

The Influence of Cultural Perceptions in the Preference and Choice of STEM Programs

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Abstract : This study explored perceptions rooted in and acquired from the cultures of many developing countries and how they impact applicants' preferences and choices of STEM programs. The context of developing countries was chosen for this study because gender role socialization continues to maintain an important place in most of these cultures. This study's relevance rests in the fact that, as the world takes steps to encourage and promote the choice and study of STEM programs, especially among females, there is a need for efforts towards understanding various cultural perceptions towards some programs of study, particularly STEM programs, which have diverse gender attributions in many developing cultures. Also, as the world strives to achieve gender equity in education, such a study comes in handy, as it provides a useful understanding of the underlying cultural factors that affect study program preferences of applicants, particularly in developing countries like Ghana as well as others in Africa. The study analyzed the admission application data of five public universities in Ghana. 1600 randomly-sampled final-year students of 32 randomly-selected senior high schools from the 16 regions of Ghana were interviewed. Since parents and teachers often guide and influence the study program choices of applicants, the study examined the perceptions of 180 teachers and 360 parents. The study found, among other things, that STEM programs are commonly perceived to pose much more difficulty to females than they do to males. As a result, many female applicants are discouraged from choosing these programs. While nursing programs are perceived more as programs for females, with the justification that females are better caregivers, males are perceived to be better medical doctors, engineers, and computer technicians. Thus, many females are less encouraged to choose Technology and Engineering programs.

Keywords : culture, perceptions, STEM, choice, preference

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