## DETRIMENTAL FACTORS OF LOW ACHIEVEMENTS IN GEOMETRY

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## THESIS

BY

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# IN THE PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTERS OF EDUCATION

### **SUBMITTED**

TO DEPARTMENT OF MATHEMATICS EDUCATION CENTRAL DEPARTMENT OF EDUCATION TRIBHUVAN UNIVERSITY UNIVERSITY CAMPUS KIRTIPUR, KATHMANDU, NEPAL, 2015

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"Detrimental Factors of Low Achievements in Geometry" has been approved in partial fulfillment for requirements of degree of Master of Education.

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This is to certify that Mr. Jhalak Prasad Adhikari, a student of academic year 067/68 with Campus Roll No. 795, Thesis No. 1010, Exam Roll No. 281401 and T.U. Registration No. 9-2-278-1079-2006 has completed this thesis under my supervision for the period prescribed by the rules and regulation of Tribhuvan University, Nepal. The thesis entitled "Detrimental Factors of Low Achievements in Geometry" embodies the result of his investigation conducted during the period of 2015 at Department of Mathematics education, University campus, Kirtipur Kathmandu. I recommend and forward this thesis for the evaluation as the partial requirements to award the degree of Master of Education.

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Jhalak Pd. Adhikari

#### ABSTRACT

Geometry is one of the important aspects of mathematics. Research findings have shown difficulty in teaching and learning of mathematics, Geometry in particular. Not only the geometry most of the students are suffering from the confusion of the basic concept of the mathematics.

So, this is a case study to identify the detrimental factors for low achievement of geometry and its remedial measure. This Study was conducted on Grade – VIII of Nightingale School, Kupondol, Lalitpur. Two teachers and six low achiever students of Geometry were selected as the respondent units. The school documents, classroom observation and interviews with students, teachers and parents were the tools of study. The major findings of the study were identified such as foundation of the instructor and the learner is not in the level of satisfactory. Students have poor generalization power in Geometry and interest of the students to improve their level is no more towards Geometry. Lacking on the willingness to learn new concept in Geometry and searching new teaching techniques, material related aspect and the evaluation tools. In our context we most give emphasis of geometry learning. In the similar manner contextualisation of learning and change from the traditional one-way classroom to two-way interactive classrooms is required to change the level of Geometry in school level.

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## LIST OF ABBREVIATIONS

CERID: Research Centre for Educational Innovation and Development

FGD: Focus Group Discussion

ICT: Information computer and Technology

SLC: School Leaving Certificate

ZPD: Zone of Proximal Development