

A Study of Science Knowledge, Efficacy Beliefs and Attitude towards Science of Student Teachers

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Abstract

The primary purpose of this study was to study science knowledge, efficacy beliefs and attitude towards science of student teachers. Descriptive survey research method was applied in this study. As research instruments, Science Teaching Efficacy Belief questionnaire (STEBI-B) (Enochs & Riggs, 1990) and Science Teaching Attitude questionnaire (STA) (Thompson & Shringley 1986), Science Achievement Test were utilized. Science Teaching Efficacy Belief questionnaire (23 items) comprised of two subscales which were personal science teaching efficacy belief and science teaching outcome expectancy. For Science Teaching Attitude a total of 20 items were involved. A total of 1216 student teachers (512 males and 704 females) from four Education Colleges in Yangon Region and Ayeyawady Region participated in this study. The result of this study revealed that there were no significant differences of mean scores existed in the perceptions of efficacy belief and science attitude by gender. However, the results showed that there were significant differences in personal teaching efficacy belief, science attitude and science knowledge by region and that there were significant differences in efficacy belief and science knowledge by year. Moreover, student teachers efficacy beliefs correlated with their science attitude and science knowledge. Science knowledge and science attitude were significant predictors of student teachers efficacy belief. So, it could be interpreted that the better attitude towards science and science knowledge, the higher efficacy belief of student teachers.

Key words: Science Teaching Efficacy Beliefs, Personal Science Teaching Efficacy Beliefs, Science Teaching Outcome Expectancy Beliefs, Attitude Towards Science Teaching, Science Knowledge Level.

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