#### MATHEMATICAL CONCEPTSPRACTICED BY TERAI FARMERS

A

Thesis

BY

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# FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MATHEMATICS EDUCATION

## SUBMITED TO

THE DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

UNIVERSITY CAMPUS

TRIBHUVAN UNIVERSITY

KIRTIPUR, KATHMANDU

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# RECOMMENDATION FOR ACCEPTANCE

This is to certify that Mr. Sanjeet Kumar Yadav has completed his M.Ed.
thesis entitled "MathematicalConceptsPracticed By Terai Farmers". Under my
supervision during the period prescribed the rules and regulation of Tribhuvan
University, Kirtipur, Kathmandu. I mentioned and forward his thesis to the
Department of Mathematics Education to evaluate in final viva-voce.

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## LETTER OF APPROVAL

A thesis by SanjeetKumarYadav entitled "Mathematical Concepts

Practiced ByTerai Farmers" has been approved in partial fulfillment of the requirements for Degree of Master of Education.

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### LETTER OF CERTIFICATE

This is to certify that Mr. Sanjeet Kumar Yadav, a student of academic year 2071-2072 B.S. with thesis number 1375 Exam Roll No. 28710328, Campus Roll No. 216 and T.U. Regd. No. 9-2-225-696-2009 has completed this thesis for the period prescribed by the rules and regulations of Tribhuvan University, Nepal. This thesis entitled "MathematicalConceptsPracticed By Terai Farmers" has been prepared based on the results of his investigation. I hereby recommend and forward that his thesis submitted for the evaluation as the partial requirements to award the Degree of Master of Education.

Prof. Dr. Bed Raj Acharya
(Head)

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February, 2020

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## **DEDICATION**

I would like to dedicate this dissertation to my brother and my parents

Ram SuphalYadav and AmirkaYadav

Who modeled for me the joy of learning, for their unflagging support and devoted their lives for making me who I am now.

**DECLARATION** 

I hereby declared that the work presented in this thesis has been done by

myself, and has not been submitted elsewhere for completion of Master Degree. All

sources of information have been specifically acknowledged by reference to the

author.

.....

Sanjeet Kumar Yadav

Date: 20 Feb. 2020

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I would first and foremost like to gratitude to my Supervisor and Department Head of Mathematics Education Prof. Dr. Bed Raj Acharya, for this advisory and mentoring roles throughout the research journey. His suggestions, support, inspiration and encouragement is to possible complete this study. It would not be possible for me to bring the study in this form without his positive encouragement and support.

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I am grateful to those numerous authors of various books and journals whose great and masterly works that I have consulted during this research work. I am also especially grateful to farmers and respondents of the study area for their active participation conducted by me in the data collection.

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#### **ABSTRACT**

The major focus on this study was to explore the "Mathematical Concepts Practiced ByTerai Farmers". The main objectives of this study were to find out the mathematical concept used by farmers in their artifact and to analyze the mathematical concept practiced by farmers with respect to socio-cultural context. The design of the study was qualitative in nature and ethnography was the approach of the study. I selected my own area Dhangadhimai-04 of Siraha district for research field. Ten farmers were the sample of this study, in which six farmers were uneducated and four farmers were literate or able to read and write. These all farmers were selected by the purposive sampling. I used the interview, observation and photographs as data collection tools and tried to find out the real field data. The collected data were analyzed with the help of Vygotskiantheory. After analysis and interpretation of data, I found arithmetic concepts and geometrical concepts which was used by farmer in their daily life activities and farming such as concepts of percentage, profit, loss, add, subtract, multiply, divide, circle, angle, square, parallel line, perpendicular line, cone, hexagon, cylinder, curve diameter and so on.

Some literate farmers used formal way of additional and subtraction but rests were using alternative ways. They used hands and fingers unit Bitta, Haat. They used Kosh to measure long distance. Farmers achieved the mathematical concepts from different ways such as; from observing their guardians and neighbors using experience and practices, reflections and interacting art and individual creativity, to consult other farmers. Also they got mathematical concepts as a farmer, as a sales man, as a learner and as a teacher.

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