IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS)
ISSN (P): 2347-4580; ISSN (E): 2321-8851
Vol. 6, Issue 5, May 2018, 141-148

ANALYSIS OF PRIOR KNOWLEDGE IN LEARNING GEOMETRY

Widi Aulia Widakdo

Magister Scholar, School of Postgraduate, Universitas Pendidikan Indonesia, Bandung, Indonesia

Received: 11 May 2018 **Accepted:** 17 May 2018 **Published:** 25 May 2018

ABSTRACT

Prior knowledge can be defined as the initial ability of a learner that can be a starting point to see how much student's behavior changes after he/she follows the learning process. Prior knowledge greatly influences the learning process, because it becomes base for students to represent abstract concept into the concrete concept in students' mind using their representation ability by connecting all of the existing information to build new knowledge. Representation ability is one of the most important abilities that must be had by students to process the information, answer the questions, and solve the problems. The purpose of this study was to analyze the missed prior knowledge that led the students had difficulties, in understanding and answering the questions, about geometry. The study involved one instrument of 2 questions of geometry and it was given to 19 students of 12^{th-} grade students that were chosen randomly in a senior high school in North Sumatera without any intervention on the learning process in the class. The questions given was adjusted to the operational form of mathematical representation ability which has the Cognitive level 4 (C_4) for question number 1 and C_5 for question number 2 based on Bloom's taxonomy. This study showed that prior knowledge becomes an essential thing to build the students' representation ability to make new knowledge, especially in geometry. The most trouble topics which make them difficult to understand the question are a ratio, line and angles, power and square operation, and the last rectangular and triangle. Reflecting to the result, it is better for the teacher to make sure that students have enough prior knowledge to make them easier to build new knowledge and make a fun and meaningful learning process in order to make information saved well in student's long-term memory.

KEYWORDS: *Prior Knowledge, Representation Ability, Geometry*