Involving Undergraduates in Research and Publishing: A Holistic Approach

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PURPOSE

The purpose of the study was to determine if undergraduate students could develop scenario based science labs for local middle schools, teach the actual labs developed, and use the results of the experience for publication in a targeted journal.

ABSTRACT

The purpose of the study was to determine if undergraduate students could develop scenario based science labs for local middle schools, teach the actual labs developed, and use the results of the experience for publication in a targeted journal. The labs were technique based, but were taught using inquiry methodology. College students with no experience in teaching revised a familiar college laboratory activity and taught it at a local middle school. Based upon the results of the lessons taught, the undergraduate students wrote an article for publication in a targeted, peer-reviewed science education journal, with several articles accepted for publication. Although the concept of lesson development, data collection and article submission were accomplished in one semester for four of the six projects, difficulties existed for undergraduate students in meeting the deadline for accomplishing all tasks within one semester. Time constraints with other classes, dependence on others in the group, and multiple revisions of the final article made the one semester timeline very difficult to manage.