THE ARSENAL

Augusta University's Undergraduate Research Journal

ISSN 2380-5064 | The Arsenal is published by the Augusta University Libraries | http://guides.augusta.edu/arsenal

Volume 5, Issue 1 (2023)
Special Edition Issue

MENTOR SCIENCE IDENTITIES AND THEIR INFLUENCE ON STUDENT RELATIONSHIPS WITH SCIENCE

Melvin Hilson, Jerin Jamil, and Alexandra St. Louis

Citation
Hilson, M., Jamil, J., & St. Louis, A. (2023). Mentor science identities and their influence on student relationships on science. *The Arsenal: The Undergraduate Research Journal of Augusta University, 5*(1), 30. http://doi.org/10.21633/issn.2380.5064/s.2023.05.01.30

Mentor Science Identities and their Influence on Student Relationships with Science

Presenter(s): Melvin Hilson and Jerin Jamil

Author(s): Melvin Hilson, Jerin Jamil, and Alexandra St. Louis

Faculty Sponsor(s): Alexandra St. Louis, PhD

Affiliation(s): Center for Undergraduate Research

ABSTRACT

This qualitative study aims to investigate the individual properties present within science identities of undergraduate mentors. It also aims to inquire how these science identities are shared with students in the classroom and virtual classroom setting to improve learning in science education and STEM programming. This research is crucial because science identities strengthened through mentoring programs have correlated with increased GPAs and success in the field of research. In this study, data from the Fall 2021 cohort of the iBEARS program was utilized. This program consisted of undergraduate science mentors guiding K-12 classrooms through creating a research project utilizing project based learning. The constant comparison method was used to identify individual aspects of the science identities of undergraduate mentors participating in the iBEARS program over 15 weeks.Three classrooms were observed, with three undergraduate mentors assigned to each. Four prevalent themes emerged: a sense of community, being built by intrinsic and extrinsic attitudinal factors, a match between real science and school science, and perception of science. These themes are broken down further to emphasize the individual properties in our data set. The codes for this study were created using the in-vivo coding method. Our results primarily reflect the previous literature on science identities held by students, mentors, and teachers in the classroom and research laboratory setting. We look to investigate further components of science pedagogy that may explain the relationship between mentor science identity and student reactions.

Received: 02/15/2023 Accepted: 03/29/2023

Correspondence: Melvin Hilson, Augusta University, 1120 15th St. Augusta, GA 30912, mehilson@augusta.edu