

## **A STUDY OF THE G. C. E. (ADVANCED LEVEL) COMBINED MATHEMATICS SYLLABUS**

H. JAYASINGHE<sup>1</sup> AND U.N.B. DISSANAYAKA<sup>2\*</sup>

<sup>1</sup>*National Institute of Education, Maharagama;* <sup>2</sup>*Department of Mathematics, Faculty of Science, University of Peradeniya, Peradeniya.*

Under the Education Reforms of 1998, the number of mandatory subjects offered at the G.C.E. (A.L.) Examination was brought down from four to three. The subjects Combined Mathematics (CM) and Higher Mathematics (HM) were introduced for the G.C.E. (A.L.) Physical Science stream instead of Pure Mathematics and Applied Mathematics. CM is offered by the majority of students (99%) who follow the physical science stream at the G.C.E. (A.L.). It should be noted that CM has been taught for nearly five years, and as a tradition, it is high-time to initiate steps for a revision of the curriculum content of the subject CM.

In the present study, we investigate the impact of the introduction of CM at the G.C.E. (A.L.) from the point of perception of numerous stakeholders in the relevant fields. The effect on the clientele is crucial, and it was examined vis-a-vis their personal views and aspirations. This study mainly focused the curriculum content of the CM syllabus.

A sample comprising G.C.E. (A.L.) teachers (60), university academics (15), university students (30), educators involved in tertiary education (04) and entrepreneurs (02) was selected for this study. Questionnaires, interview schedules and documentary survey [past ten years of G.C.E. (O.L.) syllabi, and past twenty five years of G.C.E. (A.L.) syllabi] were used to collect data and information required for this study.

The majority of school teachers indicated that allocated time was inadequate to teach the subject matter to mastery level. The lecturers in the Departments of Mathematics at Engineering and Science Faculties highlighted that the curriculum content of the subject CM was not adequate for providing the students with the necessary background knowledge and skills to proceed to their undergraduate courses. The directors of Advanced Technical Institutes pointed out that the knowledge and skills of the students who followed CM was adequate for mathematics-related technical courses. Entrepreneurs stressed that what is most required of prospective recruits was the capacity to look at and analyze a problem critically, but not mere theoretical book knowledge. It needs to be emphasized that there is no radical content-wise gap between the G.C.E. (O.L.) Mathematics syllabus and the G.C.E. (A.L.) Combined Mathematics syllabus; but a major revision of the format and the curriculum content of the subject CM is welcomed by the 90% of the academic-world to maintain the educational values of the highly regarded abstract discipline Mathematics.