Impact Factor 3.025

ISSN 2349-638x

Refereed And Indexed Journal

AAYUSHI INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (AIIRJ)

Monthly Publish Journal

VOL-IV ISSUE-VII JULY 2017

Address
· Vikram Nagar, Boudhi Chouk, Latur.
· Tq. Latur, Dis. Latur 413512 (MS.)
· (+91) 9922455749, (+91) 9158387437

Email
· aiirjpramod@gmail.com
· aayushijournal@gmail.com

Website
· www.aiirjournal.com

CHIEF EDITOR – PRAMOD PRAKASHRAO TANDALE

Effect Of Constructivist Project Based Learning Approach On The Achievement IX Th Grade Science Student.

Dr.Sanjivani sitaram Rathod
(Assistance professor)
S.S.B.S.B.Ed college Nanded.

Abstrract:-

The aim of this study was to compare the achievement of the learners in experimental group and controlled group.post test design was used. The sample of the present study considered 60 students of grade IX of Pratibha Niketan School Nanded. Maharashtra. The selection of the school had been done through purposive sampling method. Randomization method was used to divide the students in two groups. Researcher made achievement test of science content which was administered to all the students in the sample as post test. Calculated data analyzed and interpreted using mean. Standard deviation and t-test.

It was found that the performance of science students taught with constructivist project based learning approach was better than that of traditional approach. The calculated t-value is more than tabulated value at 0.01 level.

Students learn best when they engaged in the learning process and discovers them the meaning of knowledge.

Key words: - constructivism, science, project based learning.

Introduction:-

Constructivist theories have argued that knowledge construction is result of learning of learning in the context of complex live. It is commonly observed that learner's beliefs and ideas about the science have strong effect on their understanding of scientific concepts and behavior as a student's of science. The science education literature shows process skill approach which could be employed science teachers in the effort to modify scientific behavior.(chiapetta & koballa, 2002)

The need of improvement in science education is recognized but despite of it the students continue to enter in the colleges unprepared in science (conzals ."et al .2008 ; machi, 2009)

The researcher adapted project based learning approach which challenges students to learn to learn. The main reason for using project based learning approach is to develop generic skill i.e ability to change, reasoning critically and relatively collaborating productively in team.

2. **Objectives of the study:-**

1. To develop a lesson plan on constructivist project based learning approach.
2. To compare the academic achievement to the learners in experimental group and control group.

3.**Hypothesis of the study:-** There is no significant difference in the mean gain achievement scores of the learner in controlled group and experimental group.

4.**Research Method:-** For the achievement of the objective of the present study the experimental research method was used only post test design with randomization of experimental and control groups was used. Content analysis of grade IX th science text book of S.S.C board done.

Development of project based learning approach strategy . construction of an achievement test to evaluate the achievement of the students in the concerned subject. Implementation of developed lesson plan.

5.**Sample of study :-** The sample of the study consisted 60 students, (30 for controlled group, 30 for experimental group from Pratibha Niketan High School Nanded)

6.Research tools :- Researcher made achievement test of science was administered to all the students in the sample.

7.Analysis Techniques:- The collected data was analyzed and interpreted using mean standard deviation and t-test.

8.Results and interpretation.

The experimental and controlled group was equated.All the condition kept constant on two groups. Experimental group had been given the treatment controlled group taught by traditional method but experimental group was deal with implementation of project based learning approach. Then post test was administered to evaluate their performance. The mean value in post test scores of the control group was 13.51 where as experiment group was 21.8. The difference between the post tests score of both the groups is 8.29. The calculated t-value of 19.41 was found to be significant at 0.01 level with degree of freedom 58.

Students of experimental group actively engaged themselves in learning process. They were interested in project making. They formulated hypothesis and then organized their knowledge. The present study is formulated that because it facilitated learning through interaction and exchange view among themselves through projects. Whereas application of theoretical knowledge to real practice making students themselves confident as well as making their learning effective.

References:-

1. Chiappetta, E. L. & Koballa, T. R. (2002). Science instruction in the middle and secondary schools, 5th edition. Upper Saddle River, NJ: Merrill/Prentice Hall.
2. Machi, E. (2009). Improving U.S. competitiveness: With K-12 STEM education and training. Washington, DC: The Heritage Foundation
3. Mc Caskey, T. L., & Elby, A. (2005). Probing students' epistemologies using split tasks. In S. Franklin, J. Marx & P. R. Heron (Eds.), Proceedings of the 2004 Physics Education Research Conference (Vol. 790, pp. 57-60). Melville, NY: American Institute of Physics.
4. Mc Dermott, L. C., Shaffer, P. S., & Somers, M. (1994). Research as a guide for curriculum development: An illustration in the context of the Atwood's machine. American Journal of Physics, 62(1), 46-55.
5. Mullins, J.A. (1998). How field trips in natural areas associated with museums, arboreta, and aquaria impact the educational experiences of teachers and students. Dissertation Abstracts International (UMI No. 9840837)
6. Padilla, M. J. (1990), Science Process Skills. National Association of Research in Science Teaching Publication: Research Matters - to the Science Teacher (9004). Retrieved from National Association of Research in Science Teaching
website: http://www.narst.org/publications/research/skill.cfm