

# THE DEVELOPMENT OF THE SCHEME OF COMPETENCY ACQUISITION IN MATHEMATICS FOR HIGH SCHOOL BASED ON CURRICULUM 2013

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## ABSTRACT

The current research is focused on mathematics learning at high school level in Indonesia using the national curriculum, namely Curriculum 2013. The curriculum solely consists of list of competencies, and hence it is often found some teachers have difficulty to create suitable sequence of lesson plans. The objective of the research are to (1) analyse the basic competency into measured competencies (may be called the indicators of achieved basic competency); and (2) develop the scheme of the competency acquisition that can be used as guideline for mathematics teachers, in particular for designing effective and efficient scientific tasks during mathematics learning. This is a kind of developmental research where the curriculum is explored and then used to develop an educational product. Qualitative data was gathered through documentation, focus group discussion (FGD), consultation and validation by a team of mathematics education experts. The development of the product consists of three stages: *Analyse*, *Design*, and *Develop*. During *analyse*, the content of the curriculum and indicators of achieved basic competency are analysed, evaluated, detailed, grouped and structured into three strands: number and algebra, geometry and measurements, statistics and probability. During *design*, prototype of scheme of the competency acquisition is designed. During *develop*, the prototype is discussed, consulted and asked for validation to the expert and the results are used to improve and develop the prototype. The research yields curriculum mapping and schemes that may assist teachers to understand prior knowledge required by students before learning a particular competency. The scheme also provides teachers the sequence of competency acquisition according to the consistency of the mathematics structure. The follow-up research is needed to implement the scheme for creating lesson plans and subsequently, to investigate and evaluate the practicality and effectiveness aspects.

Kata Kunci: *curriculum 2013, mathematics instruction, scheme of competency acquisition*