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Abstract

Developing problem solving skills is often accepted as a desirable goal in many educational settings. However, there is little evidence to support that students are better problem solvers after graduating. The students can solve routine problems but they

confronted difficulties when adapting their prior knowledge for the solution of new problems. The purpose of this study is to explore early childhood preservice teachers' problem-solving skills through socioscientific inquiry approach. The study involved the researcher working independently on an in-class research project with students in solving the problems related to socio-scientific issues (SSI) in early childhood education. SSI represents important social issues and problems which are conceptually related to science in social dimension. The study involved 28 third-year university students in early childhood education program. Inquiry-based learning approach has been employed to guide the students in their research on SSI. Data were collected through questionnaire, classroom observation, individual interviews and students' written reports. Data arising from the questionnaire were analyzed using descriptive statistics. The qualitative data were analyzed using open and axial coding in order to categorize and develop themes from information that emerged from the interpreted data. The most significant finding is that when students are engaged in the inquiry-based learning process, they will experience a sense of agency and responsibility for their learning. The students described that knowledge can be generated more meaningfully than in other perceived passive mode of learning. The finding also supported the result from previous studies that socioscientific inquiry learning helps to motivate and increases the students' interest in learning the course. It can be concluded that this study promotes innovations in teaching and learning and the reorganization of a course that encourages student engagement. Consequently, this study argues for a new strategy in fostering preservice teachers' socio-scientific reasoning through inquiry learning.

Keywords: Socio-scientific issue, inquiry-based learning, early childhood education, health education.

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