

The Interplay Between Intrinsic, Extrinsic and Environmental Factors in Motivating Female Students to Pursue a Career in STEM&ICT

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Abstract

Women only represent 35% of all students enrolled in Science Technology Engineering, Mathematics & Information and Communication Technology (STEM&ICT)-related fields globally. In Africa, the statistics show that the overall rate of women's participation in STEM and ICT-related research is 34%. Countries like Guinea, Ethiopia, Mali and Côte d'Ivoire have only 6%, 13% 10.6%, and 16.5% of women participating in STEM research, respectively. Elsewhere, similar studies from some high-income countries such as France, Germany and the Netherlands indicate a low proportion of female researchers in the STEM&ICT fields. Consequently, the contribution of women in the STEM&ICT related fields is still missing worldwide. This also means that a significant percentage of women will be unemployed by 2050. Studies show that, by 2050, about 75% of jobs will be in the STEM&ICT related. To improve women's involvement in STEM&ICT related fields, there is a need to understand factors that influenced female student's choices in pursuing STEM&ICT related courses. This research, therefore, investigates the extent to which intrinsic, extrinsic and environmental factors influence male and female student's choices in pursuing STEM&ICT. The results show that extrinsic and environmental rather than intrinsic factors were seen to have influence on female student's choices to pursue STEM&ICT, while intrinsic factors were seen to have influence on male student's choices

Index Terms

STEM&ICT, Careers, Intrinsic, Extrinsic, Environmental Factors