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The development of scientific of concept on electric current of grade 11 students through Predict –Observe –Explain : Classroom –Based Action Research

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This research aims to develop Predict –Observe –Explain (POE) approach learning activities and to develop scientific concepts in Electric current. There were 28 grade 11 students, second semester of academic year 2014 (November 2014 –March 2015), Narinukul School Office Mathayomsuksa Area 29, participated this study. The research methodology is classroom –based action research. The instrument used in this study were including POE 6 lesson plans on electric current, the instrument for reflecting the activities, learning activity note, observation field note, students'project and quiz. The evaluation instruments Determining and Interpreting Resistive Electric Circuits Concepts Test (DIRECT) Version 1.2 Thai version. The qualitative data was analyzed and interpreted for the development scientific of concepts on electric current while the effectiveness had been analyzed by using basic statistics. The findings showed that the developing learning activities of electric current on a classroom –based action research, plan, action, observe and reflect on 4 steps. Consider the results from last activity. The present of students who passed the criteria in action cycles 1, 2 and 3 were equal to 40.20, 72.55 and 91.25 percentages respectively and the development of scientific of concept on electric current. The findings showed that students'understanding of electric current concept that were taught using Predict –Observe –Explain: classroom –based action Research has been improvement.

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