# APPLICATION OF AUTHENTIC INSTRUCTION AND ASSESSMENT IN JUNIOR SECONDARY SCHOOL MATHEMATICS IN SRI LANKA

## AN ILLSUTRATIVE CASE STUDY BASED ON GRADE 09 SIMPLE INTEREST SUBJECT UNITS

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Mathematics is one of the most important subjects in school education. The expected learning outcomes of Mathematics are listed in the Teacher Instructional Manual as mathematical knowledge and communication skills, reasoning and problem solving. To produced students with these skills the learning process is important. Though each level in system of education are important, the study examined the junior level. The reforms introduced competency based education. The problem is the delivery and approach of instruction and assessment techniques of mathematics used in school and classroom. Although competencies are expected to be achieved through innovative methods, the conventional approach to learning mathematics well as the other subjects is the most common in Sri Lankan schools. Conventional approach produce mostly tote learning and Lower Order Thinking (LOT) skills and fails to develop skilled human capital of 21st century. When we turn to system of instructional and assessment in school, it uses two School Based Assessment (SBA) and national level examinations (Ordinary Level and Advanced Level). However the SBA as it is practiced and the public examination the way those assess competencies is much criticized by the teachers and educationists.

The study examined the authentic instruction and assessment oppose to the conventional methods as practiced in schools and at public examinations. Teachers claim that authentic instruction as well as any innovative method contribute to loss of learning content and make it difficult for the teachers and student to pass public examinations. The study examined three research questions: the loss of learning due to authentic instruction, efficiency of achieving learning outcomes including the Higher Order Thinking (HOT) abilities and then the enhancement of soft skills for the 21st century. The study provides clear evidence that authentic instruction and assessment does not contribute to any loss of learning content in this study, in fact has produce better achievement of content, and learner achieved significantly better on all learning outcomes, including the HOT abilities. Further it was clear that the authentic instruction and assessment enhances the soft skills development by providing more opportunities for the learner to experience mathematics as real life related subjects.

Keywords: Mathematics Education, Conventional Assessment, Authentic Assessment.