ABSTRAK

Uriyan Salasa. Pengaruh model pembelajaran *problem based learning* terhadap hasil belajar siswa kelas XI IPA SMA Negeri 4 Halmahera Barat pada konsep momentum dan impuls. Program Studi Pendidikan Fisika, Jurusan MIPA, Fakultas Keguruan dan Ilmu Pendidikan. Universitas Khairun Ternate. Pembimbing I, Ibu Nurlaela Muhammad, S.Pd., M.Pd, dan pembimbing II, Ibu Astuti Salim., S.Pd., M.Pd, Si.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *problem based learning* terhadap hasil belajar siswa kelas XI IPA SMA Negeri 4 Halmahera Barat pada konsep momentum dan impuls, jenis peneilitian yang digunakan adalah jenis penelitan eksperimen dengan bentuk desain *one group pretest posttest design*. Populasi dalam penelitian ini adalah siswa kelas XI IPA dengan jumlah siswa 44 orang yang terbagi dalam 2 kelas. Dan sampel yang diambil dalam peneltian ini adalah siswa kelas XI IPA 2 yang berjumlah 22 orang, dengan teknik pengambilan sampel yaitu secara acak (*Cluster sampling*).

Berdasarkan data yang diperoleh dari hasil belajar tes tertulis berupa soal *pretest* dan *posttest*. Data dianalisis menggunakan statistik uji-t. Data diperoleh $t_{hitung} = 8,30$ dan $t_{tabel} = 2,069$ dengan taraf sig $\alpha = 0,05$. Hal ini menunjukkan bahwa $t_{hitung} > t_{tabel}$ atau $8,30 > 2,069$, sehingga H_a diterima dan H_o ditolak. Besar pengaruh model pembelajaran *problem based learning* terhadap hasil belajar sebesar 0,87 yang termasuk dalam kategori besar, dengan presentasi respon siswa terhadap model pembelajaran *problem based learning* adalah 66% yang termasuk dalam kategori kuat. Sehingga dapat disimpulkan bahwa terdapat pengaruh model pembelajaran *problem based learning* terhadap hasil belajar siswa kelas XI IPA SMA Negeri 4 Halmahera Barat pada konsep momentum dan impuls.

Kata Kunci : Model *Problem Based Learning*, Hasil Belajar, Momentum dan Impuls

ABSTRACT

Uriyan Salasa. The effect of the *problem based learning* model on the learning outcomes of class XI IPA students of SMA Negeri 4 West Halmahera on the concepts of momentum and impulse. Physical Education Study Program, Department of Mathematics and Natural Sciences, Faculty of Teacher Training and Education. Khairun Ternate University. Advisor I, Mrs. Nurlaela Muhammad, S.Pd., M.Pd, and mentor II, Mrs. Astuti Salim., S.Pd., M.Pd., Si

This study bert of examination to determine the effect of learning model *of problem based learning* to the learning outcomes of students in class XI IPA SMAN 4 West Halmahera on the concept of momentum and impulse, the kind peneilitian used is kind of experimental research with the design form *one group pretest posttest design* . The population in this study were students of class XI IPA with 44 students divided into 2 classes. And the samples taken in this study were 22 students of class XI IPA 2, with a random *sampling* technique of taking samples (*cluster sampling*).

Based on data obtained from learning outcomes based on written tests. And the data were analyzed using t-test statistics. Data obtained $t_{count} = 8.30$ and $t_{table} = 2.069$ with sig level $\alpha = 0,05$. This shows that $t_{count} > t_{table}$ or $8,30 > 2,069$, so that H_a received and H_o. rejected. Big influence learning model of *problem based learning* to the learning outcomes at 0.87 which is included in the strong category, with presentation of students' response to the learning model *of problem-based learning* is 66 % which is included in the strong category. So it can be concluded that there is an effect of the *problem based learning* model on *learning* outcomes of class XI IPA students of SMA Negeri 4 West Halmahe ra on the concepts of momentum and impulse .

Keywords: *Problem Based Learning* Model, *Learning* Outcomes, Momentum and Impulse