

The Development of Socratic Dialogue Media to Enhance Understanding of Heat

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ABSTRACT

Students' preconceptions, which doesn't agree with scientific concepts, are key issue that need to be solved for constructing students' conceptual understanding. Previous researches have applied directly socratic questions (dialogue) in group discussion or class discussion to solve that problem. Technically, it is difficult to be done, because socratic dialogue will be ideal if the teacher gives socratic dialogue to the students individually or at least in a small group of students, so the teacher can know students' preconceptions precisely. Therefore, we need further research of socratic dialogue. We present a new socratic dialogue—Socratic Dialogue Media (SDM)—to enhance understanding of heat. SDM contains limited dialogue which is composed of questions series with optional answers and feedbacks for establishing students' conceptual understanding. SDM was designed in web media as learning material that can be used by students, teachers, and preparation of teaching assistants.

Keywords: heat, socratic dialogue, understanding