

ABSTRAK

RABIATUL ADAWIYAH, Pengembangan Media Laboratorium Virtual IPA Terpadu SMP Kelas VIII Untuk Meningkatkan Kemampuan Berpikir Kritis dan Hasil Belajar Siswa.

Penelitian ini bertujuan memperoleh media laboratorium virtual IPA terpadu SMP kelas VIII yang layak digunakan sebagai upaya meningkatkan kemampuan berpikir kritis dan hasil belajar siswa, menyelidiki korelasi kemampuan berpikir kritis terhadap hasil belajar. Jenis penelitian ini adalah penelitian dan pengembangan yang meliputi tahap (1) Analisis pendahuluan pelaksanaan pembelajaran IPA, tahap (2) Pengembangan media Laboratorium virtual IPA terpadu menggunakan macramedia flash, tahap (3) Validasi media laboratorium virtual IPA terpadu sesuai dengan standar kelayakan BSNP dan media elektronik, tahap (4) Evaluasi yaitu uji coba media laboratorium virtual IPA terpadu kepada siswa Kelas VIII SMP Negeri 2 Lubuk Pakam sebanyak 2 kelas yang berjumlah 32 siswa. Hasil penelitian menunjukkan bahwa: (1) kelayakan isi, bahasa dan penyajian media laboratorium virtual IPA terpadu yang dikembangkan telah sesuai dengan kelayakan BSNP rata-rata 4,77 kategori sangat valid dan tidak perlu direvisi. (2) peningkatan hasil belajar siswa yang dibelajarkan menggunakan media laboratorium virtual IPA terpadu lebih tinggi dari peningkatan hasil belajar siswa yang dibelajarkan menggunakan video praktikum IPA (rata-rata N-gain 0,819 lebih besar dari 0,708). (3) kemampuan berpikir kritis siswa yang dibelajarkan menggunakan media laboratorium virtual IPA terpadu lebih tinggi dari kemampuan berpikir kritis siswa yang dibelajarkan menggunakan video praktikum IPA (rata-rata 78,58 lebih besar dari 69,82). (4) terdapat korelasi positif dan signifikan kemampuan berpikir kritis dan hasil belajar siswa dengan koefisien korelasi sebesar 0,845 (kriteria korelasi sangat tinggi) dan koefisien determinasi sebesar 71,40%.

Kata kunci: Laboratorium virtual IPA terpadu, hasil belajar, kemampuan berpikir kritis

ABSTRACT

RABIATUL ADAWIYAH, Development of Natural Science Virtual Laboratory Media of Junior High School Class VIII to Improve Critical Thinking Skills and Student's Achievement.

This research aimed to obtain the Natural Science Virtual laboratory media of Junior High School class VIII, that used to improve the Students' Critical Thinking Skills and Student's Achievement as well as investigating the correlations between the students' critical thinking skills of the Student's Achievement. This kind of research was both research and the development which included the steps (1) The preliminary analysis of laboratory utilization in science learning, the second (2) Development of Natural Science Virtual Laboratory Media using Macromedia Flash, the third (3) The Validation of Science Virtual Laboratory Media in Accordance with BSNP eligibility standards and electronic media. (4) The evaluation which was the testing phase of the Science Virtual Laboratory Media that has been developed for class VIII SMP Negeri 2 Lubuk Pakam as many as classes which amounted to 32 students. The result of research showed (1) Content eligibility, language and presentation of science Virtual Laboratory Media which developed accordingly with the BSNP eligibility with the average about 4,77 with a very valid category and didn't need to revision. (2) The improvement of students' learning result that learned using Natural Science Virtual Laboratory Media higher than the Development Students' Achievement that learned by using Science Practicum Video (The average N-Gain, 0,819 bigger than 0,78). (3) Students' Critical Thinking Skills that learned using Natural Science Virtual Laboratory Media higher than Students' Critical Thinking Skills that learned using Science Practicum Video (The average 78,58 bigger than 69,82). (4) There was both Positif Correlation and Significant between Students' Thinking Skills and Student's Achievement with the Correlation Coefficient equal to 0,845 (correlation criteria was very high) the coefficion of determinantion equal to 71,40%

Keywords: Natural science virtual laboratory, student's achievement, critical thinking skills