

Constructivism and its Influence on Teaching Learning of English Language on the Students of Lower Primary Stage – A Study

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ABSTRACT

As we all are aware that Piaget's theory of constructivist learning has a wide ranging impact on learning theories as well as teaching methods in education. In fact, it is considered as an underlying theme of education reform movement. Self learning is better than being taught-- it is well known fact, but in our system of education, scope for self learning is very less and the teacher is still playing the vital role to put his knowledge and ideas on students' mind. Against to this, constructivism theory gives importance on self learning and construction of knowledge by the learners from their own angle of thinking, observation, reasoning and experience. Keeping this fact in view, the investigators felt the need of a study on constructivism and how it influences on teaching-learning process special for the subject English. The study area is Kaliabor subdivision under the Nagaon district of Assam, India. 100 samples has been selected through purposive sampling method. Parallel group experimental design was adopted in the present study of investigation.

Key Term:

Constructivistic method, teaching learning, English language.

INTRODUCTION:

The constructivism is a philosophical viewpoint about the nature of knowledge. There are many flavors of constructivism. The most prominent theorist was Jean Piaget, who focused on how humans make meaning in relation to the interaction between their experiences and their ideas. The concept of constructivism has influenced a number of disciplines like-education, psychology, sociology, science etc. It is heartening to note that Piaget's theory of constructivist learning has a wide ranging impact on learning theories as well as teaching methods in education. In fact, it is considered as an underlying theme of education reform movement. At present, this philosophy is widely accepted and discussed topic among researchers.

Earlier the play and exploration were totally regarded as aimless and given little importance. But Jean Piaget had brought revolutionary change in this field. He considered play as an important as well as essential part of the child's cognitive development. At present constructivist theories are influential throughout the formal and informal learning. Besides many educationists like John Dewey, Maria Montessori, Lev Vygotsky, George Kelley. Jerome Bruner, Edgar Morine have recommended constructivism in the process of teaching learning. In this way, **constructivist teaching is based on constructivist learning theory**. Such teaching is based on the belief that learning occurs as learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Learners are the makers of meaning and knowledge. Piaget's constructivist teaching suggests that we learn by expanding our knowledge by experiences which are generated through play from infancy to adulthood that are necessary for learning. Many studies are being conducted on constructivism and its influence on students' achievement. The mentioned review of

literature makes it clearer. **Fatih Ayaz and Sekerci Hanifi (2015)** conducted a study on "the Effects of the Constructivist Learning Approach on Student's Academic Achievement: A Meta-Analysis Study". Their study revealed that the constructivist learning approach makes more significant contribution to learners' academic achievement than traditional learning methods. Therefore, teachers can use the constructivist learning approach to improve student academic achievement. Again, **Adak Samareesh (2017)** conducted a study on "Effectiveness of constructivist approach on academic achievement in science at secondary level". The study revealed that constructivist approach is an effective learning tool, which has significant effect on the achievement in science concepts among all psychological groups of students as well as Constructivist approach helps in achieving meaningful learning in science concepts among students. The constructivist classroom has its unique characteristics. In constructivist class room, students work primarily in groups and learning and knowledge are interactive and dynamic also. It focuses on social and communication skills along with collaboration and exchange of ideas. **Anand Vanita and Rana Vipasha (2018)** conducted a study on "A study of the effectiveness of constructivist approach in teaching learning of history in terms of retention" and they found that constructivist approach should be utilized in the teaching learning of History at the school as well as the pre-service teacher education level as well as for the desired shift required for constructivist teaching in the classrooms, the prospective teachers must be trained to apply constructivist approach to the classrooms.

Here the teacher's role is to prompt and facilitate discussion. Teacher's main focus is to guide students by asking questions that will lead them to develop their own conclusions on the subject. Another important point regarding constructivism is the unique types of assessment process. However in

constructivist teaching, the process of gaining knowledge is viewed as being just as important as the product. The assessment is based not only on test, but also on observation of the students, the student's work and their point of view.

NEED OF THE STUDY:

Primary stage of education is considered as the foundation stage of education process. Government has taken many measures to increase the literacy rate of people and also to make 100% enrolment of children in primary schools. District primary Education programme (DPEP), SarbaShikshaAbhijan (SSA) are among them which are trying to make universalization of elementary education a success. But in spite of such encouraging trend of development it is observed that most of the children's quality of learning is not up to the mark especially in the foreign language subject English. The main four objectives of English learning i.e. ability to understand and speak, read and write English are very poor among such children specially studying in the rural area school. It is proved that self-learning is better than being taught. Constructivism theory gives importance on self-learning and construction of knowledge by the learners from their own angle of thinking, observation and experience. For this reason the investigators felt the need of a study on constructivism and its influence on Teaching Learning of English Language on the Students of Lower Primary Stage.

OBJECTIVES:

The objectives of the present study are:

1. To study the status of English learning in conventional method by the students studying in 5th standard.
2. To study the status of English learning through Constructivist method by the students studying in 5th standard.
3. To compare the status of learning English by the students studying in 5th standard in conventional method with their learning status after having their learning in Constructivist method.

HYPOTHESES:

H4: Status of learning English in conventional method by the students studying in 5th standard is significantly different from their status of learning English after having their learning in Constructivist method.

STATEMENT OF THE PROBLEM:

On the basis of need and significance, the study has been entitled as- "*Constructivism and its Influence on Teaching Learning of English Language on the Students of Lower Primary Stage – A Study*"

DELIMITATION OF THE STUDY:

The present study is delimited to:

1. The children studying in 5th standard of lower primary schools.

2. The sample is delimited to ten (10) lower primary schools of Kaliabor subdivision under Nagaon District.

3. The sample is delimited to 100 students.

4. The present study is specially designed to study the differences in case of achievement of 5th standard students by providing two different methods i.e. conventional and Constructivist.

METHODOLOGY:

In the present study the investigators have adopted *parallel group experimental design*. Two equivalent groups were randomly selected from 5th standard of lower primary section on the basis of marks obtained in the pre-test. One group was treated as control group and the another as the experimental group.

SAMPLE:

The sample for the study comprised of 100 students, 50 in control group and 50 in experimental group from Nagaon (Rural) District through purposive sampling technique. To select the sample, a pre-test was administered on 150 students. Thus out of 150 students on whom the pre-test was applied, the investigator selected 100 students as final sample from Kaliabor sub division of Nagaon (rural) District for this study by purposive sampling technique. 50 students were selected for control group and 50 students were selected for experimental group. Marks secured by these 100 students are of similar type. Here pair to pair matching was done on the basis of their pre-test marks. Then Z-test was applied between the groups to find out the significance of the difference between the groups selected as control and experimental groups. Thus after selecting the sample for control group and experimental group i.e. 50 each, Z-test was applied. The table 1 given below shows the necessary statistics computed from the pre-test marks of the control and experimental group.

Table: 1

Necessary statistics computed from the pre-test marks of the control group and experimental group

Category	M	S.D.	N
Control Group	19.15	11.52	50
Experimental Group	19.08	11.44	50

For significance testing, Z-test was applied. Accordingly the result received from the Z-test is given below in a tabular form—

Table:2

Distribution showing the significance of the difference between control group and experimental group regarding their pre-test marks.

N1	N2	D	S.D.	Computed Z-value		Com puted Z-value	Interpreta-tion
				.05	.01		
50	50	0.07	2.3	1.96	2.58	0.030	Not Significant

From table 2 it is seen that the computed z value is less than the critical values at both the 1% and 5% levels. So it can be said that there is no significant difference between the pre-test marks of control group and experimental group which indicates that the status of English learning of the selected students of control group and experimental group is equal.

SAMPLE SELECTIONPROCEDURE:

For the study, the investigators selected 100 students from 10 schools. Out of which,3 schools were taken from Hatbor educational block, 3 schools from Kuwaritol educational block and 4 schools from Jakhlabondha educational block. It is to be mentioned here that a number of 10 students securing similar marks in pre-test were taken as sample from each school. One particular lesson from English subject was selected which was already completed by their class teacher.

After selecting sample for both the groups i.e. control group and experimental group, the treatment period was started. The control group was taught by the oneinvestigator through conventional method and the other group was taught by another investigator in constructivist method where self-learning was encouraged and the investigator played the role of a facilitator in the classroom.

TOOLS USED IN THE STUDY:

Following tools were used for collection of data for the study-

- Self-prepared pre-test Questionnaires.
- Self prepared instructional materials of Englishsubject for 5th standard.
- Questionnaire for 1st formative evaluation
- Questionnaire for 2nd formative evaluation
- Questionnaire for summative evaluation on conventional method
- Questionnaire for summative evaluation on Constructivistic method

ANALYSIS AND INTERPRETATION OF DATA:

The data collected through the experiment can be analyzed and interpreted as below-

OBJECTIVE 1: To study the status of learning English in conventional method by the students studying in 5th standard.

To analyze and interpret this objective the following indicators were selected and shown below in different tables. The indicators were—

A. Understanding and speaking ability in English language

B. Writing ability in English language

C. Reading ability in English language

To test understanding and speaking, writing and reading abilities of the students in English language learned by conventional method, a test was applied. 100 marks (14 marks for understanding and speaking abilities, 16 marks for writing ability and 70 marks for reading ability) were allotted for this test. Marks were converted into percentage form i.e. 100. By looking into the range of marks received by 100 students class intervals were framed. Here frequency indicates the number of students got the level of marks indicated in the class interval. Accordingly the result received from the test is given below in tabular form ---

Table: 3

Marks wise distribution of the students regarding Understanding and speaking abilities in English language learned by conventional method—

Class Interval	Frequency	M	S.D
0-9	32	17.7	13.26
10-19	32		
20-29	10		
30-39	24		
40-49	2		
50-59	0		
60-69	0		
70-79	0		
80-89	0		
90-99	0		
Total	N= 100		

Interpretation: From table 3 it has been found that the mean score of 100 students of whole group in understanding and speaking abilities in English language is 17.7 and S.D. is 13.26. It is seen that highest no. of students (32) scores in understanding and speaking abilities were found between 0-9 marks and lowest no students (2) scores were found between 40-49 marks in conventional method.

Table: 4

Marks wise distribution of the students regarding Writing ability in English language learned by conventional method—

Class Interval	Frequency	M	S.D
0-9	34	17.1	12.34
10-19	30		
20-29	18		
30-39	12		
40-49	6		
50-59	0		
60-69	0		
70-79	0		
80-89	0		
90-99	0		
Total	N= 100		

Interpretation: From table 4 it has been found that the mean score of 100 students of whole group in writing ability in English language learned by conventional method is 17.1 and S.D. is 12.34. In case of writing ability, most of the students' (34 students) have obtained between 0-9 marks and lowest no students' (6 students) have obtained between 40-49 marks in conventional method.

Table: 5

Marks wise distribution of the students regarding Reading ability in English language learned by conventional method--

Class Interval	Frequency	M	S.D
0-9	16	22.9	10.48
10-19	30		
20-29	28		
30-39	8		
40-49	16		
50-59	2		
60-69	0		
70-79	0		
80-89	0		
90-99	0		
Total	N= 100		

Interpretation: From table 5 it has found that the mean score of 100 students of whole group in reading ability in English language learned by conventional method is 22.9 and S.D. is 10.48. In case of reading ability, most of the students' (30 students) scores were found between 10-19 marks and lowest no students' (2 students) scores were found between 50-59 marks in conventional method.

The understanding and speaking, writing and reading abilities of the students that indicate the status of learning English language is indicated by the M or Mean value. Here *greater the Mean value indicates better status*.

OBJECTIVE 2: To study the status of learning English in Constructivistic method by the students studying in 5th standard.

To analyze and interpret this objective the following indicators were selected and shown below in different tables. The indicators were—

- Understanding and speaking ability in English language
- Writing ability in English language
- Reading ability in English language

To test understanding and speaking abilities of the students in English language learned by constructivistic method a test was applied. 100 marks (10 marks for understanding and speaking abilities, 10 marks for writing ability and 30 marks for reading ability) were allotted for this test. Then the marks were converted into percentage form i.e. 100. By looking into the range of marks received by 50 students class intervals were framed. Here frequency indicates the number of students got the level of marks indicated in the class interval. Accordingly the result received from the test is given below in a tabular form ---

Table: 6

Markwise distribution of the students regarding understanding and speaking abilities in English language learned by constructivist method—

Class Interval	Frequency	Mean	S.D.
0-9	0	68.7	16.86
10-19	0		
20-29	1		
30-39	1		
40-49	5		
50-59	7		
60-69	13		
70-79	6		
80-89	12		
90-99	5		
Total	N= 50		

Interpretation: From table 6 it has found that the mean score of 50 students in understanding and speaking abilities in English language learned by constructivistic method is 68.7 and S.D. is 16.86. In constructivistic method most of the students' (13 students) scores in understanding and speaking abilities were found between 60-69 marks and lowest no students' (1 student) score was found between 20-29 marks.

Table: 7

Marks wise distribution of the students regarding writing ability in English language learned by constructivistic method—

Class Interval	Frequency	M	S.D
0-9	0	56.9	18.5
10-19	1		
20-29	2		
30-39	5		
40-49	12		
50-59	7		
60-69	10		
70-79	8		
80-89	2		
90-99	3		
Total	N= 50		

Interpretation: From table 7 it has found that the mean score of 50 students in writing abilities in English language learned by constructivist method is 56.9 and S.D. is 18.5. In constructivist method most of the students' (12 students) scores in writing abilities were found between 40-49 marks and lowest no students' (1 student) score was found between 10-19 marks.

Table: 8

Marks wise distribution of the students regarding reading ability in English language learned by constructivistic method—

Class Interval	Frequency	M	S.D
0-9	0	64.3	16.73
10-19	0		
20-29	0		
30-39	1		
40-49	13		
50-59	7		
60-69	9		
70-79	9		
80-89	7		
90-99	4		
Total	N= 50		

Interpretation: From table 8 it has found that the mean score of 50 students in reading ability in English language learned by constructivistic method is 64.3 and S.D. is 16.73. In case of reading ability, most of the students (13 students) scores were found between 40-49 marks and lowest no students' (1 student) score was found between 30-39 marks in constructivistic method

The understanding and speaking, writing and reading abilities of the students that indicate the impact of constructivistic method of learning English language by the M or Mean value. Here greater mean value indicates better status.

OBJECTIVE 3: To compare the status of learning English by the students studying in 5th standard in conventional method with their learning status after having their learning in Constructivistic method.

Hypotheses4: Status of learning English in conventional method by the students studying in class V is significantly different from their status of learning English after having their learning in Constructivist method.

To indicate the difference between conventional method and constructivistic method following indicators has been selected such as—

- Understanding and speaking ability in English language
- Writing ability in English language
- Reading ability in English language

To compare the understanding and speaking abilities of the students in English language between conventional and constructivistic method a summative evaluation was administered on both control and experimental group. 100 marks (10 marks for understanding and speaking abilities, 10 marks for writing ability and 30 marks for reading ability) were allotted for this test. Marks were converted into percentage form i.e. 100. By looking into the range of marks received by 50 students class intervals were framed. Here frequency indicates the number of students got the level of marks indicated in the class interval. Accordingly the result received from the test is shown in tables given below ---

Table: 9

Marks wise number and percentage of students having understanding and speaking ability in English language between Control and Experimental group

Class Interval	Control Group		Experimental Group	
	Frequency	Percentage	Frequency	Percentage
0-9	8	16%	0	0
10-19	4	8%	0	0
20-29	15	30%	1	2%
30-39	11	22%	1	2%
40-49	8	16%	5	10%
50-59	4	8%	7	14%
60-69	0	0	13	26%
70-79	0	0	6	12%
80-89	0	0	12	24%
90-99	0	0	5	10%
Total	N= 50	100	N= 50	100

INTERPRETATION:

Table 9 shows that only 8% students' got highest scores in understanding and speaking abilities i.e. in between 50-59

marks and lowest 16% students got lowest scores of students were found in between 0-9 marks in conventional method and 10% students got highest scores in understanding and speaking abilities i.e. in between 90-99 marks and 2% students got lowest scores i.e. in between 20-29 marks in constructivistic method.

The table shows the difference between control group and experimental group. In control group students' scores are too less than experimental group. Experimental group's performance is better than the control group. It shows the impact of conventional and constructivistic method of teaching and learning on understanding and speaking abilities of English language.

Table: 10

Group wise number and percentage of students having writing ability in English language between Control and Experimental group

Class Interval	Control Group		Experimental Group	
	Done by	Percentage	Done by	Percentage
0-9	10	20%	0	0
10-19	15	30%	1	2%
20-29	7	14%	2	4%
30-39	11	22%	5	10%
40-49	5	10%	12	24%
50-59	2	4%	7	14%
60-69	0	0	10	20%
70-79	0	0	8	16%
80-89	0	0	2	4%
90-99	0	0	3	6%
Total	N= 50	100	N= 50	100

Interpretation: Only 4% students got highest scores in writing ability i.e., between 50-59 marks and lowest 20% students got lowest scores i.e. Between 0-9 marks in conventional method and 6% students got highest scores in writing ability i.e. between 90-99 marks and lowest 2% scores of students were found between 10-19 marks in constructivistic method

Table 10 shows the difference between control group and experimental group. In control group students' scores are lower than experimental group. Experimental group's performance is better than the control group and their performance gradually increased towards the highest level but control group's performance gradually decreased towards the lowest level. It shows the impact of conventional and constructivistic methods of teaching and learning on writing ability in English language.

Table: 11

Marks wise number and percentage of students having reading ability in English language between Control and Experimental group

Class Interval	Control Group		Experimental Group	
	Done by	Percentage	Done by	Percentage
0-9	2	4%	0	0
10-19	11	22%	0	0
20-29	8	16%	0	0
30-39	15	30%	1	2%
40-49	12	24%	13	26%
50-59	2	4%	7	14%
60-69	0	0	9	18%
70-79	0	0	9	18%
80-89	0	0	7	14%
90-99	0	0	4	8%
Total	N= 50	100	N= 50	100

Interpretation: Only 4% students got highest scores in reading ability i.e. between 50-59 marks and also 4% students got lowest scores of students i.e. between 0-9 marks in conventional method and 8% students got highest scores in reading ability that was found between 90-99 marks and 2% students got lowest scores of students were found between 0-9 marks in constructivistic method.

Table 11 shows the difference between control group and experimental group. In control group students' scores are lower than experimental group. Experimental group's performance is higher than the control group and also increased towards highest level but control group's performance is gradually decreased towards lowest level. It shows the impact of conventional and constructivistic method of teaching and learning on reading ability of English language

Table: 12

Distribution showing the significance of the difference between conventional and constructivistic method regarding learning English language.

Category	N	M	SD	Critical value		Computed z-value	Interpretation
				.01	.05		
Control Group	50	27.23	13.94	2.58	1.96	11.48	Significant
Experimental Group	50	63.3	17.36				

Interpretation:

From the table 12 it has been found that the computed 'z' value that is 11.48 is higher than both the critical value that is 2.58 at .01 levels and 1.96 at .05 level of significance. So the result indicates that there exists a significant difference between the status of students learning English in conventional and constructivistic methods.

CONCLUSION:

The present study conducted on influence of constructivism on teaching-learning of English has an important educational significance for teaching learning of English as a second language. It may facilitate the second language learners, language teachers, textbooks writers and evaluators in respect of their involvement in constructivistic based English language teaching at lower primary level and improve the students' language ability and skills. Hence the English teachers have to change their traditional way of teaching and adopt constructivistic based teaching to teach English in an effective way to accelerate self learning among lower primary school students for sustainable development and reduce English learning anxiety among the students to improve their achievement as it is a global language.

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