

ABSTRAK

Kristina Triani Mandalahi. NIM 4203121044 (2024), Pengaruh Model *Quantum Learning* Berbantuan *Mind Mapping* Terhadap Hasil Belajar Siswa pada Materi Elastisitas dan Hukum Hooke di kelas XI SMA Dharmawangsa

Penelitian ini bertujuan untuk mengetahui hasil belajar siswa dengan menggunakan model *Quantum learning* berbantuan *mind mapping* dan pembelajaran konvensional, serta mengetahui aktivitas belajar siswa. Jenis penelitian yang dilakukan adalah *quasi experiment* dengan desain penelitian *two group pretest-posttest design*. Populasi penelitian adalah seluruh siswa kelas XI MIPA yang terdiri dari 7 kelas. Pengambilan sampel dilakukan dengan cara *cluster random sampling*. Kelas XI MIPA 7 sebagai kelas eksperimen dengan menggunakan model *quantum learning* berbantuan *mind mapping* dan kelas XI MIPA 1 sebagai kelas kontrol dengan menggunakan pembelajaran konvensional. Instrumen yang digunakan dalam penelitian ini adalah tes hasil belajar ranah kognitif berupa soal *essay* sebanyak 10 soal yang terlebih dahulu divalidasi oleh para ahli. Berdasarkan hasil pengolahan data *pretest* diperoleh nilai rata-rata kelas eksperimen 46,33 dan kelas kontrol 44,91. Pada pengujian normalitas dan homogenitas data *pretest* kedua kelas berdistribusi normal dan homogen. Hasil *t* uji dua pihak data *pretest* diperoleh bahwa kedua kelas memiliki kemampuan awal yang sama. Setelah diberikan perlakuan diperoleh nilai rata-rata *posttest* kelas eksperimen 78,66 dan kelas kontrol 69,33. Hasil pengujian hipotesis uji *t* satu pihak pada taraf $\alpha = 0,05$ diperoleh $t_{hitung} > t_{tabel} = 5,241 > 1,671$, sehingga dapat disimpulkan bahwa nilai rata-rata yang diperoleh kelas eksperimen $>$ kelas kontrol setelah diberi perlakuan. Maka, Hipotesis (H_a) diterima, sehingga ada pengaruh yang signifikan model pembelajaran *Quantum learning* berbantuan *mind mapping* terhadap hasil belajar siswa pada materi Elastisitas dan Hukum Hooke di kelas XI SMA Dharmawangsa Medan. Nilai rata-rata aktivitas belajar siswa pada kelas eksperimen selama pembelajaran berlangsung sebesar 73,32 termasuk dalam kategori aktif.

Kata Kunci: Pengaruh, model *Quantum learning*, *mind mapping*, hasil belajar, Elastisitas dan hukum Hooke.

ABSTRACT

Kristina Triani Mandalahi. NIM 4203121044 (2024), The Effect of Quantum Learning Model Assisted by Mind Mapping on Students' Learning Outcomes in Elasticity and Hooke's Law Material in Grade XI at SMA Dharmawangsa

This study aims to determine of student learning outcomes using the Quantum learning model assisted by mind maps and conventional learning, as well as knowing student learning activities. The type of research carried out was quasi-experimental with a two group pretest-posttest research design. The research population was all students of class XI MIPA consisting of 7 classes. Sampling was carried out using cluster random sampling. Class XI MIPA 7 as an experimental class using a quantum learning model assisted by mind maps and class XI MIPA 1 as a control class using conventional learning. The instrument used in this research was a cognitive domain learning outcomes test in the form of 10 essay questions which were first validated by experts. Based on the results of pretest data processing, the average score for the experimental class was 46.33 and the control class was 44.91. In testing normality and homogeneity, the pretest data for both classes had a normal and homogeneous distribution. The results of the two-sided t test of the pretest data showed that both classes had the same initial abilities. After being given treatment, the average posttest score for the experimental class was 78.66 and the control class was 69.33. The results of hypothesis testing of the one-party t test at the $\alpha = 0.05$ level obtained $t_{\text{count}} > t_{\text{tabel}} = 5.241 > 1.671$, so it can be concluded that the average value obtained by the experimental class $>$ control class after being given treatment. So, the hypothesis (H_a) is accepted, so there is a significant influence of the Quantum learning model assisted by mind mapping on student learning outcomes in the material Elasticity and Hooke's Law in class XI SMA Dharmawangsa Medan. The average value of student learning activities in the experimental class during learning was 73.32, which is included in the active category.

Keywords: Effect, Quantum Learning model, mind mapping, learning outcomes, Elasticity and Hooke's Law.