ABSTRACT

A key element in teacher education programs, action research is a learning process in which pre-service teachers inquire, reflect on and improve their teaching practices. This qualitative study sought to understand the struggles and learning that 23 fifth-year pre-service science teachers experienced when engaging in action research during their student teaching. This study drew upon written reflections, focus-group interviews and observations of seminar sessions. Data analysis was inductive, involving categorical aggregation followed by a search for correspondence and patterns. The results indicated that the pre-service teachers misunderstood action research, and also held a negative attitude toward it, both of which led them to superficial statistical analyses of practice. They struggled with time limitations, data gathering and interpretation strategies. In spite of the struggles they experienced, these pre-service science teachers did learn more about the action research and also broadened their science teaching practices through collaboratively working with cooperating teachers and university supervisors. Recognizing and understanding the reasons and thinking patterns at the root of these teachers' difficulties with learning about action research can form the basis for reflecting on and rethinking the components of science teacher preparation programs in Thailand.

Biography - Chatree Faikhamta is a visiting scholar at the Centre for the Study for Teacher Education. He is a science educator at Kasetsart University in Bangkok, Thailand. Before completing his Ph.D. in science education, he received a Bachelor of Science in chemistry and a graduate diploma in teaching chemistry. His career path is typical of most other science teacher educators in the context of Thai educational system who were trying to help science teachers shift to a constructivist-based teaching approach from the traditional didactic teaching that formed the historical landscape of teaching in the country. His work involves preparing undergraduates for school science teaching and supervising their student teaching and their dissertations. His research areas focus on pedagogical content knowledge (PCK), action research, constructivist-based teaching, and teaching chemistry.