

An Investigation of How Pre-Service Physics Teachers Perceived the Results of Buoyancy Force

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Abstract : The purpose of the study is to explore how pre-service teachers perceive buoyancy force effecting an object in a liquid and identify their misconceptions. Pre-service teachers were interviewed to reveal their understandings of an object's floating, suspending and sinking in a liquid. In addition, they were asked about how an object -given its features- moved when it is provided with an external force and when it is released. The so-called circumstances were questioned in a different planet contexts. For this aim, focused group interview method was used. Six focused groups were formed and video recorded during the interval. Each focused group comprised of five pre-service teachers. It was found out pre-service teachers have common misunderstanding and misconceptions. In order to eliminate this conceptual misunderstandings, conceptual change texts were developed and further suggestions were made.

Keywords : computer simulations, conceptual change texts, physics education, students' misconceptions in physics

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