INTRODUCING FIELD BASED TEACHING TECHNIQUE AS A TEACHING TOOL FOR THE BIODIVERSITY UNIT IN THE G.C.E (A/L) SYLLABUS

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Learning biodiversity concepts in the Advanced Level (A/L) Biology curriculum is more related to the field of ecology. Giving students opportunities to interact with the environment directly, will improve students' ability to understand and apply biodiversity concepts in a more realistic way. Generally teachers do not use audio visual aids or other teaching methods other than traditional lecture-based method to make learning more meaningful. The purpose of the study was to enhance the effectiveness of teaching and learning process of biodiversity unit in the A/L curriculum using field based teaching method. This study involved three phases. The first phase of the study was dedicated to identify the problems regarding the existing teaching and learning processes and to find out possible solutions to overcome these identified problems. In order to achieve that objective a survey was conducted using questionnaires for teachers and advanced level students from selected schools in five educational zones in the Gampaha district. In the second phase three subunits (ecosystem and its biodiversity, threats to biodiversity and conservation) were selected from the biodiversity unit to introduce a field based teaching technique. Four lesson plans were prepared based on the content of three sub units according to 5E model which includes engagement, exploration, explanation, elaboration and evaluation. Each lesson plan included field based activities as well as classroom activities. Pretest was conducted with 90 students selected from three schools. Two groups were identified as the 'control' and the 'experimental' groups. A post test was administered to all students in both groups after the completion of the teaching content of

the subunits. In the phase three, lecture based method and field based teaching techniques were compared. The data collected from the pre-test and post-test were analyzed using the t-tests. The results of the survey showed that most teachers' problems were related to the curriculum, practical problems and lack of time. Most teachers used lecture based teaching method and outdoor activities were rarely used in teaching this unit. The student questionnaire revealed that most teachers rushed through the last few sub units of the biodiversity unit due to lack of time, less usage of external sources such as computer technology and not having enough time to go on field excursion. Analysis of post test results showed a significant difference in attitude and knowledge in between the two groups of students. Experimental group showed higher order skills than the control group. Students in the experimental group participated actively in field based lessons and learnt through first hand experience. The results of the preset study suggested that field based teaching techniques help teachers and students to overcome many difficulties faced by them and supply teaching aids that enable them to realize the value of conservation of biodiversity.