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**SECONDARY LEVEL MATHEMATICS CURRICULUM AND
TEACHING LEARNING PROCESS IN RELATION TO A CLIL
MODEL FACILITATING BILINGUAL EDUCATION IN
SRI LANKA**



DAYANANDA KEPPETIGODA

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BSc(Sp) Hons; PGDE; MEd; MPhil

For the Degree of Doctor of Philosophy

**Faculty of Education
University of Colombo
Colombo
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Secondary Level Mathematics Curriculum (Grades 6-11) and Teaching Learning Process in relation to a CLIL Model Facilitating Bilingual Education in Sri Lanka

Dayananda Keppetigoda,

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Abstract

The main purpose of this exploratory mixed method research was to suggest innovations to the identified CLIL model to promote Bilingual Mathematics Education (BME) by studying the Secondary Level Mathematics Curriculum (SLMC) and the final action research. The research was guided by four interrelated objectives addressed in two separate studies: Study 1 and Study 2. The study-1 is related with the analysis the SLMC. The study 2 was an action research based on the findings from the study-1. Literature review suggested that the 4C model proposed by Do Coyle, (2005, 2008 & 2010) is a suitable theoretical model for promoting BME in the country. The content standards of the intended curriculum was analyzed in relation to the instrument prepared by the researcher and the process standards was analyzed by the adopted version of the Jitendra, et.al. (2005). Multiple sources of data gathering techniques were employed in analyzing the classroom learning teaching process. Findings revealed that there exists a huge gap between what should be and what exactly is happening in the CLIL mathematics classrooms in terms of effective implementation of SLMC. The way of bridging this gap was investigated in the final action research. It was revealed that the PDPs organized adhering to bottom approach properly blended with the features of Top-down approach is more effective than traditional cascade model of PDPs. This study contributes some methodological innovations and new knowledge to the field of Bilingual Education. Preparation and validation of an instrument to assess the adherence of curricular materials to the selected CLIL model and derivation of *CLIL Compatibility Index (CCI)* that can be employed to compare the adherence of curricular materials(Teachers' Guides and Textbooks) to the selected model may be new knowledge for future researchers in BE field. The professional development programme suggested in the final chapter, incorporating the Resource book prepared by the researcher coupled with PDPs and helping teachers in their school environment itself may be an effective effort in promoting Bilingual Mathematics Education in the country. Finally, it is recommended that more research should be conducted in the area of BE in the country.