

An Analytic Study of Constructivist Approach in Classroom Teaching at Senior Secondary Level

**Dr. Vibha Kaushik*
***Dr. Radha Rani Saxena*

Abstract

Constructivism as a philosophy has a long history. Constructivism paradigm calls for a change in the classroom culture, attitudes, beliefs and practices. Role of the teacher in this paradigm is to value student's experience and voice. Role of the student changes from passive listener to active participant. In the constructivist classroom, student designs experiments, tests hypothesis, draws conclusions, compares his findings and results with those of others. In the constructivist classroom, teacher is a manager and organizer of the class. Evaluation methods also used performance based tests, concept mapping and Venn diagrams. Constructivist paradigm is a new culture, new environment in the class.

Key Words: *Constructive approach*

INTRODUCTION:

Education has always played an important role in shaping the destinies of societies through development of the whole individual and linking education to the task of social upliftment and national development within a highly competitive global scenario. The Indian nation is striving to build a society of humane, committed, participative and productive citizens who can shoulder the task of building an enlightened, strong and prosperous country. Modern India is a multicultural and multilingual society with an understanding of essential unity. Some of the important national goals as enshrined in the constitution are: secularism, democracy, equality, liberty, fraternity, justice, national integration and patriotism. Education today has the enormous task of the upliftment of the under privileged and their empowerment.

It is widely accepted that education, adequate in quality and scale, is the most powerful instrument for achieving goals of economic development, technological progress and also for establishing social cohesion. Education tends to create a social order based on values of freedom, social justice and equal opportunity. Simultaneously, it also fosters a deeper and harmonious form of human development which leads to reduction in poverty, ignorance, oppression and war. Education brings about modification in behaviour of an individual through continuous and intensive interaction with the environment.

**Assistant Professor, Suresh Gyan Vihar University, Jaipur*

***Professor, Suresh Gyan Vihar University, Jaipur*

Education by its very nature either influences or gets influenced by the total developmental process. However, the content and process of education need to be continuously renewed in order to keep them in tune with the changing needs, aspirations and demands of the society. Thus, education and society are interdependent and each reinforces the other.

The Indian Education System has undergone transitions in its centuries old traditions from time to time to achieve the highest essence of being educated. The gradual and progressive movement from idealism to realism then to pragmatism and finally to naturalism, shows a deliberative movement to bring education near to the nature-within and outside the individual. But these revolutionary changes didn't occur suddenly. It took the efforts of generations of revolutionary educators to bring us to the current stage of education as equal for all.

Whenever we talk about education the first thing that comes to our mind is a classroom that consists of teacher and students. Classroom is the filter through which the teacher's confidence, values and knowledge gets filtered in the learners. But traditional classroom practices were typically characterized by the teacher's strict and rigid imposition of classroom rules on the students, which are designed to evoke fear in students so that they would adhere to the teacher's expectations, so called imposition of strict ruling is inflexible and students with diverse backgrounds and disabilities often didn't respond well to this delivery. Subject matter was not upgraded quickly enough to keep students' skill and knowledge current; and instruction focused on memorization and less on higher level thinking skills. Thus one can conclude that in the traditional classroom practices the teacher was the centre of the teaching learning process which the student had a secondary role to play. However, the rise in chronic behavioural problems in the classroom such as disruptive behavior and non-compliance in recent years testifies to the ineffectiveness of these types of classroom management approaches. Over the last few decades, theorists, researchers and educators have developed various innovative classroom management models, which have proved to be effective in helping teacher address, interacting with students' help them to solve their problems in fun and positive way. With the popularization of Western philosophy of child centered pedagogy in the 21st century, new classroom practices have come into being. The underlying philosophy of this pedagogy is that the learner is at the centre of teaching-learning process and the role of teacher is that of a guide and facilitators. As cited in the report 'Learning without Burden', "Learning at school cannot become a joyful experience unless we change our perception of the child as a receiver of knowledge and move beyond the conventions of using text books as the basis for examination." This statement highlights the changing trend in education. This changing trend is thereby influencing the class-room practices to achieve the desired goal.

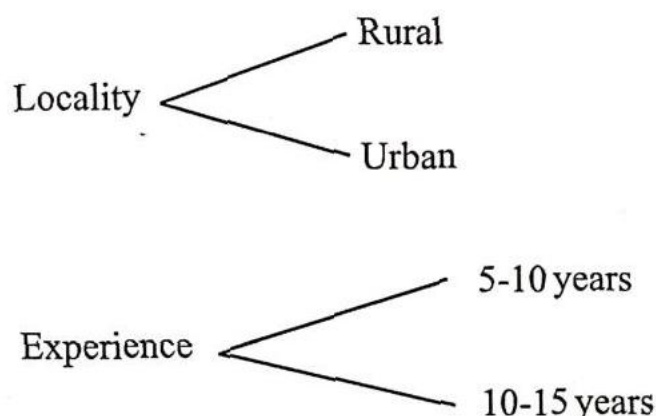
MEANING OF CONSTRUCTIVISM:

Constructivism is a theory which regards learning as an active process in which learners construct and internalize new concepts, ideas and knowledge based on their own present, past knowledge and experiences. Knowledge is constructed rather than received. According to NCF 2005, learners construct mental representations (images) of external reality through a given set of activities (experience); the structuring and restructuring of ideas are essential features as the learner progresses in learning. Here, the role of a teacher is that of a guide who directs the learning process towards desired result.

OBJECTIVES OF THE STUDY:

The present study purports to achieve the following objectives:

To study the favourable opinion of senior secondary teachers about use of constructivist approach in classroom teaching on the basis of -



Hypothesis 1: There is no significant difference in the favourable opinion between the urban and rural teachers on the use of constructivist approach at senior secondary level.

Hypothesis 2: There is no significant difference in the favourable opinion of teachers on the basis of teaching experience (5-10 years and 10 -15 years) for using constructivist approach at senior secondary level.

VARIABLES :

Independent variables: The independent variables are the conditions or characteristics the experimenter manipulates or controls in his or her attempt to ascertain their relationship to observed phenomena. In the present study, variables such as Locale (Rural and Urban) and teaching experience (5-10 years and 10-15 years)

Dependent variable: The dependent variables are the conditions or characteristics that appear, disappear, or change as the experimenter introduces, removes, or changes

independent variables. In the present study, use of Constructivist approach in classroom teaching is the dependent variable.

Method of the study: In this study, survey method is used.

Sample Design: The sample for the investigator consisted of 603 school teachers of senior secondary level in Jaipur district. The random sampling was applied. The rural and urban teachers were 253 and 350, while teachers having experience 5-10 years and 10-15 years were 201 and 201 respectively.

Statistical Analysis: The mean score, standard deviation of each category of data were found out. Then t-test was employed to test the hypothesis at 0.01, 0.05 level of significance.

RESULT AND DISCUSSION:

Hypothesis 1: There is no significant difference in the favourable opinion between the urban and rural teachers on the use of constructivist approach at senior secondary level.

Statistical measures regarding the favourable opinion of urban and rural teachers in favour on the use of constructivist approach in teaching:

Table IV-6: Favourable opinion of urban and rural teachers in favour on the use of constructivist approach in teaching

S. No.	Group	Number of teacher	Mean	S.D.	t-value	Level of significance	Status of Hypothesis
1.	Urban	350	96.07	807.50	11.45	0.01	Rejected
2.	Rural	253	71.09	617.79			

Table value at 0.05 level = 1.96, at 0.01 level = 2.58

Analysis And Interpretation:

The result clearly indicates in the above table that there is significant difference in the favourable opinion of using the constructivist approach between the teachers of urban and rural schools. The calculated t value 11.45 proves the difference because it is higher than the table value on both the levels (0.01, 0.05). The mean is higher of urban teachers than the rural teachers. So it can be concluded that the teachers of urban schools have the more favourable opinion on the use of constructivist approach of teaching in comparison to rural teachers.

So the null hypothesis is rejected.

Conclusion– The teachers of urban schools have more favourable opinion in comparison to rural school teachers.

Teaching Experience (5-10 years and 10-15 years)

Hypothesis 2: There is no significant difference in the favourable opinion of teachers on the basis of teaching experience (5-10 years and 10 -15 years) for using constructivist approach at senior secondary level:

Statistical measures regarding the favourable opinion of teachers on the basis of teaching experience (5-10 and 10 -15 years) in favour of the use of constructivist approach in teaching are shown in the table given below:

Table IV-8: Favourable opinion of teachers on the basis of teaching experience (5-10 years and 10-15 years) in favour of the use of constructivist approach in teaching

S. No.	Group	Number of teacher	Mean	S.D.	t-value	Level of significance	Status of Hypothesis
1.	5-10 years	201	58.70	525.44	.88	Insignificant	Accepted
2.	10-15 years	201	56.69	500.76			

Table value at 0.05 level = 1.97, at 0.01 level = 2.60

Analysis and Interpretation:

The result with respect to teaching experience (5-10 years and 10-15 years) of teachers of senior secondary based on the favourable opinion of using the constructivist approach in teaching shown in the above table. The result clearly indicates that there is no difference in the favourable opinion of teachers on the basis of teaching experience (5-10 years and 10-15 years) in schools for using the constructivist approach in teaching. Mean of teachers on the basis of teaching experience 5 -10 years is 58.70 with S.D. 525.44 whereas the mean of teachers on the basis of teaching experience 10-15 years is 56.69 with S.D. 500.76. The table value of t is 1.97 at 0.05 level and 2.60 at 0.01 level. The calculated t value is .88 which is less than the table value. It proves that there is no significant difference of favourable opinion between the teachers on the basis of teaching experience (5-10 years & 10-15 years) on the use of constructivist approach in teaching. It means that both the groups have the same level of favourable opinion about constructivist approach.

Hence the null hypothesis is accepted.

Conclusion : There is no significant difference in the favourable opinion of teachers on the basis of teaching experience (5-10 years and 10-15 years), which result that both the groups are equal in the favourable opinion of using constructivist approach in classroom teaching at senior secondary level.

Suggestions on the basis of findings –

Suggestions for the teacher –

1. The teacher should encourage and accept student autonomy and initiative for the construction of knowledge.
2. The teacher should use a wide variety of materials including raw materials and encourage students to use them and prepare also improvised material.
3. The teacher should enquire students understanding of concepts before sharing his/her own understanding of those concepts.
4. The teacher should encourage students to engage in dialogue with the teacher and with one another without hesitation and fear.
5. The teacher should assess students understanding through the process of doing work.

Suggestions for the Administration –

1. School administration should encourage and provide opportunities to the teaching staff to participate in seminars.
2. School administration should organize workshops, seminars and symposium in their schools.
3. School administration should provide necessary resources required for constructivist approach.
4. School administration should appoint active and committed teachers.
5. School administration should encourage teachers to use collaborative learning in the classroom situations.
6. School administration should have positive attitude towards new innovations in the field of teaching.

SUGGESTIONS:

1. This research can also be conducted on the university lecturers of academic and professional field.
2. The study of constructivist approach in classroom teaching can also be studied with respect to other variables such as designation, subject branch wise.

3. The sample for future research related to study of constructivist approach in classroom teaching can be taken from other regions of Rajasthan also.
4. In future researches, school teachers of residential schools can also be studied.
5. Reliability and validity of the tools can be established.

CONCLUSION:

Although constructivism is not a theory of teaching, it suggests taking a radically different approach to instruction from that used in most schools. Instructors need to realize that the best way to learn is not from lectures, but by letting the learners construct knowledge for themselves. People often say that everyone cannot learn. Yet the reality is that everyone does learn. Every person is born with a brain that functions as an immensely powerful processor. However traditional schooling inhibits learning by discouraging, ignoring, or punishing the brain's natural learning processes. In order for learners to be able to actively construct their own knowledge, rather than receive information transmitted by others, curriculum emphasis, classroom interactions, and classroom dynamics must change in major ways. Changing the traditional ways of schooling is not an easy task. Just as students do not easily let go their ideas, neither do schools board, principals, parents or even teachers.

In the field of education, constructivism is a very common word. There is much debate on whether teachers stick to traditional way by lecturing, or should they teach in constructive way, where the child has to construct the knowledge for themselves. Some may feel that the constructivist theory that was developed by many psychologists is the better and most effective way for their child to learn. The students should have a constructivist teacher along with a constructivist classroom to help them to discover new things for themselves. Constructivism promotes increased social interaction and discussion in the classroom, both between teachers and students and among students.

The constructivist propose several instructional strategies among them co-operative learning, collaborative learning. Problem based learning etc. are prominent. Therefore to keep pace with the changing circumstances, we should not keep ourselves aloof from new experiments in the field of education to make learning more effective and enjoyable experience for pupils. Clearly, the constructivist approach opens new avenue for learning as well as challenges for the teacher trying to implement it.

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