Development and Evaluation of Hands-On Learning Activities in Indiana High School Animal Science Classes

Balschweid, M.A. Development and Evaluation of Hands-On Learning Activities in Indiana High School Animal Science Classes. Purdue University, West Lafayette, IN

PURPOSE
The purpose of the study was to measure the effectiveness of experiential learning of hands-on laboratory activities by Agricultural Science and Business students in Animal Sciences.

ABSTRACT
The purpose of the study was to measure the effectiveness of experiential learning of hands-on laboratory activities by Agricultural Science and Business students in Animal Sciences. The objectives of this study were to develop and evaluate a series of laboratory activities in Animal Science and to determine the overall effectiveness of hands-on activities as reflected by student performance on a standardized assessment instrument. The following null hypothesis was made: there is no significant difference in student performance on the standardized test administered after the laboratory activity between students who participated in a complex laboratory activity and students who participated in a simple laboratory activity. Two laboratory activities were developed in the areas of Animal Anatomy and Genetics and Breeding. Each laboratory activity was developed into a simple version, relying on teacher-centered activities, and a complex version, including student-centered activities. Indiana Agricultural Science and Business teachers and Animal Science students participated in this study. The following conclusions were made: hands-on activities can increase student interest and enthusiasm toward the material, hands-on activities during anatomy and physiology lessons can increase initial student understanding of the material, and hands-on activities can increase retention of the material by the students.