

Research Title Effects of Active Learning on Developing Students’
Teacher Critical Thinking at Suan Sunandha Rajabhat University
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ABSTRACT

The attempts of this research were (1) to measure the effectiveness of the hands-on activities for pre-service teachers’ critical thinking development and (2) to study the relationship between the hands-on activities’ effectiveness and the students’ critical thinking development achievement. The cluster random sampling was used in this study, therefore; the sampling group was 33 mathematic majors (1 section) studying in their 4th year at Faculty of Education, Suan Sunandha Rajabhat University, in semester 2 of academic year 2014. The instruments used for collecting data were (1) 12 lesson plans designed for the mathematic seminar course and (2) a critical thinking assessment form for critical thinking development through hands-on activities. The statistical treatments were mean, standard deviation, effectiveness index and one-sample t test. From this study, the findings unfolded the followings:

1. The results of E_1/E_2 which showed the effectiveness of the hands-on activities for critical thinking development were 93.02/92.50.

2. For the students’ achievement after using the activities, their mean score and deviation were 92.76 and 1.94, relatively. In addition, their results were rated in the excellent level and above the target attainment of 80% at the statistical significance of 0.05 ($t=37.69$, $p\text{-value}=0.00$).

Keywords: Effectiveness of hands-on activities, Learning achievement, Critical thinking