

**THE IDENTIFICATION OF STUDENTS' MISCONCEPTION
USING THREE TIER MULTIPLE CHOICE DIAGNOSTIC
TEST (MCD) ASSISTED BY GOOGLE FORM ON
HEAT AND TEMPERATURE MATERIAL**

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ABSTRACT

This research has been done in SMAN 7 Medan that have purpose to develop the three tier multiple choice diagnostic test instrument to identificate students' misconception assisted by google form on heat and temperature material in class XI MIA 3 SMAN 7 Medan academic year 2020/2021. The type of this research is research and development (R&D). This research uses the 4D method which consists of four stages which include define, design, development, and dessemination. The participants is all students of class XI MIA 3 in SMAN 7 Medan which consist of 35 students. Data collection techniques through interviews, documentation, tests, and filling out a questionnaire. The results of the development of questions obtained 24 valid questions with reliability 0.854 on tier-1 and 0.827 on tier-2. The research instrument is a three-tier diagnostic test by dividing students' conceptual understanding into the categories of Understanding, Misconceptions and No Understanding. From the results of the study, it was concluded that 42% of students had misconceptions about the heat and temperature topic

Keywords: *Misconception, Three tier Diagnostic test, Heat and Temperature*