



EFFICACY OF COGNITIVE STRATEGY INSTRUCTION IN TEACHING ENGLISH TO STUDENTS WITH LANGUAGE LEARNING DISABILITIES

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ABSTRACT

The present experimental study was undertaken with two objectives in view (i) to identify students with language learning disabilities and to apply Cognitive Strategy Instruction in the teaching learning process of students with language learning disabilities and (ii) to measure the effectiveness of Cognitive Strategy Instruction with special reference to students with language learning disabilities. Two matched groups of students with language learning disabilities were constituted for the purpose of this experiment and a normal group comprising average and above average students was also formed in order to assess how far Cognitive Strategy Instruction enables the students with language learning disabilities to cope with normal students. The control group and the normal group were taught through traditional lecture method while the experimental group was taught through Cognitive Strategy Instruction. The obtained results show that the Cognitive Strategy Instruction was more effective than the traditional lecture method in teaching and learning of English with respect to the students with language learning disabilities and it enabled the students with language learning disabilities to cope with normal students to a considerable extent.

KEYWORDS :

INTRODUCTION

The problem that every educator invariably encounters in teaching every subject, at every grade level of our educational system is how to teach a lesson to a class that consists of students with different skills, learning rates and learning styles. Accommodating instruction to individual differences is one of the most fundamental problems and the foremost task of any teacher. The problem of accommodating instruction to individual differences is so important that many educators have subtly suggested that instruction must be completely individualized so that every student can learn independently at his or her own rate.

Tansley and Panckhurst (1981) defined the learning disabled students as those students who in the absence of sensory defect or overt organic damage have intractable learning problems in one or more of reading, writing, speaking, and mathematics and who do not respond to normal teaching. According to Kirk (1976) the language learning disabled students are those students who have disorders in development in language speech, reading and associated communication skills needed for social interaction.

These students with language learning disabilities are marked for disorders of attention, hyperactivity and impulsivity, memory disorder, and disorders in listening, reading, writing and spoken language. Besides, these students exhibit poor social and interpersonal skill, visual perceptual deficit, auditory perceptual deficit and motor deficiencies. As a result, they lag behind in learning and using language. But, these students with language learning disabilities constitute such a considerable percentage of student population that they cannot be ignored. Also, one cannot conceive of any all-round national development without ensuring adequate human resource development of the disabled, deprived and disadvantaged students in every classroom. Effective and optimum utilization of other resources also depends on the degree of human resource development. Children of today are the citizens of tomorrow and they are going to be the pillars of this country. Hence, it is very essential to ensure that each pillar is as strong as the other. This warrants a special teaching learning strategy for the students with language learning disabilities.

COGNITIVE STRATEGY INSTRUCTION

Cognitive Strategy Instruction (CSI) is an instructional approach which emphasizes the development of thinking skills and processes as a means to enhance learning. The objective of Cognitive Strategy Instruction is to enable all students to become more strategic, self-reliant, flexible and productive in their learning endeavours (Scheid

1993). Cognitive Strategy Instruction is based on the assumption that there are identifiable cognitive strategies, previously believed to be utilized by only the best and the brightest students, which can be taught to most students (Halpern, 1996). Uses of these strategies have been associated with successful learning (Borkowski, Carr & Pressley, 1987).

Cognitive Strategy Instruction is effective for a variety of learners, particularly for students with learning disabilities (Conley, 2008; Sivaram, 2009). Cognitive strategy instruction 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 modelling, memorizing, supporting and independent performance stages. The self-regulated strategy development (SRSD) model stresses the need to provide students with essential metacognitive knowledge of the strategies. Students must understand how a strategy works and why each step in the strategy is performed. The self-regulated strategy development model enables students to understand the process of the strategy. Many struggling learners may never develop strategies, may use ineffective or immature strategies, or fail to employ strategies altogether. Strategy instruction can dramatically increase student performance, if employed properly (Scheid, 1993; Naglieri and Johnson, 2000).

NEED FOR THE STUDY

Cognitive Strategy Instruction enables the learners to restructure the new information and their prior knowledge into new knowledge about the content. It enables them to practice it by way of using it. This type of approach is highly beneficial to learning disabled students (Sivaram, 2009).

In Cognitive Strategy, the student remains an intelligent participant in knowledge acquisition. This type of active participation enhances the involvement and achievement of the students with language learning disabilities in the learning process.

Cognitive Strategy Instruction enables the learners to care deeply about their own education and to learn to monitor and discuss their own learning. Cognitive Strategy Instruction further makes the learners collaborate with other students to discuss and construct a frame work of knowledge that can be applied to new situations. Self monitoring, discussion and collaboration are certain techniques which activate the learning process of the students with language learning disabilities.

Research evidences (Connley, 2008; Iqbal, 2012; Vetrisevi, 2012) reveal that the students have the opportunity to remember upto 50% of the content of each class session when cognitive strategy is applied. So this strategy is very useful to the students with language learning disabilities who are poor in retention. Systematic researches are therefore necessary to apply Cognitive Strategy Instruction and to assess its effectiveness with reference to students with language learning disabilities. This action research is an earnest attempt in this regard.

OBJECTIVES

The main objective of the study was to apply Cognitive Strategy Instruction for English subject of Class XI and to assess its effectiveness with special reference to students with language learning disabilities. Keeping the above main objective in mind, the following specific objectives were framed.

- i) To find out whether there is any significant difference in the performance of the control group students with language learning disabilities and the performance of the experimental group students with language learning disabilities between before and after the experimental treatment.
- ii) To assess whether there is any significant difference in the performance between the control group students with language learning disabilities and the normal group students when English is taught through the traditional lecture method.
- iii) To measure whether there is any significant difference in the performance between the experimental group students with language learning disabilities and the normal group students taught through the traditional method.

Hypotheses of the Study

- i) There is no significant difference in the performance of the control group students with language learning disabilities between pre-test and post-test, when the subject is taught through the traditional lecture method.
- ii) There is significant difference in the performance of the experimental group students with language learning disabilities between pre-test and post-test when English is taught through Cognitive Strategy Instruction.
- iii) There exists significant difference in the post-test performance between the control group students with language learning disabilities and the experimental group students with language learning disabilities.
- iv) There exists significant difference in the post-test performance between the control group students with language learning disabilities and the normal group students.
- v) There is no significant difference in the post-test performance between the experimental group students with language learning disabilities and the normal group students.

METHODOLOGY

The various steps followed in the methodology of this study are construction of research tool, identifying students with language learning disabilities, sampling technique, design of the study, applying Cognitive Strategy Instruction for English subject of class XI, administration of the tool for pre-test and post-test and employing appropriate statistical techniques for arriving at scientific conclusions.

CONSTRUCTION OF TOOL

To measure the performance of the students before and after the experiment, an achievement test was constructed by the investigator on the basis of item analysis. The content validity of the tool by expert opinion, item validity by item analysis and the reliability of the tool by split half method were established.

Identifying learning disabilities students

For the purpose of this investigation the students with language learning disabilities were identified on the basis of curriculum based assessment and their performance in the diagnostic tests.

SAMPLE DESIGN

For the purpose of this investigation, 50 students with language learning disabilities of Class XI from TNPMMN Higher Secondary School, Dalavaipuram were selected as stated above. Out of the fifty students with language learning disabilities finally selected for the study, two groups were formed following systematic random sampling technique. They were placed in the order of merit. All the odd number students formed the control group while the even number students constituted the experimental group. To see whether both the groups were matched ones or not, mean and standard deviation were calculated for their half yearly exam scores. Then t-test was applied. The obtained t-value (0.62) revealed that both the groups were matched ones before the experiment. The control group was taught through the traditional lecture method and the experimental group was taught through Cognitive Strategy Instruction.

To assess how far this Cognitive Strategy Instruction enabled the students with language learning disabilities to cope with normal students, a normal group comprising average and above average students was also formed. For this group, out of 200 students every eighth student was selected on the basis of systematic random sampling technique. This normal group was also taught through the traditional lecture method only.

DATA COLLECTION

The experiment was conducted for a period of thirty working days. At the end of the experimental period, a post-test was conducted to the students of the experimental group, the students of the control group and the students of the normal group. The responses given by these three groups in pre-test and post-test formed the vital data required for analysis.

SCORING PROCEDURE

The achievement test consisted of 100 objective type questions. These test items were selected on the basis of item analysis. The total score of the test was 100. For each correct answer, the score was one and for each wrong answer, the score was zero.

Statistical Techniques used in the Study

The data thus obtained were then analyzed by using appropriate statistical techniques such as mean, standard deviation and t-test.

Findings and Conclusions

1) There is no significant difference in the performance of the control group students with language learning disabilities taught through traditional lecture method between pre-test and post-test. Though their performance is better in the post-test, they could not make any significant difference (refer table 1).

Table 1 Pre-test and Post-test Scores Analysis of Control Group Students with Language Learning Disabilities

Name of the Test	N	Mean	SD	Calculated t-value
Pre-test	25	22.53	5.24	1.41@
Post-test	25	24.81	6.17	

Note: @ not significant at 0.05 level

2) There is significant difference in the performance of the experimental group students with language learning disabilities between pre-test and post-test when the subject is taught through Cognitive Strategy Instruction. Further, their achievement is higher in post-test than in pre-test (refer Table 2)

Table 2 Pre-test and Post-test Scores Analysis of Experimental Group Students with Language Learning Disabilities

Name of the Test	N	Mean	SD	Calculated t-value
Pre-test	25	22.21	5.23	11.21 **
Post-test	25	44.51	8.44	

Note: ** significant at 0.01 levels

Moreover, an analysis of the rate of progress made by both the control group and the experimental group throws light on the effectiveness of the Cognitive Strategy Instruction in teaching English to students with language learning disabilities. From a meager mean score of 22.21 in the pre-test, they could gain an impressive mean score of 44.51 in the post-test, which is more than double the pre-test mean score. But the control group students with language learning disabilities could not make significant mean gain in post-test. This vouchsafes the advantage of Cognitive Strategy Instruction over the traditional lecture method with special reference to students with language learning disabilities.

3). There is significant difference in the post-test performance between the control group students with language learning disabilities taught through the traditional lecture method and the experimental group students with language learning disabilities taught through Cognitive Strategy Instruction. Further, the achievement of the experimental group students with language learning disabilities is higher than the achievement of the control group students with language learning disabilities.(refer Table 3).

Table 3 Post-test Scores Analysis of Control Group and Experimental Group Students with Language Learning Disabilities

Name of the Group	N	Mean	SD	Calculated t-value
Control Group	25	24.81	6.17	9.43**
Experimental Group	25	44.51	8.44	

Note:** significant at 0.01 level

Moreover, the rate of progress made by the experimental group students is higher than that of the control group students. In terms of percentage, the rate of progress shown by the experimental group students taught through Cognitive Strategy Instruction is 100.41 percent, while the rate of progress made by the control group students is 10.12 per cent. The variation in the rates of progress made by both the groups is the resultant product of implementation of Cognitive Strategy Instruction and it vouches for the effectiveness of Cognitive Strategy Instruction with special reference to students with language learning disabilities.

4) .There is significant difference in the post-test performance between the control group students and the normal group students. Further, the achievement of the normal group students is higher than the achievement of the control group students with language learning disabilities (refer Table 4)

Table 4 Post-test Scores Analysis of Control Group and Normal Group

Name of the Group	N	Mean	SD	Calculated t-value
Control Group	25	24.81	6.17	13.50**
Normal Group	25	51.67	7.82	

Note:** significant at 0.01 level

The mean value (24.81) obtained by the control group students with language learning disabilities in the post-test reveals that they could make an average mean gain only and they could not narrow down the gap between them and the normal group students. It means that the traditional lecture method could not enable the control group students with language learning disabilities to cope with the normal students.

5) There is significant difference in the post-test performance between the experimental group students with language learning disabilities and the normal group students. The achievement of normal group students is higher than the achievement of experimental group students with language learning disabilities (refer Table 5).

Table 5 Post-test Scores Analysis of Experimental Group and Normal Group

Name of the Group	N	Mean	SD	Calculated t-value
Experimental Group	25	44.51	8.44	3.11**
Normal Group	25	51.67	7.82	

Note:** significant at 0.01 level

However, a critical analysis of mean values signifies that the experimental group students with language learning disabilities significantly improved their achievement after the experiment. Moreover, the Cognitive Strategy Instruction enabled the experimental group students with language learning disabilities to cope with normal students to a considerable extent. The narrowed down gap of difference between both the groups bears testimony to the effectiveness of the Cognitive Strategy Instruction. Further, a comparative study of Table-4 and Table-5 testifies to the advantage of Cognitive Strategy Instruction over the traditional lecture method.

CONCLUSIONS

The above analysis and the findings lead to the conclusion that Cognitive Strategy Instruction is more effective than the traditional lecture method in teaching English to the students with language learning disabilities. Further, the strategy enables the students with language learning disabilities to cope with normal students to considerable extent. Hence, this strategy can be applied as a viable instructional strategy in inclusive setting.

IMPLICATIONS

1)The results of the study have established that Cognitive Strategy Instruction is more effective than the traditional lecture method in teaching English of Class XI to the students with language learning disabilities. When, it is very effective to the students with language learning disabilities, it has to be equally effective, if not more effective, to other backward students like under-achievers, low achievers, and slow learners etc.

2)Since the use of the Cognitive Strategy Instruction enhances the achievement of students with language learning disabilities, it would diminish wastage and stagnation in our schools. Therefore, necessary orientation may be given at District Institute of Education and Training level so that awareness can be created among primary school and high school teachers also and they would be able to identify and combat learning disabilities at the early stage itself.

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