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Experimental Study on Reading Comprehension in English as a Second Language (ESL) of Children With and Without Cognitive and Meta-Cognitive Strategies in Pakistan

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ABSTRACT

This research has cautiously reviewed past studies on Meta cognitive strategies encompassing on planning, monitoring and evaluating learners. The basic purpose of these reviews was to identify strategies to assist children in enhancing their reading and understanding potential. On basis of those reviews seven well defined strategies were formulated for the teachers to apply in a group of 8-9 years old learners for developing reading comprehension by an experiment. Study indicates that if proper strategies applied during reading sessions, positive change in the learners is significant. This study is helpful for readers specially teachers to consider cognitive and metacognitive strategies as a mean to plan their reading lessons on vocabulary building, making connections, questioning, summarizing, predicting, visualizing and monitoring. Therefore, it is recommended that these strategies be incorporated for teaching English reading lessons.

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Introduction

Information based on analysis linked to cognitive actions dealing with some specific material is known as Meta cognition by (Flavel, 1979). Conversely, the concept of cognitive growth (Piaget, 1971) including cognitive and knowledge improvement (Vygotsky, 1978) employed larger weight for Flavell's work, and together made an approach for him to continue working on this field. But some do consider it "a largely divided path of research – one for cognitive researchers and other for educators" (Son, 2005). In addition to this, metacognition signifies understanding and knowledge relating to cognitive procedures for vigilant examination and modifying comprehension policies of a person who reads with some aim (Flavel, 1976). Flavel (2004) additionally describes that metacognition is an action for controlling a number of cognitive visions. Whereas, Brown and Palincsar (1987) defined metacognition as an expression for passing on the understanding of pupils by managing their cognitive techniques. They also pointed out two problems with the expression Metacognition that comprises of trouble to judge the variation between Meta and cognitive.

This research was an experimental study on reading grasp in English of children with and without cognitive and meta-cognitive strategies in Pakistan

Objectives of the study were to;

- Select a local private school in Punjab province to check regular reading skills of grade three students.
- Identify the disabilities encountered during reading sessions.
- Apply seven cognitive and metacognitive approaches to
- Develop English reading understanding in grade three pupils.
- Monitor pupils' performance before and after applying the seven cognitive and meta cognitive proposed strategies.

Significance of the Study

These types of studies have been conducted time and again over the past years but this study is a significant mark by gauging where Pakistanis stand with respect to reading comprehension in learning English especially through cognition and meta cognition. This study highlights strengths and weaknesses in reading comprehension and by use of cognitive and meta cognitive understanding strategies.

Review of Literature

To achieve something, cognitive strategies mental processes are involved. To further get help in thinking and checking how the task is being completed, the mental processes of Meta cognitive strategies are involved. These two skills might overlap depending on the goals and objectives. "Thinking about thinking" is what "Meta cognition" can be simply defined as. Explaining Meta – cognition is an uphill task. As per the studies (Flavell, 1979) is considered the initiator of the term meta cognition and is classified as "an individual's awareness about his own thinking progression or everything linked to it" (p.232). Flavell (1979) later, in his research redefined metacognition as a person's knowledge and consciousness regarding his /her own cognition.

Different researches on meta cognition signify that its strategies or awareness is strongly connected to the accomplishment of second language learners. A study by (Zhang and Goh 2006) states metacognitive strategies equipped learners are conscious of their knowledge and make out when and how to apply the most applicable approaches to accomplish an assignment in an effectual manner. They map their knowledge beforehand, supervise it while working and assess after assignment completion.

Moreover, meta cognitive learners seem to be more self regulated. Considerable attention in private educational institutions in the recent years has been given on improving

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pupils self directed education and independence. An effective way to develop learner centeredness and autonomy is through metacognitive instruction. Several studies (Goh, 1997; O'Malley & Chamot, 1990; Vandergrift, 2002, 2003) have confirmed that the coaching of metacognitive strategies aid learners to develop into more self directed, self regulated and thriving in knowledge.

Planning

Boulware-Gooden, Carreker, Thornhill, and Joshi (2007) explained that metacognitive reading strategies, aid learners to think before, during, and after they read. Similarly, (Ariel, Dunlosky and Bailey, 2009) have put emphasis on pupil's learning technique through preparation regarding how to be taught with diverse alternatives.

Thiede, Anderson, and Theriault (2003) have considered reading and comprehension should be monitored accurately during learners reading sessions. Additionally, they thought that self regulated performance in reading is able to figure out only if the comprehended text by the reader is monitored while reading. Further it is emphasized by (Thiede, Anderson, and Theriault, 2003) on the requirement of accurateness in observing understanding of learners to make them autonomous learners. Independent readers take accountability of their own reading and check their understanding level. A study by (Schiff and Calif, 2004) emphasizes that to check the inter textual features that may cover different genres, monitoring becomes a salient feature while reading. Furthermore, metacognitive techniques that adjoin think aloud self regulation and questioning can be used to monitor the readers understanding.

Research by Newell and Simon (1972) developed the think - aloud strategy for evaluation comprehension of the learners. For better performance of thinking and textual understanding, readers are assisted a great deal through think aloud strategy. Rosenshine and Meister (1992) also support think aloud as in their view it is a scaffolding device that articulate readers apply on their peers to model their understanding. Hence, and Meister (1992) think questioning during the reading task gives the learners, teachers additional support through which their thinking patterns are automatically modeled speaking before the class. Block (1986) considers think aloud as an effective way to observe reading material for better understanding outcomes. However, Anderson (1991) thinks that this strategy is employed by students for summarizing and clarifying material in the class.

Another very effective metacognitive technique is questioning. This can be used to aid students in evaluating their understanding in finding alternative opinions and uprising promising outcomes in the class. Benchmark education (2011) states that apt readers promptly question the content to expand their knowledge. Besides that, Collins and Smith (1982) believe that this strategy is used to correct misunderstandings in reading comprehension. However, Livingston (2003) has observed the questioning strategy for selecting cognitive knowledge to monitor the metacognitive activities of reading comprehension.

In lieu of the above research extracts it is evident that reading comprehension and educational progression can be done effectively through reading strategy awareness. Though its importance is known yet this skill was overlooked in teaching English, research, learning and assessment. Meta cognitive reading comprehension skills are the only way to enhance poor reading understanding.

Method and Procedures

The population comprises on the two major relevant schools from Rawalpindi. Two teachers of English taking the sample group 1 and 2 each of both the campuses were to be observed along with the students. Data was collected through personal visit to the sample schools i. e. students were individually called upon and a paragraph of English was asked to be read under the defined pre- test pro-forma to check the current English comprehension reading and understanding. Their teachers were being observed while teaching and a questionnaire was filled up to measure the current practices.

Table 1. Students Vocabulary Assessment.

The statements about their vocabulary standard	Pre – Test	Post – Test
Students familiar with the vocabulary of an unknown passage while having an individual reading session.	7%	33%
Students having no clue about reading	0%	3%
Students having partial knowledge about vocabulary while reading	93%	63%

Table 1 shows that students familiar with the vocabulary of an unknown passage while having an individual reading session. in BFC¹ Rawalpindi after Pre – Test and Post Test difference was 26%, in BFC¹ Gujarat 17% and in both it was 18%. Moreover the clause that stated students having no clue about reading the difference was 3% in BFC¹ Rawalpindi, in BFC¹ Gujarat 0% and in both it was 2%. Whereas under the category students having partial knowledge about vocabulary while reading of partial 30% in BFC¹ Rawalpindi, 17% in BFC¹ Gujarat, and 20% in both district was recorded.

Table 2 . Students Making Connections with previous knowledge.

The statements about their visualizing skills	Pre - Test	Post - Test
Students could visualize the content.	0%	7%
Students could not visualize the content	10%	10%
Students could partially visualize the content.	90%	83%

Table 2 shows that students could recall the existing knowledge with the passage they were reading. Pre – Test and Post Test difference was 50%. The section that stated students could relate the text with memorable moments of their lives the difference was nil, whereas under the category students make connection stems of the text for inferences throughout it was 0% and the students ability to utilize any of the three main components of making connections was improved as observed in row three and it dropped to 16%.

Table 3 . Students Questioning Skills.

The statement about their questioning skills	Pre - Test	Post - Test
Students could respond back to questions asked in the start, middle and end of the reading comprehension session	23%	47%
Students could not respond to the questions.	17%	13%
Students partially respond back to questions asked in the start middle and end of the reading comprehension session.	60%	40%

Table 3 shows that students could respond back to questions asked in the start, middle and end of the reading comprehension sessions in pre-test it was 23% but after treatment it improved 24% and reached to 47%. Moreover, the students could not respond to the questions also mildly improved as in pre test it was 17% while in post test it was 13% there was 4 % improvement. Whereas, under the

category students partially respond back to questions asked in the start, middle and end of the reading comprehension session was also decreased 20% as shown in the last row.

Table 4 . Students Summarizing Skills

The statements about their summarizing skills	Pre - Test	Post - Test
Students could summarize the content in their own words and expression.	0%	23%
Students could not summarize the content in their own words and expression.	43%	7%
Students partially summarize the passage in bits and pieces.	57%	70%

Table 4 shows that students could summarize the content in their own words and expression. Pre – Test and Post Test difference was 23%. Moreover the students could not summarize the content in their own words and expression the difference was 43% in Pre-test while in Post-test it was decreased to 7% Whereas under the category students partially summarize the passage in bits and pieces are 13% improvement.

Table 5 . Students Predicting Skills

The statements about their summarizing skills	Pre - Test	Post - Test
Students could summarize the content in their own words and expression.	0%	23%
Students could not summarize the content in their own words and expression.	43%	7%
Students partially summarize the passage in bits and pieces.	57%	70%

Table 5 shows that students could predict the text ending by find the contextual meaning of crucial vocabulary Pre – Test and Post Test difference was 10%. Moreover, the students could not predict the text ending and find the contextual meaning of crucial vocabulary the difference was 0%. Whereas, under the category students could partially predict the text ending and find the contextual meaning of crucial vocabulary are 10% decrease has been observed.

Table 6 . Students Visualizing Skills.

The statements about their visualizing skills	Pre - Test	Post - Test
Students could visualize the content.	0%	7%
Students could not visualize the content	10%	10%
Students could partially visualize the content.	90%	83%

Table 6 shows that students could visualize the content there was 7% improvement. Moreover, the students could not visualize the content the difference was 0% .Whereas, under the category students could partially visualize the content are 7% was recorded.

Table 7 shows that learners stopped to review the text and monitored their learning in it. There was 4% improvement. Moreover, the learners' didn't monitor their understanding of the text the difference was 3% whereas under the category learners were partially involved in understanding the text are 4% was recorded.

Table 7. Students Monitoring Skills

The statements about their monitoring skills	Pre - Test	Post - Test
Learners stopped to review the text and monitored their learning.	10%	13%
Learners didn't monitor their understanding of the text.	17%	20%
Learners were partially involved in understanding the text.	73%	77%

Conclusions

In the Vocabulary section students' familiarity with the vocabulary of an unknown passage has considerably increased, their performance was better though to the researchers surprise in the post overall results also got affected but again in students' partial knowledge about vocabulary the ratio lessened.

In making connections students recalling existing knowledge with the passage have remarkably improved. Students relating the text with memorable moments of their lives also improved. None of the students anywhere could make connection stems of the text for inferences but students who could not utilize any of the three main components of making connections considerably declined and more difference can be seen.

Students response back to questions asked in the start, middle and end of the reading comprehension session has improved. Students could not at all summarize the content in their own words in the pre- test but later the overall performance improved too. Partial development in summarizing also improved and affected the performance overall. 0%.Students could predict the text ending and find the contextual meaning and crucial vocabulary, the students were aware of the mind stimulating prediction approach in pre-test however; the post- test only shows a good sign. The overall performance also got better. Partial understanding to predict the text ending decreased and they were finding difficulty in visualizing the content. Those who could not visualize performance remained the same while partially visualization of the content decreased. Learners stopped to review the text and monitored their learning improved. Whereas the learners monitoring their thoughtfulness of the transcript rose in the Post Test that means the performance further deteriorated. On the other hand the partial involvement of understanding the text has risen to 4%. It was observed that the child's performance solely depends on his interest in the teacher. If the teachers' way of instruction was not reaching out to the child's level of understanding things cannot make a remarkable difference.

Through this experimental study and the findings it was clear that the application of cognitive and meta cognitive skills bring a reasonable improvement in the child's vocabulary, ability of making connections, questioning techniques, summarization, prediction, visualization and monitoring methods.

Recommendations

In the light of findings, the researcher has given the following recommendations.

Bahria Foundation College and Schools should work in a more strategic manner and train their teachers to develop reading comprehension amongst students through cognitive and Meta cognitive strategies. Typical style of reading through translations should be avoided and teachers should incorporate the scale of comprehending, retrieval, monitoring and planning in their teaching style Teaching should not be one sided rather students involvement should be parallel as well. Teachers should be well prepared with their A.V aids for stimulating the child's thoughts to make him/her visualize, predict, summarize, question, monitor and make connections of the text and the new vocabulary. An additional course for teachers and parents was recommended to guide them through the process of teaching reading and developing charm and interest of reading in a child.

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