Zimbabwean female participation in physics: facets of identity formation considered to be of significance by female students in relation to physics

Anna Gudyanga

Abstract

The study explored facets of identity formation considered to be of significance by Zimbabwean 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 adolescents doing mathematics and physics and only mathematics were chosen. Data generation instruments were semi-structured interview and classroom observation guides. The results of this study indicate that facets of identity formation as confident, fearless, intelligent, and courageous, liking physics and being determined. These facets motivated female students studying physics to develop an identity in favour of physics, resulting in them opting to study physics as a subject of choice at A' Level. On the other hand, female students who had the potential to study physics but were studying only mathematics stated that fear of failing physics, not being courageous, lacking confidence and that physics was irrelevant to their career choice were significant in influencing their non-participation in physics. These facets may have enabled female students to form an identity that contributed towards their motivation for participation or lack of it in physics. The negative physics identity influences their perceptions of physics and their low participation in the subject.