

**PEMBELAJARAN BERBASIS PRAKTIKUM VIRTUAL
UNTUK MENINGKATKAN KETERAMPILAN BERPIKIR KRITIS
DAN SIKAP ILMIAH SISWA
TENTANG KESEHATAN REPRODUKSI MANUSIA**

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh *virtual lab* tentang kesehatan reproduksi manusia terhadap keterampilan berpikir kritis dan sikap ilmiah siswa. Metode yang digunakan adalah *Weak Experimental* dengan desain *The One-Group Pretest-Posttest*. Sampel penelitian terdiri dari dua kelas eksperimen. Hasil penelitian menunjukkan bahwa keterampilan berpikir kritis siswa setelah pembelajaran praktikum virtual mengalami peningkatan dengan *gain* 0,6 di kelas IPA 4 dan 0,59 di kelas IPA 9. Sejalan dengan itu, sikap ilmiah siswa pun mengalami peningkatan dengan *gain* 0,24 di kelas IPA 4 dan 0,35 di kelas IPA 9. Terdapat peningkatan yang signifikan keterampilan berpikir kritis dan sikap ilmiah siswa dengan $\alpha = 0,05$ di kedua kelas sampel. Berdasarkan hasil analisis, maka dapat disimpulkan bahwa praktikum virtual kesehatan reproduksi berpengaruh positif terhadap keterampilan berpikir kritis dan sikap ilmiah siswa.

Kata Kunci: *Keterampilan Berpikir Kritis, Sikap Ilmiah, Virtual Lab, Kesehatan Reproduksi Manusia*

***VIRTUAL LABORATORY BASED LEARNING TO IMPROVE STUDENTS'
CRITICAL THINKING SKILLS AND SCIENTIFIC ATTITUDES
ON HUMAN REPRODUCTIVE HEALTH CONCEPT***

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ABSTRACT

This study is aimed at analyzing the influence of virtual lab on human reproductive health concept towards students' critical thinking skills and scientific attitudes. The research method used was Weak Experimental with The One-Group Pretest-Posttest design. The study sample was consisted of two experimental classes. The results showed that students' critical thinking skills had improved by gaining 0.6 in IPA 4 and 0.59 in IPA 9, after participated in virtual lab activity. Correspondingly, the scientific attitudes of students also increased by gaining 0.24 in IPA 4 and 0.35 in IPA 9. There is a significant improvement in students' critical thinking skills and scientific attitudes of students with $\alpha = 0.05$ in the second grade sample. Based on the analysis, it can be concluded that the virtual lab has positive effect on critical thinking skills and scientific attitudes of students.

Keywords: *Critical Thinking Skills, Scientific Attitude, Virtual Lab, Human Reproductive Health*