

## ABSTRAK

### **Pengembangan Multimedia Berbasis Komputer sebagai Media Pembelajaran Proses Pencampuran Bahan Pangan di SMK Negeri 1 Bojongpicung**

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Teknologi komputer pada dunia pendidikan berperan sebagai media pembelajaran untuk meningkatkan pemahaman siswa. Penelitian ini bertujuan untuk mengembangkan media pembelajaran berupa multimedia berbasis komputer yang dapat menunjang pembelajaran materi pencampuran bahan pangan khususnya di kelas X AHP SMK Negeri 1 Bojongpicung. Metode penelitian yang digunakan adalah metode *Research and Development*. Tahapan pada penelitian ini adalah: identifikasi potensi dan masalah, pengumpulan data, pengembangan media, validasi media oleh ahli media dan ahli materi, Revisi I, uji coba skala kecil pada 10 responden, revisi II, uji coba skala besar dengan *one-shot case study*, revisi akhir, dan implementasi media dengan *non equivalent control group design*. Hasil penelitian menunjukkan bahwa (1) multimedia berbasis komputer mendapatkan persentase kelayakan dari segi media sebesar 83,5% atau “Sangat Layak” dan persentase kelayakan sebesar 95,8% atau “Sangat Layak” dari segi materi. (2) multimedia berbasis komputer mendapatkan persentase tanggapan guru mata pelajaran sebesar 92,5% atau “Sangat Baik”. (3) Hasil implementasi multimedia berbasis komputer pada pembelajaran di kelas eksperimen dan kelas kontrol menghasilkan  $N_{\text{gain}}$  kelas eksperimen sebesar 0,693 sedangkan  $N_{\text{gain}}$  kelas kontrol sebesar 0,344. Selain itu, hasil *Mann-Whitney U-test* menunjukkan adanya perbedaan signifikan antara peningkatan hasil belajar kelas kontrol dan kelas eksperimen. Dapat disimpulkan bahwa multimedia berbasis komputer yang dikembangkan merupakan media pembelajaran yang dapat menunjang proses pembelajaran materi pencampuran bahan pangan dan dapat meningkatkan hasil belajar siswa secara signifikan dibandingkan dengan proses pembelajaran tanpa media tersebut, sehingga sebaiknya guru menggunakan multimedia berbasis komputer yang telah dikembangkan pada kegiatan pembelajaran agar hasil belajar siswa lebih mudah meningkat.

**Kata kunci: Multimedia, komputer, media pembelajaran, pencampuran bahan pangan**

## ABSTRACT

### **The Development of Computer Based Multimedia as an Educational Media of Food Mixing Process in SMK Negeri 1 Bojongpicung**

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*Computer technology in the education field have a role as an educational media to enhance the student' comprehension. This study aims to develop an educational media in the form of Computer Based Multimedia that helps the students to learn about food mixing process especially in X AHP SMK Negeri 1 Bojongpicung. Research methods that used in this study is Research and Development method. The stages in this study are: identifyingthe potencies and problems, collecting data, media development, media validation by the media and material experts, revision I, small-scale trial to 10 respondents, revision II, large-scale trial to subject teacher and 40 students with one-shot case study, final revision, media implementation with non equivalent control group design. Study results showed that (1) Developed computer based multimedia earn the media proper test percentage of 83,5% or "Highly proper" and the material proper test of 95,8% or "Highly proper". (2) Developed computer based multimedia earn the percentage of subject teacher responses for 92,5% or "Very good". (3) The results of computer based multimedia implementation showed that class of experiment gained 0,693 N-gain and class of control gained 0,344 N-gain. Moreover, Mann-Whitney U-test showed that there is a significant difference between the improvement of students learning outcomes in the class of control and the class of experiment. It can be concluded that developed computer based multimedia is an educational media which can support students to learn about food mixing process and can improve students learning outcomes significantly compared to the learning process without the developed computer based multimedia so that teacher should use the developed computer based media on the learning activities which could improve the students learning outcomes.*

**Keywords: Multimedia, computer, educational media, food mixing process**