

THE UNIVERSITY OF COLOMBO  
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A CRITICAL EVALUATION OF THE JUNIOR SECONDARY SCHOOL  
MATHEMATICS CURRICULAM OF THE MINISTRY OF  
EDUCATION OF SRI LANKA

being

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ABSTRACT

A Critical Evaluation of the Junior Secondary School  
Mathematics Curriculum of the Ministry of  
Education of Sri Lanka.

The mathematics curriculum of the Junior Secondary School of this country has undergone profound changes during the past two decades. Revision of school mathematics curricula on a large scale commenced in the year 1964, beginning at the Junior Secondary level.

The first phase of this revision was the development of a new 'integrated' mathematics curriculum for the grades 6, 7 and 8, which was implemented compulsorily on an island-wide basis, commencing at grade 6, in 1965. The second phase which commenced in 1970, introduced a new G.C.E. (Ordinary Level) syllabus called 'Mathematics (Revised Syllabus (1970)'. This was implemented at grade 9 in 1971 on a limited basis. The educational reforms of 1972 resulted in an 'Integrated Curriculum' of 10 subjects for the Junior Secondary level. Mathematics took the form of a new curriculum, with a high proportion of modern mathematical content, commencing right from grade 6.

It is this curriculum (together with certain subsequent modifications) which is being used at present (1979), and is the subject of study in this research.

Certain criticisms have been made by teachers, parents and educationists against these revised mathematics curricula (more especially the one under review), from the time they were implemented. They were supposed to be weak and deficient in many respects: aims and objectives, content, methodology of teaching and many other characteristics besides.

A preliminary examination of these mathematics curricula showed that these criticisms were not without foundation. The low level of mathematics achievement of children who had followed these curricula (as depicted by

the performance at public examinations) tended to provide additional evidence.

Many causes and factors can be adduced for this unsatisfactory outcome. The most outstanding of them is that no pilot testing of any level, or an evaluation of these curricula has ever been undertaken.

Hence it would be of great value to make a critical assessment or evaluation of the existing Junior Secondary mathematics curriculum, which would throw some light on its strengths and weaknesses. Such an investigation will undoubtedly, facilitate the designing and implementation of future curricula.

The latest model of curriculum evaluation (that due to Keith Cooper, 1976) has been used in this study. It reads: 'Curriculum Evaluation is the collection and provision of evidence on the basis of which decisions can be taken about the feasibility, effectiveness and educational value of curricula'.

A number of methods and techniques of evaluation have been used in this study.

In the Historical and Intrinsic Evaluations, an attempt has been made to establish causes and factors that led to certain curricular changes. A survey has been conducted to assess the attitude and opinion of teachers on various important aspects of the curriculum. The context in which this curriculum is being practised has been studied in the Contextual Evaluation. The performance in mathematics of candidates at the G.C.E. (O.L) examination held in December 1978, has been analysed to serve as a form of achievement testing.

All these methods have provided strong corroborative evidence to support the assertions contained in all the hypotheses that were made about the feasibility, effectiveness and the educational value of this curriculum. The latter thus, stand questioned.

In the light of experience gathered from this exercise, certain recommendations have been made, that will be of value to future curriculum designers in mathematics in Sri Lanka.