

# Enhancing Geometric Skills Through Multimedia (Geo Gebra) Approach Among VIII Standard Students In Thiruvallur District

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## Abstract

This study aimed to enhancing geometric skills in mathematics among eight standard students through multimedia. The participants were 60 children aged 12-13 (Grade 8). Geometric skills were investigated to categorize participants as good or poor learners. The results showed that geometry instruction through traditional methods does not have a positive influence over students' success in learning 8th grade geometric problems. On the contrary, geometry instruction use of a Technology built by the researcher has been determined to positively affect students' success in learning geometric shapes and to lead towards a statistically significant difference in terms of students' success.

**Key words:** *Geometric skills, Multimedia, Geo gebra.*

## 1. INTRODUCTION:

Mathematics knowledge and study and has long been considered one of the central components of human thought. Some call it a science, others an art and some have even likened it to a language. It appears to have pieces of all three and yet is a category by itself. According to the National Curriculum Framework (NCF) 2005, the main goal of Mathematics education in schools is the 'mathematisation' of a child's thinking. Clarity of thought and pursuing assumptions to logical conclusions is central to the mathematical enterprise. While there are many ways of thinking, the kind of thinking one learns in Mathematics is an ability to handle abstractions and an approach to problem solving.

The word "Geometry" is derived from the Greek word "Geo" and "Metron" which mean Earth and Measurement respectively. Translating roughly to "Earth's Measurement," geometry is primarily concerned with the characteristics of

figures as well as shapes. Practically, geometry plays a great role in determining the areas, volumes, and lengths. Euclid is considered to be the "Father of Geometry."

## 2. OBJECTIVES:

- ❖ To ensure that all the students are able to solve Geometrical Problems
- ❖ To understand the basic concepts in geometry and related terms
- ❖ To know the difference between Geometrical shapes and their terms
- ❖ To understand the definition of geometrical expression with various examples
- ❖ To motivate and hands on experience to solve the problem in Geometry

### 3. METHODOLOGY:

**A.Method:** Experimental study design (Control group- Experimental group, pre-test and post-test method)

**B.Sample:** Two schools selected from Kadambathur Block and Poonamalle in Thiruvallur District. A Sample for the present study consist of 30 Student in control group and 30 Student in experimental group from PUMS, Melmanambedu, Poonamalle block and PUMS, Satharai, Kadambathur Block, Thiruvallur District

**C.Tool:** Pre-test and Post -test questionnaire prepared by Investigator

**D.Intervention:** 1. Geogebra approach 2. Geometrical related video package

**E. Data analysis:** In the present study Mean, Median, Mode, Standard Deviation and correlation values were analyzed.

### 4. FINDINGS:

- It is found that, In Experimental group Model there is significant difference between pre test and post test score. The average of Post test results (76.45) is higher than pre test (62.28) results
- It is found that, In Control group there is slight significant difference between pre tests and post test score. The average of Post test (61.43) results is slightly higher than pre test (59.61) results
- The Result shows that there is significant difference between Post test Score in Experimental Group and Control group. The average marks in Experimental Group (76.45) higher then control group (61.43)
- It is found that there is no significant difference between Post test score in Control group Boys and Girls. The

average marks in Boys (62.12) are higher than girls (61.73)

- It is found that there is no significant difference between Post test score in Experimental group Boys and Girls. The average marks in Boys (77.54) are higher than girls (75.84)
- There is a correlation (0.752) between the Experimental Group and Control group based on their post test score.

### 5. EDUCATIONAL IMPLICATIONS:

Research results have pointed that geometry instruction through traditional methods does not have a positive influence over students' success in learning 8th grade geometric problems. On the contrary, geometry instruction use of a Technology built by the researcher has been determined to positively affect students' success in learning geometric shapes and to lead towards a statistically significant difference in terms of students' success.

This Experiment Research has motivated the students through various activities and also improved their understanding level. The students were engaged brightly in each activity. Geogebra, Worksheets and other related activity help the teachers to ensure the concepts development while teaching.

### 6. RECOMMENDATION:

- ❖ This study was dealt only geometrical concepts. It can be extent educationally forward students like high achievers.
- ❖ The present study was restricted to selective block in Thiruvallur district. It can test other blocks and other districts.
- ❖ The present study was restricted to VIII grade only. So it can be testing high and higher secondary Level.

### 7. CONCLUSION:

It was found that geogebra Technique and worksheet activities more effective to learn geometrical concepts. Definitely, various strategies and activities for teaching geometrical

concepts and continuous assessment through Worksheets gave more exposure and made the learning environment of the students to learn a lot easily and quickly. The Students equipped themselves to solve the Problem on their own in Geometry without any mistake and also apply the same in day to day life.

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