

**PENGARUH PENERAPAN VIRTUAL LABORATORIUM TERHADAP
SELF-EFFICACY DAN HASIL BELAJAR SISWA KELAS X PADA
MATERI GETARAN HARMONIS SMA NEGERI BERINGIN**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh *virtual laboratory* terhadap *self-efficacy* dan hasil belajar siswa pada materi Getaran Harmonis Sederhana kelas X SMA Negeri Beringin dan untuk melihat korelasi antara *self-efficacy* dan hasil belajar siswa. Jenis Penelitian adalah *quasi experiment* dengan desain penelitian *Two Group Pretest-posttest*. Hasil penelitian diperoleh nilai rata-rata pretes kelas eksperimen 45 dengan standar deviasi 16,46 dan kelas kontrol adalah 40 dengan standar deviasi 13,17. Sampel berdistribusi normal dan homogen, uji normalitas menunjukkan distribusi kemampuan peserta sama. Hasil post test nilai rata – rata kelas eksperimen 66,5 dan kelas kontrol nilai rata – rata 56,25, kedua data normal dan homogen serta analisis hipotesis statistik menunjukkan bahwa terdapat perbedaan rata-rata dari kedua kelas, berarti ada pengaruh praktikum konvensional dan *virtual laboratory* terhadap hasil belajar siswa. Nilai *self-efficacy* siswa di kelas eksperimen lebih tinggi dari kelas kontrol dengan nilai rata-rata 78,65, hasil data normal dan homogen, hipotesis statistik menunjukkan bahwa signifikansi $0,002 < 0,05$ maka terdapat perbedaan rata-rata dari kedua kelas, berarti ada pengaruh *virtual laboratory* terhadap *self-efficacy* siswa. Hubungan *Self-efficacy* dan hasil belajar memiliki korelasi dengan nilai 0,796 yang diinterpretasikan memiliki derajat hubungan kuat dan bentuk hubungan positif yang berarti semakin tinggi *self-efficacy* maka semakin tinggi juga hasil belajar siswa.

Kata Kunci : *virtual laboratory*, hasil belajar, *self-efficacy*

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THE EFFECT OF VIRTUAL LABORATORY APPLICATION ON *SELF-EFFICACY* AND LEARNING OUTCOMES OF CLASS X STUDENTS IN MATERIAL HARMONIC VIBRATION OF SMA NEGERI BERINGIN

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ABSTRACT

Research n This study aims to determine the effect of a *virtual laboratory* on *self-efficacy* and student learning outcomes in Class X SMA Negeri Beringin Simple Harmonic Vibration material and to see the correlation between *self-efficacy* and student learning outcomes . This type of research is a *quasi-experimental* with a *Two Group Pretest-posttest research design* . The results of the study obtained that the average pre-test score for the experimental class was 45 with a standard deviation of 16.46 and the control class was 40 with a standard deviation of 13.17. The sample is normally distributed and homogeneous, the normality test shows that the distribution of the abilities of the participants is the same. The results of the post test average value of the experimental class is 66.5 and the control class average value is 56.25, both normal and homogeneous data and analysis the statistical hypothesis shows that there is a difference in the average of the two classes, meaning that there is an effect of conventional and *virtual laboratory practicum* on student learning outcomes. The *self-efficacy* value of students in the experimental class is higher than the control class with an average value of 78.65, the results of the data are normal and homogeneous, the statistical hypothesis shows that the significance is $0.002 < 0.05$, so there is a difference in the average of the two classes, meaning there is the effect of *virtual laboratory* on students' *self-efficacy* . The relationship between *self-efficacy* and learning outcomes has a correlation with a value of 0.796 which is interpreted as having a degree of strong relationship and the form of a positive relationship, which means that the higher the *self-efficacy* , the higher the student learning outcomes.

Keywords : *virtual laboratory*, learning outcomes, *self-efficacy*

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