

Abstract

Globally, despite many good intentions and a plethora of initiatives, gender disparities in science education continue to be a major challenge. In the context of the student understanding and learning in Science, Technology, Engineering and Mathematics (STEM) policy, this study sought to investigate gender disparities and experiences in the learning of Natural Sciences at secondary school level in the Makonde District of Zimbabwe. Informed and guided by the pragmatism paradigm, the study used a fusion of quantitative and qualitative methodological approaches to study gender disparities using a sample of students (n= 590) and eight teachers from five schools in Makonde District, Zimbabwe. Quantitative data was collected using a Likert type questionnaire. Focus group discussions (FGDs), interviews and class observations were used to collect qualitative data. Quantitative data analyses were done using chi-square statistics, one-way analysis of variance (ANOVA) and factor analysis (FA). Qualitative content analysis (QCA) was used to analyze qualitative data obtained from four focus group discussions, eight teacher interviews and three lesson observations. The main findings of this study confirm the existence of gender disparities in Natural Sciences learning. It was also found that female and male students learning experiences were different from each other. Gender stereotyping and discrimination by male students were found to be rife in the classrooms. Female students perceived their classrooms to be gender biased. School administrations and teaching structures were found to be gender biased. Some recommendations are made for teacher pedagogical practices as well as policy selection criteria in Natural Sciences education.

Key Words

Gender disparity, natural sciences, learning experiences, gender stereotyping