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The Development of Concepts of Grade 11 Students on Resistor Circuit Through Predict-Observe-Explain (POE) Approach

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This study was qualitative research aimed to improve conceptual understanding of grade 11 students on resistor circuit through Predict-Observe-Explain (POE) approach. There were 34 grade 11 students those studied in the second semester of academic year 2014 (November 2014 to March 2015) in Strisuksa School, the Secondary Educational Service Area 27, Roi-Et province, participated this study. There were two categories research tools had been used in this study. Firstly, Predict-Observe-Explain (POE) approach lesson plan. Secondly, a set of the evaluation tool, scientific concepts test, two-tier multiple choice diagnostic test. The collected pre-test data were analyzed for investigating students'background knowledge to be used in lesson plan designing and the post-test was done soon after the POE finished. The findings revealed that student'scientific concepts in prior intervention by POE approach in resistor circuit could be interpreted into various categories and the majority of them were diverged from scientific concepts about connecting light bulbs in series and parallel, connecting resistors in series and parallel. After learning through POE approach, it found that students'concepts generally were according to scientific concepts. It could be concluded that the students understanding could be developed toward scientific concepts by using POE approach.

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