

A Study Of Science Education In Contest With Scientific Attitude And Scientific Belief From Marathwada Region

Research Paper Presented By

Dr. Sunanda Gopinathrao Rodge
(Principal Govt College of education)

Dr.Sanjivani S.Rathod
(Post-Doctoral Follower of ICSSR New Delhi)

Abstract:

The aim of this study is to determine the levels of science education in contest with Marathwada region. The sample of the study consisted of 5% colleges affiliated to SRTMU Nanded. The data of the study were collected through the use of the Scale of Scientific Beliefs, attitude scale, interview, and through constructivist pedagogy. Personal Data Form was also used to obtain demographic data about the participants. In order to check the levels of scientific beliefs and attitude of the students, and teacher. The means and standard deviations were calculated for each scale. The findings of the study suggest that scientific attitude and beliefs of under graduate students are affect on their learning scientific concept.

Keywords: Socio, Economic, Science, Education, Marathwada, Region

Introduction:

The Marathwada is identified as under developed region of Maharashtra. Swami Ramanand Teerth Marathwada University, Nanded caters the need of higher education of the peoples in four districts of Marathwada region. Higher education in this region growing faster but parallel it requires the quality of education. Especially UG students Science faculty face many of the problems due to their belongingness to rural background.

The need of improvement in Science Education is recognized but despite of it the students continue to enter in the colleges unprepared in science. Research shows that students who are taught science by traditional methods fail to learn essential scientific concepts.

The Science Education literature shows Process Skill approach which could be employed science teachers in the effort to modify scientific behavior. This approach gives attention on enhancement of transferable skills that are suitable for various science subjects and are insightful of scientific behavior.

The role of Science Education in the national development is of crucial importance. This study focuses on enhancement of quality of Science Education in rural area and it will definitely benefit the rural life.

The need of improvement in Science Education is recognized but despite of it the students continue to enter in the colleges unprepared in science. Research shows that students who are taught science by traditional methods fail to learn essential scientific concepts.

The Marathwada is identified as under developed region of Maharashtra. Swami Ramanand Teerth Marathwada University, Nanded caters the need of higher education of the peoples in four districts of Marathwada region. Higher education in this region growing faster but parallel it requires the quality of education. Especially UG students Science faculty face many of the problems due to their belongingness to rural background.

Focus to be needed in this research

The review of literature of clearly shows that it is essential to enrich the Science Education of UG students from rural back ground. Thus, for fulfillment of this purpose following problem of study is planned. Researches study according to these aspects should be review. Findings are given below-Constructivist theories have argued that knowledge construction is result of learning in the context of complex phenomenon in which the learners live. It is strongly emphasized that learning is a dynamic course of construction of meaning with a personalized knowledge. It is commonly observed that learners' beliefs and ideas about the science have

strong effect on their understanding of scientific concepts and behavior as student of Science.

Does them focusing the need of present topic:

The study is significant for enhancing the quality of science education at under graduate level. The study is bound to the syllabi framed by board of studies of swami Ramanand Teerth Marathwada University and affiliated colleges of the university but the findings of the study may be applicable to the pedagogical practices at their affiliated colleges on the situation of similar context of the students.

Importance:

In present study researcher will develop constructivist pedagogies for enrichment of science education for enrichment of graduate students from rural background there training activities learning teaching strategies based on constructivism are planned for this purpose.

Need:

Science education is significant for scientific learning about the world. Science graduates have to be the future scientists they need to educate science with sincerity. The most of UG students in our country come from rural background. Unfortunately science education in rural areas is lacking required quality. The students from rural background have great potential to grow.

Validity of research

Verification of the present status according to the selected areas and stages of learning. Science education is the field concerned with sharing science content and process with individuals not traditionally considered part of the scientific community. The learners may be children, college students, or adults within the general public; the field of science education includes work in science content, science process (the scientific method), some social science, and some teaching pedagogy.

In present study researcher will develop constructivist pedagogies for enrichment of Science Education for undergraduate students from rural background. The training activities, learning-teaching strategies based on constructivism are planned for this purpose.

In the light of the above, the study is significant for enhancing the quality of science education at undergraduate level. Especially, in the

Marathwada region of Maharashtra in the jurisdiction of Swami Ramanand Teerth Marathwada University, Nanded. The scope of the study includes three main subjects Chemistry, Botany and Zoology. The Study will provide guideline for the different pedagogical practices for teachers working in the affiliated colleges of the Swami Ramanand Teerth Marathwada University, Nanded and also, to the Board of Studies of these three subjects. The study is bound to the syllabi framed by Board of Studies of Swami Ramanand Teerth Marathwada University and affiliated colleges of the university but the findings of the study may be applicable to the syllabus of other universities and the pedagogical practices at their affiliated colleges in the situation of similar rural context of the students.

Similarities of present research work with other references

1. Scientific attitude test used for checking every level student's scientific attitude.
2. Scientific attitude involves different aspects mythological, personal, sociological, environmental etc.
3. Scientific attitude scales Social Implications of Science Attitude to Scientific Inquiry, Adoption of Scientific Attitudes, Enjoyment of Science Lessons and Leisure Interest in Science. However, as the development and validation of the earlier battery of five scales have been discussed.
4. Checking of scientific attitude of students and teachers are planned in this research.
5. for holding scientific concept some activities are needed which are included in present research.
6. Constructivist approaches involved vary strategies which are included in present work.
7. Stake holders like teachers, parents, and students are taken in consideration.

Differences of present research work with other research work

1. Present research work is planned for undergraduate science students as sample will represent all the necessary characteristics. For the purpose of survey about 5% colleges in rural area affiliated to SRTM University, Nanded will

be selected randomly and for experimental work 80 students from one college will be selected randomly

2. A mixed method approach will be adopted consisting Experimental method and survey method for this study. The constructivist pedagogies developed by researcher will be treated as independent variables and Achievement of Science Education, Scientific Attitude and Beliefs about Science will be treated as dependent variables in the execution of experiment. The Qualitative aspects of the work will be studied by descriptive methods.
3. Scope of study the study will be restricted to education of Science with the following subjects at under graduate level only: Chemistry, Botany and Zoo

The Study is delimited to teaching of Sciences.

The study is delimited to syllabus of Science subjects framed by SRTM University, Nanded.

The conclusions of this research can be extended to all Sciences graduate courses of other Universities in similar circumstances.

Conclude:

Science graduates have to be the future scientists, they need to educate Science with sincerity. The most of UG students in our country came from rural background. Unfortunately Science Education in rural area is lacking required quality. The role of Science Education in the national development is of crucial importance. This study focuses on enhancement of quality of Science Education in rural area and this will definitely benefit the rural life.

Bibliography:

1. Brown, J.S., Collins, A. & Duguid, S. "Situated cognition and the culture of learning". *Educational Researcher*, 18(1) (1989): 32-42.
2. Derry, S. "Beyond symbolic processing: Expanding horizons in educational psychology". *Journal of Educational Psychology*, (2002): 413-418.
3. Derry, S. "Cognitive Schema Theory in the Constructivist Debate". In *Educational Psychologist*, 31(3/4) (2006): 163-174.

4. Driver, R., Aasoko, H., Leach, J., Mortimer, E., Scott, P. "Constructing scientific knowledge in the classroom". *Educational Researcher*, 23 (7) (2004): 5-12.
5. Ernest, P. "The one and the many". In L. Steffe & J. Gale (Eds.). *Constructivism in education* (1995): pp.459-486.
6. Fosnot, C. "Constructivism: A Psychological theory of learning". (2007): New York: Teachers College Press.
7. Fosnot, C. (Ed.). "Constructivism: Theory, perspectives, and practice", (1996): pp.8-33. New York: Teachers College Press.
8. Gergen, K. "Social construction and the educational process". (2002): New York: Teachers College Press.
9. Naik, R. "Effect of constructivist approach on student's learning achievement in mathematics at Primary level" (2002): New Delhi: National Institute of Open Schooling
10. Sharon, J. D. "Cognitive Schema Theory in the Constructivist Debate", (1996): New Jersey: Lawrence Erlbaum Associates, Inc.
11. Steffe & J. Gale (Eds.). "Constructivism in education", (1995): pp.17-39. New Jersey: Lawrence Erlbaum Associates, Inc.