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Development of Problem-solving Skill by Using Active Learning for Student Teachers in Introductory Physics

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This research was to study student teachers'problem-solving skill after they learned through active learning activities in Introductory Physics I, the first semester of academic year 2017. There were 101 student teachers taking this course as a compulsory for 17 weeks. The research design was one-group pre-test and post-test design. Twelve active learning activities were developed by the researcher to use throughout the whole semester. The IPST assessment form was used to evaluate their problem-solving skills. The focus group interview was conducted to collect qualitative data on student teachers'opinions of active learning activities. To analyze quantitative data, the paired-sample t-test was applied to compare problem-solving scores before and after they learned the class. The content analysis was used to analyze the data from the interviews. The results indicated that their problem-solving skills were significantly higher after using active learning activities at .05 confident levels. Mostly, they had positive feeling toward active learning activities and they recommended for other classes to use the same pedagogy.

Author: [redacted]

Presenter: [redacted]

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