

PENGEMBANGAN MULTIMEDIA INTERAKTIF ANIMASI PRATIUM VIRTUAL PADA MATERI LARUTAN PENYANGGA

Oleh

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ABSTRAK

Tujuan dari penelitian ini adalah mendeskripsikan karakteristik multimedia, validitas multimedia, kepraktisan multimedia dan keefektifan multimedia interaktif animasi praktikum virtual materi larutan penyangga. Multimedia dikembangkan dengan metode ADDIE (*Analisis, Design, Development, Implementation, Evaluation*). Pengumpulan data dilakukan dengan instrument berupa kuisioner terhadap validator ahli, dan guru kimia serta kuisioner dan tes hasil belajar terhadap siswa kelas XI MIPA 5 di SMAN 2 Amlapura. Hasil penelitian berupa data kualitatif dan data kuantitatif yang dianalisis secara deskriptif kualitatif. Produk yang dihasilkan berupa program multimedia interaktif materi Larutan Penyangga. Adapun karakteristik multimedia yang dikembangkan yaitu memuat materi larutan penyangga, pada multimedia terdapat simulasi kegiatan praktikum dengan topik yang dimuat adalah Larutan Penyangga, serta kuis pada akhir pembelajaran. Hasil validasi ahli materi, ahli media, praktisi menunjukkan bahwa multimedia interaktif memiliki kategori sangat baik. Hasil uji kelompok oleh siswa memberikan respon positif terhadap multimedia interaktif animasi praktikum virtual. Keefektifan multimedia yang didapat dari perbandingan hasil pretest dan posttest siswa. Hasil uji keefektifan menunjukkan adanya peningkatan hasil belajar terhadap penggunaan multimedia interaktif. Penelitian lanjutan diharapkan dapat mengembangkan multimedia interaktif animasi praktikum virtual pada topik yang berbeda untuk meningkatkan pemahaman siswa terhadap konsep kimia.

kata kunci: multimedia interaktif, penelitian dan pengembangan, ADDIE, larutan penyangga, praktikum virtual

THE DEVELOPMENT OF VIRTUAL PRACTICUM ANIMATION INTERACTIVE MULTIMEDIA ON BUFFER SOLUTION

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ABSTRACT

The aims of this study is to describe the characteristics of multimedia, multimedia validity, multimedia practicality and effectiveness of interactive multimedia virtual practicum animation on buffer solution material. Multimedia was developed using the ADDIE method (Analysis, Design, Development, Implementation, Evaluation). Data collection was carried out using instruments in the form of questionnaires for expert validators and chemistry teachers as well as questionnaires and learning achievement tests for class XI MIPA 5 students at SMAN 2 Amlapura. The results of the research are in the form of qualitative data and quantitative data which are analyzed descriptively qualitatively. The resulting product is an interactive multimedia program with Buffer Solution material. As for the characteristics of the multimedia developed, namely loading buffer solution material, in multimedia there is a simulation of practicum activities with the topic loaded being Buffer Solution, as well as a quiz at the end of the lesson. The validation results of material experts, media experts, practitioners show that interactive multimedia has a very good category. The results of group tests by students gave a positive response to interactive multimedia virtual practicum animations. The effectiveness of multimedia obtained from a comparison of the results of the students' pretest and posttest. The results of the effectiveness test showed an increase in learning outcomes for the use of interactive multimedia. Further research is expected to be able to develop interactive multimedia virtual practicum animations on different topics to increase students' understanding of chemistry concepts.

keywords: interactive multimedia, research and development, ADDIE, buffer solution, virtual practicum