

Fusing Mentorship, Leadership and Empowerment Among Young Women In STEM

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Abstract : Despite improvements in gender inequalities, women and girls continue to face glass ceilings, underrepresentation, and harmful stereotypes that can limit their aspirations and opportunities in STEM. While girls are taking similar high school math and science classes, boys are more likely to take physics and six times more likely to take an engineering course. The gap becomes even larger for minority or low-income girls. This gender gap is not due to biology; rather, it is due to cultural, social, and institutional forces. As girls get older, these forces often 'teach' them 'STEM is more for boys'. The STEM gender gap widens in college, with only 20% of engineering degrees being awarded to women, and by the time women enter the workforce, they only occupy about 13% of engineering jobs. At the University of Central Florida, the Women's and Gender Studies Program has developed a unique mentoring program to address these issues, Science Leadership and Mentoring (SLAM). What is unique about the approach of SLAM is that we look to address this problem through leadership and STEM. We look to help girls make connections between leadership and STEM—that young women can be leaders as scientists and that scientists are leaders making a change. This is particularly needed and relevant to our community because while there are mentoring programs to our knowledge, SLAM is one of the only, if not only, mentoring programs pairing college women and 7th-grade girls that includes a focus both on STEM and leadership in the United States. SLAM is a curriculum-based mentoring program pairing one 7th-grade girl with one UCF undergraduate STEM major. SLAM empowers young women to be assertive, brave, confident, independent, inquisitive and proud leaders in STEM. SLAM seeks to promote young women's inspiration and excitement into STEM fields and careers while also building leadership abilities such as problem-solving, teamwork and cooperation, cultural identity and ethnic pride, advocacy for positive change, and goals for the future. SLAM serves about fifteen 7th-grade girls for the academic year and about 20 UCF students. SLAM holds weekly mentoring meetings lasting about 90 minutes, covering topics on leadership, STEM majors and careers, and STEM leadership. This past year, SLAM received a Community Action Grant from the American Association of University Women (AAUW) to run a sub-program, SLAM-Space. SLAM-Space focused on exposing SLAM participants to aerospace engineering and other space-related STEM fields, such as physics and astronomy, through guest speakers, workshops and field trips, including the Kennedy Space Center. The proposed paper presentation will present an overview of SLAM-Space and the data findings from pre and post-surveys, in-depth interviews and focus groups from the SLAM participants' experiences in the program.

Keywords : gender, leadership, STEM, empowerment

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