SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Lift-Off - Secondary Space Education (2)

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FACTORS INFLUENCING SPACE EDUCATION FEMALE PIPELINE: AN INTERNATIONAL COMPARATIVE STUDY.

Abstract

ABSTRACT Students interested in STEM disciplines represent a significant pipeline in space education. However, women continue to be underrepresented in many STEM fields around the world. With the continued increase of women participation in higher education more attention needs to be placed on identifying what challenges girls encounter early in their educational experiences that might contribute to their career decision making. With the advent of both the women's movement and a heightened national interest in educational excellence, scholarly attention has been directed on the success of females in science (Baryeh, Obu,Lamptey, 1999). The purpose of the study is exploring the factors affecting female students' interest in disciplines directly related to space education. To this purpose a comparative study will be conducted in Ghana and the U.S. The targeted population is middle school girls because at this educational level in both countries students make critical educational decisions that impact their identity as students. In addition, by comparing girls' educational experiences in both developing and developed countries the results will provide a greater understanding of social-economic and cultural contexts. The methodology selected for this study will be based upon the Self-determination theory of motivation and Social Learning Theory of Career Decision-Making. The study area will be comprised of middle school students in Ghana's most populated regions, Ashanti and Greater Accra. In the U.S., Hispanic/Latina middle school girls in Central Texas constitute our targeted population since they are a growing population in Higher Education in the U.S. This paper will follow a mix-method approach in which the qualitative results of the survey conducted will inform the quantitative data. It is expected that results of this study will show that society norms and expectations, families, self-motivation, and teaching practices will be influential factors in students' choice of interest in STEM education and career choices. Conclusion and areas for discussion will be centered on best practices needed in STEM education and socio-cultural influences that will encourage more women participation in STEM education in both developing and developed countries contexts. Keywords: Ghana, Hispanic, Latino, STEM, education