DEVELOPMENT OF INDONESIAN CAKE DIGITAL BOOK BASED ON LOCAL WISDOM FOR CULINARY EDUCATION STUDENTS

by Erli Mutiara

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Abstract

Digital books or commonly called E-Books which stands for Electronic Books are paperless books, where e-books are easily accessible through Personal Digital Assistants (PDAs) or special bags made by information technology companies. This study uses a research and development (R&D) approach which is then adapted to the needs of researchers which includes six stages, namely (1) preliminary survey; (2) preparation of electronic teaching materials using the Kvisoft Flipbook Maker application, product design; (4) design validation;(5) design improvement; and (6) description of research results. The purpose of this research is to develop a digital book of Indonesian cakes based on local wisdom for culinary education students. Data collection techniques used expert validation questionnaires and small-scale trials. The results of the development of the textbook show that the average validation and test results are in the appropriate category for use with good predicates according to the table of eligibility criteria and product revisions.

Keywords: *Electronic Books, Indonesian Cakes, Education*

A. Introduction

Higher education is a component of the national education system that has an important role in educating the nation's children and advancing science and technology.

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Higher education institutions have an obligation to carry out the tridharma of higher education, namely in providing education, research, and community service. Medan State University (UNIMED) as one of the state universities, in the dharma of research has a policy of increasing the number and quality of research through scientific productivity programs and the ability of the academic community in the process of research activities. Research is an activity that is carried out systematically based on scientific methods to obtain information, data, and information related to understanding and testing (UU RI No. 12, 2012). In educational research, the development of teaching materials can be carried out as one of the ways to improve the quality of the learning process.

One way to realize professional competence as a lecturer must always be innovative and creative in learning activities. The way that can be done to realize these competencies is by developing textbooks, this is as stated by (Zulkifli & Nadjamudin, 2022) that developing textbooks is part of developing competencies and can increase existence as a lecturer. The main goal of a lecturer in developing teaching materials is to make learning more effective, efficient, and in accordance with the competencies that have been set.

A digital book or commonly referred to as an E-Book stands for electronic book is a paperless book, where e-books are easily accessed through a Personal Digital Assistant (PDA) or a special pocket created by information technology companies (Ganjar and Tom, 2016)

A digital book is a content collaboration between modules, digital devices, and the use of various types of supporting media that add to the interactivity of teaching materials that can be used as learning guidelines for both students and lecturers (Ganjar and Tomi, 2016). With the existence of digital books, it can be effective and efficient in learning time because there is no need to bring textbooks in physical form and can help students because in multimedia features, they can become tutors. Media to make it easier for students to study outside campus that implements technological developments and communication with user interaction that is currently being developed is digital books or known as e-books, (Ganjar and Tomi, 2016).

E-books play an important role in the learning process because they have advantages. Some of the functions of E-books as learning media are to increase learning productivity. E-book as an unlimited reference, so it is not fixated on one learning resource. Ebooks are very easy to carry in many files, so that lecturers do not run out of learning materials for students (Hasbiyat, 2016).

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E-books can reduce the burden on lecturers in presenting information, the information provided through e-books is more concrete and allows individual learning because it does not depend on the information provided by the lecturer (Kusumam, Mukhidin, & Hasan, 2016). Prastowo (2015) revealed that the quality of learning is low when educators are only fixated on conventional teaching materials without any creativity to develop innovative learning.

During this COVID-19 pandemic, learning is carried out in a mixed manner, namely online and limited face-to-face learning. The Indonesian Cake and Beverage course is one of the courses in the culinary field that studies Indonesian pastries, from processing preparation to serving. To make it easier for lecturers to deliver learning materials, it is necessary to compile a digital book, because it is easy to share (share) through social media such as Facebook, WhatsApp, Telegram and the like. So that students really know what basic competencies they must master in each learning implementation. Based on this, it is necessary for this researcher to do this with the title "Development of a Digital Book of Indonesian Pastries Based on Local Wisdom for Catering Education Students.

B. Methods

1. Development style

This study uses research and development (Research and Development) methods, this research was carried out using the ADDIE development model (Analysis, Desing, Development, Implementation and Evaluation).

2. Development Procedure

The development procedure using ADDIE includes: 1) Analyze (Analysis) At this stage perform a needs analysis to be able to determine how the shape of the product needed in the textbook and at this stage also performs a curriculum analysis. This curriculum analysis is carried out by reviewing the curriculum used, this is done so that the teaching materials developed can be used during the learning process; 2) Design The design for developing a digital book based on Kvisoft flipbook maker is: a) Preparing reference books related to Culinary Basics; b) Develop a digital book design based on Kvisoft flipbook maker; 3) Development (Development and Manufacture of Products) At this stage to develop products which have been designed at the design stage so that at this development stage the product can be realized so that it can be implemented; 4) Implementation

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(Implementation or trial) At this stage, where the product is ready to be given to students in the learning process. At this stage, the process of evaluating the product is carried out before making improvements or revisions; 5) Evaluation (Evaluation) At the evaluation stage is the stage of assessing the quality of the product that has been developed where this assessment is based on the results of student response questionnaires. After the assessment is done, the final revision of the Kvisoft flipbook maker-based digital book product will produce a decent final result in the learning process.

3. **Data collection technique**

The data collection technique in this research on the development of digital books based on Kvisoft flipbook maker uses three types, namely interviews, documentation and questionnaires (questionnaires).

4. **Data analysis technique**

The data analysis technique in this study used descriptive quantitative data analysis techniques.

C. Results and Discussion

1. **Analyze (Analyze)**

At the analysis stage, the results of needs analysis, curriculum analysis from documentation studies and interviews with lecturers in the Indonesian pastry course are obtained.

2. **Design (Design)**

At the design stage, the process of making a book of Indonesian cakes begins with preparing a reference book related to Indonesian pastries and will be equipped with various recipes for making cakes based on local wisdom, then compiling a digital book design with the help of the Hayzine Flipbook application.

Figure 1 Digital Book Cover Design

3. Development (Product Development and Manufacture)

At the development stage, the aim is to find out the quality assessment of the product that has been developed as a result of expert validation of digital book materials and media/design validation in accordance with the modified National Education Standards Agency (BSNP).

Table 1. Material Validation Results

No	Component	Total Item	Average Percentage	Category
1	Eligibility Contents	26	91,25	Very Good
2	Presentation Feasibility	9	90,24	Very Good
3	Contextual	15	91,11	Very Good
Total Average Percentage			90,86	
Category			Very Good	

Based on the results of the percentage of eligibility for digital books of 90.86%, it can be concluded that digital books are categorized as very good.

Table 2. Results of Media/Digital Book Design Validation

No	Component	Total Item	Average Percentage	Category
1	Cover Design	2	93,73	Very Good
2	Content Design	4	87,50	Very Good
3	Attractiveness Display	4	85,38	Very Good
4	Conformity of serving content	2	87,53	Very Good
5	Ease of Use	3	100,00	Very Good
Total Average Percentage			90,83	
Category			Very Good	

Based on the calculation results of the media validation test / digital book design of 90.83%, it can be conclud ed that the digital book of Indonesian cakes is categorized as very good.

4. Implementation (Implementation or trial)

At this stage, where the product is ready to be given to students in the learning process. Product implementation is only carried out with a small-scale test and is applied to students consisting of 10 people. The purpose of this test is to find out the responses of students and lecturers to the product of teaching materials used. This test is done by giving questionnaires to lecturers and students on digital book products based on Kvisoft flipbook maker that have been used.

5. Evaluation

In the process of this stage is the stage of assessing the quality of the product that has been developed which is where this assessment is based on the results of the questionnaire responses from lecturers and students. The results can be seen in Table 3.

Table 3. Results of Student Responses to Digital Books

No	Response	Score (%)	Criteria
1	Lecturer	95	Very Good
2	Students	90	Very Good
Average		92,5	Sangat Baik

Based on Table 3, it can be seen that lecturers and students gave a positive response to digital books by obtaining a score of 95% by lecturers and 90% from students, which means the score is in very good criteria.

This digital book of Indonesian cakes based on local wisdom was developed to accommodate the availability of learning resources in Indonesian pastries courses for culinary education students. The process of compiling digital books by lecturers must adjust to the instructional objectives of the course, then lecturers must collect various information from various library sources, such as books, scientific articles, journals, and mass media. The information is then packaged according to student needs, then arranged, packaged, and written as teaching materials using a systematic framework (Husamah, 2015).

Based on the results of the validation of the material experts, the average percentage of the results of the assessment of digital book materials is 90.86% with very good criteria. The digital book was developed in accordance with the needs of the

Indonesian pastry course, the depth of the material is in accordance with the objectives so that it is suitable for use after revision (Akbar, 2013). Furthermore, the average percentage of the digital book design/media that has been validated by media experts has a score of 90.83% with very good criteria. The results of this study are in accordance with the results of Maryanti's research (2018) based on the results of material validation for digital books, 78% of the results are obtained and 93% of the results of media expert validation. based on the results of the responses of lecturers and students, the average percentage of the results of the trial assessment on the use of digital books in the small group trial was 92.5% with very good criteria. Based on the results of the average responses of lecturers and students in this study in line with Suyasa's research (2018) the results of the responses of lecturers and students obtained an average score of 82% included in the good predicate because the average score obtained by all students in the limited trial was 82 ,00 (or 82% in the value range from 0-100). So it can be concluded that the overall digital book of Indonesian cakes based on local wisdom that has been developed is good and suitable for use after being revised in accordance with Akbar's (2013) criteria. The result of the development product in the form of a digital book that has been revised based on comments and suggestions from the validator aims to improve the digital book of Indonesian cakes based on local wisdom to be more efficient, effective, and communicative to readers, while maintaining the purpose of compiling the book (Fidiastuti, 2016).

D. Conclusion

This research and development has produced a digital book of traditional cakes based on local wisdom that has been validated by material experts, and media/design experts, and has gone through a small group trial process so that it fits the material needs and characteristics of students.

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