

ABSTRAK

Windi Hijra Sari: Peningkatan Kemampuan Numerasi Siswa Melalui Model *Problem Based Learning* Berbasis Strategi Pembelajaran *Strengthening, Orientation, Investigation, Evaluation*.

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Rendahnya kemampuan numerasi siswa dalam pembelajaran matematika mengakibatkan siswa kesulitan dalam menggunakan angka serta simbol matematika, menganalisis data dalam bentuk tabel atau grafik, serta menarik kesimpulan atau prediksi. Berdasarkan hal tersebut diberikan solusi dengan menerapkan model *problem based learning* berbasis strategi pembelajaran *strengthening, orietation, investigation, evaluation* untuk meningkatkan kemampuan numerasi siswa. Penelitian ini bertujuan untuk mengetahui peningkatan kemampuan numerasi siswa yang menggunakan model *problem based learning* berbasis strategi pembelajaran *strengthening, orietation, investigation, evaluation* lebih baik daripada siswa yang menggunakan model pembelajaran konvensional pada materi statistika di kelas X SMK Negeri 3 Lhokseumawe. Jenis penelitian ini *quasi eksperiment* dengan desain *Non-equivalent control group design*. Populasi penelitian adalah kelas X SMK Negeri 3 Lhokseumawe. Pengambilan sampel menggunakan teknik *purposive sampling*, dengan kelas X-MP¹ sebagai kelas eksperimen dan X-MP² sebagai kelas kontrol. Instrumen yang digunakan adalah tes kemampuan numerasi siswa yang diberikan sebelum pembelajaran (*pretest*) dan setelah pembelajaran (*posttest*). Analisis data dilakukan dengan menggunakan *N-Gain* dan uji non parametric Mann-Whitney karena data tidak berdistribusi normal. Hasil uji non parametrik Mann-Whitney menunjukkan nilai *Sig* $0,03 < 0,05$ yang artinya H_a diterima yaitu peningkatan kemampuan numerasi siswa melalui model *problem based learning* berbasis strategi pembelajaran *strengthening, orietation, investigation, evaluation* lebih baik dibandingkan model konvensional pada materi statistika.

Kata Kunci: Kemampuan numerasi siswa, model *Problem Based Learning*, strategi SOIE.

ABSTRACT

Windi Hijra Sari: *Improving Students' Numeracy Skills Through the Problem Based Learning Model Based on the Strengthening, Orientation, Investigation, Evaluation Learning Strategy.*

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Low numeracy skills among students in mathematics learning make it difficult for them to use numbers and mathematical symbols, analyze data in the form of tables or graphs, as well as draw conclusions or make predictions. Based on this, a solution is provided by implementing a problem based learning model based on reinforcement, orientation, investigation, and evaluation learning strategies to improve students' numeracy skills. This study aims to determine whether the improvement in students' numeracy skills using a problem based learning model based on reinforcement, orientation, investigation, and evaluation learning strategies is better than students using a conventional learning model on statistics material in class X at SMK Negeri 3 Lhokseumawe. The type of this research is quasi-experimental with a nonequivalent control group design. The research population is the 10th-grade students of SMK Negeri 3 Lhokseumawe. The sampling technique used is purposive sampling, with class X-MP¹ as the experimental class and X-MP² as the control class. The instrument used was a numeracy ability test for students conducted before learning (pretest) and after learning (posttest). Data analysis was conducted using N-Gain and the non-parametric Mann-Whitney U test because the data did not follow a normal distribution. The results of the Mann-Whitney non-parametric test showed a Sig value of $0.03 < 0.05$, which means H_a is accepted, indicating that the improvement in students' numeracy skills through the problem-based learning model based on reinforcement, orientation, investigation, and evaluation learning strategies is better than using the conventional model in the topic of statistics.

Keywords: *Students' numeracy skills, Problem Based Learning model, strategy SOIE.*