# EFFECTIVENESS OF SOCIAL CONSTRUCTIVIST APPROACH IN MATHEMATICS TEACHING

**A**

**THESIS**

**BY**

**JBP KOIRALA**

**FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION**

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## LETTER OF CERTIFICATE

This is to certify Mr. JBP Koirala, a student of academic year 2012 with Campus roll No. 221, Exam Roll No. 281067 , Thesis No. 1079 and TU Registration No. 9-2-21-780-2008, has completed his thesis under my guidance during the period prescribed by the rules and regulation of T.U., Nepal. This thesis entitled **"Effectiveness of Social Constructivist Approach in Mathematics Teaching"** embodies the result of his investigation conducting during the period of 2015 at the Department of Mathematics Education, University campus, Kirtipur, Kathmandu. I recommend and forward that his thesis be submitted for the evaluation for awarding the Degree of Master of Education.

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Date: 22 May, 2016

**LETTER OF APPROVAL**

**A**

**Thesis by**

**JBP KOIRALA**

**Entitled**

**Effectiveness of Social Constructivist Approach in Mathematics Teaching**

has been approved in partial fulfillment requirements for the degree of

Master of Education

| **Committee of the viva-voice** | **Signature** |
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Date: June 6, 2016

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# Abstract

Due to the reform in mathematics education, in the developed countries, mathematics curriculum is changed and finally a great change in teaching methods occurred. In Nepal, mathematics teaching is still characterized as traditional approach of teaching focusing more on the memorization of facts conveyed to the students by the teacher. In this context, the researcher is interested to implementing new approach of teaching learning in classroom. Reformer mathematics educator argue that social constructivist (specially, collaborative learning approach) teaching approach is best one in modern world in learning mathematics. Therefore the researcher aimed to determine the effectiveness of social constructivist approach in teaching different mathematical content. Especially, this study was intended to determine effects of social constructivist method of teaching compared to the conventional method of mathematics teaching based on following objects:

- To compare the achievement of the students taught by Traditional approach and Social constructivist approach.
- To find the effect of social constructivist teaching approach on mathematics teaching.

Two school of Bhaktapur districts, named Orbit English Secondary School, Gatthaghar and Little Blooms Secondary School as experimental and control group respectively. Designed of the experiment was pre test, post test non-equivalent quasi experimental design. The selected all 16 students from experimental group and 14 student from the control group. Experimental and control groups were taught the same content of grade VIII by using social constructivist and traditional method of teaching respectively. The duration of experiment was one and half week.

After completing the experiment an achievement test was administrated on both the groups and the mean, variance, S.D. and coefficient of variance were calculated. After calculating mean, variance, S.D. and coefficient of variance, one tailed t-test was applied at the level of significance 0.05 to examine the mean difference. According to pretest and posttest, the researcher concludes that the social constructivist approach is better method of teaching mathematics.

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