BASIC GEOMETRICAL CONCEPTS PRACTICED BY MAJHI COMMUNITY

Α

THESIS

ΒY

CHANDRA JANG MAJHI



IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF MATHEMATICS EDUCATION

SUBMITTED

то

THE DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

UNIVERSITY CAMPUS

TRIBHUVAN UNIVERSITY KIRTIPUR, KATHMANDU

2018

RECOMMENDATION FOR ACCEPTANCE

This is to certify that Mr. Chandra Jang Majhi has completed his M. Ed. Thesis entitled **"Basic Geometrical Concepts Practiced by Majhi Community"**, under my supervision during the period prescribed the rules and regulation of Tribhuvan University, Kirtipur, Kathmandu, Nepal. I recommended and forward his thesis to the Department of Mathematics Education to evaluate in final viva-voice.

.....

Asso. Prof. Dr. Bed Raj Acharya

(Supervisor)

Date:

LETTER OF APPROVAL

A

Thesis

By

CHANDRA JANG MAJHI

Entitled

"Basic Geometrical Concepts Practiced by Majhi Community" has been

approved in partial fulfillment of the requirements for the Degree of Master of Education.

| Committee for the Viva-Voce | Signature |
|---------------------------------|-----------|
| Asso. Prof. Laxmi Narayan Yadav | |
| (Chairman) | |
| Prof. Dr. Ramjee Prasad Pandit | |
| (External) | |
| Asso. Prof. Dr. Bed Raj Acharya | |
| (Supervisor) | |
| | |

Date :....

DEDICATION

This work is heartily dedicated to my brother Sujan Majhi, Father Dusad Majhi, Mother Lali Kumari Majhi, Aunty Sumitra Majhi and all my family members who supported me in every situation of my life for what I am now.

DECLARATION

I declare that this thesis is my own work which contains no materials from other accepted dissertation of degree award which has been already done in any institution. Also I declare that this thesis has not been submitted for any other degree.

.....

Chandra Jang Majhi

LETTER OF CERTIFICATE

This is to certify that Mr. Chandra Jang Majhi, a student of academic year 2071/072 B.S with thesis number 1340, Exam Roll No.28710272, Campus Roll No. 149 and T.U. Regd. No. 9-2-29-273-2010 has completed his thesis under the supervision during the prescribed by rules and regulation of T.U. Nepal. This thesis entitled, **"Basic Geometrical Concepts Practiced by Majhi Community"** has been prepared based on the results of his investigation conducted during the period of 2018 under the department of mathematics Education, Tribhuvan University, University campus, Kirtipur. I recommended and forward this thesis for the evaluation as the partial requirements to award the degree of master of Education.

.....

Asso. Prof. Laxmi Narayan Yadav

(H.D)

Date:

© Copyright by Chandra Jang Majhi

2018

This document is copyright material. Under law, no parts of this document may be

reproduced without the written permission of the researcher.

Defense Date:....

All rights reserved

ACKNOWLEDGEMENTS

At first, I want to express my heartfelt gratitude to my respected supervisor Asso. Prof. Dr. Bed Raj Acharya, Department of Mathematics Education, Central Department of Education T.U. Kirtipur, Kathmandu for his valuable and constructive suggestion, guidelines and encouragements during the preparation of this thesis. So I'm heavily indebted towards him.

Similarly, I would like to express my sincere gratitude to associate professor Laxmi Narayan Yadav, Head of Department of Mathematics Education, Central Department of Education, T. U. Kirtipur, Mr. Abatar Subedi and Mr. Siba Sapkota to support for complete this thesis in this form.

Also I was very grateful to my all respected teachers of the Department of Mathematics Education, Central Department of Education who directly or indirectly encouraged me to complete this thesis. I would also like to thanks Mr. Krishna Majhi, Bal Bir Majhi, Dhanukha Majhi and all the respondents who helped and co-operated me providing required information during field visit.

Finally, my heartily gratitude goes to my parents, all members of my family and relatives for their invaluable supports to my career, great patience and encouragement during my study.

Chandra Jang Majhi

ABSTRACT

The major objectives of this study were to identify the basic geometrical concepts practiced by Majhi community and to explore the pedagogical implications of basic geometrical concepts practiced by Majhi community. The design of the study was qualitative in nature and ethnographic was the approach of the study. I selected my own community and area Marin village institution-6 of Sindhuli district for research field. Purposive sampling method was used to select the sample. Twelve Majhi farmers, four Majhi students and two Majhi teachers were selected by the purposive sampling. I used the interview, observation and photographs as a data collection tools and tried to find out the real field data. After analysis and interpretation of data I found that several geometrical concepts which was practiced by Majhi community in their daily life activities such as concepts of circle, triangle, square, parallel line, perpendicular line, cone, hexagon, parallelogram, rectangle, diagonal, semi-sphere, slope, cylinder, cuboids, curve, angle, diameter, sphere and so on. Then I tried to find out the relationship between their cultural geometry and formal geometry and see how their geometrical concepts can be linked with teaching learning geometry at the school level. I found that a Majhi community was a source of geometrical knowledge they used it in their daily life activities. Everybody can gain several types of geometrical concepts from Majhi community as their practices in several roles in community.

TABEL OF CONTENTS

Page No.

| Letter of Certificate i | | i |
|-------------------------------|------------------------------|-------|
| Letter of Approval | | |
| Recommendation for Acceptance | | |
| Declaration | | |
| Dedication | | vi |
| Acknowledgements | | vii |
| Abstract | | viii |
| Table of Contents | | ix |
| List of Tables | | xii |
| Abbreviations | | xiii |
| Chapters | | |
| Ι | INTRODUCTION | 1-13 |
| | Background of the Study | 1 |
| | Majhi Community | 5 |
| | Statement of the Problem | 10 |
| | Objectives of the Study | 11 |
| | Significance of the Study | 11 |
| | Delimitation of the Study | 12 |
| | Definition of Terms | 13 |
| II | REVIEW OF RELATED LITERATURE | 14-23 |
| | Theoretical Review | 14 |
| | Empirical Review | 18 |
| | Conceptual Framework | 22 |

| III | METHODS AND PROCEDURES | 24-28 |
|-----|-------------------------------------|-------|
| | Design of the Study | 24 |
| | Study Area | 24 |
| | Sample of the Study | 26 |
| | Tools of Data Collection | 26 |
| | Data Collection Procedure | 27 |
| | Data Analysis and Interpretation | 28 |
| IV | ANALYSIS AND INTERPRETATION OF DATA | 29-70 |
| | Jaal (Fishing Net) | 29 |
| | Chhatri | 30 |
| | Dhimri | 31 |
| | Dhadiya | 33 |
| | Chhapni | 34 |
| | Thumse | 35 |
| | Chalna and Nangla | 36 |
| | Chhoeti and Taraju | 37 |
| | Mandra | 38 |
| | Chyadi (Dhedanga) | 40 |
| | Dalo | 41 |
| | Dhakki | 42 |
| | Gundri | 43 |
| | Chanj | 44 |
| | Chhoeta (Chhapri) | 45 |
| | Beri (Bhakari) | 46 |
| | Khoga and Thatera | 47 |

xi

| Chhana (Roof) | 48 |
|---------------------------------------|-------|
| Achano | 49 |
| Deli and Gedra | 50 |
| Muda | 51 |
| Ghum | 52 |
| Construction of a House | 53 |
| Window and Door | 55 |
| Table | 56 |
| Mola (Mukhauro) | 57 |
| Pata and Juwa | 58 |
| Halo (Plow) | 59 |
| Dheki | 60 |
| Ghatta and Janta | 61 |
| Soli | 63 |
| Peranga | 64 |
| Chakati | 65 |
| Making Alcohol | 66 |
| Eka Khutte (Game) | 68 |
| Bichul (Game) | 69 |
| FINDINGS, CONCLUSION AND IMPLICATIONS | 71-74 |
| Findings of the Study | 71 |
| Conclusions of the Study | 72 |
| Implications of the Study | 73 |
| REFERENCES | 75-78 |
| APPENDICES | 79-80 |

V

xii

LIST OF TABLES

Page No.

| Table 1: Population distribution of Majhi people in Dhamile, Chanduli and | |
|---|----|
| Chha villages of Marin village institution, Sindhuli district. | 10 |

ABBREVIATIONS

| B.S | - Bikram Sambat |
|--------|--|
| CERID | - Research Center for Educational Innovation and Development |
| UNESCO | - United Nation Educational Scientific and Cultural Organization |
| NESP | - National Education System Plan |