

# USE OF BIOLOGY PRACTICALS TO ENHANCE LEARNING OF GRADE ELEVEN STUDENTS

P. Raveendranathan

Postgraduate Institute of Science

University of Peradeniya

Peradeniya

Sri Lanka

Biology is a subject that should be learnt through laboratory work. Many studies reveal that engaging in laboratory assignments is a better way to understand the concepts in biology. In this regard the present study was carried out to show the influence of practical sessions on the learning process of biology by Grade 11 students.

During the study quantitative and qualitative methods were used, for quantitative approach practical worksheets, covering the concepts in biology for Grade 11 students, were used and the experimental group of 75 students was allowed to attend the practical sessions. Another group comprising 75 students was treated as control group and was exposed only to class room teaching of the same. Both groups were examined using the same question paper before (pre-test) and after the study (post-test). The student *t*-test analysis revealed no significant variation ( $p > 0.05$ ) among the average marks of the two groups based on the pre-test. However, there was a significant variation ( $p < 0.05$ ) in the average marks of the two groups based on post-test with higher mean average for experimental group.

For qualitative approach, interviews and questionnaire were conducted among students and teachers respectively, more than 90% of the students preferred practical sessions and about 72% students preferred group learning, and Eighty-five percent students revealed that practical sessions are essential for easy understanding of the concepts in biology. Regarding to the teachers responses 61% of the teachers preferred practical sessions is more essential to teach biology in grade 11.

So this study reveals that Biology can be taught efficiently through practical sessions. More than this, students also prefer to engage in laboratory work. This should be taken into consideration when teaching biology for Grade 11 students.