

**IMPROVEMENT OF STUDENTS' ACHIEVEMENT IN LEARNING
SECTION 6.5: POLLUTION OF THE ENVIRONMENT OF A/L
BIOLOGY SYLLABUS THROUGH ACTIVITY BASED LEARNING**

A PROJECT REPORT PRESENTED BY

MEDHA MANEL WICKREMASINGHE

**to the Board of Study in Science Education of the
POSTGRADUATE INSTITUTE OF SCIENCE**

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN SCIENCE EDUCATION

of the

UNIVERSITY OF PERADENIYA

SRI LANKA

2004

ABSTRACT

IMPROVEMENT OF STUDENTS' ACHIEVEMENT IN LEARNING SECTION 6.5: POLLUTION OF THE ENVIRONMENT OF A/L BIOLOGY SYLLABUS THROUGH ACTIVITY BASED LEARNING

M.M.Wickremasinghe

Post Graduate Institute of Science

University of Peradeniya

Peradeniya

Sri Lanka

In the developing society of the 21st century, education has emphasizes active learning and its utility to ensure meaningful quality participation of a person. It needs to address the issues of helping students confront with novel situations, sharpening abilities and developing fluencies essential for facing challenges and problem solving skills across a variety of disciplines. The effective design and use of student-centered activities are thus important for educational practices.

This study was carried out to examine whether Activity Based Learning (ABL) would improve the understanding of environmental science concepts and enhance the achievement of students when compared to Traditional Lecture Method (TLM). At the same time important facts related to the lesson, pollution of the environment (section 6.5 in the unit 6) and activities or laboratory practicals that have not been included in the syllabus were introduced.

A sample of Grade twelve biology students from three schools in Galle District was selected for the study. Each biology class of those schools was divided into two groups for ABL and TLM. ABL method and TLM were carried out by me and the relevant biology teacher of the class respectively. The two groups of students of ABL and TLM achieved similarly in the pre-test. Post- test paper was used to examine the achievement of both groups of

students who participated in Activity Based Learning and who completed traditional teacher directed learning respectively.

Results indicate that there is a significant difference in responses between ABL and TLM groups when answering the post-test and a qualitative improvement in the manner they responded to an activity. Students of ABL groups got higher marks than the students of TLM groups for the post-test.

The section 6.5 of A/L Biology syllabus can be taught successfully through Activity Based Learning and it enhances students' achievement.