

**MATHEMATICS CONCEPTS PRACTICED IN KUMAL COMMUNITY**

A

THESIS

BY

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**CERTIFICATE**

This is to certify that Mr. Raju Lanichhane, a student of academic year 2066/067 with Exam Roll No. 281352 (2067), Thesis number 1124, campus Roll No. 1056 and T.U. Registration No. 9-2-239-197-2005 has completed his thesis under my supervisor during the period prescribed by the rules and regulations of T.U., Nepal. The thesis entitled “Mathematics Concepts Practiced in Kumal Community” embodies the result of his investigation conducted during the period of February, 2016 to April 2016 under the Department of Mathematics Education, Tribhuvan University, Campus, Kirtipur. I recommend and forward that his thesis be submitted for evaluation as the partial requirements to award the Degree of Master of Education.

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**A**

**Thesis**

**By**

Raju Lamichhane

Entitled

**“Mathematics Concepts Practiced in Kumal Community”**

has been approved as partial fulfillment for the requirements of the Degree of Master of  
Education.

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Raju Lamichhane

## ABSTRACT

The researcher conducted a study about an ethnographic study in Chitwan district, to find out the mathematical concept and processes that are embedded in the everyday working activities of Kumal community. This study emphasized to explore the technique, methods and counting system used in this community. The population of the study consisted the Kalika Municipality of Chitwan district at which the researcher took twelve respondents. The first step observation was in to the community to find out the involvement in mathematical activity. Interview had been applied selected respondents. The result showed that many conventional and traditional concepts are embedded in the practice of the Kumal community. They made extensive use of such concepts as counting processes, operation and measurement system in their daily life. The result showed that above mentioned mathematical concepts are used to count object, calculate domestic thing and measuring land.

The result is presented objective wise in three section (counting system, Math's operation, and measurement system). The methodology of the research was participant observation and interview. The result also that their acquired mathematical concepts through experience and practices activities. From their elder person of the community. The researcher also found that the society is a source of knowledge. Everybody can gain different types of knowledge from society as their works in different role in societal. Finally the major findings are : the numeration system of Kumal base 20. They have no seprate script. They have traditional measurement system by using stones, grains of corn fingers, stick. Lengths are measured by hand. The units of length are amal, kuret, bitta and haat. Volume are measured with different types of traditional pots, like mama and pathi. Weight are measured by traditional measurement device 'Tula'. Which units are dharni, bisauli, ser. Literate and young Kumal are becoming aware of formal system of mathematical proces and measurement system.

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## ACRONYMYS

CERID – Research Center for Educational Innovational and Development

UNESCO – United National Educational, Scientific and Cultural Organization

T.U. – Tribhuvan University

Dr. – Doctor

Ph.D. – Doctor of Philosophy