

An Investigation on Secondary School Science Teachers' Belief and Practice in Macau

Abstract

As we all know, education in Macao has its own characteristics. However, little research work has been found in the local science education, let alone science teacher education. This study investigated what science teachers think and do in their teaching practices in Macao with the intention of providing evidence for teacher education researchers and policy-makers. A combination of qualitative and quantitative research methods has been adopted in this study. 130 questionnaires were collected from science teachers of secondary schools in order to probe into their teaching beliefs and teaching practices. And then individual interviews with six science teachers were conducted to verify the credibility of the findings in questionnaire survey and to reveal the hidden factors. Data analyses of the questionnaire and interviews reveal that (1) Teachers' teaching beliefs focus on various teaching objectives including laboratory instruction; (2) Most of the teaching models, teaching methods and students' achievement evaluation are knowledge-based, however, laboratory work is disregarded and seldom be employed to evaluate student's achievement; and (3) There is discrepancy between teachers' teaching beliefs and practices, which might be caused by society, parents, students, schools and teachers. In according with the findings, some suggestions have been made to local education bureau, teacher training institutes, schools, practicing teachers, and later investigators with the hope of diminishing this inconsistency in the future.