

Indian Streams Research Journal

EFFECTIVENESS OF CREATIVE TEACHING OF SCIENCE FOR SUSTAINABLE DEVELOPMENT.

Abstract:-

The Present study was undertaken to study the effectiveness of creative teaching of science for sustainable development amongst the students of STD X. The objective of this study is to develop in students the ability to recognize problems, to be flexible in thinking, to invent and originate ideas of products, to find new uses for old without affecting the future resources and construct new and original solutions to problems. A descriptive survey was conducted; the sample of the study included 60 students. The investigators took group consisting of 36 students and another group as control groups consisting of 24 students. A pre-test was constructed by the investigators. The study revealed that the success of the creative science learning is helpful in enhancing the understanding of the sustainable development.



Keywords:

Creative Science, Learning, Effectiveness, Sustainable Development



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INTRODUCTION-

In an era characterized by liberalization, privatization and globalization, quality and competition become the key resources for sustenance which is the product of science and technology. India at the present is moving ahead from essentially an agrarian culture to a vibrant developed modern society with privileged level of education and standard of living with hard work. We are increasing our material for richness and productive life. When we rejoice our material resources we find ourselves allowing in conflict-conflict between man and environment. The immense knowledge power is the result of Science which helps in eliminating the poverty, ignorance and disease. If the essence of creativity of science is well understood then there will be no obligation to use the great power of science can be used for improves the quality of life. Science has offered a new life style, new cultures and new values that in short have revolutionized the mode of production with mode of thought. Creative and innovations are like the two sides of the same coin in science and its product is the technology. It is our duty to excel the students in technological development as our country which has a strong pillar of basic science and research. A knowledge based economy requires a highly skilled work force. Man's utmost disappointment has been his aptitude to secure co-operation and perspective with others. Our education should give the confidence to develop creative and constructive powers in every individual in the society. Hence there is great need of understanding science for sustainable development. Fast economic growth of one country makes them more prosperous than others. Standard of living means the utilization of commodities and services by an individual i.e. it directly relates to economic development. Quality of life refers to a mixture of attribute that provides sustained human experience of physical, mental, spiritual and social well being. Creativity and innovations are vital keys to success in today's speedily changing world. Those with the capability to think outside of the box will lead the future and make special things to come about.

REVIEW OF LITERATURE:

Many studies have been conducted in different parts of the world on creative science for understanding sustainable development. Even APJ Abdul Kalam Sir inaugural speech set the ball rolling for 'The New Indian Express' Think Edu Conclave, Laced with funny anecdotes from his earlier school days and college days, Kalam reminisced the deed of his teachers in shaping him. Kalam strongly recommended a creative teachers, syllabus and classrooms for making great empowered children of India to form a better tomorrow. His wish list for the student were to use their ability for high end technology, to have the capacities for research and enquiry, to develop creativity and innovation in their work, and possessing entrepreneurial for the progress and moral leadership in educational policies for international recognition.

SIGNIFICANCE OF THE STUDY:

It is the responsibility of teach-educators to prepare the students for future to be lifelong learners having positive attitude towards the development of their self and the nation. There is lot of diversity of the science and the scientific phenomenon which can help to solve many concerns over issues faced by the society. This study will be helpful to the young students of science that the background in science is going to open up more opportunities for them in different careers Science involves the process of philosophy, perceptive, thoughts, Originality, resourcefulness, prediction and much more. The only thing one can say about creative sustainable development with confidence is that, partly because of scientific discovery and technological innovation the future will be different from the past. All human beings will understand the basics of the science and technology with their creative science, principles to survive successfully in the society in order to contribute sustainable development. The study fulfills the following objectives of the creative teaching science which includes; allowing the students to attain knowledge, skills attitudes and ethics needed for successful act of responsibility of a citizen.

To design educational programs and experiences that enhance the ability of creativity for progress of natural talents, powers of creative project and the capacity to value the splendor of existence discovered from the contact with nature.

OBJECTIVES:

To study the effectiveness of creative science for understanding sustainable development with regard to gender, medium of instruction and location of school.

To find out the level of effectiveness in creative science on gender.

To understand the perceptive of sustainable development of type school.

To find out the ability in student to relate science principles and knowledge to problems of everyday life.
To investigate the effect of area of location on students achievement for understanding sustainable development.

HYPOTHESIS:

There is no significant difference in effectiveness of creative science in understanding sustainable development with regards to gender, medium of instruction and location of school.
There is no significant difference of effectiveness of creative science between the Male and Female student.
There is no significant between the Male and Female students with regard to the understanding of sustainable development.
There is no difference between the Urban and Rural students in the understanding of sustainable development.
There is no significant difference between the granted and non granted students in the understanding of sustainable development.

METHODOLOGY:

Descriptive survey method was used.

Sample: The population of the research was granted and non granted English Medium Schools of Ahmedabad and the sample of the research was selected from only granted English Medium School of Ahmedabad from which total of 60 tenth grade students were selected , 36 female and 24 male. These students were chosen at random.

The study is entitled Effectiveness of creative science learning in the understanding sustainable development.

Tool's used: The tool used for testing creativity was creativity thinking test (Baper Mehdi 1985). Education is an important tool for achieving sustainability A personal questionnaire was developed by the investigators to meet the subjects and established rapport with the student.

Statistical Technique: Three statistical analysis, mean, correlation coefficients and t-test were applied.

ANALYSIS OF DATA:

Table 1 Difference in the effectiveness of creative sciences in understanding sustainable development in terms of gender.

Gender	N	M	S.D	't' value	Significance
Male	24	45.16	7.78	2.32	Significant at 0.05 level
Female	36	49.83	7.37		

The obtained data were subjected to descriptive statistical analysis, t-test and correlation analysis were applied. The result of t-test of significance of the means applied to each group indicated that male students and female students do not differ significantly in the effectiveness of creative science. The null hypothesis was rejected as the calculated value 2.32 was found to be greater than tabulated't' value of 1.96 at 0.05 level of significance.

Table 2 Difference in the effectiveness of creative sciences in understanding sustainable development in terms of location of area

Gender	N	M	S.D	't' value	Significance
Male	24	107.3	11.84	1.71	Not Significant at 0.05 level
Female	36	112.3	9.30		

The results also indicate that male and female students do not differ significantly in their understanding sustainability. The't' value 1.71 was less than the tabulated't' of 1.9at 0.05 level of

significance. Finally it was found that there is no significant difference in effectiveness of creative in understanding sustainable development with regards to gender, medium of instruction and location of area.

CONCLUSION:

In the quest to find the effectiveness for creative teaching of science for sustainable development among the students, it was found that there is no significant difference in effectiveness of creative science in understanding sustainable development with regards to gender, medium of instruction and location of school.

From the above it is to be noted that intrinsically, it implies that creativity is the basic prime factor. The significance of science and the objectives of creative science for sustainable development emphasize the need for teaching science with a psychological perspective for creativity development for understanding sustainable development. Hence to realize the objectives, the set of courses can be designed or adapted not only to suit the needs and interest of the students but also to develop creativity in students for national and sustainable development. People in the region around of the world identify that present economic growth trends are not sustainable and that community consciousness, education and training are the input to moving society towards sustainability. Work is done with teachers relating to sustainability issues, participatory learning and democracy (Classroom work with children relating to sustainability).

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