



# REVIEW OF RESEARCH

ISSN: 2249-894X

IMPACT FACTOR : 5.7631(UIF)

UGC APPROVED JOURNAL NO. 48514

VOLUME - 8 | ISSUE - 9 | JUNE - 2019



## IDENTIFYING PROBLEMATIC CONTENT IN NINTH STANDARD SCHOOL TEXT BOOK AMONG SECONDARY SCHOOL STUDENTS

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### ABSTRACT:

*Mathematics is a crucial subject of school curriculum and it is important in daily living as well as in the study of other subjects. Mathematics has a vital role in the classroom because of direct of the syllabus material but because of the reasoning processes the student can develop. But many students develop fear towards Mathematics due to their misunderstanding, non-understanding and failure during previous lessons. Children with negative attitudes towards Mathematics have performance problems because they develop anxiety. There is a common belief that majority of the students like mathematics, to instruction and learners' cognitive, affective and psychomotor attributes, subject matter and the learning environment. The study adopts the descriptive survey design using simple frequency and percentage in analyzing data. 30 students are randomly selected from Higher Secondary Schools at Salem District in Tamil Nadu. The major findings revealed that Scientific Notation of real numbers and logarithms is more difficult followed by statistics, probability, real number system in learning ninth standard mathematics text book for secondary level students is a highly effective tool for learning mathematics.*



**KEYWORDS:** School Curriculum, Learning Environment, Mathematics School Text Book, Higher Secondary School Students.

### INTRODUCTION :

Mathematics is the mother of all sciences. Art is a systematic study of knowledge. The structure of mathematics in their nothing but a structure of science. The structure of science can be related to the framework of a building consists of a foundation, vertical pillars, and horizontal beams. Mathematics is a knowledge of the logic of

shape, quantity, and arrangement. Math is all around development us, in everything we do. The world largely depends on art and science, in turn, depends on mathematics (Ali, 2011). People selected as a theoretical subject. Because the truth is all the branches of mathematics were developed to enhance the demand of day to day practical life. Mathematics is

a fundamental part of human thought, logic, and integral to attempts at understanding the world of ourselves. Mathematics provides an effective way of building psychological discipline and encourages logical reasoning and mental rigor. Teaching approaches in mathematics classrooms have been changed to a more insight-based problem-oriented process during the last

decade. In addition, problem solving requires a variety of skills including interpreting information, planning and methodical working, checking results and trying alternative strategies. Educational reform and development have in recent decades been directed towards mathematical competencies, by the state or national levels (Rajkumar & Hema, 2019). Mathematical knowledge plays a crucial role in understanding the contents of other school subjects such as science, social studies, even music, and art. Education is the basic part of everyone's life it is required for the holistic development of an individual. Education imparts knowledge, skills, shapes values and attitudes. It is vital for the development of civil society. Mathematics is essential in everyday life, in their science and technology, medicine, the economy in public decision-making, etc... Mathematics is a crucial success in school, informed citizen, being productive in one's chosen carrier and personal fulfillment. The technology-focused society, greater demands have been placed on individuals to interpret, use mathematics to make sense of information and complex situations. The study of mathematics prepares students with the knowledge, habits of mind that are essential for successful and rewarding participation in society. It is the main subject as it is considered as the 'Queen of all Sciences'. The nature of Mathematics, exactness, and exactness being its hall mark, makes this subject appears as more difficult than other subjects. Even the simplest of concepts in it is like numbers, addition, subtraction, and multiplication division prescribed for the primary classes deserve in-depth understanding, imagination and creative thinking on the part of the teacher for effective teaching. Research in cognitive development has led to understanding of basic processes involved in academic skills, like reading and mathematics problem-solving. Mathematics has great cultural values; it has helped in transmitting and enriching our culture. It has helped in the development of various subjects and occupations. It is mainly responsible for the progress of our civilization and it has been rightly said, "mathematics is the mirror of civilization". It has helped man in bringing him to the advanced stage of development (Rajkumar & Hema, 2018).

### NEED AND SIGNIFICANCE OF THE STUDY

Mathematics is a subject that causes in their many undesirable emotions. One of the main challenges to mathematics teacher is to move a positive attitude in students toward learning mathematics. Because teachers should be responsive to student's affective beliefs and interrelations of those in learning mathematics as to engagement more effective strategies in teaching to improve student's mathematics learning by reducing their undesirable beliefs. The investigator aims to identify the difficulties handled by students in learning mathematics, student's effective reasons for liking mathematics and to know their motivational beliefs relate to their liking of subject and expectancy about its difficulty. Mathematics is considered a difficult subject by most of the students payable to aversive teaching style, difficulty the ensuing instruction, difficulty in understanding the subject and difficulty in remembering its equations and ways to solve a problem. The same reason is given by students for liking mathematics and there is a strong association and their belief regarding the difficulty of the subject and like towards math.

### OBJECTIVES OF THE STUDY

- To identify the difficulties faced by students in an understanding learning mathematics textbook.
- To find out frequency and percentile analysis of ninth standard students difficulties in learning mathematics textbook.

### HYPOTHESIS OF THE STUDY

- The level of percentile analysis of ninth standard students has facing difficulties in learning mathematics textbook.

### METHODOLOGY

The investigator selected for survey method. The population of the study comprised of ninth standard students at Salem district, Tamil Nadu, India. Sample of the study 30 ninth standard students as a sample selected from government higher secondary schools by using purposive sampling

techniques. Tools and Techniques of the data collection have been collected through self-made Questionnaire of the investigators themselves with the Yes or No scoring procedure. The researcher using a statistical analysis was simple frequency and percentile analysis for analyzing difficulties faced by ninth standard students in mathematics text book.

### Hypothesis: 1

The level of frequency and percentile analysis of ninth standard students have facing difficulties in learning ninth standard mathematics textbook.

Term	Mathematics Content	More difficult		Difficult		Easy		Very Easy	
		No	(%)	No	(%)	No	(%)	No	(%)
I	Theory of set	3	6.25	16	33.33	29	60.41	1	2.08
I	Real number system	6	12.5	19	39.58	17	35.41	5	10.41
III	Real number system	5	10.41	19	39.58	19	39.58	3	6.25
I	Algebra	4	8.33	16	33.33	25	52.08	5	10.41
II	Algebra	3	6.25	17	35.41	25	52.08	2	4.16
I	Geometry	2	4.16	1	2.08	24	50	20	41.66
III	Geometry	2	4.16	4	8.33	26	54.16	18	37.5
I	Coordinate Geometry	4	8.33	12	25	20	41.66	16	33.33
I	Practical Geometry	-	-	-	-	23	47.91	20	41.66
II	Practical Geometry	-	-	-	-	17	35.41	28	58.33
II	Trigonometry	3	6.25	7	14.58	23	47.91	13	27.08
II	Statistics	9	18.75	15	31.25	16	33.33	7	14.58
I	Scientific Notation of real numbers and logarithms	13	27.08	23	47.91	8	16.66	3	6.25
III	Mensuration	3	6.25	8	16.66	26	54.16	8	16.66
III	Probability	6	12.5	14	29.16	20	41.66	8	16.66
III	Graphs	3	6.25	4	8.33	17	35.41	23	47.91

From the above, the percentile analysis very difficult the student responses subject is Scientific Notation of real numbers and logarithms value is 47.91 highest difficult responses, more difficult the students response in the subject 27.08 lowest percentile value. The student's response difficult subject real number system term I & II more difficult and difficult percentile is same value is 39.58 and more difficult percentile value is 10.41 & 12.5 respectively. Their difficult subject is algebra term I & II percentile value is 35.41 & 33.33, more difficult subject student's response the percentile value is 8.33 & 6.25 respectively. The percentile subject theory of set student response difficult value 33.33, more difficult subject lowest value 6.25. The probability percentile subject is difficult & more difficult 29.16 & 12.5.

### CONCLUSION

Curriculum plays an important role in what way students learn and develop in school. The realities of practice, however, that for Mathematics teachers fostering in-depth learning in line with and the true spirit of the aims and objectives of the National Curriculum is a task easier. The goal of in-depth student learning be combined with the principles that guide school education in general and teacher education (focus on higher secondary school teachers) in particular. The goal of fostering learning of subject matter knowledge with deeper understanding in such core curriculum subjects as mathematics needs to be the first and foremost guiding principles of the school curriculum. Even without showing a competent understanding of these initial concepts, they are expected to solve problems involving multiplication, division, and rational numbers by the end of the school year

(Rajkumar & Hema, 2019). The implications of not being able to solve simple word problems are huge. The coverage of syllabus is considered as with learning concept would continue to prevail. To improve teaching and learning processes in Mathematics classrooms requires a better understanding of the real nature of the common difficulties that hinder conceptual learning, particularly at secondary level, as well as the pedagogical remedies by the teachers, to help students overcome these difficulties. The concern primarily arises from a desire to see students learn more than memorization and recalling factual information provided in the textbook, that is what is happening in many mathematics classrooms.

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