

**AN EXERCISE IN TEACHING THE TOPICS "EQUILIBRIUM OF
A RIGID BODY UNDER THE ACTION OF COPLANAR
FORCES" AND "COMPLEX NUMBERS" OF THE
GCE (A/L) SYLLABUS BY THE GUIDED
DISCOVERY METHOD**

A PROJECT REPORT PRESENTED BY

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to the Board of Study in Science Education of the
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Traditional lecture method (TLM) is used for teaching mathematics in the G.C.E. Advanced Level (A/L) classes in our country. There is no active participation between students and the teacher, for successful learning. An attempt was made to introduce guided discovery method (GDM) in teaching some units in the A/L combined mathematics. With guided discovery method of teaching, the role of the teacher changes from presenter of information and explainer of concepts to one who teaches students how to ask questions, how to look for evidence, and how to evaluate the findings of their inquiries.

In this report lessons and worksheets for sub-units of “The equilibrium of a rigid body under the actions of coplanar forces and complex numbers” in the A/L combined mathematics syllabus, was prepared, using TLM and GDM. These two units were taught for three selected classes of A/L students in Giriulla zone in the North-Western Province. Pre-test and post-test marks were gathered for each subunit. Using these marks, Normality test was done to find out whether the data was normal or not and variance test was done to find the difference in variance. Two tailed t-test was used to check the performance levels, before the research. After using the two teaching methods, one tailed t-test was used to analysis the difference of teaching methods.

Analysis of data collected indicates that there is a significant difference in teaching methods of GDM and TLM with A/L students. These studies will provide educators with guidance for planning GDM lessons and manipulating small group discovery method and evaluate the advantages and disadvantages of this method.