

Pre-service science teachers' mental images of science teaching

Abstract

The purpose of this study is to investigate pre-service science teachers' mental images of science teaching. This study also aimed to ascertain if there is any significant difference in pre-service science teachers' mental images of science teaching based on gender and levels of schooling. This study was both quantitative and qualitative in its design. In this study, the 'Draw-A-Science-Teacher-Test-Checklist' (DASTT-C) was used as the primary data collection instrument. Pre-service science teachers were instructed to draw pictures of themselves as science teachers at work and write a brief explanation describing their drawings. They were also asked to specifically answer two questions namely, "What is the teacher doing?" and "What are the students doing?" regarding their drawings. This study revealed that pre-service science teachers had three different teaching styles which were categorized as, i) 'neither student-centred nor teacher-centred (no decision)', ii) 'teachercentred' and iii), 'student-centred'. Independent sample t-test results showed that there was no significant difference in pre-service science teachers' mental images of science teaching based on gender. However, there was a significant difference in pre-service science teachers' mental images of science teaching based on levels of schooling