

ABSTRACT

THE EFFECTS OF UTILIZING VIDEO PRODUCTION AND ONLINE VIDEO REVIEW UPON STUDENT ACHIEVEMENT AND MOTIVATION

The primary objective of this thesis research was to utilize a quasi-experimental design in order to investigate the effects of project-based assignments to improve tenth through twelfth grade students' chemistry achievement and motivation. The experimental group was assigned a content-based video production project, including an online video review, whereas the control group was assigned a traditional project, a content-based written report. Prior to the project assignment, both groups were taught the curriculum of *Gases and Their Properties* through a traditional science teaching approach consisting of lectures from the instructor, as well as student-centered laboratories. Results indicated the pretest to posttest scores for the two groups were statistically similar. However, the experimental group demonstrated a statistically higher score on the motivation survey. Study implications pertaining to the use of student video production and online video review are also discussed.

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