

Washington State University

College of Education

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Will defend the Thesis on

Date: April 16, 2024

Time: 10:00 A.M.

Pullman Campus – Cleveland Hall 160A

Faculty, students and the general public are encouraged to attend

DIFFERING PEDAGOGICAL METHODS IN THE TEACHING OF PIG HEART ANATOMY

Chair: Chris Connolly

Learning modalities play a critical role in shaping educational outcomes, specifically in undergraduate anatomy education. This study examines the effects of two prominent modalities, lecture-based learning and hands-on dissection, in enhancing students' understanding of pig heart anatomy and their self-confidence perceptions. A cohort of 49 undergraduate students enrolled in a human anatomy course participated in the study, which utilized a randomized control design. Participants were divided into two groups: a laboratory dissection learning group and a lecture learning group. Pre and post-tests were administered to assess pig heart anatomy knowledge, and self-confidence questionnaires were administered to assess perceived self-confidence during the intervention. Additionally, retention tests were conducted two weeks post-intervention to evaluate overall retention of the given material. Statistical analyses, including Mann-Whitney U tests, revealed significant differences between the two groups. The lecture group exhibited greater improvements in pig heart anatomy test scores and self-confidence ratings compared to the dissection group. Despite similarities in baseline knowledge, the lecture group's familiarity with the instructional modality may have contributed to their superior performance. However, no significant differences were observed in retention scores. This study challenges prior literature that supports the superiority of kinesthetic learning in anatomy education. Further research is needed to evaluate pedagogical practices that provide the most benefits to undergraduate students in anatomy education.