

EFFECT OF CONTEXT BASED HEAT AND TEMPERATURE UNIT TEACHING ON GRADE EIGHT STUDENTS' CONCEPTUAL UNDERSTANDING

Yrd. Doç. Dr. Aysel Kocakölah
Balıkesir Üniversitesi
Necatibey Eğitim Fakültesi
ayselko@balikesir.edu.tr

Hakan Can
Mehmet Şeref Eđinliođlu Ortaokulu, Balıkesir,
canhkn@gmail.com

Abstract

The purpose of this study is to examine the effect of context-based teaching of heat-temperature topic on conceptual understandings of eighth grade students. For this purpose, comparison group pre test post test quasi-experimental design was used. The sample of the study consists of 45 eighth grade students who attend a school in Balıkesir province center.

The conceptual understanding test developed in this study was applied before and after teaching and semi-structured interviews with 6 students were conducted. In the analysis of the open-ended questions in the conceptual understanding test, first the full answer was determined and then the answers given were collected in two basic categories as " Scientifically Acceptable" and " Scientifically Unacceptable". The responses given by students in each category were compared for the pre-test and the post-test.

The results of the analysis showed that the experimental group students' conceptual understanding about "Heat and Temperature" topic was increased. In addition, the difference between posttest mean scores of experimental and control groups is also statistically significant. The results of this study show that the context-based teaching method positively contributes to the students' conceptual understandings.

Keywords: Context based learning, misconceptions, context, heat and temperature.