Zimbabwean Female Participation in Physics: Factors of Identity Formation Considered as Contributing to Developing An Orientation to Physics by Female Students

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Abstract

The study investigated the Zimbabwean female participation in physics, with special emphasis on the factors of identity formation considered as contributing to developing an orientation to physics by female students. The main study from which this paper was taken explored the influence of identity formation on the Zimbabwean Advanced Level (A’ Level) female adolescent students in physics. Four high schools that were offering physics at A’ level in the Midlands Province, in Zimbabwe were targeted. Nine female adolescent students eighteen years and above: three doing mathematics and physics, one doing physics without mathematics and five doing mathematics without physics were chosen. The instrument that was used for data generation was semi-structured interviews. The results of this study indicate that amongst other factors the main factors of identity formation considered as contributing to developing an orientation to physics by female students are: need female physics role models, who can encourage O-level female students to take up physics being motivated by good O-level teaching, high self-confidence, high self-esteem and career aspirations. On the other hand, gender insensitivity, male peer harassment and gender stereotyping are, factors in identity formation they considered as inhibiting the development of an orientation to physics by female students. This causes fewer female students to opt for physics as one of their A’ Level subjects. The formation of a negative physics identity by female adolescent students influences their perceptions of physics and their participation in the subject.