

EFFECTIVE INTEGRATION OF CONSTRUCTIVIST APPROACH IN TEACHER EDUCATION PROGRAM

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Introduction

Constructivism is a term that should be used with caution. It is widely used in many disciplines. This entry is about constructivism in education. But even in the more limited area of education, it is obvious that the term constructivism is used with very different meanings. It is used to describe learning and teaching as well as curricula and assessment. It is also used in a more philosophical or epistemological meaning. This entry will try to describe some of these different meanings. It will take an historical perspective, since this may shed light on the development of the use of the term constructivism, and some of the origins for the current, somewhat confusing situation. Particular emphasis will be given to science and mathematics education, mainly because the influence has been largest in these fields.

What is constructivism?

Constructivism as a theory of learning focuses on the learner's need to make sense of new information. Dewey approached it from a philosophical standpoint, Piaget from a biological and Vygotsky from a social perspective. Together, they emphasize the importance of looking at what the learner brings to a new experience as well as what the "out there" experience contains. The consultants on these films apply constructivist points of view to important topics in education.

Constructivism is basically a theory based on observation and scientific study about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge.

To do this, we must ask questions, explore, and assess what we know.

In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure she understands the students' preexisting conceptions, and guides the activity to address them and then build on them.



The Need and Significance of the Study

- I) For the challenges of 21st century, Constructivist Approach's training for Pupil teachers is essential.
- ii) It is important for Pupil teachers to acquire techniques of Constructivist Approach for interactive teaching.
- iii) The Constructivist Approach's integration in teacher education is the need of the hours.
- iv) The Constructivist Approach has the capacity to inculcate various values among the pupil teachers.
- v) This approach helps to create an atmosphere of cooperation and helping school wide
- vi) Constructivist approach develops oral communication, social interaction skills among the pupils

Objectives of the Study

- I) To study the efficiency of Constructivist Approach in Teacher Education Program.
- ii) To identify the feasibility of Constructivist Approach in Teacher Education Program
- iii) To apply the techniques of Constructivist Approach for the Teacher Education at B.Ed. level
- iv) To creates the awareness about use of Constructivist Approach in Teacher Education Program

Hypotheses of the study

a) Research Hypothesis

There is a significant difference between the performance of the trainees from group 'A' (Controlled Group) and group 'B' (Experimental Group).

b) Null Hypothesis

There is no significant difference between the performances of the trainees from group 'A' (Controlled Group) and group 'B' (Experimental Group).

Scope and Limitations of the Study

- i) Present study is related to the teacher education programme.
- ii) Present study is limited to only Pupil-teachers of B. Ed College from PVDT College of Education for Women
- iii) Present study is limited for teaching the Module forth from Paper III of Bachelor of Education Course.

Operational Definitions

Effectiveness Integration:

Effectiveness means the changes which are observed after implementation of the Constructivist approach. Effectiveness is tested on the basis of difference in the post test of Control Group and Experimental Group.

Constructivist Approach:

Constructivist approach is a way of instruction that has students working together in groups, usually with the goal of completing a specific task by using their previous knowledge. This approach can help students develop leadership skills and the ability to work with others as a team.

Teacher Education:

Teacher Education is the formal pre-service program that have been established for the preparation of teachers at the secondary-school level.

Research Procedure and Data collection

In this study, researcher has used experimental method.
And achievement test for the collection of data.

Sampling

Incidental sampling has been used for this research. Experimental and control were the two groups in the sample.

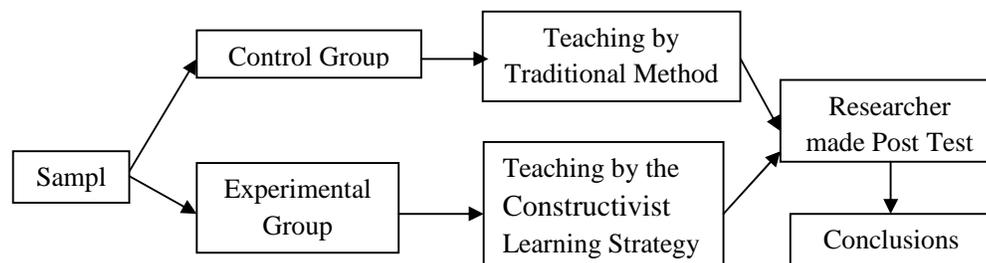
There were 25 students in both groups – experimental and control. Total sample was 50 students of B. Ed College.

Steps of Experimental method

- 1) Preparation of techniques of Constructivist learning for teaching Unit I.
- 2) Preparation of experimental programme
- 3) Sampling
- 4) Planning and implementation of experiments.
- 5) Analysis of data and testing the hypothesis
- 6) Conclusions and suggestions.

Experimental design

Two Equivalent Group experimental designs have been used for this research.



Variables

- 1) Independent variable - Constructivist Learning Approach
- 2) Dependent variable - Teacher Education



Tools for Data Collection

Researcher used achievement test. Objective type test based on content of Unit Third from Paper III of B.Ed Syllabus
Stages of programme preparation
To select suitable Module from B.Ed Syllabus
To decide the suitable techniques of Constructivist learning for this module
To plan the techniques
Expert's opinion and changes
To make final programme

Techniques of Constructivist Learning

Three-step Interview

Three-step interviews can be used as an ice breaker for team members to get to know one another or can be used to get to know concepts in depth, by assigning roles to students.

- Teacher assigns roles or students can "play" themselves. Teacher may also give interview questions or information that should be "found."
- A interviews B for the specified number of minutes, listening attentively and asking probing questions.
- At a signal, students reverse roles and B interviews A for the same number of minutes.
- At another signal, each pair turns to another pair, forming a group of four. Each member of the group introduces his or her partner, highlighting the most interesting points.

Roundtable

Roundtable structures can be used to brainstorm ideas and to generate a large number of responses to a single question or a group of questions.

- Teacher poses question.
- One piece of paper and pen per group.
- First student writes one response, and says it out loud.
- First student passes paper to the left, second student writes response, etc.
- Continues around group until time elapses.
- Students may say "pass" at any time.
- Group stops when time is called.

The key here is the question or the problem you've asked the students to consider. It has to be one that has the potential for a number of different "right" answers. Relate the question to the course unit, but keep it simple so every student can have some input.

Structured Problem-solving

Structured problem-solving can be used in conjunction with several other cooperative learning structures.

- Have the participants brainstorm or select a problem for them to consider.

- Assign numbers to members of each group (or use playing cards). Have each member of the group be a different number or suit.
- Discuss task as group.
- Each participant should be prepared to respond. Each member of the group needs to understand the response well enough to give the response with no help from the other members of the group.
- Ask an individual from each group to respond. Call on the individual by number (or suit).

One Minute Papers

Ask students to comment on the following questions. Give them one minute and time them. This activity focuses them on the content and can also provide feedback to you as a teacher.

- What was the most important or useful thing you learned today?
- What two important questions do you still have; what remains unclear?
- What would you like to know more about?

You can use these one minute papers to begin the next day's discussion, to facilitate discussion within a group, or to provide you with feedback on where the student is in his or her understanding of the material.

Implementation of teaching programme –

The researcher implemented a programme in 40 days and in between 15 lectures. (One lecture was of 60 minutes).

Analysis and Interpretation of Data

The collected data is analysed and interpreted with mean, standard deviation and 't' test. The conclusions and recommendations based on the collected analysed and interpreted data. Following is the table showing decision for acceptance of hypothesis.

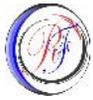
Group	No. of sample (N)	Mean	SD	't' Value
Control Group (A)	25	12.5	2.64	7.17
Experimental Group (B)	25	26.3	3.42	

The acquired 't' value is greater than sample 't' value

The acquired 't' value is significant. As a result, ICTPBL is more useful. So the null hypothesis is rejected.

Conclusions

- 1) The use of Constructivist learning approach impacts positively on the teacher education program.
- 3) It motivates Pupil-teachers for learning.
- 4) It improves Pupil-teachers' knowledge of Constructivist learning approach.
- 5) It able the Pupil-teachers to plan and implement practice lessons more efficiently.
- 6) It paves the attention towards the Constructivist learning approach



- 7) It develops knowledge and skills for effective teacher education programme.
- 8) It develops the ability of interest, attitude and creativity in the mind of Pupil-teachers.
- 9) It helps the Pupil-teachers to think, to act and to evaluate differently.

Recommendations

- 1) The teacher education institution should increase the use of Constructivist learning approach.
- 2) The Pupil-teachers should be provided with Constructivist learning approach based training.
- 3) The education institution should provide Constructivist learning approach resources for effective teaching learning process.
- 7) The Pupil-teachers should be introduced with various techniques of Constructivist learning.

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