

ABSTRACT

Nadya Khairiyah Syafti. 2020. "Development of Interactive Multimedia Learning of Human Digestive Systems And Additive Materials and Addictive Based Scientific Approach for Class VIII SMPN 1 Kec. Mungka". Thesis. Biology Education Masters Program, Padang State University.

The development of science and technology brings people in global competition. The way that a country can take in order to survive in global competition is by increasing the quality of human resources such as education. Based on the results of initial investigations at SMPN 1 Kec. Mungka for science teachers, it is known that science learning is carried out only using learning media such as powerpoints downloaded from YouTube, chapters and using direct objects, but there is still no availability of teaching materials in the form of interactive multimedia in schools. The difficulty of students to understand science subject matter on abstract concepts has an impact on student learning outcomes. The purpose of this research is to produce interactive multimedia on the material of the human digestive system and additives and additives that are valid, practical and effective.

The purpose of this research is to produce interactive multimedia on the material of the human digestive system and additives and additives that are valid, practical and effective. Interactive multimedia research and development uses the plomp model. This research method is carried out formative evaluation of interactive multimedia validation testing by 3 validator lecturers, interactive multimedia practicality by biology teachers and students, effectiveness in the experimental class and the control class.

The results of the validation assessment by the validator on interactive multimedia material on the human digestive system show the average value 90.56% (very valid) and the validation assessment by the validator on interactive multimedia on additive and addictive material shows the average value 88.68% (very valid). The results of the practicality assessment by the biology teacher showed an average value 86.51% (very practical) and the results of the practicality assessment by students obtained an average value 89.31% (very practical). The results of the interactive multimedia effectiveness test from the cognitive, affective, and psychomotor aspects of students showed that interactive multimedia was very effective. Thus, it can be concluded that the developed interactive multimedia is very valid, very practical, and very effective.

Keywords : Interactive multimedia, Science learning, scientific approach

ABSTRAK

Nadya Khairiyah Syafti. 2021. “Pengembangan Multimedia Interaktif Pembelajaran IPA Materi Sistem Pencernaan Manusia dan Zat Aditif dan Adiktif berbasis Pendekatan Saintifik untuk Kelas VIII SMPN 1 Kec. Mungka”. Tesis. Program Studi Magister Pendidikan Biologi Universitas Negeri Padang.

Berkembangnya ilmu pengetahuan dan teknologi membawa manusia dalam persaingan global. Cara yang dapat ditempuh oleh suatu negara agar dapat bertahan dalam persaingan global yaitu dengan meningkatkan kualitas sumber daya manusia seperti pendidikan. Berdasarkan hasil investigasi awal di SMPN 1 Kec. Mungka terhadap guru IPA, diketahui bahwa pembelajaran IPA yang dilakukan hanya menggunakan media pembelajaran seperti *powerpoint* yang di *download* dari *youtube*, charta – charta dan menggunakan objek langsung namun masih belum adanya ketersediaan bahan ajar berupa multimedia interaktif di sekolah. Kesulitan peserta didik untuk memahami materi pelajaran IPA pada konsep-konsep yang abstrak, berdampak terhadap hasil belajar peserta didik. Tujuan penelitian ini adalah menghasilkan multimedia interaktif pada Materi sistem pencernaan manusia dan zat aditif dan adiktif yang valid, praktis dan efektif.

Penelitian pengembangan (*research and development*) multimedia interaktif menggunakan model plomp. Metode penelitian ini dilakukan evaluasi formatif pengujian validasi multimedia interaktif oleh 3 orang dosen validator, praktikalitas multimedia interaktif oleh guru biologi dan peserta didik, efektifitas pada kelas eksperimen dan kelas kontrol.

Hasil penilaian validasi oleh validator terhadap multimedia interaktif materi sistem pencernaan manusia menunjukkan nilai rata-rata 90,56% (sangat valid) dan penilaian validasi oleh validator terhadap multimedia interaktif materi zat aditif dan adiktif menunjukkan nilai rata-rata 88,68% (sangat valid). Hasil penilaian praktikalitas oleh guru biologi menunjukkan nilai rata-rata 86,51% (sangat praktis) dan hasil penilaian praktikalitas oleh peserta didik diperoleh nilai rata-rata 89,31% (sangat praktis). Hasil uji efektifitas multimedia interaktif dari aspek kognitif, afektif, dan psikomotorik peserta didik menunjukkan bahwa multimedia interaktif sangat efektif. Dengan demikian, dapat disimpulkan bahwa multimedia interaktif yang dikembangkan sangat valid, sangat praktis, dan sangat efektif.

Kata kunci: multimedia interaktif, pembelajaran IPA, pendekatan saintifik