

Constructivist Approach Enhances the Learning: A Search of Reality

Dr.(Ms.) Meenu Dev, Ph.D

Assistant Professor, College of Teacher Education (MANNU),NUH Mewat, Haryana, INDIA

Abstract

The primary aim of the study was to study the effect of constructivist approach of teaching on the learning of English Language on Primary School Students. The study consisted 60 students of class VI from Janta Brahmi Sr. Secondary School, Nathupur, Sonipat. A single quasi experimental pre-test and post-test design was applied in the present study. After conducting the pre-test in English Language subject the experiment was conducted. The group was taught the concepts related to English Subject. The researcher applied constructivist method in the experimental group as per the plan. The teacher acted as a facilitator of learning both inside and outside the classroom. Teacher-made test with multiple-choice objective type questions was used to assess the learners' achievement in pre-test, and post-test was carried out after three month of the experiment. The t values obtained revealed that constructivist method enhances the academic achievement and problem solving ability of the pupils.

Keywords: Constructivist Teaching, Learning, Achievement

INTRODUCTION

Education is the most important tool which has been evolved by the man for his own progress. It is, therefore, no wonder that all the dynamic and progressive nations demand an educational system that will take leadership in piloting and managing a future ensures a better life to all. In the context of developing countries, education will eventually have a great role in the process of sustainable development. Hence, the progress of any society depends mainly on the utilization the potential of its individuals and the best educational ideas in all disciplines of knowledge. Evidence shows that there has been an enormous advancement of knowledge in every field. In the history of civilization, knowledge and education both have always been predominant factors of progress. Presently India's educational purpose is the same that envisages to create a good and valued society and enlightened life for all its members and to use all the intellectual and natural resources. Education has been considered the most important and powerful instrument in achieving rapid development, technological progress and in creating a social order founded on values of freedom, socio-economic justice along with equal opportunities in all fields.

THE NATIONAL CURRICULUM FRAMEWORK (NCF) 2005

In education constructivism has become an appealing alternative to traditional process-product educational practices because it seems to address the criticisms of current educational practices, and it promises to deliver higher levels of literacy, multiple forms of literacy, self-reliance, cooperation, problem-solving skills, and satisfaction with school. Constructivism implies a new kind of pedagogy where the emphasis will be more on what students do than what teachers do, and where there will be performance assessment of student learning rather than standardized achievement testing (Elmore, 1991b; Resnick and Klopfer, 1989; Weinberg, 1989).

In the traditional classroom the main teaching model is direct instruction, meaning that the teacher's vital role in the classroom is to diffuse knowledge to pupils and students must directly grip information presented by the teacher (Rosenshine & Stevens, 1986; Good and Brophy, 1991). This process has been based on information processing theory (Rumelhart, 1980). The student's role is reception and compliance (Ausubel, 1963, 1968). In this model the teacher's performance in front of students is critical, and in many school districts teachers are evaluated for their ability to establish "effective" eye contact, use different kinds of questions, pause in explanations to allow pupil reflection, use of a variety of concepts, and redirect student question, and so forth—a process of disassembling knowledge into small bits for students to comprehend.

Presumably in the constructivist classroom it should be much different, where students, instead of the teacher, organize information, explore the learning environment, conduct learning activities, and monitor their own learning. Constructivism requires teachers to focus on depth of understanding and to assume a supporting or "reflective" role while students construct meaning for themselves and engage in critical thinking and problem solving.

The approach of behaviorism, focus on the desired changes in the behavior of students through drill and practice. Therefore, the main theme in testing the achievement of students remain the cognitive thinking based questions and creativity, reasoning, analytical thinking of students was not judged or was not given due importance.

Teacher can use different pedagogies as per the need of child and content like 'learner –centered' pedagogy means giving primacy to learners' experiences, their voices and their active participation. This

pedagogy involves/requires a teacher to plan learning in keeping with the children's psychological development and interest, responding to their physical, cultural and social preferences and needs. School pedagogic practices, learning tasks and text we creates for learners tend to focus on the socialization of the children and on the 'receptive' features of children's learning. Children's voices and experiences generally do not find expression in the class room. Instead teaches need to nurture and build on their active and creative capabilities –their inherent interest and abilities for the fullest and possible development.

Participation of the students in the learning activities organized by school is powerful and corrective strategies. It helps the teachers to meet their own ends. True participation starts from the experiences of both learners and teachers when children and teachers share their experiences without any fear and reflect on them, provide opportunity to learn about others who may not be the part of their own social reality. If children's experiences are to be brought into the class room, it is inevitable that issues of conflict will need to be addressed. To use conflicts as pedagogic strategy is to be enable children to deal with conflict and facilitate awareness of its nature and its role in their lives.

NEED AND SIGNIFICANCE OF STUDY

The traditional notion of English teaching, which intends to make individuals to gain the identity in communication depends on a teacher centered instruction, which grounds the belief that the best teaching occurs in a quiet teaching environment, where the teacher symbolizes the wisdom and the authority. Such a teaching notion abstracts the teacher from the classroom, uses the course book as only teaching material and requires the learners to study on their own. Though the eliminations of the traditional teaching are apparent, nowadays some skills such as updating, practicing, criticizing and analyzing the knowledge are gaining importance. The constructivist theory which plays an important role in the field of education recently arouses the interests of the experts in the field of language teaching in terms of designing a curriculum which enables the students to learn through practicing, problem solving and decision-making.

The present study was carried out to see the effect of constructivist problem based learning approach on academic achievement of Grade V students. The present study is a significant research as it emphasizes on student's autonomy, acceptance of student's involvement, effective dialogues between students and teacher and students and students in the form of discussion related to the various concepts of problem solving. It has been observed during the review of the literature that a very limited work has been carried out in the field of language particularly in English Primary level with regard to constructivist approach. The areas so far explored had been science, math etc. Thus, the researcher in the present study tried to implement the constructivist approach in language teaching particularly in English Teaching at primary stage..

METHODOLOGY

The study consisted 60 students of class V from Janta Brahmi Sr. Secondary School, Nathupur, Sonipat. A single quasi experimental pre-test and post-test design was adopted. After conducting the pre-test the experiment was conducted. Experimental group was taught the concepts related to English Subject. The researcher adopted constructivist method in the experimental group as per the plan. The teacher acted as a facilitator of learning both inside and outside the classroom. It is fairly to mention here that teacher also discussed with the students about the way they have learned and taught by the facilitator in the class.

A Self-made achievement test in English subject was administered on all the students in the sample. The test was conducted on two occasions - pre-test and as a post-test. The purpose of the pre- test was to examine the students' prior knowledge in order to provide a baseline for the experiment. The post- test was used to measure the students' academic performance after organizing the teaching based on constructivism approach.

OBJECTIVES

1. To identify learner's difficulties in English learning at primary level.
2. To study the effectiveness of the constructivist based approach on the learners' achievement.
3. To compare the academic achievement of the learners in pre-tests and post-tests.

HYPOTHESIS

There is no significant difference in the scores of the students achieved in pre-tests and post-tests.

OBJECTIVE 1: To identify learner's difficulties in English at primary stage.

1. The Investigator attempted to identify five broad areas of learners' difficulties. These areas were Comprehension, Writing, Punctuation, Pronunciation, Reading and Word Fluency.

Table 1 : Difficulties identified in the Areas of English Language in pre-test

S.No.	Areas	Area wise Items	Difficulty faced in no of Items	Percentage of Difficulties'
1.	Comprehension	18	14	77%
2.	Writing	17	12	70%
3	Punctuation	10	2	20%
4	Pronunciation	8	3	37%
5.	Reading and Word Fluency	15	09	60%
Overall Difficulty		68	40	58%

Interpretation: It may be seen from table -1 that students of primary level have more difficulties in the Comprehension i.e.77%, the next area of difficulties is writing i.e. 70% whereas in punctuation and pronunciation the difficulty was 20% and 37% respectively. The last observed area of difficulty was Reading and Word Fluency. i.e. 60%. Whereas overall difficulty in pretest was recorded 58%. Therefore it can be concluded that a number of items on Comprehensions could not be solved by a majority of students. Therefore it was a base line of the study to give students pedagogical inputs to enhance their basic concepts in language.

Table 2: Gain in Achievement in % in the Areas of English Language in Post-test after treatment

Pre Test Score				Post Test Score	
S.N.	Areas	Area wise Items	Difficulty faced in no of Items	Percentage of Difficulties'	
1.	Comprehension	18	8	44%	
2.	Writing	17	8	47%	
3	Punctuation	10	4	40%	
4	Pronunciation	8	4	50%	
5.	Reading and Word Fluency	15	05	33%	
Over All Difficulty		68	29	42%	

Table-2 reveals that after using constructivist approach of teaching, it was observed that the group gained tremendous improvement in English language. The score in Table no 2 is evident that only 42 % difficulty was recorded in their constructivist class. Therefore the class taught through constructivist approach has been able to minimize its difficulty in various concepts of English language.

Objective 2 : To study the effectiveness of the constructivist based approach on the learners' achievement.

Table 2 Mean scores, Standard Deviation, and t-critical value of pre test and post test effect of activity based remedial program on learners' achievement

Variable	Group	Mean	S.D.	df	t-value	Significant Level
Achievement In English	Pre test	30.5	3.5	58	3.89	*
	Post test	41.5	5.6			

*p< 0.01 level of significance

The mean score for pre-test is 30.5 as compared to the mean score 41.5 of the post-test. The standard deviation of pretest and posttest 3.5 are 5.6 respectively. The t-value (3.89) is highly significant at 0.01 level of significance. Therefore the null hypothesis that there is no significant difference in the score of the pre-test and post-test is rejected.

The result clearly indicates that constructivist teaching approach brings highly significant difference in the learners' achievement enrolled in elementary classes which at the important phase of cognitive development. The findings of the study revealed that constructivism has emerged as a learner-centered approach. The problem-based learning approach of constructivism made learning an active process, enhanced students' engagement and raised-up the achievements of students in English.

CONCLUSION

The students taught by using constructivist methods were also found to have a deeper comprehension of the learning process and outcomes, and as a result, became more critical than those in traditional classes. Several studies indicate that constructivist teaching is beneficial to developing students' perceptions of learning, in terms of independence in learning, coherence of concepts, and cognitive engagement (Chang 2005b; Elby, 2001).

This study found that innovative challenges might emerge when the teacher tries to eliminate weaknesses. While real-life examples seemed to be appreciated by most of the students, a few were concerned about the standard of the course, the completeness of interpreting the phenomena, and the coverage of the topics. While many students criticize the didactic way of teaching in elementary school, some of them may not be prepared to learn independently.

The validity we face in our schools is that the student population is becoming more and more varied. It is important that we should deliberately think about how to effectively teach our students. The implications of constructivism approach for how teachers teach and learn to teach are enormous. If our efforts in reforming education for all students are to be successful, we must give attention on students. Emphasis on student-centered learning may well be the most important contribution of constructivism.

References

- Ausubel, D. (1963). *The psychology of meaningful verbal learning*. New York: Holt, Rinehart, and Winston.
- Chang, W. J. (2005b). Impact of Constructivist Teaching on Students' Beliefs about Teaching and Learning in Introductory Physics, *Canadian Journal of Science, Mathematics & Technology Education*, 5(1), 95-109.
- Elby, A. (2001). Helping physics students learn how to learn. *Physics of Education Research, American Journal of Physics Supplement*, 69(7), S54-S64.
- Elmore, R.F. (1991a). Paradox of innovation in education: Cycles of reform and the resilience of teaching. Unpublished manuscript, Harvard University, Cambridge, MA.
- Good, T.L. & Brophy, J.E. (1991) *Looking in Classrooms*, (5th Ed.). New York: Harper Collins.
- NCERT (2005) *National Curriculum Frame Work*. National Council of Educational Research and Training . New Delhi
- NCTE (2009) *National Curriculum Framework for Teacher Education* NCTE. New Delhi
- Resnick, LB., & Klopfer, L.E. (1989). Toward the thinking curriculum: An overview. In *Toward the thinking curriculum: Current cognitive research*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Rosenshine, B. and Stevens, R. (1986). Teaching functions. In (M.C. Wittrock, ed.) *Handbook of research on teaching* (3rd ed.). New York: Macmillan Publishing Co.
- Rumelhart, D.E. (1980). Schemata: The building blocks of cognition. In R.J. Spiro, B.C. Brace, & W.E Brewer (Eds.), *Theoretical issues in reading comprehension: Perspectives from cognitive psychology, linguistics, artificial intelligence, and education*. Hillsdale, NJ: Erlbaum, 33-58.
- Rumelhart, D.E. (1980). Schemata: The building blocks of cognition. In R.J. Spiro, B.C. Brace, & W.E Brewer (Eds.), *Theoretical issues in reading comprehension: Perspectives from cognitive psychology, linguistics, artificial intelligence, and education*. Hillsdale, NJ: Erlbaum, 33-58.