

Relationship between biology students' G.C.E. (A/L) results and their mathematics results at G.C.E. (O/L): a case study in Bandarawela educational zone

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The G.C.E. (O/L) and the G.C.E. (A/L) Examinations are the milestones in secondary education which determine the golden key to admirable future to Sri Lankan students. According to the available statistics the achievement level of students at the G.C.E. (A/L) is still less than the expected level despite the annual allocation of human and physical resources by the Sri Lankan government with the aim of improving students' performance. This could be due to several interrelated factors such as lack of interest, poor academic abilities, poor teaching methods, weak teacher characteristics and other related issues. This study focuses on finding the relationship between biology students' G.C.E. (A/L) results and their mathematics results at G.C.E. (O/L). This is a mixed method study. Questionnaires, documents, and semi-structured interview schedules were used in the data collection process. The sample included 167 G.C.E. (A/L) Biology students from Bandarawela Educational Zone. Data analysis was performed through basic statistical procedures and qualitative data analytic techniques. Results show that the high percentage of students who pass their G.C.E. (A/L) examination at their first attempt had "A" Grade for their G.C.E. (O/L) Mathematics compared to the students who had low results for their G.C.E. (A/L). Moreover, high percentage of students who obtained more than "S" Grade for G.C.E. (A/L) Physics were the students who had "A" Grade for their G.C.E. (O/L) Mathematics. The high percentage of students who passed their G.C.E. (A/L) examination at their first attempt was the students who have sat for their both G.C.E. (O/L) and G.C.E. (A/L) examination at the same school. Thus, G.C.E. (O/L) Mathematics results directly affect for G.C.E. (A/L) Biology students' performance at the examination. Interview data reveals that the students' G.C.E. (A/L) Biology stream results are better when they have enthusiasm in all sections in G.C.E. (O/L) Mathematics. Further, the change of the school after their G.C.E. (O/L) could also affect students' performance at G.C.E. (A/L) in the bio-science stream. Hence, these findings could be considered in remedying the prevailing situation through suitable practices to enhance the status of science education in Sri Lanka.