



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2017; 3(12): 584-586  
[www.allresearchjournal.com](http://www.allresearchjournal.com)  
Received: 14-10-2017  
Accepted: 23-11-2017

**Asrafuf Mustafa Kamal**  
Assistant Professor, Pragati  
College of Education, Siliguri,  
West Bengal, India

## **A comparative study of cognitive strategy of learning disabled and normal students in inclusive schools**

**Asrafuf Mustafa Kamal**

### **Abstract**

Present study was undertaken to examine the level of cognitive strategy of learning disabled and normal students in inclusive schools. For this purpose, 60 students of age 15 were selected randomly from two inclusive school of West Bengal. "Cognitive strategy Inventory" by Dr. Praveen Kumar Jha was used to assess the level of cognitive strategies of learning disabled and normal students in inclusive school. Results indicate that there is a significant difference between the cognitive learning strategies of Normal & LD boys and there is a significant difference between the cognitive learning strategies of Normal boys & Normal girls.

**Keywords:** Cognitive strategy, learning disabled, normal students

### **Introduction**

Cognitive strategies are one type of learning strategy that learners use in order to learn more successfully. These include repetition, organising new language, summarising meaning, guessing meaning from context, using imagery for memorisation. All of these strategies involve deliberate manipulation of language to improve learning. Much of the research on CSI has focused on students with LD, but studies also have demonstrated its effectiveness for students with other disabilities such as spina bifida (Coughlin & Montague, 2010) and Asperger's Syndrome (Whitby, 2009). Additionally, research has determined that CSI can benefit many students without disabilities who struggle academically (e.g., Harris, Graham, & Mason, 2006; Montague, Enders, & Dietz, 2011b). CSI can facilitate both simple and complex tasks for learners and, thus, is appropriate for a variety of tasks across age groups.

Cognitive strategy as defined by Witkin (1971) is the characteristics self – consistent made of functioning, which individuals show in their perceptual and intellectual activities.

A cognitive strategy serves to support the learner as he or she develops internal procedures that enable him/her to perform tasks that are complex (Rosenshine, 1997). The use of cognitive strategies can increase the efficiency with which the learner approaches a learning task. These academic tasks can include, but are not limited to, remembering and applying information from course content, constructing sentences and paragraphs, editing written work, paraphrasing, and classifying information to be learned.

### **According to Read (2005)**

- Cognitive Strategy Instruction is effective for a variety of learners, but particularly students with learning disabilities
- Research shows that students who are actively involved in the education process have better retention, motivation and overall attitudes towards learning.
- CSI is flexible and can be used in combination with different self-regulation techniques. These techniques would need to be taught explicitly and combined in the modeling, memorizing, supporting, and independent performance stages.
- It will take a significant investment of time and effort in order to increase student performance to a level, where they are metacognitive and self-regulating

**Students with Learning Disabilities:** Cognitive Strategy Instruction is effective for a variety of learners, but particularly students with learning disabilities.

**Correspondence**  
**Asrafuf Mustafa Kamal**  
Assistant Professor, Pragati  
College of Education, Siliguri,  
West Bengal, India

Students with learning disabilities often do not develop the types of strategies necessary to successfully attack tasks.

One critical aspect of strategy instruction is to appreciate that children with learning disabilities have problems that go beyond academics, and that these problems can adversely affect academic performance. Many students, especially students with learning disabilities (LD), are ineffective and inefficient strategic learners. CSI enables students to become strategic and self-regulated learners (Dole, Nokes, & Drits, 2009; Pressley, Woloshyn, Lysynchuk, Martin, Wood, & Willoughby, 1990).

Research shows that students who are actively involved in the education process have better retention, motivation and overall attitudes towards learning. Many struggling learners may never develop strategies, will use ineffective or immature strategies, or fail to employ strategies all together. Strategy instruction can dramatically increase student performance.

CSI is flexible and can be used in combination with different self-regulation techniques. These techniques would need to be taught explicitly and combined in the modeling, memorizing, supporting, and independent performance stages. They would need to be incorporated into most of the process. Self-regulation can prove to be an effective way for students to monitor their own progress and see their improvements. It will take a significant investment of time and effort in order to increase student performance to a level, where they are metacognitive and self-regulating.

Some proponent of learning style believes that students learn more when they study in their preferred setting and manner (Dunn, Beaudry & Klavas, 1989) (Dunn & Dunn 1987) and there is evidence that very bright student need

less structure and preferred quit solitarians learning (Torrance 1986).

**So this is an attempt to identify different cognitive style among learning disabled and normal learners. The hypotheses are as follows**

1. There is no significant difference in the level of cognitive strategy of learning disabled and normal boys in inclusive school.
2. There is no significant difference in the cognitive strategy of learning disabled and normal girls.
3. There is no significant difference in the cognitive strategy of learning disabled boys and learning disabled girls.
4. There is no significant difference in the cognitive strategy of normal boys and girls.

**Method**

**Sample**

The sample consists of 30 learning disabled and 30 non Learning -disabled adolescents of age 15 each selected from two inclusive schools of West Bengal.

**Tool and Techniques**

A questionnaire “Cognitive strategy Inventory” by Dr. Praveen Kumar Jha was used in this study.

To test the hypotheses, T-test was applied for establishing the significant difference between the means. Therefore the investigator after calculating the means and standard deviation computed T – value.

**Results and findings**

**Table 1:** Mean, SD and t Value of cognitive strategies of Normal Boys & LD Boys

Group	Category	N	Mean	S.D	Obtained T- Value	Degree Of Freedom	Interpretation
Boys	Non L.D	15	90	4.8	3.04	28	S*
Boys	LD	15	85	4.5			

S\* = significant at 0.05 level of significance. In Table degree of freedom = 28 at 0.05 level, the value is 2.05.

In table 1, the value of obtained t test = 3.04 with df = 28, the given value of t test at the level of 0.05 = 2.05 and at the level of 0.01 = 2.76 since our obtained value of t-test is greater than the given t-test value at level of 0.05. Therefore our null hypothesis is rejected. So on the basis of obtained t-

value; we can say that there is a significant difference between the cognitive learning strategies of Normal & LD Boys. In the table the mean value clearly showing that the cognitive strategies of normal boys is much better than the cognitive strategies of LD boys.

**Table 2:** Mean, SD and t Value of cognitive strategies of Normal Girls & LD Girls

Group	Category	N	Mean	S.D	Obtained T- Value	Degree of Freedom	Interpretation
Girls	Non L.D	15	88	4.3	4.82	28	S*
Girls	LD	15	79.7	4.8			

In table 2, the value of obtained t-test = 4.82 with df = 28, the given value of t-test at the level of 0.05 = 2.05 and at the level of 0.01 = 2.76 since our obtained value of t-test at level of 0.05. Therefore our null hypothesis is rejected, that there is no significant difference between the cognitive strategies of Normal girls and LD girls. So we can say that there is a

significant difference between the cognitive learning strategies of normal & LD girls. As the table denotes that mean of normal girls is greater than that of LD girls. Therefore the cognitive strategies of Normal girls are better than cognitive strategy of LD girls.

**Table 3:** Mean, SD and t Value of cognitive strategies of LD Boys & Girls

Group	Category	N	Mean	S.D	Obtained T- Value	Degree of Freedom	Interpretation
Boys	LD	15	86.8	3.5	4.01	28	S*
Girls	LD	15	80.34	4.9			

S\* = significant at 0.01 level of significance. In T-Table degree of freedom = 28 at 0.05 level the value is 2.05 and at 0.01 level is 2.76

In table 3, the value of obtained t-test = 4.01 with  $df = 28$ , the given value of T-test at the level of 0.05 = 2.05 and at the level of 0.01 = 2.76. Since our obtained value of t-test at level of 0.05. Therefore our null hypothesis is rejected, that there is no significant difference between the cognitive strategies of LD boys and LD girls. So we can say that there

is a significant difference between the cognitive learning strategies of LD boys & girls. As the table denotes that mean of LD boys is greater than that of LD girls. Therefore the cognitive strategies of LD boys are better than cognitive strategy of LD girls.

**Table 4:** Mean, SD and t Value of cognitive strategies of Normal Boys & Girls

Group	Category	N	Mean	S.D	Obtained T- Value	Degree of Freedom	Interpretation
Boys	Non L.D	15	93	4.2	2.88	28	S*
Girls	Non L.D	15	88.9	3.3			

S\* = significant at 0.05 level of significance. In T-Table degree of freedom = 28 at 0.05 level the value is 2.05.

In table 4, the value of obtained t-test = 2.88 with  $df = 28$ , the given value of T-test at the level of 0.05 = 2.05 and at the level of 0.01 = 2.76. Since our obtained value of t-test at level of 0.05. Therefore our null hypothesis is rejected, that there is no significant difference between the cognitive strategies of LD boys and LD girls. So we can say that there is a significant difference between the cognitive learning strategies of Normal boys & Normal girls. As the table denotes that mean of normal boys is greater than that of normal girls. Therefore the cognitive strategies of normal boys are better than cognitive strategy of normal girls.

Thus, it may be concluded that cognitive strategies of learning disabled students are low as compare to normal students and both category of Boys i.e learning disabled as well as normal are having a better cognitive strategies as compare to learning disabled and non-learning disabled girls.

## References

1. Adam James F. Understanding Adolescence current Development In adolescent Psychology 3<sup>rd</sup> Edn 1976.
2. Bayliss Janet. Cognitive Strategies of Children with MPsy And Livesly J.J reading disability and normal readers In visual sequential memory 1970.
3. Cherkes Miriam Cognitive Development and cognitive Style Journal of learning Disabled 1983, 16.
4. Cherry K Hock. Learning Disabilities – Under Standing, Concepts, Characteristics and Issues Printic Hall Inc. Englewood Cliff New Jersey.
5. Danney Douclas R. Relationship of three Cognitive Styles. Dimensions of Elementary Reading Ability Journal 1974, 66.
6. Enrojott Grinnes. A Comparative Study of informative THERESE processing capacity and cognitive Styles in learning disabled and normally Achieving boys. A new piagetien 1981, 42.
7. Gerber Micheal M. Learning Disabilities and Cognitive Strategies, A case for training or containing problem solving– journal of Learning Disabilities 1983, 16.
8. Ghatiala Elizabeth. Conceptual Learning and Schruem Development Cognitive view. Good Enough. Exceptional Child. And Karp 1976.
9. Gulford JP Fundamental Statistics in Psychology and Education, 4<sup>th</sup> Ed. New York, Mcgraw Hill Book Co.
10. Hallahan Daniel P, Kauffman, James M. Exceptional children - An Introduction to special education, 4<sup>th</sup> edition, New Jersey, Prentice Hall, Englewood Cleffs 1988.
11. Hammil, Heigh Mc Nutt, Hasrsen. National joint committee for learning disabilities definition of learning disabilities.
12. Kogan. Cognitive Strategies in infancy and Early childhood 1976.
13. Leaner Janet Learning disabilities – 5<sup>th</sup> Edn. New York, Academic press 1980.
14. Matlin Marget Cognition. New Jersey, Printing halls 1983.
15. Mercer Cech D. Students with learning disabilities 2<sup>nd</sup> Edn. Columbus, Charles and Merrill Publishers co 1983.
16. Sahoo FM. Affective Sensitivity and Cognitive Strategies 1978.