*IOSR Journal of Research & Method in Education (IOSR-JRME)*
*e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 1, Issue 6 (May. –Jun. 2013), PP 60-64*
*www.iosrjournals.org*

# The Study of Effect of Meta-Cognitive Strategy Training and Its Effect on Reading Performance of The 5th Standard Boy and Girl's Students of India

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***Abstract:*** *Research shows that training in Mata-cognition Strategies that are used to Improve Reading Disabilities have been successful or conclusive. The purpose of the present study was to study* ***of effect of meta-cognitive strategy training and its effect on Reading performance of the 5th Standard Boy and Girl's Students of India*** *. We have investigated the effect of Meta-cognitive strategy training through the use of explicit strategy instruction on Improve Reading Disabilities in 5th Standard students. To reach the goal of the study two groups of Reading Disabilities in 5th Standard students were randomly assigned to a control and an experimental group. The experimental groups received instruction on Meta-cognitive strategy training through a 14-week period of instruction. However, only the experimental group received Meta-cognitive strategy training during the course of training. The result of the study showed that explicit Meta-cognitive strategy training has a significant positive effect on Improve Reading Disabilities in 5th Standard students. The collected data were analyzed by using SPSS software.*
***Keywords: 5th*** *Grade Students, Learning Difficulties, Mete-Cognition, Reading Disorder, Student*

## I. Introduction

Awareness of Meta-cognitive skills can be gleaned through instruction. Teachers can help their students learn from reading: they can encourage students to take an active role in reading.

At The beginning of 1970s, following Flavell's suggestion that brain takes active role in learning, Mata-cognition was started to be studied extensively in the educational research area (Moseley, Elliot, Gregson and Higgins, 2005). The basic definition of Mata-cognition is "thinking about thinking" this term also includes knowledge about the nature of cognitive processes of learners, different cognitive tasks and strategies that can be used in these tasks. Moreover, it also includes monitoring skills. Indeed, according to Flavell (1979) Mata-cognition can be defined as "cognition of cognition" (Flavell, 1979). Based on this idea Flavell (1992) proposed that Mata-cognition can be taxonomically categorized as Meta-cognitive knowledge and Meta-cognitive experience. Meta-cognitive knowledge includes knowledge about person, task, and strategy variables. Person variable involves the learners' knowledge about their strength and weaknesses while the task variable comprises knowledge about task characteristics and demands. Knowledge about what strategies involves knowledge about what strategies will be more useful in achieving what goals and under which situations. Meta-cognitive experience, on the other hand, includes cognitive or affective conscious experiences relevant to ongoing cognitive processes. Meta-cognitive experiences are expected to happen in situations that promote emergence of thoughts and feelings about learners' own thinking. Therefore, Mata-cognition, which refers to conscious and intentional control of learners' cognitive processes, help students plan, monitor, and evaluate their learning in a way that directly improves their academic performance (Schraw & Moshman, 1995).

Mata-cognition plays an important role in reading. Mata-cognition has been defined as "having knowledge (cognition) and having understanding, control over and appropriate use of that knowledge" (Tei & Stewart, 1985). Thus, it involves both the conscious awareness and the conscious control of one's learning. In this Research, the implications of Mata-cognition will be studied it relates to learning reading and writing.

Appropriate use of Meta-cognitive learning strategies can contribute to the development of autonomy in distance learners, which is of paramount importance to their educational success (Zahedi&Dorrimanesh, 2008). Simsek and Balaban (2010) found a positive and significant correlation between the use of learning strategies and the level of academic performance in their research.

Heresko and Ride (1981) report that the study of meta-psychological variables used on students with learning disabilities disorder would lead up to a better realization of how the variables work and this causes an effective inference with education.

Related studies demonstrated that Mata-cognition has important roles in students' learning (Pintrinch, 2002). Researchers see meta-cognition as a tool that not only makes students involve in the learning process, but

also gives them responsibility for own their learning.
Learning is influenced by several factors including inadequate prior knowledge, poor study skills, and problems with maintaining sustained attention, cultural or language differences or the presence of a learning disability.
Learning disabilities range in severity and may interfere with the acquisition and use of one or more of the following:

- Oral language (e.g. listening, speaking, understanding).
- reading (e.g. decoding, phonetic knowledge, word recognition, comprehension).
- written language (e.g. spelling and written expression), and
- mathematics (e.g. computation, problem solving).

## II. Statement Of The Problem

Reading is a very complicated skill and one the main condition to gain the success nowadays. As compared with others disorders, disorder in reading allots a high percentage to itself. As Lion (1985) point out, almost 80% of children with learning disability disorder suffer from learning disorder in reading (Capolan and Sadoq, quoted by Porafkari, 1997).

In most cases the student disability in reading is not due to the intelligence or the brain or neural or environmental lesion, it is because of the unawareness of the cognitive and Meta-cognitive approaches. The learning condition is uncontrollable and it would be possible to train the student how to change or control their learning procedures.

In research the researcher seek for an answer to this question. If the Mata-cognition strategies training would assist the students with LD to revise their reading performance?

**Objectives Of Study**

The objectives of the research are:

1) The main goal of this research is The study of effect of meta-cognitive strategy training and its effect on Reading performance of the $5^{th}$ Standard Boy's Students of India
2) To know the influence of training with meta-cognitive strategies on students in the $5^{th}$ grade and comparing the result with control group.
3) To know the effect of training of meta-cognitive strategies to improve students reading skills in the $5^{th}$ grade.
4) To find out the effect of meta-cognitive strategies in both genders having reading disorder.

## III. Material And Methodology

**Design Of The Study**

This study was based on quasi-experimental design in which two groups are involved with one group receiving treatment. After the treatment, the test scores of two groups are compared to see the effectiveness of the treatment in the experiment group.

The independent variable in this study is the meta-cognitive strategy training and the dependent variable is the Reading performance of the experimental and the control group students.

**Participants**

The participants of the study were 12o of the $5^{th}$ Standard Boy and Girl's students, 60 in the experimental group and 60 in the control group, of India(Hyderabad) .

| | | |
|---|---|---|
| 120 students | (exp group)60 | (boys) 30 (girls)30 |
| | (cont group)60 | (boys)30 (girls)30 |

**Area Of The Study**

The study was carried out in Hyderabad City (Andhra Pradesh state, India).

**Population Of Study**

The target population of this research is girls and boys students with learning difficulties in reading who study in $5^{th}$ standard of Hyderabad (India).\

## IV. Sample And Sampling Techniques

The samples of study are the $5^{th}$ grade students of the Hyderabad city that consist 120 students. 60participants into the experimental group (30 boys and 30 girls) and 60participants into the control group (30 boys and 30girls).

## V. Instrument For Data Collection

**Intelligence test :** Raven's Colored Progressive Matrices Test .Raven test was developed by Penrose and Raven in 1938. Raven's colored progressive matrices test consists of 36 matrices divided equally into three sets (A, AB, B). The minimum of reliability of this test was reported 0.90 using split half method and 0.89 using test-retest method with two weeks interval

**Meta-cognitive Inventory:** The Junior Meta-cognitive Awareness Inventory (Jr. MAI, Version A) was developed by Dennison, Krawchuk, Howard, & Hil, Version A l(1996).(Jr. MAI, Version A) consists of 12 items with a three-choice response (never, sometimes, or always) for use with learners in grades 3 through 5.the internal consistency reliability of the Jr.MAI was .76(Sperling et al. (2002))

**Reading test:** This from consists of 200 words extracted from their school's books. Validity and content validity of reading test were approved with help of experts, teachers, and primary schools Fifth grade trainer. The reliability and coefficient confidence of reading test, 84% calculated (2004, Yaghobi).

## VI. Procedure Of The Study

In order to get data from the samples through the above instruments, the researcher administered the meta-cognitive strategy training on the experimental group boy and girl students. The collected data were analyzed by using SPSS software.

## VII. Findings And Conclusion:

- ✓ there is a significant difference between Pre-test and post-test mean errors in experimental groups, both boy girl, in Reading skills
- ✓ Comparison between Experimental groups of Indian boys and girls, Post-test, there is a significant difference between both Indian students boys and girls, in Reading skills.
- ✓ according to Comparison between Experimental and control groups Boy and Girl, Post-test, there show a significant difference between Experimental and control groups in reading skills

**First Hypothesis**: Pre-test ,post-test mean errors when compared in Experimental and control groups Indian students ,will not show significant difference in Reading skills.

**Table 1: Results of Reading Test in Sample**

| | Reading | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Boy | | | | Girl | | | |
| | Experimental Group | | Control Group | | Experimental Group | | Control Group | |
| | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| Mean | 41.97 | 31.97 | 41.90 | 42.23 | 38.83 | 27.43 | 38.97 | 39.10 |
| N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Std. Deviation | 3.67 | 3.17 | 3.76 | 3.59 | 2.59 | 2.71 | 2.55 | 2.14 |
| Std. Error Mean | .67 | .58 | .69 | .66 | .47 | .49 | .47 | .39 |
| T | 13.664 | | -.381 | | 19.185 | | -.213 | |
| DF | 29 | | 29 | | 29 | | 29 | |
| Sig. (2-tailed) | .000 | | .706 | | .000 | | .832 | |

As seen in Tables 1, mean errors decreased from pretest to posttest in experimental groups, both boy girl, This means is, there is a significant difference between Pre-test and post-test mean errors in Reading skills. This indicates that teaching of the Meta-cognitive strategies increased the reading's skills in Experimental group. Both related to control groups (who have not received Meta-cognitive strategies)boy and girl, there is not a significant difference between Pre-test and post-test mean errors students in Reading skills.

**Second Hypothesis:** Post-test scores for reading and writing skills will show no significant difference when experimental groups of Indian girls and boys are compared

**Table 2: Reading Marks Comparison between Experimental groups Boy and Girl, Post-test, India students**

| | N | Mean | Std. Deviation | Std. Error Mean | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|
| Experimental Group Boy India Post- Test | 30 | 31.97 | 3.17 | .58 | 5.954 | 58 | .000 |
| Experimental Group Girl India Post- Test | 30 | 27.43 | 2.71 | .50 | | | |

As seen in Tables 2, Comparison between Experimental groups of boys and girls students, Post-test, in Reading, was found to be t= 5.954, which is greater than the table value .000related to reading hence, This means is, there show a significant difference between both Indian students boys and girls, in Reading skills.

**Third Hypothesis:** Post-test mean errors when compared the Experimental and control groups boy and girl's students, will not show significant difference in reading skills

.

**Table 3: Reading Marks Comparison between Experimental and control groups Boy and Girl, Post-test, Indian students**

| | N | Mean | Std. Deviation | Std. Error Mean | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|
| Experimental Group Boy India Post- Test | 30 | 31.97 | 3.17 | .58 | -11.749 | 58 | .000 |
| Control Group Boy India Post- Test | 30 | 42.23 | 3.59 | .66 | | | |
| Experimental Group Girl India Post- Test | 30 | 27.43 | 2.71 | .50 | -18.498 | 58 | .000 |
| Control Group Girl India Post- Test | 30 | 39.10 | 2.14 | .39 | | | |

As seen in Tables 3, according to Comparison between Experimental and control groups Boy and Girl, Post-test, there show a significant difference between both Indian students Experimental and control groups when compared in reading skills.

## VIII. Discussion

This study explored the effect of meta-cognitive strategy training on Reading performance of the 5th Standard Boy and Girl's Students with learning disabilities in reading, at Hyderabad city.

**Suggestions:**

- Result of this study will help to better prepare learners to take up occupations in the community in future.
- Result of this study will help to better prepare learners with sufficient confidence and with the alertness to continue to improve through new information and knowledge.
- Researchers must consider the difference in the use of reading strategies among students with learning disabilities.
- Training of meta-cognition strategies helped the students to know why, when, and how to use the strategies. Gradually, they started to think meta-cognitively about the strategies they could use to improve their reading to become not only better listeners and readers, but also autonomous and strategic learners.
- Teachers can help learners use different metacognitive strategies to improvement Reading skills.
- Attempts to teach students to use metacognitive strategies have produced good results. However, before teaching students how to use metacognitive strategies, They should be trained on how to implement metacognitive strategies inside their classrooms.
- metacognitive reading strategy teaching should be a long term educational process, with constant attention and support over longer periods of time.
- Researchers must consider the difference in the use of meta-cognition strategies among students with and without disabilities.

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