

PENGEMBANGAN MEDIA *E-BOOK* PADA MATERI PENGOLAHAN IKAN DALAM MATA KULIAH PRESERVASI PANGAN

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ABSTRAK

Penelitian ini bertujuan untuk (1) menjelaskan tahapan pengembangan media pembelajaran *e-book* pada materi Pengolahan Ikan dalam mata kuliah Preservasi Pangan di Program Studi Pendidikan Vokasional Seni Kuliner, dan (2) menjabarkan tingkat validitas media pembelajaran *e-book* yang dikembangkan. Penelitian ini merupakan penelitian pengembangan (Research and Development) dengan menggunakan model pengembangan 4D (*Define, Design, Development, dan Disseminate*). Teknik pengumpulan data dilakukan melalui penyebaran kuisioner kepada dua ahli materi serta dua ahli media dan desain pembelajaran. Analisis data menggunakan analisis deskriptif kualitatif dan deskriptif kuantitatif. Hasil penelitian menunjukkan bahwa (1) pengembangan *e-book* telah dilaksanakan melalui empat tahapan model 4D, yaitu tahap *Define* dilakukan melalui analisis kebutuhan sumber belajar terhadap dosen pengampu mata kuliah Preservasi Pangan dan mahasiswa yang telah menempuh mata kuliah tersebut. Tahap *Design* meliputi penyusunan materi, perancangan tampilan, serta penyusunan komponen *e-book*. Tahap *Development* dilakukan melalui pembuatan produk berupa *e-book* interaktif yang memuat materi teknik pengolahan ikan, dilengkapi gambar, video pembelajaran, audio, kuis interaktif, serta efek membalik halaman, kemudian dilanjutkan dengan uji validitas oleh dua ahli materi dan dua ahli media dan desain pembelajaran menggunakan instrumen angket dengan skala Likert. Tahap *Disseminate* dilakukan secara terbatas kepada dosen pengampu mata kuliah Preservasi Pangan di Program Studi Pendidikan Vokasional Seni Kuliner. (2) Hasil uji validitas menunjukkan persentase sebesar 96% dari ahli materi dan 98% dari ahli media dan desain pembelajaran dengan kategori "Sangat Valid". Penilaian tersebut didasarkan pada aspek kesesuaian materi dengan capaian pembelajaran, sistematika penyajian materi, kebahasaan, aspek audio visual, kegunaan, serta tampilan. Dengan demikian, *e-book* materi Pengolahan Ikan dinyatakan valid digunakan sebagai media pembelajaran pada mata kuliah Preservasi Pangan di Program Studi Pendidikan Vokasional Seni Kuliner.

Kata Kunci: *e-book*, media pembelajaran, model 4D, pengolahan ikan, preservasi pangan.

**DEVELOPMENT OF E-BOOK MEDIA ON FISH PROCESSING MATERIAL
IN THE FOOD PRESERVATION COURSE**

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ABSTRACT

This study aimed to determine (1) explain the development stages of e-book learning media on the subject of Fish Processing in the Food Preservation course at the Culinary Arts Vocational Education Study Program, and (2) describe the validity level of the developed e-book learning media. This study employed a Research and Development (R&D) approach using the 4D development model, consisting of the Define, Design, Development, and Disseminate stages. Data were collected through questionnaires administered to two subject matter experts and two learning media and instructional design experts. The data were analyzed using descriptive qualitative and descriptive quantitative methods. The results showed that (1) the development of the e-book was carried out through the four stages of the 4D model. The Define stage involved a learning resource needs analysis conducted with the lecturer responsible for the Food Preservation course and students who had completed the course. The Design stage included organizing the learning materials, designing the interface, and developing the components of the e-book. The Development stage involved producing an interactive e-book containing fish processing techniques, complemented by images, instructional videos, audio, interactive quizzes, and a page-flipping effect. The product was subsequently validated by two subject matter experts and two learning media and instructional design experts using a Likert-scale questionnaire. The Disseminate stage was conducted on a limited basis with the lecturer responsible for the Food Preservation course in the Culinary Arts Vocational Education Study Program. (2) The validation results indicated a score of 96% from the subject matter experts and 98% from the learning media and instructional design experts, both categorized as "Highly Valid." The evaluation was based on the alignment of the content with the intended learning outcomes, the systematic organization of the learning materials, language use, audiovisual aspects, usability, and visual appearance. Therefore, the e-book on Fish Processing was considered valid for use as a learning medium in the Food Preservation course at the Culinary Arts Vocational Education Study Program.

Keywords: e-book, learning media, 4D model, fish processing, food preservation.