

USING DIFFERENT DATA COLLECTION TOOLS TOGETHER FOR DIAGNOSING ALTERNATIVE CONCEPTIONS ON THE PARTICULATE NATURE OF MATTER

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Abstract

The aim of this study is to determine students' conceptions and alternative conceptions on the particulate nature of matter by using different data collection tools. The sample consists of 82 grade 6 students. A test, which consists of three section, drawings and interviews were used as data collection tools. The first section of the test consists of 8 multiple-choice questions while the second section consists of 5 two-tier multiple choice questions and the third section consists of 8 short answer questions. The test was implemented after the particulate nature of matter concept was taught and interviews were made 12 students and they were asked to draw the particulate model. The results of the study show that understanding level of the students was low and they had several alternative conceptions. And also, it was seen that using different data collection tools was useful to diagnosing students' alternative conceptions in detail.

Key Words: The particulate nature of matter, alternative conception, different data collection tool.