniques. It also reviewed the various researches that have been carried out in relation to the topic as well as determined the important role that the Think Aloud strategy plays in enhancing learning among elementary students.

### **Literature Review**

The Think Aloud strategy refers to a method of learning where students are required to voice their inner thoughts loudly when they read (Oster, 2001). This process often begins when the student takes the book that he intends to read. There are many thoughts that are likely to go through the mind of a person when he/she is reading a book. They may be in the form of questions, suggestions, connections that are made to personal experiences, judgments and so on (McKeown & Gentilucci, 2007). When a person reads a book, the first thing he or she starts to think about is the meaning of the title. As one continues to read, he or she begins to put together the connection that exists between the title and the actual article. This literature review showed the application of the Think Aloud strategy at the elementary level and compares it with the traditional learning methods.

According to Sedgwick (2001), the main purpose of education in Saudi Arabia, especially at the elementary stage, is to help students to read, understand and interpret the Quran, owing to the fact Saudi Arabia is an Islamic state and most of the people in the country practice Islam.

After understanding the holy book, students are then taught how they can integrate the things they have learned into their everyday life. Students in Saudi Arabia are taught religion from the time they begin attending school to the time they choose to stop attending. While the Quran is undoubtedly an important book to the Saudi people, other subjects are taught at all levels of the Saudi education system, including math, history, science, and geography, all of which have their own texts. Reading comprehension is an important part of academic success in all subjects.

The traditional methods of teaching are still being used in the learning processes in Saudi Arabia. The first task that teachers make sure to accomplish is to teach the children how to read. This is done by presenting to them the alphabet that is used for learning, which in this case is the Arabic alphabet. They are taught how to pronounce the letters and how words are formed with said letters. Next, children are taught simple sentence structures and how they can make clear sentences that have meaning. There is the need for more research on implementing the Think Aloud strategy in elementary schools in Saudi Arabia in order to find a suitable alternative.

### **Think Aloud Techniques**

Think Aloud strategy refers to a learning method that requires learners to state loudly what they think as they read. According to Migyanka, Policastro and Lui, (2005), it should be used in helping students with disabilities and those who are learning English as a second language. This strategy is essential for the improvement of comprehension as well as fluency. It is therefore important for teachers to fully understand this strategy, so that they are able to implement it in the classroom in an appropriate manner. Prediction, vocabulary and making connections are just a few of the important components of this strategy. The other components of the strategy are reading aloud, and pausing to reflect on the reading before moving to the next one.

According to Ghaith and Obeid (2004), learning should not only be measured by the marks and scores that a student receives when testing, but also the capacity to apply what he or she has learned in school to real life as well. This important aspect of the Think Aloud strategy is referred to as inference. In order for this to happen, students should have the capacity to draw the appropriate lessons from the teachings without necessarily having to be prompted by the tutor. Thinking Aloud helps the student to think about what he or she is reading. In this way, the student is able to synthesize everything and as time progresses, the student comes back for reference or clarify when he or she feels that they have missed something (Block & Israel, 2004). This creates a deep and broad sense of comprehension in the students and enables them to question what they are reading, and make sure they are able to understand.

Researchers describe learning as a social phenomenon and therefore the more teachers use strategies that involve interaction; interactions increase the student's engagement during the think aloud strategy, the more effective the learning process will be. This is because interaction allows students to integrate inference in their day to day learning, thereby being able to relate their practical experience with what they read in the text. Social interaction encourages inference as it requires students to engage more with the material, and promotes higher-order thinking skills through analyzing and prioritizing data and justifying responses to peers and to teachers. Wilhelm (2001) reported that inference is a major part of Think Aloud learning. Inference refers to the ability of the student to refer to things that have happened in their lives and connect them to the text. Inference therefore requires a deep understanding of the text, as well as the said experiences. This will often require critical analysis skills in order to tell which of the experiences are relevant and which ones are not relevant, an exercise that is aided by social interaction.

Harvey (2001) provided an explanation of how she conducted the Think Aloud strategy during her teaching sessions. She suggested the first step was to question the text. She did questioning by reading aloud, stopping, and informing the students what her thoughts were about the text she read. Being able to question the text during reading is the first step towards understanding and comprehension. The next step she took was to select the text that could be used for discussion. This is done by either selecting a text or a picture that she thought would likely bring up a lot of debate. The third step is the introduction of the strategy. She explained to the children the importance of asking questions while they read. She asked if any of them had questions they would like to ask. The last step in this procedure was using sticky notes to mark the important parts of the text and to notate important facts about the text they would like to remember. Another significant element in thinking aloud is self-regulation.

Schellings(2006) stated that self-regulation and task awareness are important techniques of the Think Aloud strategy. Self-regulation refers to the process where students are able to adapt various learning strategies for their various learning goals (Schellings). In order for students to do this, they should be able to have a clear understanding of the tasks they are required to accomplish, which would in return enable them to adopt the most appropriate learning strategy. The findings of the research showed that students' lack of awareness of their learning goals may hinder their capacity to adopt the most appropriate learning strategies. It was discovered that when the students were not taught using the Think Aloud strategy, they tended to have a much lower understanding of what they read, which was caused by their lack of awareness of exactly what was to be deduced from a piece of reading. This further emphasized the need for adopting the Think Aloud method when teaching. Learning should always be measured by marks and scores.

The next stage is to introduce the book to the students. During this stage, the teacher should explain to the students that he or she intends to stop periodically to check for analysis and understanding. Next, when the reading begins, the teacher should ensure that at each of the places where he or she makes stops, the students have understood completely and are ready to move to the next part. Another method that is often used to make students comprehend is reading the same text more than once. Once the teacher has identified the spots in the reading where these strategies are to be applied, he or she ensures that when reading, the class stops at these points to have a discussion. The teacher should ensure that the discussion is centered primarily on the students, since the learning is meant for them. In case the children are reading on their own, he or she should encourage them to conduct the same exercise in this manner.

Think Aloud may also include expressing varying thoughts that can take the form of suggestions, questions, connections, and judgments made through personal experiences. In explaining how he implemented this strategy, Santoro (2008) stated that he initiated the learning activity then encouraged the students to join and make significant contributions to the discussion. He also demonstrated to the students the practical methods that ought to have been employed when addressing challenging problems so as to bring to the surface complexities of thinking when dealing with cognitively challenging tasks. He then provided the students with progressive solution steps that could equip them with corresponding prompts to understand the questions or learning concepts. Students were then encouraged to engage in a monologue where they first defined the question or learned a concept and then applied the solution steps to identify possible solutions to the problems. Teachers began by modeling the steps that students applied when solving complex problems. They then gradually transferred this responsibility to the students,

who then could internalize the steps and strategy to self-instructions so they no longer read them aloud but autonomously used the solution steps to address the problems (Barbara, 2005).

Fox (2009) introduced a number of strategies that were helpful in ensuring that the Think Aloud strategy worked in the way in which it was intended. These are verifying, retelling, rereading and reading, verifying will involve the student making sure that the information presented is actual, students can verify by checking for any errors. These stages are naturally integrated in the mind of those who are quick at comprehension. However, those who are slower in the process require guidance in these steps. The main point about making these strategies applicable is to ensure that students are aware of the thoughts that are going on in their heads as they read. For example, there may be a time during reading when the reader fails to understand, but subconsciously continues to the next sentence.

Visualization is an important part of the Think Aloud strategy. It was meant to help the students to understand the concept and apply it in their day to day lives. Therefore, the teacher should ensure that he or she has a detailed of questions that contain all the information that would help the students visualize the concepts of the story. This will not only helped them in creating the imagery, but also helped them with formulating questions and answering questions better. For this objective to be met, teachers made videos they later took into classrooms for the students to watch (Baumann, Jones and Kessell, 1993). Students, upon watching the videos, then shared their views loudly while elaborating what the teacher said when the video was in progress and why she or he said it. The elaboration part was also evaluated as it portrays how fast students are internalizing, and hence, it enabled students to perform well than when the passive form of learning is applied.

Think aloud can also help students solve math problem. Dorl (2007) explained how she employed the Think Aloud strategy in a mathematics class by asking students to estimate the number of pencils that students within the school could have. She explained that she assisted the students to calculate the number of classes that the entire school has as well as the number of students that could be occupied in each class. She then encouraged them to state loudly the number of pencils that all students in all the classes could have assumed that each student has only one pencil. This technique could enable teachers, to equip students with easy steps for making quick and accurate calculations while on the other hand integrating an aspect of reasoning (Smith, 2002).

Scholarly evidence has shown that the Think Aloud strategy improves learner's level of achievement in science subject that mainly include scientific inquiries. An inquiry undertaken by Gregory and Cahill (2010) in the attempt to determine the effect of integrating Think Aloud approach in a scientific inquiry among sixth grade students showed that the strategy improved their achievement in the unit. These results were established through using an experimental group that engaged in reading aloud, writing and discussion of the results obtained from a scientific inquiry. A control group was also used, and this group did not read aloud or even discuss the results obtained from the inquiry. With significant statistical differences being realized between the two groups, Gregory and Cahill concluded that Think Aloud approach cultivated substantial benefits that mainly included improved achievement in scientific inquiry.

Wade (1990) reported that students employing the Think Aloud strategy could be categorized in different categories of comprehends that include the non-risk taker, the non-integrator, the schema imposer and the story teller, categorizing the students into different categories will help in analyzing their diverse characteristics. These groupings are important in

the Think Aloud strategy to help the teachers in identifying those students who need extra attention. The good comprehender is one who is able to quickly synthesize information as they read it. The non-risk taker is one who does not like to dig deep into their minds to try and understand a text; they would rather look for clues from people who have understood, rather than speak their minds and come out wrong.

The non-Integrator is one who is quick at developing hypotheses from the texts that they read without being concerned with connecting them to the previous points of reading. The schema imposer is one who does not change his mind. He sticks with the hypothesis that he developed earlier without considering the new information that is incoming; which is likely to disapprove the earlier hypothesis. The storyteller is one who relies a lot on information that he gathered through experience or otherwise, and pays very little attention to that which is contained in the text. Therefore, he may sometimes miss the vital information in the current story by basing too much in the past. The Think Aloud strategy is able to be used effectively for all types of learners.

### **Benefits of Think Aloud Technique**

An investigation by Gregory and Cahill (2010) among tenth graders in a Colombian public school was intended to determine the specific Think Aloud techniques that students within the school employed. Findings of the study showed that students mostly used imagination, envisage and translation to comprehend the main ideas being conveyed in a particular text. They also realized that other students employed predictions and translations to be able to make sense of what they read. The participants of this study were students who were English speakers. Further investigation discovered that students who employed the Think Aloud strategy in the attempt to make sense out of what they read were able to improve their level of comprehension because

they could easily decode the vocabulary and the syntax in the language. This is because the strategy improved the students' level of proficiency through the use of the meta cognitive approach that allows for the comprehension of a text, the meta cognitive approach will involve controlling the meta cognitive processes, for example, planning how to approach a learning task, monitoring comprehension and progress evaluation.

Research was conducted by Gillam and Robertson (2009) about the effectiveness of the Think Aloud strategy, especially with the learning of children in elementary school. The study focused on the effectiveness that explicit instructions had on the Think Aloud strategy, in a bid to promote their reading comprehension abilities of elementary school children. The research was carried out on sixty-six children who were in the fourth grade. These students were placed in three different experimental groups; Think Aloud group, the directed reading-thinking group, and the directed reading group. The first groups of students were taught various strategies for comprehension when reading stories. These were self-questioning, prediction, retelling and rereading. The Think Aloud technique was used for this process. In the second group, students were taught what is known as predict- verify strategy when reading and when issuing their response to the reading. This strategy means that according to how a student understood the passage, he was given the chance to predict what was coming next, then he was given the chance to confirm if his predictions were anywhere near what actually occurs in the story. In the last group, students were subjected to an instructed control where students were guided in their reading, but the whole process was not interactive. Results of the study revealed that the first group of students was able to display greater awareness than those in the second group, and hence, they were able to record better performance. Qualitative data collected through interviewing the students revealed that students in the first group had deeper comprehension than

those of the other two groups. Researchers therefore concluded that although all the three categories were able to produce positive results in one way or another, the overall method that was most effective in enhancing the ability of comprehension in the students was the use of the Think Aloud strategy.

In order to find out the effectiveness of the Think Aloud strategy in teaching and learning, a research was carried out by Fisher, Frey and Lapp (2011). A group of teachers was selected from schools that were not performing up to standard. The teachers were then introduced to the Think Aloud strategy. They were taught the important aspects of the strategy as well as how best they could carry it out while teaching. The teachers were divided into two groups; one of the groups was trained in Think Aloud strategy while the other group was not. Later, the results of the students taught by teachers of both groups were compared.

Further research was carried out by Rottman and Cross (1990) in the attempt to promote the level of reading performance among elementary students that had learning disabilities. In order to effectively undertake this study, the researchers appointed third and fourth grade students that comprised of thirteen boys and five girls. The researchers then employed a cross-sectional approach to assess the participants on basis of strategy awareness and distinguished self-competence. A Meta cognitive study program was then employed to help measure participants' reading performance during the study. The findings of the inquiry showed that students' performance and awareness of Think Aloud strategies improved positively from pre to post strategy test. The participants were categorized in further subgroups depending on the pretest assessments made. The results showed that outcomes within subgroups differed depending on whether Think Aloud strategies were employed or not while reading. In conclusion, Rittman and Cross claimed that the Meta cognitive Think Aloud technique can be

employed to enhance the level of reading performance and comprehension skills among elementary students with learning disabilities, they reached this conclusion by close evaluations of progress towards task, people who had a high Meta cognitive ability completed tasks fast.

Another research project was conducted by Laing and Kamhi (2002) in the attempt to establish whether Think Aloud techniques could be employed to discover the differences prevailing between presumptions made by standard and below standard readers. Forty 3<sup>rd</sup> grade students were used in this study. They were divided into two categories comprising of standard and below standard students. The participants were allowed to undertake tests of nonverbal reading, working memory and narrative comprehension. These tests aimed to accomplish two objectives that included listening and thinking aloud. Findings of the research showed that standard readers portrayed more explanatory presumptions as compared to below standard readers. The two groups however exhibited high comprehension performances when Think Aloud techniques were employed. This showed that no matter what the reading level the students were at, the Think Aloud strategy far exceeded traditional methods, the research study used both traditions and think aloud strategies.

### **Importance of Think Aloud strategy**

Lapin (2003) recognized the importance of the Think Aloud strategy in developing the cognitive skills of students. According to the author, people who were proficient at reading were normally able to create images of the things they were reading in their mind. This not only assisted them in understanding the things they were reading, but was also essential in assisting the students in remembering and retaining what they had read. This in turn helped them to actively apply these concepts in their everyday lives outside of a school setting.

Thinking aloud is especially important for a mind that is still in its developmental stages. It helps the teacher track the progress of the students. An example would be pronunciation. Using the Think Aloud process while reading aloud ensures that students are able to correctly pronounce words and the teacher is able to correct them where necessary. Lapin (2003) explained the processes involved when a teacher used the Think Aloud strategy. First, the teacher read the book in advance and understood the areas where the students needed assistance. This helped the teacher practice before applying the strategy to said students. Then the teacher introduced the book to the students. During reading, the teacher made frequent stops to check for comprehension and analysis purposes. When the reading was complete, the teacher invited students to share their thoughts about the reading, and asked, for example if their predictions about the events in the text were correct.

Meyers (1989) found that the Think Aloud strategy is important in the learning and development of students, especially those who have recently joined school, and are new to the educational system as a whole. Thinking aloud does not allow students to hide their learning weaknesses. When they are able to share that they have learned with the class, or with their teachers, the teachers are able to easily identify the points of weakness in the students. The teachers are also, through this method, able to identify the correct and appropriate methods through which the weak students can be helped to improve their performance. Furthermore, they can assist the students with attaining a learning level that the rest of the class will have reached. Every student is special in his or her own way, and thus each of them have different methods through which they are able to grasp what is taught to them in school. While some students are able to understand things quickly as they are explained in school, there are those who need certain special assistance and strategies to help them understand (Lau, 2006). This is where the

Think Aloud strategy comes in. The strategy helps students to better comprehend through the many stops made during the reading and allows them time to understand at their own pace.

Comprehension is a tricky topic for most students. This is especially true in cases where the text is written using complex language that needs deeper interpretation. When the teacher divides the reading into shorter segments that require discussion in class for students who are new to the school system, he or she is able to help the student to grasp the gist of the text quicker, thus preventing the student from losing the understanding of the text.

Research has also shown that Think Aloud strategy helps to promote cognitive development among elementary students particularly because they have a young brain that is still developing. A study by Block (1993) showed that Think Aloud enabled students to freely share with their peers as well as their teachers as they read, hence being unable to hide their weaknesses and lack of capability. Block found that teachers, through the Think Aloud approach, were usually able to identify the various weaknesses that their students had in specific fields. As explained by Griva (2009), teachers were also able to identify the distinct learning abilities that different students had. Through such discovery, teachers were able to improvise appropriate methods that could be employed to enhance the students' cognitive skills. This makes the Think Aloud strategy an important tool that can be used to reach students from different levels and strengths of learning. This is particularly because the strategy creates room for discussion, which makes learning to be an enjoyable and interactive process that can impact the thinking of elementary students (Laing and Kamhi, 2002).

The Think Aloud strategy, according to Fox (2009), also made reading and comprehension more fun. As stated earlier, students have different levels and paces of understanding. Therefore, through the Think Aloud strategy, the students are able to engage one

another in a lot of discussion. This makes reading and the whole process of education a far more interactive experience. When a student is able to enjoy the learning process, it is more likely that he or she takes away more from learning experience.

Mason (2013) stated that the main reason there was a lot of poor performance among students was their inability to self-regulate during the learning process. This is why of recent, the topic of self-regulation has become of much interest to researchers. Teachers and parents have identified self-regulation as the ability of a student to function properly on their own in the academic front. Researchers, on the other hand, seek to further and deeply understand this concept by finding out how the process works, and why some students have the ability to self-regulate while others do not. Jerry (1993) argued that self-regulation was essential for students because not only were they able to directly apply it in learning, but are also able to integrate it in their normal day to day learning. This is to say, that a student who is able to comprehend reading also possesses the ability to think about a variety of things that happen in the world around him or her. The concept of Thinking Aloud, therefore, comes into play, in the sense that it helps the student to broaden their thinking not only within the education sector, but also in life at large. Once a student has the ability to make connections between various aspects of life and in education, they begin to be better with comprehension. (Smith, 2006). This helps in the promotion of a student who did not possess the tools to self-regulate, but now through the Think Aloud strategy is now able to raise questions, investigate and come up with answers about other things that are taking place in their lives. This, in the end, even helps the student to come up with goals that he or she intends to accomplish in life, and therefore be able to wisely choose the paths that he or she feels are likely to lead him to these goals (Greene, Robertson & Costa, 2011). Therefore, this means that the importance of the Think Aloud strategy does not end in the

classroom setting, but goes beyond and helps students in becoming well rounded individuals, who are capable of handling their situations, with reasoning, in their lives, on their own.

The literature showed that scholars have defined the Think Aloud strategy as an important learning concept that demands for the students to state loudly what they think as they read. Literature also showed that different techniques including self- questioning, envisage, retelling and imagination can be employed in Think Aloud strategy. There is, however, no scholar that has investigated how Think Aloud strategy has impacted elementary students' learning in Saudi Arabia. Conducting this study will thus help to bridge this gap by analyzing how they Think Aloud strategy impacts learning among elementary students in Saudi Arabia. Students who seem to have a harder time comprehending than other students based on antiquated teaching methodologies. This research addressed the benefits of the Think Aloud strategy and why it should be integrated into the learning system in Saudi Arabia.

### **Method**

This research used the Think Aloud strategy to analyze the impacts that this approach had on the reading comprehension of Saudi elementary students. For this study, the experimental research design was used which involved two groups, experimental group and the control group. The researcher designed this study to examine the relationship between two variables, the independent and dependent variable. In the case of this study, the independent variable is the Think Aloud strategy and the dependent variable is the reading comprehension score of 6th grade students. The control group's instruction featured a more conventional method of reading comprehension, such as reading language by studying its grammar, vocabulary, and sentence structure. The experimental group received direct instruction of the Think Aloud strategy.

The specific research question in this study is: what are the effects of Think Aloud strategy on 6<sup>th</sup> grade students' reading comprehension in Saudi Arabia?

### **Setting**

This study focused on an elementary school in Al-charm, Saudi Arabia. The average number of students in this school was one hundred and seventy. A typical class had 12-15 students in one class. These participants were chosen through a convenience sampling method, as the school was near the researcher's hometown. Further, the researcher had a connection to the school, as she had some training there for her bachelor's degree certification in teaching.

It was important for the Think Aloud strategy to be experimented, and if possible, to be integrated in this school. Improving the reading comprehension scores of its students was important because of the dismal performance that the school had been registering in the past few years in standardized tests implemented by the Saudi government. The test scores that had an average of 48% were especially troubling considering the fact that due to its location and available resources it was considered one of the best schools in the city.

### **Participants and Sampling**

The number of participants for this study were 20 sixth -grade female students. The age range of participants was eleven to twelve years old. The sampling method for this group of students was a convenience sample. There was one literacy and reading teacher for the six graders in the school, who taught all of these students. The classes were not divided according to ability or grades; rather, they were grouped alphabetically. From the twenty students, two groups, the control group and the experimental group, were randomly assigned through a

function of Excel whereby, every third student was assigned to the control group and the remaining students were assigned to the experimental group.

The teacher in the classroom of study had six years of experience and participated in an extensive professional development-training program focusing on student achievement in reading. The purpose of this study was to determine the impact that the Think Aloud Strategy had on the elementary students' reading comprehension.

### **Design**

The main reason this study was conducted was to find out whether the Think Aloud strategy was an effective strategy to improve reading comprehension for Saudi Arabian students in elementary school, by examining their performance in pretest and post-test assessments

The research study began in the middle of December of 2014 and continued until January, 2015, for a period of four weeks. The study involved the control group and the experimental group, separated in two classes and different times during the day. The control group was taught using the traditional method. Each of these daily instructional period lasted for forty-five minutes a day, for five days each week (Sunday to Thursday), for fifteen hours of total instruction over a four week period.

Instruction was differentiated for the control group and the experimental group. The experimental group received instruction and practiced using the Think Aloud strategy, whereas the control group did not. The researcher created a four week, twenty day reading curriculum for each group.

The effectiveness of the instruction was analyzed according to data obtained through using a series of weekly pretests and post-tests, for a total of five tests (one pretest and four posttests). The first pretest assessment was given on the first day of classes, before instruction began. This

helped the researcher understand the baseline level of reading comprehension that the classes possessed. There was a post-test assessment on the last day of each week for four weeks for a total of four post-tests in total.

The instrument used to collect data consisted of a multiple choice and short answer quiz based on an age and grade appropriate reading article. Short answer questions were graded according to a rubric that included grading scales for completeness and accuracy of answers (See Appendix).

The sixth grade textbook was used to implement this study because it fit well with the daily life, and the reality of the students in Saudi schools. This textbook contained an engaging plot and characters that most likely suit elementary children and their thinking. Another reason for using the sixth grade textbook was for every child to be motivated to discover new topics in reading and thinking besides what he or she may already like.

### **Data Collection and Analysis**

Data collection is vital in any research study. Sufficient data is always needed for logical and reliable conclusions and recommendations to be made. In this study, data was obtained through the marking of the five tests (1 pretest, 3 weekly tests and 1 final posttest assessment), delivered twice, once to each group, for a total of ten sets of assessment data(See Appendix A,B,C,D,E). After the data was obtained, comparisons were made regarding the performance of each student in the pretests and post-tests in a process known as outcome evaluation. In order for the results to be more accurate, more emphasis was placed on comparing the differences in performance of each group achievement in the Meta cognitive.

On analyzing the data, the results proved whether there was a strong correlation between the thinking aloud strategy and the thinking of students after reading various paragraphs. The

results also showed that the strategy may be helpful in increasing reading comprehension of students, as measured by the higher posttest scores of the experimental group when compared to those of the control group. Quantitative data was processed using SPSS (Statistical Package for Social Sciences). Charts, tables, and matrices were used to visually present the information from the research.

### **Validity of the study**

Validity of a study is essential in ensuring that the study follows the required scientific guidelines. The researcher designed this study to meet standards regarding validity, such as random sampling, and the designation of a control group and an experimental group to investigate the effects of the independent variable on the dependent variable. The classification between the control and experimental group has been done evenly and randomly as is required of the scientific study. Moreover, the conditions set for the study are the same for both groups, and both were exposed to the same test. Furthermore, each group was taught the same content, although through different strategies. The standardization of content, conditions, and the use of random sampling methods helped to ensure the validity of results to the best of the researcher's ability.

### **Reliability of the study**

The researcher addressed reliability in this study by basing her instruments and assessments from the work of previous researchers, who were able to establish the reliability of their results through consistent results. Further, the pre-test posttest research method has been used in many studies to compare the results of the experimental group to the control group, suggesting the reliability of this research design.

## Results

It was evident that the Think Aloud Strategy had an impact on improving a student's capability to not only read but also comprehend information. This conclusion is based on the fact that students in the experimental group, using Think Aloud strategy scored consistently higher marks than students in the control group who used traditional method.

To establish the impacts of Think Aloud Strategy the researcher divided the students into two groups and gave the students the same test over a period of four weeks. The first group was the control group, which was taught by the conventional methods of reading comprehensions that included reading language by studying grammar, vocabulary and sentence structure. The second group was the experimental group, which was taught using Think Aloud strategy of reading.

The marks that the students scored in all the tests were then recorded and analyzed by SPSS (Statistical Package for Social Sciences). The test score is seen in this research as dependent variable. The average changes from pretest to posttest were analyzed as well.

In order to establish the baseline data, the researcher conducted a pre-test and compared the scores of control and experimental group.

The results are the following:

group category		Test Value = 0					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
control group	Pre test	36.850	9	.000	22.37700	21.0033	23.7507
experimental group	Pre test	32.776	8	.000	22.30556	20.7362	23.8749

a. No statistics are computed for one or more split files

From the table above, with a 95% confidence interval, the researcher finds that the mean difference between the groups are small and hence no group had an added advantage over the other .

To establish the impacts of Think Aloud strategy on the participants' capability to read and comprehend information, the researcher first administered a similar pretest on all the participants irrespective of the group they were classified into.

### **Control Group and Experimental Group Pretest Statistics**

	Control Group	Experimental Group
N	Valid 10	Valid 9
	Missing 0	Missing 1
Mean	22.3770	22.3056
Median	22.0000	22.5000
Std. Deviation	1.92026	2.04167
Variance	3.687	4.168
Range	5.50	5.25
Minimum	19.50	19.75
Maximum	25.00	25.00

### **Analysis of the Results**

An analysis of the above data on the basis of the categories of the participants gave the following descriptive statistics.

The mean for the control group was 22.377. In addition, the participant with the maximum score had 25 while the one with the minimum score had 19.5. In addition, the median value for the group was 22 with a standard deviation of 1.92. The range in the group was 5.50.

The average marks for the experimental group was 22.3056 with the median score being 22.5 in addition, the participant with the maximum score had 25 while the participant with the minimum score scored 19.75 marks. The standard deviation from the mean was 2.04167. The range for the group was 5.25 marks.

### Scores for the Experimental group and the Control group:

experimental group					
student	Pretest scores	Posttest1 scores	posttest2 scores	Posttets3 scores	Posttest 4 score
1	22.5	23.25	23.75	24	25
2	22.75	24	23.75	24.5	25
3	25	25	24.5	25	25
4	24.5	23.25	23.75	23.5	24.5
5	24.5	22	23.5	24	24.25
6	20	23.5	21.75	22.75	24
7	19.75	22	23.25	22.25	22.5
8	20.5	22.5	22.5	23	24
9	21.25	21.75	22.75	22.75	23
Average	22.031	23.02	23.27	23.52	24.13
control group					
10	20.02	23	23.75	24.25	22.75
11	22	21.25	20	21.25	23.75
12	19.5	22.5	22.75	20.25	21.25
13	23.75	25	24.5	22.5	25
14	21.25	21.5	22.75	20.25	24.25
15	25	24.5	24	24.75	25
16	24.75	22.5	24	19.75	25
17	22	21.5	23.25	23.5	23.75
18	24	22.75	24.75	23	24.5
19	21.5	20	19.5	20	22
Average	22.37	22.45	22.92	21.95	23.72

From the above chart the researcher noted that the averages in the pretest were lower than the averages for both groups after the first week of instruction. The researcher noted that the average score for the experimental group was higher than that of the control group. It is also important to note that while the students in the control group had their marks fluctuating, the experimental group showed a general increase in performance in all the tests and maintained this upward trend in all their performances all through the tests. The Think Aloud method increased the performance of the students as they continued using it. The other conventional methods had no notable difference because their results showed a decrease.

After the pretests, the control group was exposed to conventional methods of reading comprehensions that included reading languages by studying its grammar, vocabulary and sentence structure. While the second group, experimental group, was subjected to receiving instructions directly as provided in the Think Aloud strategy.

The groups were then given weekly tests for a period of four weeks to determine the impacts of the think aloud strategy and the results compared with that of the control group. The test scores were the dependent variables of the study. The week 1 results were as shown below:

### Posttest 1

Control Group				Experimental Group			
Valid Marks	Percent	Valid Percent	Cumulative Percent	Valid Marks	Percent	Valid Percent	Cumulative Percent
20.00	10.0	10.0	10.0	21.75	11.1	11.1	11.1
21.25	10.0	10.0	20.0	22.00	22.2	22.2	33.3

21.50	20.0	20.0	40.0	22.50	11.1	11.1	44.4
22.50	20.0	20.0	60.0	23.25	22.2	22.2	66.7
22.75	10.0	10.0	70.0	23.50	11.1	11.1	77.8
23.00	10.0	10.0	80.0	24.0	11.1	11.1	88.9
24.50	10.0	10.0	90.0	25.0	11.1	11.1	100.0
25.00	10.0	10.0	100.0				
Total	100.0	100.0		Total	100.0	100.0	

Source: research data 2015

**Week 1 Post test Results**

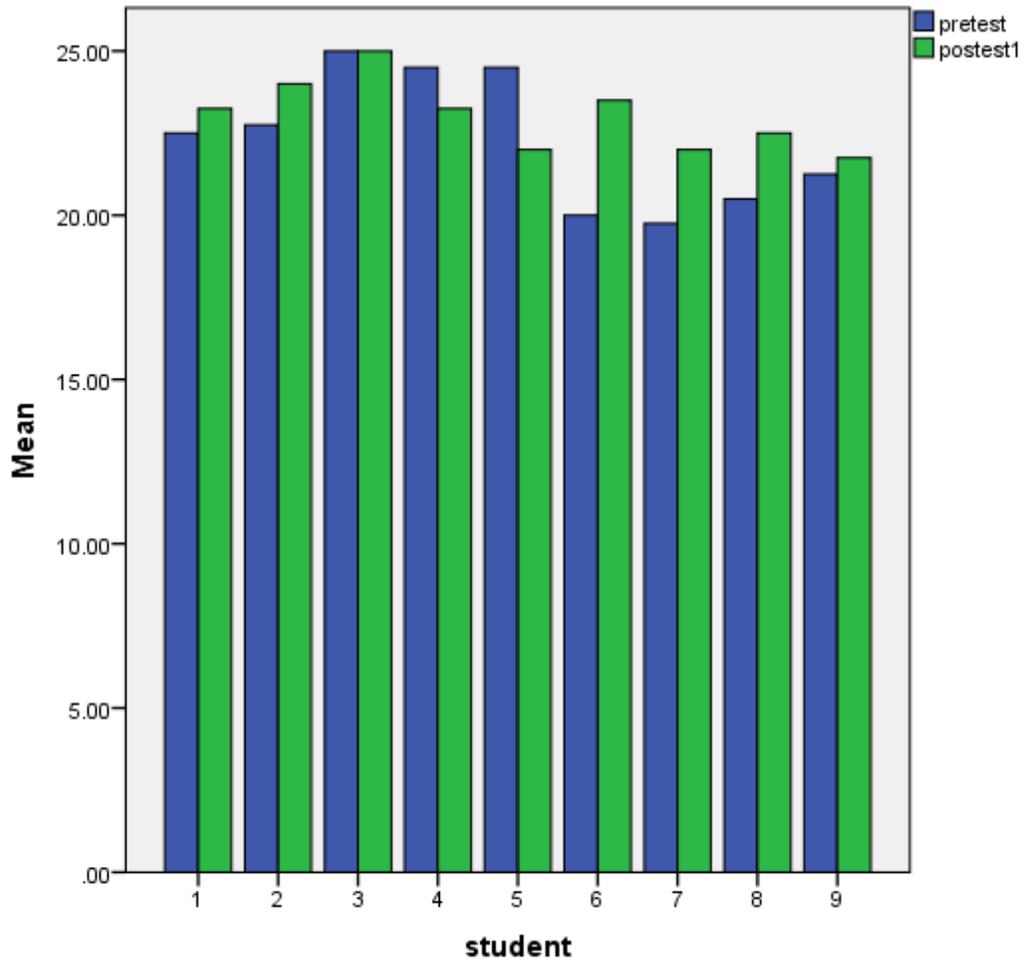
	Control Group	Experimental Group
N	Valid 10	Valid 9
	Missing 0	Missing 1
Mean	22.4500	23.0278
Median	22.5000	23.2500
Std. Deviation	1.50370	1.07125
Variance	2.261	1.148
Range	5.00	3.25
Minimum	20.00	21.75
Maximum	25.00	25.00

Source: research data 2015

From the table above, the researcher noted that the average score for the control group was 22.45 with the median score 22.5. The maximum score being 25 and the participants with the minimum score of 20. In addition, the standard deviation from the mean of the first posttest analysis produced a value of 1.5 giving a variation of 2.26; lastly the range of the group in the first posttest analysis was 5.

Performing the same analysis for the experimental group, the following results were obtained. The average score of the experimental group was 23.03, the middle value being 23.5. The researcher noted that the maximum value is 25 with the minimum value being 21.75. Lastly, the researchers studied the standard deviation from the mean and found the value to be 1.07 with a variance of 1.15. There were two students in the following graph, numbers 4 and 5, who showed a decrease in their scores. It is unclear what caused a decreased posttest score, but overall, 7 out of 9 students did improve their posttest scores.

The average improvement of the experimental group compared with the control group can be better shown in the graph below.



Source: research data (experimental group) 2015

The week 2 results for the control and experimental group are as described below

**Posttest 2**

Control Group					Experimental Group				
Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent	Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent
19.50	1	10.0	10.0	10.0	21.75	1	11.1	11.1	11.1
20.00	1	10.0	10.0	20.0	22.50	1	11.1	11.1	22.2
22.75	2	20.0	20.0	40.0	22.75	1	11.1	11.1	33.3
23.25	1	10.0	10.0	50.0	23.25	1	11.1	11.1	44.4
23.75	1	10.0	10.0	60.0	23.50	1	11.1	11.1	55.6
24.00	2	20.0	20.0	80.0	23.75	3	33.3	33.3	88.9
24.50	1	10.0	10.0	90.0	24.50	1	11.1	11.1	100.0
24.75	1	10.0	10.0	100.0					
Total	10	100.0	100.0		Total	9	100.0	100.0	

Source: research data 2015, variable is valid mark

**Week 2 Posttest Scores**

	Control Group	Experimental Group
N	Valid 10	Valid 9
	Missing 0	Missing 0
Mean	22.9250	23.2778
Median	23.5000	23.5000
Std. Deviation	1.80297	.82390
Variance	3.251	.679
Range	5.25	2.75

Minimum	19.50	21.75
Maximum	24.75	24.50

Source: research data 2015

From the above table, showing the posttest 2 results, the researcher noted that the average mean was 22.9 with the median being 23.5. Additionally, the maximum score for the participants was 24.75 while the minimum score was 19.25. The standard deviation from the mean was 1.86, while the variance is 3.45.

The experimental group's mean was 23.27 while the middle score for the group was 23.5. The highest or maximum value obtained was 24.5 with the minimum score being 21.75. The standard deviation for the group was 0.82 with the variance from the being 0.8.

### Posttest 3

Control Group					Experimental Group				
Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent	Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent
19.75	1	10.0	10.0	10.0	22.25	1	11.1	11.1	11.1
20.00	1	10.0	10.0	20.0	22.75	2	22.2	22.2	33.3
20.25	2	20.0	20.0	40.0	23.00	1	11.1	11.1	44.4
21.25	1	10.0	10.0	50.0	23.50	1	11.1	11.1	55.6
22.50	1	10.0	10.0	60.0	24.00	2	22.2	22.2	77.9
23.00	1	10.0	10.0	70.0	24.50	1	11.1	11.1	88.9
23.50	1	10.0	10.0	80.0	25.00	1	11.1	11.1	100
24.25	1	10.0	10.0	90.0					

24.75	1	10.0	10.0	100.0					
Total	10	100.0	100.0		Total	9	100.0	100.0	

Source: research data 2015, dependent variable is valid mark

### Week 3 Post test scores

	Control Group	Experimental Group
N	Valid 10	Valid 9
	Missing 0	Missing 0
Mean	21.9500	23.5278
Median	21.8750	23.5000
Std. Deviation	1.88119	.91382
Variance	3.539	.835
Range	5.00	2.75
Minimum	19.75	22.25
Maximum	24.75	25.00

Source: research data 2015

From the above table, the average score for the control group was 21.95 with the median score being 21.88. In addition, the pupil that scored the highest score obtained 24.75 marks while the student with the least obtained 19.75. Additionally, the standard deviation from the mean was 1.88 and the variation of the marks from the mean score was 3.54.

The average score for the experimental group in the posttest 3 was 23.52 marks with the median score being 23.5. In addition, the participant that scored the highest marks in the test had a score of 25 while the minimum score was 22.25. Also, the dispersion from the mean was 0.91 translating to a variance of 0.83.

A final posttest analysis was carried out and the results obtained are as tabulated below.

#### Posttest 4

Control Group					Experimental Group				
Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent	Valid Marks	Frequency	Percent	Valid Percent	Cumulative Percent
21.25	1	10.0	10.0	10.0	22.50	1	11.1	11.1	11.1
22.00	1	10.0	10.0	20.0	23.00	1	11.1	11.1	22.2
22.75	1	10.0	10.0	30.0	24.00	2	22.2	22.2	44.4
23.75	2	20.0	20.0	50.0	24.25	1	11.1	11.1	55.6
24.25	1	10.0	10.0	60.0	24.50	1	11.1	11.1	66.7
24.50	1	10.0	10.0	70.0	25.00	3	33.3	33.3	100.0
25.00	3	30.0	30.0	100.0					
Total	10	100.0	100.0		Total	9	100.0	100.0	

Source: research data 2015, dependent variable is valid mark

#### Week 4 Posttest scores

	Control Group	Experimental Group
N	Valid 10	Valid 9
	Missing 0	Missing 0
Mean	23.7250	24.1389
Median	24.0000	24.2500
Std. Deviation	1.32524	.89365
Variance	1.756	.799
Range	3.75	2.50

Minimum	21.25	22.25
Maximum	25.00	25.00

Source: research data 2015

From the above table, showing the final posttest 4 results for the control group, the average mean is 23.72 with the median being 24.00. Additionally, the maximum score for the participants was 25.00 while the minimum score was 21.25. The standard deviation from the mean was 1.33, while the variance is 1.76.

The average score for the experimental group in the final posttest 4 was 24.14 marks with the median score being 24.25. In addition, the participant that scored the highest marks in the test had a score of 25 while the minimum score was 22.50. Also, the dispersion from the mean was 0.89 translating to a variation of 0.8. A comparison of the average mean score is for both the control group and the experimental group can well be represented in the bar chart above (page 25).

In conclusion, from the analysis above, it is evident that the thinking aloud strategy is beneficial to the students as the analysis confirms that the thinking aloud strategy is helpful in positively enhancing the pupils thinking capabilities we therefore fail to reject the null hypothesis and conclude that the Think Aloud Strategy has a positive effect on a student's capability to read comprehension.

### **Conclusion and Discussion**

At this point of the study, the researchers set to establish the relationship between the findings of the study and the literature review. The findings indicate that the students in the experimental group performed better on a consistent, significant basis on the weekly posttests as

compared to those in the control group. These findings support the conclusion that the Think Aloud method of learning had significant positive impact on the reading comprehension of students. In addition, the following parts of this section will discuss the relationship between the results, the hypothesis, limitations of the study and future implications of this study.

### **Relationship between the Literature Review and the Findings**

The study concludes that students placed under the experimental group had incredible improvement after being subjected to Think Aloud learning strategy as compared to those who used the traditional learning method. The structure of this study was founded on previous research studies that also used pretest and posttest research designs to assess the effectiveness of Think Aloud Strategy. According to the studies, students who were taught without the use of the Think Aloud Strategy had a lower comprehension that was a result of lack of awareness of particularly what was to be drawn from the readings. Moreover, students who used this strategy improved their level of comprehension because they would easily decode vocabulary and the syntax of the language. The literature review also highlighted studies that revealed that the Meta Cognitive Think Aloud Techniques enhanced the reading performance and the understanding skills in elementary students.

Moreover, this study is also in line with findings in the research review stating that the Think Aloud strategy is important to minds that are in the developmental stages. Since it not only helped the students understand what they read but also helped them memorize the content as well as highlight their challenges giving the teacher a chance to correct them. The literature review also noted studies that highlighted increased performance among elementary students who were exposed to Think Aloud Strategy from pretest to post test. Parallel outcome is pointed out in this study. The present study is also supported by research done by Gilliam and Robertson who

found out those students taught using Think Aloud Strategy displayed greater awareness than those who were taught using other traditional methods that directed reading- thinking group and the directed reading group.

This study focused on 6<sup>th</sup> grade students and achieved the same findings that were approved by previous studies that noted that the Think Aloud Strategy promotes cognitive development among elementary students because they have a younger brain and are still developing. According to the review, teachers who used this strategy would easily identify the appropriate methods to use to improve the students cognitive methods, enable the students to interact more thus making the learning process more enjoyable

### **Limitations of the Study.**

Despite the fact that the research has met all the set objectives, there are a number of limitations that have been noted.

First, the study was conducted at one place- Al-kharj, Saudi Arabia thereby indicating that there were no considerable comparisons with other learning institutions in the same region. The researcher chose this place since she had a previous connection to the school and it was close to her home. Despite this convenience to the researcher, it raises concerns on whether findings of the same research would still be the same if the study would be conducted in other regions.

The sample size selected was also very small considering the total number of students. The sample was chosen by use of convenience sampling method as opposed to random sampling. It is important to note that had the researcher selected a larger sample randomly would have provided more valid findings.

The study also focused on females that were between 11-12 years. This aspect is attributed to the fact that Saudi is an Arabic country therefore does not allow females and males to freely interact. However, it is possible to imply that the findings are only applicable to female students and not necessarily applicable to male students.

Additionally, the period allocated for completion of the study was limited. It was conducted in a period of four weeks; and therefore; the results obtained were not very conclusive. Probably spending a longer period conducting the study would have given better results that would have highlighted the differences in the experimental and control groups more explicitly as well as the pretest and the posttests data.

### **Implications for future research**

Although the study findings were in line with the purpose and objectives and research question initially stated for the study, a number of implications that should be noted by other researchers.

The researchers have to consider other research areas in Saudi Arabia to determine the effects of Think Aloud Learning strategy more exclusively because some locations may be more educated than other areas of the country. For the Think Aloud strategy to be successful, the education level of the teachers is relevant. A teacher may only teach what they know and if they do not know the strategy, then they cannot teach it. Moreover, future studies could be conducted to examine if Think Aloud Strategy affect reading comprehension over a longer period of time through more longitudinal studies by following up on each student to determine if the strategy was successful throughout the students' academic careers.

Future research should also concentrate on long term implications of Think Aloud Strategy on student performance. This aspect could be improved by increasing the period allocated for both the experimental and the control groups to a period of six months or a year.

Furthermore, this study only focused on the effects of Think Aloud strategy on female students' reading comprehension. Therefore, future research should investigate whether sex is a factor that impacts the effectiveness of Think Aloud strategy. Moreover, this study should not only be conducted in one institution or region but also in a number of schools in diverse regions with different settings to efficiently determine the effect of Think Aloud Strategy on students.

This study only explored the impact of Think Aloud strategy on reading comprehension. Future studies should consider focusing on the effects of Thinking Aloud Strategy on other aspects such as the way a culture learns and passes on information, as well as the culture's discovery and problem solving methods.

In conclusion, future research should also focus on the student perception when using this learning strategy. This could be assessed by looking at aspects such as their participation, their process of learning as well as the challenges they face when learning using this strategy.

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Appendices:

Appendix A: Pre-test

### **My Home, Kingdom of Saudi Arabia**

My loved country Kingdom of Saudi Arabia, Arabic Islamic country, the Revelation and the osculation of Muslims, the deep wish of their hearts, the light stand for all universes, the land where I live, drink its water, breathe its air, the growth from the young, the cradle of memories and large dreams, the Doha of harmony, the oasis of security and safety. The Kingdom of Saudi Arabia is located in the southern west of Asia continent; its large lands form a fine geographic museum, its variable terrain, including mountains, plateaus and deep valleys, low-lying coastal plains and atolls.

Its surface includes four main natural geographic regions as follows: Hijaz and Aseir mountain, Najd plateau, sand deserts, eastern coastal beach, and the Kingdom occupies most of land of the Arabian Peninsula as its area covers between the Red Sea and the Arab Gulf what equals Four-fifths of the total area of the Arabian Peninsula. Its capital is Riyadh located at the middle of the Arabian Peninsula.

My home Kingdom of Saudi Arabia has religious and tourism views, its historical impacts, its civilization, whereas it contains the most sacred Islamic places as it contains the house of God (Mecca) as millions of people come to visit from Muslims and it contains Medina Munawara whereas the mosque of the lord of all passengers the prophet Mohamed may peace be upon him. The Kingdom of Saudi Arabia has the largest Islamic collection and gathering all over the world where the sacred and holy places to contain two million Muslims from different countries all over the world due to its natural climate and the green trees and to do the duty of the God.

The mountain places are featured with the nature of beauty like the green trees, the high places and the beautiful climate. From the mountain tourism places are Taif, Abha, Baha, located at the tops of Al Hijaz and Asir mountains and featured with fine climate. But the historical places are full of the old civilizations, the most one Madain Saleh in Ola city, Fao in the eastern south and Okhdood in Najran region.

The coastal places, such as Dammam, Jeddah, and Jazan, in naval interfaces are located on the length of the Red Sea, the coast of the Arab gulf whereas there are multiple ports which are constructed to ensure the communication between our cities located on coasts and between the Kingdom and abroad.

The ports receive the carriers and ships for huge oil, which transport our products of petrol to the all countries all over the world.

My home country has obtained the great economic position due to the blessing of the God of oil as it includes inside its lands one of the most known oil reserves of oil and natural gas in the world.

God grants the blessing and raise the buildings of this country and education flourished, the activation of industry and agriculture, all progress in all fields, the speed development steps in all sectors and fields as it has achieved the great projects in short time due to the periodical work and for the purpose of achievement the civilization and progress.

The Kingdom of Saudi Arabia is a very audible word and has its voice in the international forums and celebrations, as it has been considered the Forerunner for good to help the poor countries, and assists and rescues the stricken nations and holding the benefit projects in a lot of countries.

It is a member and active founder of the League of Arab States and a member and fruitful founder in the United Nations, and its policy is based on the Neutrality, in order that these holy places will be far from the international disputes and blessed with stability

and system My God protects you Kingdom, and continue with huge and famous between nations.

Pre-test of My Home, Kingdom of Saudi Arabia

Your name: .....

Grade:

<hr style="width: 80%; margin: 0 auto;"/> <p>25</p>
---

1 Where is Saudi Arabia located? ..... (1)

2 Why do millions of people come to Saudi Arabia? ..... (1)

3 Where are the beautiful tourist areas in Saudi Arabia? ..... (1)

4 Give two examples of a coastal city in Saudi Arabia? ..... (2)

5 What are the economic things that are famous in Saudi Arabia? ..... (2)

6 What do you like and take pride in about your country? ..... (1)

7 List three of the most important cities in Saudi Arabia and tell the importance of each city? ..... (3)

8 Write a question to this answer:  
Saudi Arabia's capital is Riyadh. It is located in the heart of the Arabian Peninsula. .... (1)

9- Join the word with its opposite: (4)

- Security      Inside
- Outside      Insecurity
- Stability      Lawlessness
- Law            Unsteadiness

10- Join the word with its synonym: (4)

- Wonderful      Far
- Abounds        Societies
- Civilizations    Fantastic
- Distant         Flourishes, Thrives

11- Choose the correct answer from the following: (3)

- My country is located at .....from Asia continent.  
1-south west      2-western south      3- south east
- .....is the most beautiful and famous city rather than Taif to the visitors.

1- Dammam      2- Riyadh      3-Abha

- My country contains the .....holy mosques.

1-one              2- two              3- three

12- Draw a map of Saudi Arabia? (2)

.....  
.....  
.....  
.....

Good luck.

## Appendix B: Posttest 1

**The Dove, the Fox, and the Heron**

Once there was a Dove in a high treetop to incubate and wait for her eggs to hatch. The Dove worked so hard to build her nests. It took her long days of fatigue and patience to wait for her babies to come out from the egg. The days gone by and some of the eggs begin to hatch. The dove was so happy to finally see her babies. But one day, the Fox threatened the dove that he would fly up the tree and kill her and her babies. The Fox tells the dove to throw one of her hatched eggs so he will not fly up. The dove was so scared with the fox that she gave away the chicks from the hatched eggs one at a time whenever the Fox asked for them. Some of the eggs remained in the nests and the dove rebuilt her nests.

One day, while the dove was busy nestling her young chicks, a Heron came to the tree. Heron saw that the dove was so sad.

“Why do you look so depressed?” asked the Heron to the dove.

The dove told the Heron about the Fox threatening to kill her. She also told him that the Fox will come back and eat her two remaining babies.

Then the Heron said to the dove, “why do you give your babies down to the Fox? The next time he asks, tell him you will not give the babies anymore. He cannot fly anyway”.

The day came that the Fox arrived to ask for the dove’s chicks again. The Dove said, “You cannot eat my babies. You cannot fly”.

The Fox was surprised with the Dove’s courage.

“Who taught you this,” asked the Fox.

---

“The Heron,” answered the Dove.

“Where can I find the Heron?” asked the Fox.

“You can find him on the side of the river”, answered the Dove.

So the Fox went to the Heron and asked, “Heron, where do you put your head when the wind is on the right?” The Heron replied, “I shall bend my neck on the north”, replied the Heron. Then the Fox asked again, “where do you put your head when the high storm comes?” The Heron replied, “I shall bend my head down”.

At this time, the Fox beat the Heron on his neck and broke his neck on the middle of his wings.

The Fox said, “You give advices to the Dove but do not even follow it yourself”.

**Post-test of the Dove, the Fox, and the Heron**

Your name: .....

Grade:

<hr style="width: 80%; margin: 0 auto;"/> 25
--

1. Where was the Dove building her nest? (3)  
.....
2. Why does the Dove give her chicks to the Fox? (3)  
.....
3. Why was the Dove sad? (3)  
.....
4. What was the advice of the Heron? Do you think it is good a device and why?(4)  
.....  
.....
5. What should the dove do with the fox? Explain your answer. (4)  
.....  
.....
6. Choose the correct answer from the following:

Why did the Dove refused to give the chicks to the Fox after the Heron came? (2)

- a. Because the Dove believed the Heron's advice
- b. Because she thinks the Fox is not serious
- c. Because the Heron will come and rescue them
- Why did the Fox ask the Dove where the Heron is?
  - d. Because the Fox wants to eat the Heron, instead
  - e. Because the Fox wants to teach the Heron a lesson
  - f. Because the Fox will fight with the Heron

What did the Fox ask the Heron? (2)

- g. The Fox asked the Heron about the dove
- h. The Fox asked the Heron about the dove's chicks.
- i. The Fox asked how the Heron turns his head.

7. What is the message of the story? (4)

.....

.....

.....

.....

## Appendix C: Posttest 2

**The Dream**

Once, I tried to put myself to sleep in the bed. I intend to have a quiet slumber. It took a moment for me until I finally felt fully rested. As I closed my eyes, I can see myself travelling in a dark, far distance towards the world of dreams. At the beginning, I see nothing but blankness. Suddenly, a large hawk greeted me with a smile.

“Peace—upon of you myFalcon friend”, I greeted the Hawk. “You seem to have come from far away to come to me.”

“Yourbrothers in Saudi Arabia ask me to take you to the Kingdom”, said the Hawk.

“Why do they ask you to take me there, my Falcon friend?” I asked.

“We are celebrating Eid al-AdhaAlambarco (special holiday) and we want tosharethe joy with you”, replied the Hawk.

I was amazed by the Hawk’s reply. Eid al-AdhaAlambarco is a special day for all Muslims like me. I have wished to be home for this occasion. The Hawk must have sensed my desire and amazement.

“Come, your brothers insist that I should carry you on my back so you can be with them”, said the Hawk.

“Let’s fly, then!” I exclaimed.

It is then that I fully opened my eyes and thought about my dream.

**Post-test of the Dream**

Your name: .....

Grade:

<hr style="width: 50%; margin: 0 auto;"/> 25
--

1. What was the narrator about to do in his bed? (3)  
.....
2. What did the narrator see as he closed his eyes? (4)  
.....
3. Why did the Hawk come to see the narrator? (4)  
.....
4. Who asked the Hawk to come to the narrator? (4)  
.....
5. Choose the correct answer from following:
  - What greeted the narrator in the world of dreams? (2)
    - a. A Dragon
    - b. A Fly
    - c. A Hawk
  - The greeting of the narrator to the Falcon is: (2)
    - d. Peace upon you
    - e. Hello!
    - f. Hi!
  - Eid al-AdhaAlambarco is: (2)
    - g. A special holiday for Muslims.
    - h. Christmas holiday.
    - i. National Heroes Day.
6. Why was the narrator amazed? Explain your answer. (4)

## Appendix D Posttest 3:

**Dialogue between the parties**

Once there was an old man singing in the boat, which is anchored in the harbor. The man was holding the ropes of fishnets in his hands.

I turned to the man and greeted him, "Hello!" I also asked the man what he is doing.

"Peace be upon you", greeted the man. "I'm cleaning the fishing nets to take away the seaweed that hung out".

"So you're a hunter?" I asked.

"Yes I am a hunter." The man replied. "Do you like fishing?"

"Not much. I do not know anything about hunting or fishing or the sea", I replied. "I even hate the smell of the fish. How can you bear the smell?"

"I have been a fisherman for 50 years. I am already used to the smell as I work in the sea".

"I heard you sing. Why were you singing?"

"Ah, singing is important in fishing. It makes you become patient while waiting for the fish to come. The fish will also come to you when you sing. The song becomes their natural invitation so they can come to the nest".

The old man seems to have a great knowledge about seas and fishing that I suggested that we walk and explain to me about fishing.

"We don't need to walk. Hop in to the boat and get ready for a cruise fun. As long as the weather is nice there is no fear of storms," invited the old man.

**Post-test of Dialogue between the parties**

Your name: .....

Grade:

_____
25

1. What was the old man’s work? (3)

.....

2. Why was the old man cleaning the fish nets? (3)

.....

3. Why was the old man use to the smell of the fish? (4)

.....

4. Why did the narrator ask questions to the old man? (3)

.....

5. Chose the correct answer from the following:

- The old man hunts: (2)

- a. Birds
- b. Wild animals
- c. Fish

- The old man works in the sea for: (2)

- d. 30 years
- e. 50 years
- f. 40 years

6. Why is the old man singing? Explain your answer. (4)

.....  
.....

7. What was the invitation of the old man to the narrator? (4)

.....  
.....

## Appendix E: Final posttest

**The Falcon**

After the Asha prayer, a Father gathers all his kids Ream and Ayman and asks them about school. Ream tells their father that they learned something in Science. Their teacher taught them about the Falcon. Their mother is listening from a distance.

“What did you like about the Falcon?” asked the father.

“I like how the Falcon lives in open spaces and deserts. He has strong beak and sharp eyes!”

Ream replied. “He also feeds with day birds and small animals. He uses his claws to grip the prey”, he continued.

“What else?” asked Ayman as he gets curious?

“The Falcon also lays eggs very slowly. They build their nests by digging in the ground. The Falcon can be scary, too”, said Ream.

“Scary? How scary? Asked Ayman.

“The Falcon’s crowned head feathers stands when he feels scared. The head becomes larger and fiercer than it is, and it succeeds to scare off his opponents”, answered Ream.

The mother heard his son’s conversation and so she joined them.

“That’s true Ream. The falcons have many types including the peregrine falcon, the fastest animals, the earth, as the speed increase on a solid sixty kilometers per hour, and Bazi falcon which features hunt birds while ring in the air. The hawk fish is a falcon that specializes in fishing,” added the mother.

“What makes the Falcon useful to humans, mama?” asked Ream.

“Falcons are very useful especially to Arabs like us. They are used for hunting in the desert.”

“Really? How is that so?”

“They are trained since they were chicks. They are fed with the only food that will make them survive. The Falcon can fly as far as where the prey is. It has God-given wings that enable them to fly and roam the desert”.

“This is very interesting, mama!” exclaimed the kids.

The father smiled while listening to their conversation and reminded them about the protection of birds in order to pre serve its survival

**Final Post-test – The Falcon**

Your name: .....

Grade:

25

- 1. What did Ream learn in school? (2)  
.....
- 2. Where does the Falcon live? (2)  
.....
- 3. How does the Falcon build its nests? (3)  
.....
- 4. What happens to the Falcon when it is scared? (3)  
.....
- 5. Chose the correct answer from the following:
  - The Falcon eats: (2)
    - a. The Falcon eats other falcons.
    - b. The Falcon eats humans.
    - c. The Falcon eats day birds and small animals.
  - Human can use Falcons for: (2)
    - d. Bird watching
    - e. Entertaining
    - f. Hunting
  - The gift of God for the Falcons is: (2)
    - g. Their wings
    - h. Their beak
    - i. Their featherheads
- 6. Why do we need to protect the birds like the Falcon? Explain your answer. (3)  
.....  
.....  
.....
- 7. Falcons are useful especially to Arabs. How? (3)  
.....  
.....

.....

8. The falcons have many types. Explain that.

..... (3)

.....

.....

Appendix F

**Scores for the Experimental group and the Control group:**

experimental group					
student	Pretest scores	posttest1 scores	posttest2 scores	postets3 scores	postets4 scores
1	22.5	23.25	23.75	24	25
2	22.75	24	23.75	24.5	25
3	25	25	24.5	25	25
4	24.5	23.25	23.75	23.5	24.5
5	24.5	22	23.5	24	24.25
6	20	23.5	21.75	22.75	24
7	19.75	22	23.25	22.25	22.5
8	20.5	22.5	22.5	23	24
9	21.25	21.75	22.75	22.75	23
control group					
10	20.02	23	23.75	24.25	22.75
11	22	21.25	20	21.25	23.75
12	19.5	22.5	22.75	20.25	21.25
13	23.75	25	24.5	22.5	25
14	21.25	21.5	22.75	20.25	24.25
15	25	24.5	24	24.75	25
16	24.75	22.5	24	19.75	25
17	22	21.5	23.25	23.5	23.75
18	24	22.75	24.75	23	24.5
19	21.5	20	19.5	20	22

Appendix G

**Think Aloud Short Answer Assessment Rubric:**

Name:

Date:

Class:

<b>Category</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Interpretation</b>	Answers are mostly Correct and demonstrate excellent comprehension. Opinions are always fully justified.	Answers are often correct And demonstrate good comprehension. Opinions are adequately justified.	Answers are occasionally Correct and demonstrate an incomplete comprehension of the topic. Opinions are sometimes justified.	Answers do not reflect Accurate comprehension of the topic(s). Opinions are unjustified.
<b>Detail</b>	Answers are mostly Complete, extensive, and include many details.	Answers are usually Complete and include several details.	Answers contain some Details.	Answers lack the required Detail or are incomplete.
<b>Use of Information</b>	Answers mostly include Supporting evidence from the text/lesson when necessary. Quotations or paraphrases are often included in answers.	Answers usually include Supporting evidence from the text/lesson when necessary. Quotations or paraphrases are sometimes included.	Answers include Occasional supporting evidence from the text when necessary.	Answers do not include Supporting evidence from the text when necessary.
<b>Clarity</b>	Answers are very easy to Understand. They are clear and concise.	Answers are always easy To understand.	Answers are sometimes Understandable, but need to be more to the point.	Answers are difficult to Understand.