

ABSTRAK

Nova Srydevi Simanjorang. Pengaruh model pembelajaran *Problem Based Learning* (PBL) berbasis TPACK terhadap Capaian pembelajaran siswa.

Permasalahan penelitian dipicu oleh hasil observasi dengan rendahnya pemahaman konsep dan keterampilan proses sains siswa. Tujuan penelitian adalah untuk mengetahui pengaruh model pembelajaran *Problem Based Learning* (PBL) berbasis TPACK terhadap capaian pembelajaran siswa. Jenis penelitian menggunakan quasi eksperimen dengan desain *control group pretest-posttest design*. Populasi seluruh siswa kelas XI semester II SMAN 9 Medan yang terdiri dari 8 kelas dengan sampel XI-3 sebagai kelas eksperimen dan XI-2 sebagai kelas kontrol dengan menggunakan teknik *class random sampling*. Instrumen penelitian yaitu instrumen pemahaman konsep dalam ranah kognitif sebagai penilaian pemahaman konsep Fisika dengan jumlah 10 soal dan instrumen penilaian keterampilan proses sains yang berjumlah 10 soal serta teknik analisis data yang digunakan adalah uji MANOVA. Kesimpulan yang diperoleh dari penelitian adalah terdapat hubungan positif antara model pembelajaran *Problem Based Learning* (PBL) berbasis TPACK dan pembelajaran konvensional terhadap capaian pembelajaran peserta didik di mana $t_{hitung} > t_{tabel}$ akibatnya H_0 ditolak sementara H_a diterima.

Kata Kunci : *Problem Based Learning*, TPACK, Pemahaman Konsep, Keterampilan Proses Sains

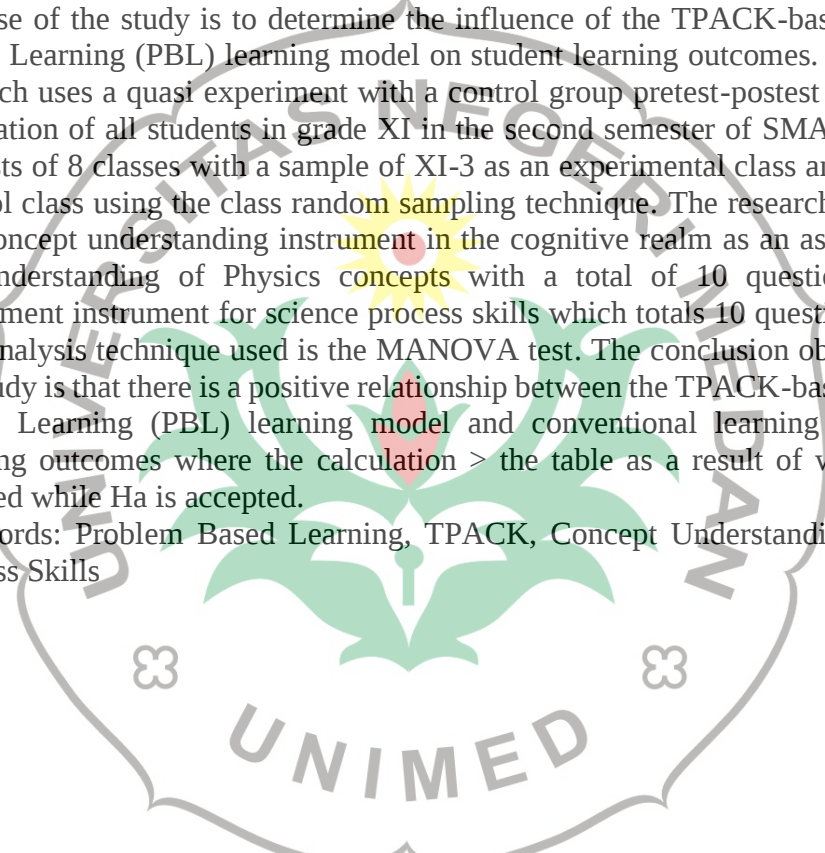
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ABSTRACT

Nova Srydevi Simanjorang. The Influence of the TPACK-Based Problem Based Learning (PBL) Learning Model on Student Learning Achievement.

The research problem is triggered by the results of observation with low understanding of concepts and skills in the scientific process of students. The purpose of the study is to determine the influence of the TPACK-based Problem Based Learning (PBL) learning model on student learning outcomes. The type of research uses a quasi experiment with a control group pretest-posttest design. The population of all students in grade XI in the second semester of SMAN 9 Medan consists of 8 classes with a sample of XI-3 as an experimental class and XI-2 as a control class using the class random sampling technique. The research instrument is a concept understanding instrument in the cognitive realm as an assessment of the understanding of Physics concepts with a total of 10 questions and an assessment instrument for science process skills which totals 10 questions and the data analysis technique used is the MANOVA test. The conclusion obtained from the study is that there is a positive relationship between the TPACK-based Problem Based Learning (PBL) learning model and conventional learning on student learning outcomes where the calculation $>$ the table as a result of which H_0 is rejected while H_a is accepted.

Keywords: Problem Based Learning, TPACK, Concept Understanding, Science Process Skills



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