

**ANALISIS PENGGUNAAN VIRTUAL REALITY DALAM PEMBELAJARAN
SISTEM PERNAPASAN: TINJAUAN TERHADAP KETERAMPILAN
BERPIKIR KRITIS DAN PENGUASAAN KONSEP SISWA SMA**

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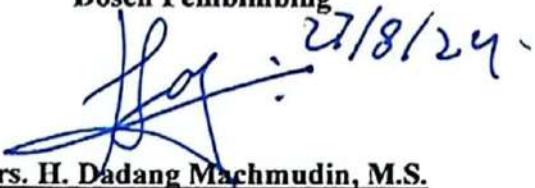
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ABSTRAK

Penelitian ini berjudul “Analisis Penggunaan *Virtual Reality* dalam Pembelajaran Sistem Pernapasan: Tinjauan terhadap Keterampilan Berpikir Kritis dan Penguasaan Konsep Siswa SMA”. Tujuan penelitian ini adalah untuk Tujuan penelitian ini untuk memperoleh informasi mendalam mengenai penerapan media *Virtual Reality* (VR) sebagai upaya dalam mengembangkan keterampilan berpikir kritis dan penguasaan konsep siswa dalam mempelajari materi sistem pernapasan. Metode dari penelitian ini menggunakan penelitian deskriptif dengan subjek penelitian siswa SMA kelas XI IPA yang menggunakan media VR dalam pembelajaran PBL. Instrumen tes yang digunakan untuk mengukur Keterampilan berpikir kritis siswa berupa soal uraian, dan soal pilihan ganda untuk mengukur pemahaman konsep siswa. Instrumen non-tes berupa keterlaksanaan sintaks pembelajaran digunakan untuk menilai kendala pembelajaran menggunakan media VR. Berdasarkan hasil temuan penelitian menunjukkan terjadi perubahan negatif, ditandai dengan penurunan rata-rata nilai *pretest* ke *posttest*. Adapun penguasaan konsep siswa pada materi sistem pernapasan menunjukkan perubahan positif yang ditandai dengan peningkatan rata-rata nilai penguasaan konsep siswa. Adapun kendala pembelajaran menggunakan media VR yaitu keterbatasan perangkat yang dapat digunakan sehingga membatasi aksesibilitas dalam pembelajaran dan keterbatasan waktu penggunaan VR jangka panjang dalam pembelajaran. Simpulan hasil penelitian menyatakan penelitian ini menggambarkan perubahan positif dalam penguasaan konsep siswa setelah menggunakan media *Virtual Reality* (VR) dalam proses pembelajaran sistem pernapasan. Akan tetapi penggunaan media VR yang tidak terintegrasi dengan model pembelajaran, lembar kerja siswa dan soal yang diujikan menggambarkan perubahan negatif dalam pengembangan keterampilan berpikir kritis. Selain itu, ketersediaan perangkat yang dapat mempengaruhi aksesibilitas penggunaan media VR, keterbatasan waktu menjadi kendala penerapan penggunaan media VR dalam pembelajaran PBL.

Kata Kunci: *virtual reality*, keterampilan berpikir kritis, penguasaan konsep, materi sistem pernapasan

ABSTRACT

This research is entitled "Analysis of the Use of Virtual Reality in Learning the Respiratory System: A Review of Critical Thinking Skills and Concept Mastery of High School Students". The purpose of this study is to obtain in-depth information about the application of Virtual Reality (VR) media as an effort to develop critical thinking skills and mastery of students' concepts in studying respiratory system material. The method of this research uses descriptive research with the research subject of high school students in class XI IPA who use VR media in PBL learning. The test instrument used to measure students' critical thinking skills is in the form of description questions, and multiple-choice questions to measure students' concept understanding. Non-test instruments in the form of learning syntax implementation are used to assess learning constraints using VR media. Based on the research findings, there was a negative change, characterized by a decrease in the average pretest to posttest scores. The mastery of students' concepts on the material of the respiratory system shows a positive change marked by an increase in the average value of students' concept mastery. The obstacles to learning using VR media are the limitations of devices that can be used so as to limit accessibility in learning and the limited time for long-term use of VR in learning. The conclusion of the research results states that this study illustrates positive changes in students' concept mastery after using Virtual Reality (VR) media in the learning process of the respiratory system. However, the use of VR media that is not integrated with the learning model, student worksheets and tested questions illustrates negative changes in the development of critical thinking skills. In addition, the availability of devices that can affect the accessibility of the use of VR media, limited time is an obstacle to the application of the use of VR media in PBL learning.

Keywords: virtual reality (VR), critical thinking skills, concept mastery, respiratory system material.

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ANALISIS PENGGUNAAN VIRTUAL REALITY DALAM PEMBELAJARAN SISTEM PERNAPASAN: TINJAUAN TERHADAP KETERAMPILAN BERPIKIR KRITIS DAN PENGUASAAN KONSEP SISWA SMA
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