

INVESTIGATING 12th GRADE STUDENTS' PRIOR KNOWLEDGE OF STATIC ELECTRICITY CONCEPTS

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Abstract

This study was aimed at describing the types of prior knowledge of the 12th-grade students on static electricity concepts. This study was done at public senior high schools in Singaraja Bali. There were 117 students who participated in the study, they were between 16-17 years old. The data of students' prior knowledge of static electricity were collected by using Three Tier Diagnostic Static Electricity Test (TTDSET) with the index of reliability $r = 0.61$. The data analysis was done by descriptive technique. The result showed that the students' prior knowledge of static electricity concepts is very varied which can be categorized into four categories namely: Scientific Knowledge, Misconception, Lack Knowledge, and Error. The implication of the result in the teaching of physics is that the teacher needs to identify the student prior knowledge of static electricity concepts and design appropriate strategy of concept change.

Keywords: Prior knowledge, scientific knowledge, misconception, lack knowledge, error.