ATTITUDE TOWARDS MATHEMATICS AND ITS RELATIONSHIP WITH PERCEIVED CAREER CHOICES OF CLASS 9TH CLASS STUDENTS



A DISSERTATION SUBMITTED TO

BARKATULLAH UNIVERSITY, BHOPAL In partial fulfilment of the requirement for the degree of

MASTER OF EDUCATION (RIE)

2014-15

SUPERVISOR SHRI ANAND VALMIKI ASSISTANT PROFESSOR, RIE (BHOPAL)

RESEARCH SCHOLAR
JAYA RAJANI

REGIONAL INSTITUTE OF EDUCATION

(National Council of Educational Research and Training)

SHYAMLA HILLS, BHOPAL- 462013

Attitude towards mathematics and its relationship with perceived career choices among 9th class students





A DISSERTATION SUBMITTED TO

1 8 AFK 2019

BARKATULLAH UNIVERSITY, BHOPAL In partial fulfillment of the requirement for the degree of

MASTER OF EDUCATION (RIE)

2014-15

RESEARCH SCHOLAR MS. JAYA RAJANI

REGIONAL INSTITUTE OF EDUCATION

(National Council of Educational Research and Training)

SHYAMLA HILLS, BHOPAL- 462013

<u>DECLARATION</u>

The desire the second comments of the second

I hereby declare that the dissertation entitled "Attitude towards mathematics and its relationship with perceived career choices among 9th class students" has been carried out by me during the academic year 2014-2015 in partial fulfillment of the requirement for the degree of Master of Education of Barkatullah University, Bhopal.

This study has been conducted under the guidance and supervision of **Shri Anand Valmiki**, Assistant Professor, Regional Institute of Education, Bhopal.

I also declare that the research work done by me is original and natural. This dissertation has not been submitted before either by me or by any other, for the award of any degree or diploma in any University.

Date: 11/1/24/2015

Place: Bhopal

JAYA RAJANI

Shri Anand Valmiki

Professor

RIE, Bhopal



Regional Institute of Education Shyamla Hills, Bhopal- 462013

CERTIFICATE

This is to certify that **Ms. JAYA RAJANI** a student of M.Ed. has worked on dissertation entitled "The Attitude towards mathematics and its relationship with perceived career choices among 9th class students" under my supervision for the session 2014-2015

It is his genuine work I consider it worthy of submission for the award of the degree.

Date: 117/194/2016

Place: Bhopal.

Şhri Anand Valmiki

Assistant Professor,

R.I.E., Bhopal

<u>ACKNOWLEGEMENT</u>

I express my deep sense of gratitude and sincere thanks to Shri Anand Valmiki, (Assistant Professor), Regional Institute Of Education, Bhopal for his constant encouragement, continuous guidance and suggestions which were of immense help to maintain a high level of confidence throughout the study.

I am very much indebted and express my gratitude to Prof. H. k. Senapaty and Prof. K. K. Khare (Dean Of Instruction, Head Dept. Of Education) for providing learning environment in this institute.

I am highly thankful to Dr. N.C. Ojha, Dr. Ramesh Babu, Dr. Kiran Mathur, Dr.I.B. Chughtai, Dr. Ratnamala Arya, Dr. Sourabh Kumar Mishra, Mr. Sanjay kumar Pandagale and Dr. Suniti Khare, as well as other faculty members of RIE, for their advice and help for successful completion of dissertation.

I am also grateful to the Librarian Dr. P. K, Tripathi and all the staff members of the library who rendered all kinds of possible help and source material for completion of my research study and for allowing me to access the library.

I am thankful to the Head Master, Teachers, Staff and the students of Demonstration Multipurpose School and Indira Priyadarshini hr. sec. school, Bhopal for allowing me to collect data from their school and maintaining discipline and their heartily cooperation.

I am thankful to Ms. Tanuja khan, Ms. Firoza Khan, Mr. Rahul Tiwari, Mr. Gajendra Singh, Mr. Shivnarendra Pahade, Mr. Gautam G. Gaude and all my classmates who remained as a source of inspiration to me at all the time without whom I could not have accelerated time to time for successful completion of this work. I am thankful to those who helped me directly and indirectly in the completion of this dissertation.

Finally, my special and deepest gratitude goes to my Parents Mr. Naresh Kumar Rajani and Pushpa Rajani, my sisters Mona and Roshni and Mr. Vijay Gajwani (husband) whose support for me is beyond words.

JAYA RAJANI

CONTENTS

Declaration	(i)
Certificate	(ii)
Acknowledgement	(iii-iv)
Table of Content	(v-vii)
List of Tables and Figures	(viii)

SR. NO.	CONTENT	PAGE NO.
CHAPTER I : INTRODUCTION		1-25
1.1	Introduction	1
1.2	Mathematics	2
1.3	Mathematics: Indian Context	4
1.4	Importance of Mathematics NCERT Position Paper	10
1.5	Contents of mathematics textbooks	13
1.6	Aims and objective of teaching mathematics in school	14
1.7	Attitude	15
1.8	Attitude towards mathematics	15
1.9	Definition of attitude towards mathematics	17
1.10	Parents' perception about attitude towards mathematics	17
1.11	Teachers' perception about attitude towards mathematics	17
1.12	Students' perception about attitude towards mathematics	18
1.13	Career	18f
1.14	Career in the context of India	19
1.15	Parents' teachers' opinion	21
1.16	Need of the study	2
1.17	Significance of the study	22
1.18	Statements of the problem	22
1.19	Definition of the key terms	23

1.20	Objective of the study	23
1.21	Hypotheses	24
1.22	Research question	24
1.23	Delimitations of the study	24
1.24	Conclusions	25

	CHAPTER: II REVIEW OF RELATED LITERATURE	26 - 39
2.1	Introduction	26
2.2	Purpose of the Review	26
2.3	Review of related literature	27
2.4	Studies Related to Teaching of attitude towards mathematics	28
2.5	Studies Related to Teaching of career choice	33
2.6	Studies Related to Teaching of attitude towards mathematics and career choice	36
2.7	Recent years' studies on attitude	37
2.8	Conclusion on review of related literature	39

	CHAPTER:III METHODOLOGY	41 - 46
3.1	Introduction	41
3.2	Research design	42
3.3	Population	42
3.4	Sample	42
3.5	Variable	44
3.6	Tools and techniques	45
3.7	Procedure of Data Collection	46
3.8	Data analysis	46

CHAPTER:IV DATA ANALYSIS AND INTERPRETATIONS		47 – 55
4.1	Introduction	47
4.2	Analysis of data	48
4.3	Objective of the study	48
4.4	Hypothesis of the study	49
4.5	Objective wise analysis	49

CHAPTER- V: SUMMARY, FINDINGS AND RECOMMENATIONS	
Introduction	56
Findings	56
Objectives Of The Study	57
Hypotheses Of The Study	57
Research question	57
Variable	58
Delimitations Of The Study	58
Method	58
Sample	58
Research tools	58
Data analysis	59
Findings	59
Educational Implications Of The Study	59
Suggestions For Further Researches	60
Conclusion	61
	Introduction Findings Objectives Of The Study Hypotheses Of The Study Research question Variable Delimitations Of The Study Method Sample Research tools Data analysis Findings Educational Implications Of The Study Suggestions For Further Researches

Bibliography 62 - 65 Appendices (ix- xii)

LIST OF TABLES AND FIGURES

Table	Name of The Tables	Page No.
No.		
3.1	The sample of the present study	44
4.1	Attitude towards mathematics scale	49
4.2	Number of students with percentage of attitude towards mathematics	49
4.3	N, Mean, SD, Standard Error of mean and t-value for the attitude towards mathematics	50
4.4	Different career chosen by the students and student number in each career	51
4.5	Summary of 2 X 2 Factorial Designs ANOVA of Unequal Cell Size for Attitude towards Mathematics	52
4.6	Summary of ANCOVA for the effect of gender and its interaction with the treatment	53
4.7	N. Mean and SD for Attitude towards Mathematics	54
	List of Figures	
Fig. 1	Categorization of career	51
Fig. 2	Attitude towards mathematics and career choices	53
Fig. 3	Attitude of male students and female students of CBSE and SATE BOARD schools	55