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Effectiveness Of Vedic Mathematics Method On The Attitude Towards Learningn Mathematics

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ABSTRACT:

This study explore an effectiveness of Vedic Mathematics technique in teaching mathematics among class VIII students at Nagpur city of Maharashtra. So many students are facing mathematical problems. Vedic Mathematic technique offers a potential alternative to traditional mathematics methods. Every person's attitude is different from one another. This study focuses on the effectiveness of Vedic Mathematics on attitude towards learning mathematics among VIII std. students of Nagpur District. 50 number of students as a sample of VIII std. has involved in the study. Twenty-five students of samples were selected from state board school of Nagpur District and twenty-five students of samples were selected from CBSC School of Nagpur District. These selected samples were divided as an experimental and controlled group. Traditional method was used for control group and Vedic mathematics method was used for experimental group. For the study Pre-test and Post-test non-equivalent group design was applied. A content of Mathematics' subject was selected base on the NCERT text book of Maharashtra State and it was administered among VIII std students. An attitude towards mathematics test was constructed by researcher. First of all, pre-test was conducted on both group then post-test was conducted on both group, data was analyzed and interpreted for research. The results shows that Vedic Mathematics method applied for the experimental groupis effective for enhancing the attitude towards learning mathematics of VIII std. students of selected both schools.

KEYWORDS: Vedic Mathematics method, learning mathematics, attitude, VIII std. students.

INTRODUCTION:

This study explore an effectiveness of Vedic Mathematics technique in teaching mathematics among class VIII students at Nagpur city of Maharashtra. So many students are facing mathematical problems. Vedic Mathematic technique offers a potential alternative to traditional mathematics methods. India has had a reach mathematical history that's much more complex than cheap tricks. We often say that Aryabhatta discovered 0 (Zero). That doesn't mean anything. 0 is a symbol just as important as number of 1. There is nothing about 0. If we want to thank Aryabhatta for somethings it should be for his discovery of the place-value system. i.e. the ability to form any number imaginable by using a limited number of symbols 0

(Zero) is what he used to start the next round of 'values' after shifting left the 'places.

Vedic mathematics is a system of mathematics that originated in ancient India and is based on 16 sutras, or aphorisms, that can be used to solve mathematical problems in short time and very easily. The key to teaching Vedic-knowledge to children is to approach the subject with sensitivity, patience and a willingness to adopt to each child's unique learning style and needs.

Mathematics helps in attain and developing logical reasoning, cultural and moral values amongst the children. If mathematics in not given an important place in the curriculum, then students would no set an opportunity for mental exercise and in the absence of it, their intellectual development might be affected. Learning process is highly influenced by attitude towards the concept of subject, having a positive attitude towards learning, will enable the students to understand the concepts properly and to attain proficiency in the subject content. The present study sheds light on the attitude towards learning mathematics of VIII std. students. In order to improve the student's attitude towards learning mathematics, Vedic methods were used to learn mathematics and tried to find the effectiveness of Vedic mathematics method on the attitude towards learning mathematics.

VEDIC MATHEMATICS:

Vedic mathematics arose out form Vedas. 'Veda" means knowledge, it is Sanskrit word. The primitive treasure Vedic mathematics was reframed and brough to light again by the Indian monk Bharathi Krishna Tirtha in the period between 1911 and 1918. Vedic mathematics involves sutras and techniques which helps in solving mathematics in an easier, faster way. The16 sutras and 13 sub sutras in Vedic math makes the calculations easier.

The expanding world of mathematics can still be captured by five thousand years old Vedic methods. Mathematics is the basis for day-to-day life knowledge and so it should be made easy and enjoyable for those who find learning, mathematics as a hard subject. Mathematics taught through Vedic mathematics makes learning an enjoyable work for an small age group child. Much research has been taken place in the past and present to hold up the factof attitude towards so many subjects. In so many researches it found that Vedic Mathematics technique is an effective teaching style for solving students learning mathematical problems. According to the study of Jiji (2012), many students have low proficiency and experience difficulty in factoring polynomials and the complexity of the process makes it more difficult to understand these terms. That time Vedic Mathematics technique was gave him effective results. According to Bandala (2023)study, he recommended that, schools and curriculum developers should consider integrating Vedic Mathematics technique into algebraic instruction. The streamlined and intuitive nature of these techniques can enhance students' understanding of complex topics like polynomial factoring. He found that Vedic Mathematics contributed to enhanced understanding and performance in content.

ATTITUDE TOWARDS LEARNING MATHEMATICS:

Michael Hogg defined "An attitude is a negative or positive evaluation of an object which influences human behavior towards that object". Different people can have different

attitudes towards the same them or idea. For example, some people view the trending fashion use for students as a positive thing as they think that it helps make them update. But some people also view the trending fashion use for students as a negative thing as they think that it helps make them away from society and they break the rules of culture. This negative or positive evaluation of an object known as attitude. Attitude towards mathematics is an individual's feeling towards the subject. The subject mathematics has a vital role in one's life and mathematics proficiency are considered to be an important aspect in the society as well as individually.

Learning of mathematics depends on different factors, it might include the attitude towards the subject mathematics or the state procedure or the culture in which they belong. The expected proficiency in mathematics can be attained only when there produces positive attitude towards the mathematics. Positive attitude plays as a booster a refresh the brain to work function excellently positive attitude brings achievement so near and achievement gives you to success.

RESEARCH REVIEWS:

Levin, (2007). The student's negative attitudes not only affect their education but also their performance in the subject they learn factors includes the strategies made used by the teachers to convey the technique. Vedic mathematics is more flexible, coherent, improves memory, promotes mental ability and creativity. On practicing Vedic mathematics, we can perform calculations in easy and efficient way. Das, (2015). Found that attitude towards mathematics is having a significant relation with their achievement in mathematics. Dipika (2015) experiment of Vedic mathematics stood as evidence for the effectiveness of Vedic mathematics and it was found that Vedic mathematics was more effective than traditional approach. T. Hussain, (2016). Tried to find the attitude towards research. He was suggested for better academic attainment that more researches should be conducted to explain knowledge. Sujata, ((2017). Made an attempt to find that there was no significant variation on the basis of gender and also It was found that mathematics achievement was significantly correlated with attitude towards mathematics. Amulya (2021) pointed out that Vedic method of multiplication is effective over the conventional method in terms of students' achievement. John. B. (2022). Examined the effect on pupils' math scores when a truly integrated math and chess workbook was used as an instructional practice workbook. Madavi, B. (2023). Tried to find the solving ability of mathematics by Vedic math method among higher primary students. She found that Vedic mathematics method is more effective than traditional method and also found that experimental group of achievement score of mathematics was enhance through Vedic mathematics method.

NEED OF THE STUDY:

Vedic mathematics is a system of mathematics that originated in ancient India and is based on 16 sutras, or aphorisms, that can be used to solve mathematical problems in short time and very easily. The key to teaching Vedic-knowledge to children is to approach the subject with sensitivity, patience and a willingness to adopt to each child's unique learning style and

needs. Attitude measures the level of some one's progress. Every person has his special attitude i.e. positive and negative attitude. Positive attitude has towards an action, will go for excellence. The main aim of this study is to create an enjoyable and friendly learning environment to learn mathematics among VIII std. students. Vedic mathematics is an ancient method of India for learning of mathematics. It is to understand the concepts of mathematics so easily and will enable the students to learn mathematics without any tension. This activity will create positive attitude towards learning of mathematics.

LIMITATIONS OF THE STUDY:

1. The sample selected were confined to Nagpur City.
2. For the study only 50 samples were selected.
3. For the study class VIII students were selected.
4. Vedic mathematics method was used for research purpose.

OBJECTIVES OF THE STUDY:

1. To study the pre and post test mean scores of attitudes towards learning mathematics of VIII std students.
2. To compare the pre and post test scores of attitudes towards mathematics of the experimental and control group.
3. To study the effectiveness of Vedic mathematics method on attitudes towards mathematics among VIII std students.

HYPOTHESIS OF THE STUDY:

There is no significant effectiveness of Vedic mathematics method on attitude towards mathematics of VIII std students.

SAMPLE OF THE STUDY:

In the research 50 students from the VIII std. were selected as a sample by purposivesample method.

Table No 1

School	Experimental Group	Control Group	Total Sample
State Board School	12	13	25
CBSC School	13	12	25
Total Sample	25	25	50

METHODOLOGY OF THE STUDY:

An appropriate method to accomplish the objectives of this research is an experimentalresearch study experimental design has been used for this research. Pre-Test and Post-test was used for the research. For the purpose of tailoring the research frameworks purposive samplingmethod was used. By used sampling technique create an equivalent group. The data were tabulated and subjected to statistical analysis. For testing

the formulated hypothesis, anindependent sample test was employed.

STATISTICAL ANLYSIS:

Hypothesis: There is no significant difference of Vedic mathematics method on attitude towards mathematics of VIII std students.

The propose of the research was to know the effectiveness Vedic mathematics on attitude towards mathematics of VIII std students. For measure this, the researcher analyzed whether the difference in the mean score of experimental and control group obtained for the post-test conducted is significant or not. For this purpose, the researcher addressed the data for independent sample by 't' value.

Table No. 2

Significance difference in the mean score of post test of attitude obtained by both groups

Variable	Group	Number of Students(N)	Mean	Standard deviation	't' vale	Significance Level
Attitude	Control	25	16.8	4.62	4.72	Significant
	Experimental	25	20.1	5.05		

t value is significant at 0.05 level i.e. (1.96)

Observation:

In this table, it can be seen that the student of control group has a mean score of post-tests is 16.8 and the standard deviation is 4.62. Experimental group has a mean score of post-test is 20.1 with a 5.05 standard deviation. The 't' value for the test of significance of differencein the mean post-test score of attitudes towards learning mathematics of experimental and control group is found 4.72. This value is greater than the table value at 0.05 level that is 1.96. The obtained 't' value shows the difference in the post test mean score of attitude towards learning mathematics of students of experimental and control group is significance at 0.05 level of confidence. It means that hypothesis is rejected and a difference is significant.

Interpretation:

Experimental groups' mean score is higher than control group. The 't' value obtained for attitude towards learning mathematics shows that the difference in the post-test score is significant at 0.05 level. Hence it is interpreted that Vedic mathematics method used for the experimental group is effective and also enhance the attitude towards learning mathematics of the VIII std students.

CONCLUSION:

Teaching mathematics in the Vedic way is a joyful activity. This Vedic mathematics teaching method provides an energy, curiosity and happiness of learning of mathematics contain to students. There is not seen curiosity in control group while they learn contain of mathematics. Teaching method of Vedic mathematics for VIII std. students showed a positive effect on their learning ability. There was a positive difference in the mean score of the post-test compared to the pre-test among the VIII std students of experimental group. A new method used for learningof

mathematics of students helps to do calculations very quickly and properly. This method helps to enhance positive effect on the attitude towards learning mathematics. Enthusiasm was seen among the students while learning in this way.

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