

**USE OF ACTIVITY BASED INSTRUCTIONAL METHOD TO  
ENHANCE PERFORMANCE ON ALGEBRAIC INEQUALITIES:  
A CASE STUDY OF NINTH GRADERS IN  
JAFFNA EDUCATIONAL ZONE**

**N. Prashanthan**

Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka

Mathematical inequalities are encountered in various branches of Mathematics and other related fields. However, only a limited amount of researches has been conducted on this particular section. Thus the objective of this study was to analyse the problems in enhancing performance on mathematical inequalities in grade nine students. This study also attempts to encompass a deep analysis on the effectiveness of Activity Based Instructional method in teaching mathematical inequalities in schools situated in Jaffna district. In addition, the research aims to find out the reasons behind the poor performance of the ninth grade students in mathematical inequalities.

To make the study more successful this dissertation reports a survey study among different types of schools situated in Jaffna Educational zone in 2015. The empirical data were collected over a period of six months, following four Jaffna schools being taught by the same teacher using two different styles of instructional methods such as Activity Based Instructional method and traditional instructional method. 76 ninth grade students from the schools were randomly selected as the sample. A pretest was administered to identify the prior knowledge of students on mathematical inequalities. With the help of pre test marks students were put into two groups. The pretest ensured that the groups are equivalent. The traditional method was used to the control group and the ABI method was used to the experimental group as the treatment aided with specially prepared lesson plans. Finally, a post- test was conducted to both groups of students to analyze the changes occurred in the sample groups. There was a significant difference in the posttest marks of the experimental group (ABI method) when compared to the marks of the students taught by traditional method of teaching. The experimental group of students were actively participated in the lessons, highly motivated and engaged in self learning. The results also indicate that the challenges faced by the students and the teachers, the needs and the remedial measures in enhancing the performance of inequalities in mathematics. Further this study shows the importance of providing opportunities to the teachers to practice the ABI method and motivate them to spend time in teaching mathematical inequalities.

