

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit - Postgraduate Space Education (4)

Author: Mr. Owusu Ansah Boakye
Texas State University, United States, o_b36@txstate.edu

Dr. Samuel Amponsah
Ghana, agyaus@yahoo.com

BREAKING BARRIERS: EXPERIENCES OF GHANAIAAN FEMALE STEM PROFESSORS'
DOCTORAL JOURNEY**Abstract**

The low involvement of girls and women in STEM fields can be noticed at all levels of education, with an inclination for female participation to diminish as the level of education rises (UNESCO, 2016). This is reflected in the labor market where their participation further diminishes all through their career path, and women are generally missing in higher level managerial and decision-making positions (UNESCO, 2016). This is a phenomenological qualitative study which sought to examine the lived experiences of 11 Ghanaian female lectures and professors in the Science, Technology, Engineering, and Mathematics fields. These faculty members were educated in Africa, Europe, and North America.

According to 2013-2014 enrolment by gender statistic of professors (lecturers) in both private and public universities by the Ministry of Education in Ghana, males made up of 5,173 and females made up of 1,185. This statistic represents all professors teaching in all academic fields. The total number of female doctoral students in public, public special, and private universities totaled at 160 as compared to their male counterparts who totaled 570 (Ghana Ministry of Education, 2015). There is a clear indication that there are few female professors in all fields which STEM education is a part. Knowing the experiences of the few female STEM professors in their doctoral journey will help inform colleges, STEM faculties, administrative staff at STEM departments, and all educational stakeholders about the experiences Ghanaian female STEM doctoral students encounter and the resiliency strategies they adapt to persist and graduate.

The research question guiding this study is: What facilitated the resiliency of Ghanaian women who graduated from STEM doctoral programs? The Bronfenbrenner's Ecological Systems and Postcolonial feminist theory were employed in my study to provide a platform for the oppressed voices to be heard and to portray the effects and what is entailed in the ecological system and how it affects the human being. This is a qualitative research. Data was collected utilizing phenomenological interviewing, documents, and researcher's journal. Utilizing Seidman (2006) structure of phenomenological interviewing approach afforded me the opportunity to collect rich data that served as a detailed foundation for the findings and conclusions (Soesbe, 2012). Colaizzi's (1978) phenomenological data analysis method was used to analysis data solicited.