

REVIEW OF RELATED LITERATURE

2.1 Introduction

Whenever a researcher proceeds to do research work, many questions come in front of him, to get answers to which survey of literature related to research problem is helpful. Related literature refers to that book, knowledge base, journal published and unpublished research book, by whose study he obtains answers to questions related to his problem, such as the formulation of problem selection hypotheses, determination of outline, etc. It is also to be seen how much work has been done on that problem so far. In which area and what method was used in it, what was the nature of that research work and to what extent it proved useful, now on which work research can be done, light on survey of related literature on the answer of all these questions.

2.2 Purpose of Review of Related Literature

To gain a background knowledge of the research topic: Whatever is our research topic, we have completed the detailed history about it, if we know the background, then we will be able to fulfill further research, then we can perform better in the present and future.

To identify appropriate methodology, research design methods of measuring concepts and technique of analysis: What methodology did those people use on their research, which research design they used, which methods to use, which techniques were used to measure and to analyze.

To identify data sources used by other researchers: Which sources did they use for data collection ?

2.3 Sources of Review of Related Literature

The sources of Review Related Literature is divided into three category i.e. Primary, Secondary and Tertiary. The main sources of Review Related Literature are Books related to education research, Books and survey reports, Encyclopedia of education, Education abstract, Education Indexes, Bibliographies & Directories, Journals, Newspaper, Reports, Thesis, Publications, Internet, Survey, Conference etc.

1.Title:-A Comparative Study of Effectiveness of Teaching Mathematics through Conventional & Vedic Mathematics Approach(shukla, singh, & SHUKLA)

The study was intended to compare the effectiveness of teaching mathematics through conventional and Vedic mathematics approach in the terms of student's achievement in Mathematics. In this experimental study, pretest-posttest equivalent control groups design was used having randomly selected sample of 30 students in each group. The study covered the major topics of Uttar Pradesh Education Board class VIII mathematics syllabus viz., square, square-root, factorization of algebraic expressions and

simultaneous simple equations. Mean, standard deviation and t-test were used for analyzing the data collected through self-made Achievement Tests in Mathematics as pretest and posttest.

2. Title: An Empirical Study on Role of Vedic Mathematics in Improving the Speed of Basic Mathematical Operations (Prasad, 2016)

In today competitive examinations, students find difficult to solve the aptitude questions accurately with less time durations. However students are able to understand the problem, they are not able to speedup calculation process. In this research paper some basic mathematical calculations, multiplication, square root, cube root and subtraction of fractional decimal numbers are distributed to a group of 25 students, who are preparing for competitive examination and told to solve questions without and with using Vedic methods techniques. The time taken to complete the calculations are taken in terms of minutes before and after adopting Vedic method's techniques and are analyzed using paired t-test. This paper could able to find that Vedic method significantly improves the speed of calculations while performing some basic mathematical operations.

3. Title: Vedic Mathematics in Modern Era (JOSHI, 6)

The study is being conducted by Srinivas institute of management studies, research scholar Dharar R. Joshi. In this study 25 students were taken into consideration who were preparing for various government competitive examinations. The students were taught the Vedic method of solving mathematical problems involving square roots, cube roots, multiplication, division, for large numbers which are difficult and time consuming in nature. The study finds that the method is quite helpful in saving some time while solving the aptitude problems. In this study students were given to solve the questions using their traditional method and then the same problems in Vedic methods and the time was being recorded. To find conclusion in the study t-test was used.

4. Title: Effect Of Vedic Mathematics on Achievement in Relation to Intelligence among adolescent students (Kaur•)

The research paper “effect of Vedic Mathematics on achievement in relation to intelligence among adolescent students” conducted by Rashmi Kakkar. A sample of 120 students was drawn randomly from class IX studying in two CBSE affiliated schools located in Amritsar. In the present study pre-post experimental design was implemented. Experimental group was taught through Vedic mathematics and other group was taught through conventional method.

The findings of the study were:

1. Achievement of the students taught through Vedic Mathematics was found to be higher than those taught through conventional mathematics.
2. Achievement of the students taught through Vedic Mathematics with high intelligence is higher than those with average and low intelligence.
3. Achievement of the students taught through Vedic Mathematics with average intelligence is higher than those with low intelligence.

5.Title:-Vedic Mathematics A Controversial Origin But A Wonderful Discovery(Rani, 10)

As per the study by Dr.Urmila Rani the technique being developed and written by Bharti Krishna Tirtha is unique in its own way and is effective. The problem with Vedic mathematics is its name. Here nothing seems Vedic in its nature. It is not yet proved that it is from any Vedic literature. As Bharti Krishna was a scholar of both mathematics and Sanskrit, He had written the short tricks of mathematical calculation in Sanskrit accent which is easy to remember.

6.Title:- Effect of Vedic Mathematics on achievement in Mathematics among 5th grade students(Kaur & Kaur, 21)

The research paper "Effect of Vedic Mathematics on achievement in Mathematics among 5th grade students" conducted by Gurjit kaur, Harsimrat kaur found that there was an increased qualitative ability in 5th standard school children and exploring such an exposure about Vedic mathematics in students bring an improvement in their scientific ability which operate at diverse level and carries out a comparative analysis among the students. And also students had a superior average accomplishment in tally as compared to others.

7.Title:- Strengthening Critical Thinking Skills of Prospective Teachers Through Applications Of Vedic Mathematics(S, 12)

The research paper "Strengthening Critical Thinking Skills of Prospective Teachers Through Applications of Vedic Mathematics " conducted by S Smitha found that reinforcement of computational speed and critical thinking ability among the member of prospective teachers and also give them with self-assurance by gaining that skill of computational speed and critical thinking ability through tradition of Vedic. Vedic Mathematics applications are very much effective in strengthening computational speed and critical thinking ability among the member and Achievement of the skills of Vedic Mathematics applications is a true solution in equipping prospective teachers with

adequate skills which will help in spreading the Vedic Mathematics technique to the students.

8. Title:-High speed system using Vedic Mathematics-A survey(Patwardhan & Kaur, 25)

The research paper "High speed system using Vedic Mathematics-A survey " conducted by Patwardhan Susma, Kaur Harjeet have discussed about the multipliers which is key component of digital signal processing microprocessor and filters. They found that more research and study in the field of Vedic Mathematics and their sutras in multiplier will give better results and this has a lot of scope in the fields like digital signal processing, cryptography etc.

9. Title:-Maharish's Vedic Mathematics in elementary education : Developing all knowingness to improve affect achievement and mental calculation

The research paper Conducted by Muehlman John, he observed that students who used Vedic Mathematics found computation easier more enjoyable and more motivating than the students who used traditional method. The observations from this study of Vedic sutra based computation at the third grade level indicated that the traditional method of Vedic multiplication give rise to significantly higher achievement scores, better retention, more innovative mathematics, and greater overall enjoyment than the standard approach to multiplication.

10. Title:- Survey on Performance of Vedic Multiplier(Elakkiya.J & Mathan.N, 2)

The research paper "Survey on Performance of Vedic Multiplier" conducted by Elakkiya J., Mathan. N. they have discussed different types of Vedic Mathematics Sutras. They have surveyed on the efficiency of the design methodology of Vedic multiplier compared to conventional multiplier. They have taken a review of six papers related to the Vedic multiplier, and concluded that Vedic multipliers can be implemented in different field of applications. This paper has analyzed the Vedic multipliers by using different types of Vedic Sutras to achieve fast operation with minimal efforts.

11. Title:-The Implementation of Vedic Mathematics to Algebra and Geometry(M.N.Dhanave & M.A.Kangale, 5)

The research paper "The Implementation of Vedic Mathematics to Algebra and Geometry" conducted by Dhanave M Kangale M found that the study of mathematics in two directions outer and inner. According to him, applying outer direction is practical, useful and beneficial and the inner direction reminds us the basis of entire creation like our origin, the unity and supreme. Execution of various Sūtras has been portrayed in a very lucid manner covering certain aspects of Algebra and Geometry by explaining factorization of polynomial expression of two or more variables . They explained it by taking examples to find area of given shape which can be solved either by addition or by

subtraction. The researcher have concluded that Sutras are both objective and subjective in their character.

12.Title:- Advantages and benefits of Vedic Mathematics(Kumari, 2014)

The research paper “Advantages and benefits of Vedic Mathematics” describes many positive aspects of Vedic Mathematics approach reference with respect to the traditional approach. This approach can be best explained as a way of thinking that involves solving the given complex computations e.g. trigonometry, calculus etc. with the help of basic formulas and set procedures. The most significant feature of Vedic Mathematics approach is production of swift & accurate results bypassing intermediate lengthy steps. It is a boon for aspirants of prestigious aptitude tests whose questions are designed to test a person’s presence of mind & logical reasoning capability under time limit pressure. It also helps in improving confidence and increasing concentration. By using the above systematic approach, most complicated problems are reduced to a simplified trivial problem of arithmetic computation. By practicing Vedic Mathematics one can reduce Mathematics phobia and make the subject more interesting.