

## ABSTRAK

### **Putri Purnama Sari Tumanggor, NIM 4203331029 (2024). Pengaruh Model Pembelajaran Dan Motivasi Belajar Terhadap Hasil Belajar Siswa Pada Pokok Bahasan Keseimbangan Kimia**

Telah dilakukan penelitian yang bertujuan untuk mengetahui pengaruh model pembelajaran, motivasi belajar serta interaksi antara model pembelajaran dan motivasi belajar terhadap hasil belajar siswa pada pokok bahasan keseimbangan kimia. Populasi penelitian adalah seluruh siswa kelas XI SMA Negeri 1 Percut Sei Tuan sebanyak 10 kelas. Sampel diambil dua tahap yaitu: pertama-tama sampel kelas diambil sebanyak 2 kelas secara random. Tahap kedua, setiap kelas dibagi menjadi 2 kelompok yaitu kelompok siswa dengan motivasi belajar tinggi terdiri dari 10 orang dan kelompok motivasi belajar rendah juga 10 orang sehingga total sampel siswa yang digunakan sebanyak 40 orang. Penelitian ini menggunakan rancangan faktorial acak lengkap  $2 \times 2$ . Ada dua faktor yang dicobakan yaitu faktor A : Model Pembelajaran yang terdiri dari 2 taraf yaitu  $A_1 = \textit{Problem Based Learning}$  dan  $A_2 = \textit{Learning Cycle 5E}$ , faktor B : Motivasi Belajar siswa yang terdiri dari 2 taraf yaitu  $B_1 = \textit{Motivasi Belajar tinggi}$  dan  $B_2 = \textit{Motivasi Belajar rendah}$ . Kombinasi perlakuan di setiap kelas diberikan selama waktu tertentu sesuai dengan ATP dan modul ajar yang digunakan. Pada akhir proses pembelajaran dilakukan post-test untuk mengukur capaian hasil belajar siswa di setiap kombinasi perlakuan.

Dari hasil uji hipotesis pada taraf signifikansi  $\alpha = 0,05$  diperoleh  $F_{hit}(A) = 21,37$  dan  $F_{hit}(B) = 9,89$  sedang  $F_{tabel} = 4,11$ . Dengan demikian  $F_{hit}(A) > F_{tabel}$  yang berarti ada pengaruh model pembelajaran terhadap hasil belajar siswa pada pokok bahasan keseimbangan kimia. Demikian juga  $F_{hit}(B) > F_{tabel}$  artinya ada pengaruh Motivasi Belajar terhadap hasil belajar siswa. Selanjutnya telah diperoleh  $F_{hit}(AB) > F_{tabel}$  atau  $30,81 > 4,11$ , artinya ada interaksi antara model pembelajaran dan Motivasi Belajar terhadap hasil belajar siswa pada pokok bahasan keseimbangan kimia. Dari uji hipotesis diperoleh bahwa siswa dengan motivasi belajar yang tinggi dan dibelajarkan dengan model pembelajaran *Problem Based Learning* memberikan rata-rata hasil belajar sebesar  $(85,5 \pm 3,68)$  yang secara nyata lebih tinggi dari kelompok siswa yang dibelajarkan dengan model pembelajaran *Learning Cycle 5E*  $(81,5 \pm 2,41)$ . Selanjutnya, siswa yang mempunyai motivasi belajar rendah dan dibelajarkan dengan model pembelajaran *Learning Cycle 5E* memberikan rata-rata hasil belajar sebesar  $(70,5 \pm 4,37)$  yang secara nyata lebih tinggi dari kelompok siswa yang dibelajarkan dengan model pembelajaran *Problem Based Learning*  $(66,0 \pm 5,16)$ . Pada uji pengaruh sederhana siswa yang mempunyai Motivasi Belajar tinggi sebaiknya dibelajarkan dengan menggunakan model pembelajaran *Problem Based Learning* sedangkan siswa yang mempunyai Motivasi Belajar rendah sebaiknya dibelajarkan dengan model pembelajaran *Learning Cycle 5E*.

**Kata kunci :** *Problem Based Learning, Learning Recycle 5E, Motivasi Belajar, Hasil Belajar, Keseimbangan Kimia.*

## ABSTRACT

### **Putri Purnama Sari Tumanggor, NIM 4203331029 (2024). The Influence of Learning Models and Learning Motivation on Student Learning Outcomes on the Subject of Chemical Equilibrium**

Research has been conducted which aims to determine the effect of learning models, learning motivation and the interaction between learning models and learning motivation on student learning outcomes on the subject of chemical equilibrium. The study population was all students of class XI SMA Negeri 1 Percut Sei Tuan as many as 10 classes. Samples were taken in two stages, namely: first, class samples were taken as many as 2 classes randomly. The second stage, each class was divided into 2 groups, namely a group of students with high learning motivation consisting of 10 people and a group of low learning motivation also 10 people so that the total sample of students used was 40 people. This study uses a complete randomized factorial design 2 x 2. There are two factors that are tried, namely factor A. Learning Model consisting of 2 levels, namely the Learning Model consisting of 2 levels, namely the Learning Model and the Learning Model consisting of 2 levels: Learning Model consisting of 2 levels, namely A1 = Problem Based Learning and A2 = Learning Cycle 5E, factor B: Students' Learning Motivation which consists of 2 levels, namely B1 = High Learning Motivation and B2 = Low Learning Motivation. The combination of treatments in each class is given for a certain time according to the ATP and the teaching module used. At the end of the learning process, a post-test was conducted to measure the achievement of student learning outcomes in each treatment combination.

From the results of hypothesis testing at the significance level  $\alpha = 0.05$  obtained  $F_{hit} (A) = 21.37$  and  $F_{hit} (B) = 9.89$  while  $F_{table} = 4.11$ . Thus  $F_{hit} (A) > F_{table}$  which means there is an effect of learning models on student learning outcomes on the subject of chemical equilibrium. Likewise,  $F_{hit} (B) > F_{table}$  means that there is an effect of Learning Motivation on student learning outcomes. Furthermore, it has been obtained  $F_{hit} (AB) > F_{table}$  or  $30.81 > 4.11$ , meaning that there is an interaction between the learning model and Learning Motivation on student learning outcomes on the subject of chemical equilibrium. From the hypothesis test, it was obtained that students with high learning motivation and taught with the Problem Based Learning learning model gave an average learning outcome of  $(85.5 \pm 3.68)$  which was significantly higher than the group of students taught with the Learning Cycle 5E learning model  $(81.5 \pm 2.41)$ . Furthermore, students who have low learning motivation and are taught with the Learning Cycle 5E learning model provide an average learning outcome of  $(70.5 \pm 4.37)$  which is significantly higher than the group of students taught with the Problem Based Learning learning model  $(66.0 \pm 5.16)$ . In the simple effect test, students who have high Learning Motivation should be taught using the Problem Based Learning model while students who have low Learning Motivation should be taught using the Learning Cycle 5E learning model.

**Keywords:** Problem Based Learning, Learning Cycle 5E, Learning Motivation, Learning Outcomes, Chemical Equilibrium.