

Effectiveness of Constructivist Learning & Traditional Teaching in Science

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Abstract:-The learning strategy in class room can be very effective in encouraging student interaction and consequently enhanced students achievement. The purpose of this study was an experimental research to examine the effectiveness of constructionist learning strategies and traditional teaching in science on achievement of student of eighth standard student in rural area. The random sampling was used to select 80 student who are learning in eighth standard. Two schools from rural area of Bramhapuri Taluka collected data was interpreted by using mean SD and t value. The student were found benefited learning through constructivist learning strategies. The student knowledge and achievement in science was increases after viewing the constructivist learning.

I. INTRODUCTION

The basic premise of constructivist way of learning lies in the concept that the learner (child/ individual alike) constructs his/her own knowledge. It then means the learner interact with the object things, phenomena, and persons etc. that are found in the immediate environment seen in this perspective the learner / student is an active agent in the construction of his/her own meaning/ knowledge. The aim of science Teaching & learning is to help the learners for receiving the information easily. Science subject is difficult to understand because some basic concepts of eighth standard student are not clear. There in need to develop innovative method for affective science learning. Constructivist Teaching is to be an innovative method of science. Constructivist learning method help the learner to learn science easily the objective of the problem is to develop competence & understanding the basic concept of science & it is very useful to the higher class also.

A. Objective

- To develop constructivist learning strategies for eighth standard students of rural area.
- To find out the effectiveness of constructivist learning strategies on achievement of eighth standard students of rural area.

B. Hypothesis

- There is no significant difference in learners science achievement of eighth std. students in rural area between pre & post test.

C. Population

- This is an experimental research for examining of effectiveness of constructivist learning & traditional teaching the eighth std. students in rural area form Gadchiroli District.

D. Sample for study

- The random sampling was used to select 80 students who are learning in eighth Std. of Marathi medium school. Two schools selected from rural area of Bramhapuri Taluka. 20 students of each school were taken as experimental group and 20 students of control group.

E. Tools

- The researcher developed constructivist learning approach followed by experimental group & Traditional method of teaching following by control group.

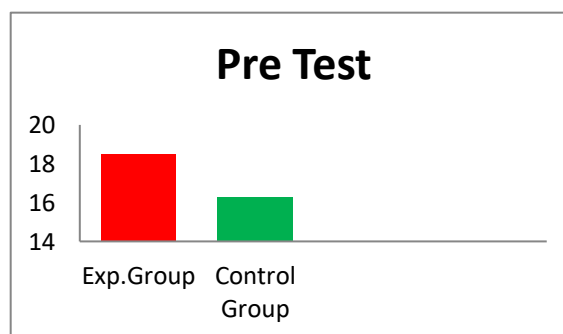
F. Research Methodology

- Researcher conducted two tests pre-test and post-test. Pre test was conducted before application fo constructivist learning. After applying constructivist learning strategies for Experimental group Researcher conducted post test. Collected data was interpreted by using Mean SD and t-value.

Group	Mean	SD	d f	t - value
Exp. group	18.05	7.09	78	1.37
Control group	16.28	7.32		

Table 1. Pre – test Mean SD and t-value for two group.

From the above table mean scores of the experimental group and control group were 18.05 and 16.28 respectively and values of SD for two groups were 7.09 & 7.32 respectively. It is further indicated that the obtained t-value of science achievement score is 1.37 The t-value is less than the table value (1.98) at 0.05 level of significance. Hence there is no significance difference between experimental group and control group on their previous achievement in science is concerned.

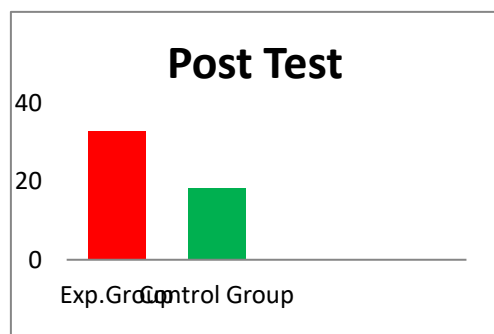


In order to confirm the intervention effect ie. The effect of constructivist approach on achievement of Science in 8th std. students. The post test result on Science achievement scores for both the group was examined the post test Mean SD and t-value of scores on both the group are presented in

Group	Mean	SD	d f	t - value
Exp. group	32.7	8.26	78	9.87
Control group	18.28	9.08		

Table 2. Post test Mean, SD and t-value for two group.

Table 2 results that the experimental group achieved greater mean score (32.7) than that of the control group (18.28) after the intervention given. In other word, the experimental group outperformed the control group in science. Test was applied the value of t 9.087 is found to be statistically significant at both 0.05 and 0.01 levels indicating thereby a significant difference in achievement in science of both group.



‘Hence i.e. Students thought through constructivist approach will gain significantly higher score in science as compared to their counterparts in the control group.’ Was retained. This result prompts to conclude that, teaching / learning through the constructivist approach has substantially improved the student achievement in science as compared to the teaching / learning through traditional teaching method.

II. CONCLUSION

The experiment was initiated with an objective of developing new strategies and examines its effectiveness, learning basic concepts in science constructivist learning strategies was very much effective than traditional teaching for all learners who are learning in eighth std. of Marathi medium school of rural area.

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