

A COMPARATIVE STUDY OF EFFECT OF LABORATORY AND CONVENTIONAL METHOD OF TEACHING ON COGNITIVE ACHIEVEMENT IN MATHEMATICS.

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ABSTRACT

The effect of Laboratory and Conventional method of teaching on Cognitive achievement of students in the subject of mathematics was investigated. The sample consisted of 250 students of 8th class randomly selected from ten boys, girls, rural and urban elementary schools of Districts Rawalpindi and Islamabad. They were assigned into two groups experimental and control. The experimental group was exposed by Laboratory method and control groups was taught using the conventional method of teaching mathematics. The data was analysed by applying t-test to find the significant difference of effect on achievement of cognitive objectives of two groups on their post test. The descriptive statistics – means and standard deviation were worked out and statistical illustrations of interaction of both groups and achievement of boys and girls are also shown. The study revealed that there is no significant difference in the achievement of student of both group. However, students learn mathematics better in situation where they observe, do experiment, manipulate, collect data, classify, measure and analyse than in situation where they learn in the abstract by conventional ways of chalk and talk method.

INTRODUCTION

Mathematics by virtue of its extensive practical applications and the aesthetic appeal of its methods and results has long held a prominent place in education. This prominence has generated long and serious concern about how one learns the facts, concepts and reasoning process central to mathematics analysis of situation (6:88).

Mathematics plays an important role in the complex world of Modern Science and Technology. The scientific and technological development since 1940 first time emphasized that we live in the scientific age and the disciplines which support this scientific and technologist civilization – such as Physics, Chemistry, Engineering, the management science, economics, the biological