

FEN BİLGİSİ ÖĐRETMEN ADAYLARININ KUVVET VE HAREKET İLE İLGİLİ SAHİP OLDUĐU KAVRAM YANILGILARININ BELİRLENMESİNDE KULLANILAN KARİKATÜRLERİN VE ÇOKTAN SEÇMELİ SORULARIN ETKİLİLİĐİNİN KARŐILAŐTIRILMASI

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Abstract

In this research, students' ideas of force and movement was investigated with a qualitative study using concept cartoons and multiple choose questions. Participating students were in Science Education Teacher Training program 1nd, 2nd and 3rd classes in a large Eastern university. Two tests were implemented to total of 212 students. Results of this study indicated that university students have different understanding of those mentioned science topic both the open ended tests and concept cartoons could be used. Further, there are some particular advantages of using concept cartoons such as more comprehensive responses than open ended items.

Key Words: Concept, misconception, concept cartoons, multiple choose questions.