

A Key Note on Scientific Education in India

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Abstract: Scientific education is crucial in framing national educational policies and propelling the country's overall growth. Education has always been the forte of India in contributing to economic growth and social development. Yet, the enhancement of the quality of education at all levels is the most pressing challenge. The paper seeks to determine the importance of scientific education in India by examining pertinent data, detecting crucial trends, and assessing education sector outcomes. The research indicates that there is a requirement for solid scientific roots to enable innovation, critical thinking, and sustainable development.

Keywords: Scientific education, development, education policy, quality, innovation.

INTRODUCTION

Education started as an easy transfer of skills, culture, and knowledge. As per the 2011 Indian census, around 26% of individuals remain illiterate. Education in India has moved very fast since India became independent. Scientific education holds a significant place in basic education. Some of the results in the education sector are enhanced access to education, social harmony, enhanced employment, Healthy Lifestyle, economic development, and individual growth. Within the last few years, new horizons have emerged regarding research in the area of scientific education. Differentiation, learner engagement, direct instruction, flexibility, practice components are integral to the schooling process. This essay strives to put remark on the analysis of educational data and the examination and discovery of patterns using scientific education. Research Hypotheses and Methodology: Research hypothesis is a working solution of the problem in question. Research hypothesis is a clear

and accurate. In this paper, I have used descriptive and exploratory approaches. Methodology of this research paper is theoretical in nature and aimed at pursuing research goals.

FACTS REGARDING SCIENTIFIC EDUCATION IN INDIA

Below are some facts regarding scientific education in India.

I. Curriculum:

The Education Commission (1964) suggested Science as a compulsory subject for students and it was also identified in the curriculum. The National Policy on Education (NPE1986) has also given priority to this. Mathematics and Science enable children to think, reason, analyze and rationalize. Statistics assist teachers to comprehend the performance of students, determine trends, and compare pedagogical approaches.

II. Quality of teacher:

Teacher quality is a determinant of the success of the students. Hence, teacher training, teacher quality, teaching methodology for teacher quality should be adopted. A scientific attitude should be adopted by a teacher of scientific education. They contribute towards the improvement of the logical thinking ability of the students.

III. Learning outcomes:

Learning outcomes in Scientific education are understanding concepts, problem-solving, applying mathematics, communicating, reading, lifelong learning. To have laboratory facilities for scientific

education will surely support in increasing the development of the students.

Some statements regarding to Education in India:

Following are some statements given about education in India, which are as follows.

1. It is the education which is the right weapon to cut the social slavery and it is the education which will enlighten the downtrodden masses to come up and gain social status, economic betterment and political freedom - Dr. B.R. Ambedkar.
2. An education which does not teach us to discriminate between good and bad, to assimilate the one and eschew the other, is a misnomer. - Mahatma Gandhi
3. "If you are doing not raise the ladies who live embodiment of the divine mother, don't think that you simply have the other thanks to their social and economic status"- Swami Vivekananda.
4. The policy document says – "Developing children's abilities for mathematization is the main goal of mathematics education. The narrow aim of school mathematics is to develop 'useful' capabilities, particularly those relating to numeracy – numbers, number operations, measurement, decimals and percentages. The higher aim is to develop the child's resources to think and reason mathematically, to pursue assumptions to their logical conclusion and to handle abstraction. It includes a way of doing things, and the ability and the attitude to formulate and solve problems." (NCERT, 2005, p. 42).

Need for Basic Building of Scientific Education Teaching Theory in India:

Indian Mathematics and Science have been a big contribution to scientific education as a field since ancient times. Scientific education instruction needs strong foundation for the creation of innovative teaching techniques, also vital subjects for numerous reasons. Such as discipline, critical thinking, problem solving and decision making, hard work, foundation for other subjects etc. Mathematics makes thinking and reasoning abilities stronger. It assists in the progress of problem-solving abilities. Mathematics acquires a cultural value and is increasingly vital to the society. The most outstanding accomplishment of the Indian education system since independence in 1947 has been the growing availability of education, in

addition to the rise in the number and caliber of teachers. There are several institutions engaged in statistics and mathematics education research in India. To meet the challenge of teaching in a new and efficient way, one must promote research that enhances the whole teaching and learning framework of statistics and mathematics. Professional and efficient training aids in developing innovative pedagogies and competencies through applying knowledge and techniques in students' development and learning assessment. Researches also show that application of Mathematics Laboratory Based Approach can improve achievement in Mathematics quite effectively. (Shreedevi and Kamath, 2014) The challenge is to deliver the best quality mathematics and statistics education at every level of education. To do this, we must be committed, there are means of doing so, and we must incorporate them. It is time for development and research to harmonize in Statistics and Mathematics education, and for the utilization of systematic and organized research to be deemed important.

OBJECTIVES AND SCOPE OF THE STUDY

1. Developing basic mathematical and statistical skills: The main objective of statistics and mathematics education is to develop students' basic Statistical and Mathematical numerical skills. Students acquire the language, symbols, logic, formulas, knowledge, various concepts and understanding of Statistics and Mathematics.
2. Creating a positive Science attitude: Developing a positive attitude towards Science is a goal that must be pursued, and this needs to be achieved.
3. After graduating with a degree in Science and Mathematics, students have many career options, such as data analysis, computer science, economics, and other specialized subjects. Combining Mathematics with other specialized subjects can provide job opportunities.
4. Comparison of Higher Educational Growth and Development: It has become possible to compare and enhance the development of higher educational institutions, which is boosting the development of students.

5. Implementation of appropriate policies and planning: It has become easier to formulate effective plans and appropriate policies in the education sector.

6. The scope of Statistics and Mathematics education in India includes various career chances and the capability to build analytical abilities.



Figure shows career scope of Scientific Education
Source: Internet

Emerging Technologies and Innovative Research (ISSN-2349-5162), p. d624 - d626.

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CONCLUSION

In this article, we discussed the role of Scientific Education in India. We discussed the need for fundamental development of the theory of teaching Scientific Education in India, as well as the problems and challenges in the education system. We have discussed in detail the facts about Scientific Education in India so that the objectives can be achieved easily. We have also discussed the use of Mathematics laboratories, better training of teachers, instilling positive Mathematical and Statistical attitudes, and educating students about various career options.

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