

Role of Computer Technology in Developing Positive Attitude towards Mathematics

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Abstract— Mathematics is considered to be very important in each and every country in the world. It is a subject which has extensive application in our day to day life situations. It has been explained as the tool to define, measure and special relations for the elements to improve quality of existed and advancements of science and technology. Attitude plays a pivotal role in achievement and performance in Mathematics. This paper resembles the impact of attitude towards mathematics that which may provide an answer to the questionnaire of application, usage, how prolong, complexity and so on as one will work. To avoid the compactness and confusion in Mathematics, computers are the excellent sources of new learning. The present paper enlightens the development of positive attitude towards mathematics in school children by using new trends i.e., computer technology and its application. Computers can be mainly used in educational curriculum which notifies many purposes to analyze students' capabilities, solve complexity of problems and Simulates feeling of success.

Index Terms — attitude, capabilities, computers, Mathematics, positivity, success, technology.

1 INTRODUCTION

Education is the essence of early civilization. Education is the light that shows mankind the right direction to surge.

The purpose of education is not just making a student literate but to add rational thinking, self sufficiency and knowledge ability from childhood. The whole modern civilization owes its peculiar stamp indirectly to mathematics. Mathematics is essential for the existence and progress of modern world. In this scientific oriented world of today the knowledge of methods and application of mathematics has become an integral part of every new innovation. It plays an important role in accelerating the technological growth of nation. It is more so in India as the nation is rapidly moving towards globalization in all aspects.

The world of today which leans more on science and technology. It is very much necessary to prepare a child with a strong base of mathematical knowledge to face challenges of modern technological society. Technology is an essential tool for learning mathematics and all schools must ensure that all their students have to access technology. By using the computer technology in education curriculum it improves both teaching and student academic achievement.

2 MATHEMATICS

Etymologically the term 'Mathematics' is derived from two Greek words 'Manthanein, which means 'learning' and 'techne'

of learning to disciplines or faculties.

Mathematics is queen of all sciences, which is to be considered as only number work or computation but it is more about forming generalizations, seeing relationships and developing logical thinking and reasoning. The National Policy on Education states "Mathematics should be visualized as the vehicle to train a child to think, reason, analyze and to articulate logically". Mathematics should be shown as a way of thinking an art or form of beauty and as human achievement. Mathematics is regarded as the mother of all sciences if our students are to function effectively in this era of rapid technological advancement and globalization they must be mathematically literate. Those who understand and can do mathematics have significantly enhanced opportunities and options that will open doors to productivity. In this advanced technological world by using the computer technology we can improve the excellence of students from childhood.

3 TECHNOLOGY

Man is a highly enterprising being. He is always on the lookout for inventing new innovations in all walks of life. Human life has improved tremendously as a result of the growth in science and technology. Education is the all round drawing out of the best in the child and man- body, mind and spirit. The all round development includes the child's individual growth had social development. Technology thus results in new designs and devices as also new ideas and processes. The NCERT defines technology as the means of development, application and evaluation of the different things such as techniques, system and aids to improve process of learning. Technology is an essential tool for learning mathematics in this century and all schools must ensure that all their students have access to technology.

which means 'an art or technique'. Mathematics means the art

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4 ATTITUDE

An Attitude is a mental and neural state of readiness, organized through experiences, exerting a directive or dynamic influence upon the individual's responses to all objects and situations with which it is related. Attitude plays a vital role in determining individual reaction to particular entity. Attitude shape the behavior, positive attitude leads towards favorable response and negative attitude develops unfavorable response. Attitude is usually classified in three different categories which are affect, cognition and behavioral intention. These three determinants confine the meaning of attitude. Attitude is all about someone liking or disliking of particular object. Like other features of mental life, attitudes also grow and develop. Many of the attitudes are acquired as second hand from social interactions. We are not born with attitudes rather than they are learned. It is agreed that attitudes are more susceptible to change.

4.1 Attitude towards Mathematics

Attitude towards Mathematics measure the level of affect and emotions student have for this subject. Attitude of students regarding mathematics and quantitative subjects become positive as they pass through different classes. Students feel that mathematics little bit more difficult than other quantitative subjects.

Attitude towards Mathematics is an aggregated measure of a liking or disliking of Mathematics a tendency to engage in or avoid Mathematical activities, a belief that one is good or bad at mathematics and a belief that mathematics is useful or useless. Many students start their school year with a positive attitude towards mathematics but this become less positive during the school years, with the increase of task difficulties and the pressure put on students to cope with these demanding tasks.

However, an individual's attitude towards Mathematics can be influenced by many factors. During the past decade tremendous efforts are being made here and in other countries to improve the Mathematics curriculum of secondary schools. The proposals of change dealt with not only what should be taught but also how it should be taught. Thus new courses, new text-books, and learning material have been produced. In these new books new content was introduced and subject matter was well organized. Emphasis was given to understandings, pupil involvement and discovery call for more thinking. More thinking results in multifold problem activities

A problem occurs when an activity is blocked by an obstacle that cannot be removed by the use of readymade habits. Here the situation is unfamiliar and confusing to the pupil. It was clear his habitual responses suffice. Obstacle can be something present that must be changed or something absent that must be found. And individual in a problem situation when he is drawn to a particular objective and is motivated to achieve it but he is at least temporarily trust rated to attain his goal. With this impact the attitude towards Mathematics is more likely to be negative in most of the students.

4.2 Attitude towards Computer technology

Computer technology is an excellent source of new way of

learning the usage of computers makes an individual to learn at their own pace according to the new modern world requirements.

It is a new trend in this modern technological world so students also show more interest to use computer technology in solving problems and learning the concept by using techniques. It helps to create new innovative thoughts in students mind. This technology invites deeper learning, motivated learning, more efficient or more effective learning it empowers teachers to better in teaching. Computers serve to improve students Mathematics achievement as well as enhance the overall learning environment of the school. Teachers who use this technology in their teaching will promote higher order thinking in students, develops computational skills, it facilitates algebraic and geometric thinking this technology shows an interdisciplinary setting. Mathematics pinpoints technology as an essential component of the mathematics learning environment, influencing the mathematics that is taught as well as enhancing students' learning.

5 ROLE OF COMPUTER TECHNOLOGY IN DEVELOPING POSITIVE ATTITUDE TOWARDS MATHEMATICS

In this modern new trended world computer technology plays an important role in developing positive attitude towards mathematics. Mathematics to most of the students is a complex and difficult subject. The tendency for most students is to consider the subject as one that is boring thus creating lack of interest in the topics being discussed. This poses a great challenge for teachers and educators, especially in the primary and intermediate levels, wherein a good study habit and a firm grasp of basic concepts should be developed.

Einstein says that his pencil was more intelligent than he was - meaning that he could achieve far more using his pencil as an aid to thinking than he could unaided. There is a need to recognize that mathematical digital technologies are pencils of today. Knowledge is obtained by sharing problem-solving and creating, rather than by passive listening. By integrating technology into teaching Mathematics will develops confidence in their ability to analyze, select and craft technology based Mathematics lessons. This improves the confidence levels and lesson quality among class room situations. This can develop the logical thinking ability, problem solving ability and creates interest towards the subject which will help to concentrate on the subject more time and enrich the mathematical knowledge which will help to have excellence performance in academics and in their life achievements also. There will be change in their behavioral pattern and their attitude towards mathematics, by knowing the different techniques in solving the problems. So this computer technology can serve as a catalyst in developing positive attitude towards Mathematics.

5.1 Change of Scenario with Computer technology

Mathematics is regarded as the queen of all sciences. Role of mathematics was limited to purely academic domain now it has entered the domain of technology and industry new fields in mathematics such as operation research, control theory, signal processing and cryptography have been generated

which need technology. Technology can be reducing the effort to devote to tedious computations and increase students focus on more important mathematics.

Technology is the making, modifications, usage and knowledge of tools, machines, techniques, crafts, systems, methods of organization in order to solve a problem, improve a preexisting solution to a problem achieve a goal or perform a specific function it can also refer to the collection of such tools, machinery, modifications, arrangements and procedures. The use of technology is not an new issue it is used to avoid time consuming routine work. The use of technology has a long history in mathematics education.

5.2 Usage of Technology as tool of teaching:

The teaching aids play a very important role in teaching any concept easily to students. The aids are nothing but tools to teachers in explaining the content to students. So having an computer in a classroom is an asset to teacher. With the help of this asset the teachers can give conceptual clarity and they can give new material, they are able to demonstrate new lesson, illustrate how to use new programs, and show new websites. The ease and speed of obtaining information on the internet definitely helps the teacher users to empower themselves.

6 CONCLUSION

Technology reduces the effort to do calculations and increase students' positive attitude towards mathematics which is helpful to focus on more important mathematics. Technology can easily represent the concepts to students and emphasis in project based learning. This technology is used in teaching mathematics better and teaching better mathematics. In order to educate students to be lifelong learners and successful contributors to the new global market, educators must change the way they teach and the way students learn. All the young people must become proficient in using digital technology for mathematical purposes then our country would be in the list of developed countries as that 'Today's children are the tomorrow's citizens'.

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