

ABSTRAK

Sindy Ariyanti, NIM 4191131025 (2023). Penerapan Model Pembelajaran *Contextual Teaching And Learning* (CTL) Berbantuan Media *Virtual Lab* Terhadap Kemampuan Berpikir Tingkat Tinggi Dan Motivasi Belajar Siswa Pada Materi Asam Basa

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model pembelajaran *Contextual Teaching and Learning* (CTL) berbantuan Media *Virtual Lab* terhadap kemampuan berpikir tingkat tinggi dan motivasi belajar siswa materi asam basa. Sampel diambil secara *purposive sampling* sebanyak 2 kelas yaitu kelas eksperimen menggunakan model CTL berbantuan *virtual lab* sedangkan kelas kontrol menggunakan model pembelajaran konvensional. Instrumen yang digunakan adalah tes pilihan berganda dengan tingkat kognitif C4-C6 dan non tes angket motivasi belajar siswa. Data kemampuan berpikir tingkat tinggi siswa dianalisis dengan uji-t pihak kanan dengan taraf signifikansi 0,05 setelah terlebih dahulu diuji normalitas dan homogenitas data sebagai pra-syarat uji-t. Data motivasi belajar siswa dianalisis dengan statistik deskriptif. Uji korelasi untuk melihat hubungan motivasi belajar dengan kemampuan berpikir tingkat tinggi siswa. Hasil uji-t kemampuan berpikir tingkat tinggi diperoleh $t_{hitung} > t_{tabel}$ ($6,50 > 1,66827$) yang menunjukkan H_0 ditolak dan H_a diterima yaitu penerapan model CTL berbantuan *virtual lab* berpengaruh terhadap kemampuan berpikir tingkat tinggi siswa. Hasil uji korelasi diperoleh $r_{hitung} > r_{tabel}$ ($0,45 > 0,339$) yang menunjukkan bahwa motivasi belajar siswa berkorelasi positif dan signifikan dengan kemampuan berpikir tingkat tinggi siswa yang menggunakan model pembelajaran CTL berbantuan *virtual lab*. Dengan nilai koefisien korelasi $r = 0,45$ termasuk korelasi dengan kategori cukup. Kontribusi motivasi siswa terhadap kemampuan berpikir tingkat tinggi siswa dengan menggunakan determinasi (CD) sebesar 20,25% sedangkan 79,75% disebabkan oleh faktor-faktor lainnya. Adapun nilai rata-rata dan standar deviasi motivasi belajar siswa untuk kelas eksperimen ($72,68 \pm 6,22$) dan untuk kelas kontrol ($64,12 \pm 7,79$) yang berarti motivasi belajar siswa pada kelas eksperimen lebih tinggi daripada kelas kontrol.

Kata Kunci : Model CTL, *Virtual Lab*, Kemampuan Berpikir Tingkat Tinggi, Motivasi Siswa, Asam Basa.

ABSTRACT

Sindy Ariyanti, NIM 4191131025 (2023). Implementation of the Contextual Teaching and Learning (CTL) Model Assisted by Virtual Lab Media to Higher Order Thinking Skills and Student Learning Motivation in Acid-Base Material

This study aims to determine the effect of applying the Contextual Teaching and Learning (CTL) learning model assisted by the Media Virtual Lab on high-level thinking skills and students' motivation in learning acid-base material. Samples were taken by purposive sampling of 2 classes, namely the experimental class using the CTL model assisted by a virtual lab while the control class used a conventional learning model. The instruments used were multiple choice tests with cognitive levels C4-C6 and non-questionnaire tests on student learning motivation. Data on students' higher-order thinking skills were analyzed using the right-hand side t-test with a significance level of 0.05 after first being tested for normality and homogeneity of the data as prerequisites for the t-test. Student learning motivation data were analyzed with descriptive statistics. Correlation test to see the relationship between learning motivation and students' higher order thinking skills. The results of the t-test for higher-order thinking skills were obtained $t_{count} > t_{table}$ ($6.50 > 1.66827$) which indicated that H_0 was rejected and H_a was accepted, namely the application of the CTL model assisted by the virtual lab had an effect on students' higher-order thinking abilities. The results of the correlation test obtained $r_{count} > r_{table}$ ($0.45 > 0.339$) which indicates that student learning motivation is positively and significantly correlated with the higher order thinking skills of students who use the CTL learning model assisted by the virtual lab. With a correlation coefficient value of $r = 0.45$, it is included in the moderate category. The contribution of students' motivation to students' higher order thinking skills using determination (CD) is 20.25% while 79.75% is caused by other factors. The average value and standard deviation of student learning motivation for the experimental class (72.68 ± 6.22) and for the control class (64.12 ± 7.79) which means that the learning motivation of students in the experimental class is higher than the control class.

Keywords: CTL Model, Media Virtual Lab, Higher Order Thinking Skills, Student Motivation, Acid-Base.