BRIDGING THE GAP BETWEEN FEMALES OF COLOR IN GRADES 3-8 AND STEM: A HERMENEUTIC PHENOMENOLOGICAL STUDY

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Abstract

There is a vast amount of literature documenting the need to diversify the United States science, technology, engineering, and mathematics (STEM) fields and the need to recruit more well-educated and high-skilled workers to fill STEM jobs. One common theme among studies is the disproportionately low number of females of color in STEM educational programs despite reports of being more interested in STEM subjects and showing an inclination toward STEM careers even earlier than their Caucasian peers ([1], [2], [3]). The purpose of this proposed phenomenological study is to explore the experiences of females of color in grades 3-8 in relation to an out-of-school (OST) STEM program. The goal of this study is to identify important factors that help build females of color capacities to engage in STEM activities. This proposed study seeks to advance new approaches to an evidence-based understanding of the design and development of STEM learning opportunities for urban females of color in grades 3-8 in informal environments. Obtaining feedback from urban females of color in grades 3-8 based on their experiences in an OST STEM program is valuable as their social supports are examined. Focusing specifically on females of color will add meaningful value to the research that currently exists on all women in STEM educational programs and careers. Ensuring that urban females of color gain early access to STEM experiences while receiving needed support can aid in the increase of STEM professionals needed to grow and sustain the United States economy. Gaining a deeper understanding of why a gap exists between females of color compared to other female groups in STEM will be beneficial as this can propel efforts to increase the overall number of women in STEM occupations. Data collected and analyzed from this research can provide guidance to policy makers, researchers, program leaders, industry leaders, and educators in the areas of providing multiple pathways for broadening access to and engagement in STEM learning experiences and advance innovative research on and assessment of STEM learning in informal environment. Furthermore, bridging the gap between females of color and STEM will support the United States’ initiative to narrow the gender and racial-ethnic inequality gaps in STEM, and it will help strengthen the United States’ innovation economy, thereby, fueling economic growth and international competitiveness.

References:

Keywords: STEM, females of color, girls of color, women of color, gender equity, racial equity, STEM education, OST STEM Programs, STEM Extracurricular Activities.