

DESIGN AND CONTENT DEVELOPMENT OF PHP FRAMEWORK OPEN UNIVERSITY

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Abstract

PHP (Hypertext Preprocessor) is an open-source server-side programming language. PHP has the advantage of being open-source; users are free to modify and develop applications or systems as desired. Frameworks facilitate world wide Web (Web) programming and make it more organized in many ways, such as increasing the productivity of programming a piece of written code that takes up a long time and hundreds of lines of code can be done in a matter of minutes with the help of the Framework's built-in functions. The Development of the Design and Content of Open University MOOCs is expected to make the potential that participants can have on an ongoing basis. Developing Design and content on Open University MOOCs is one of the steps of change to be better and more useful to users. This research is a design and content development research Getting to know the Hypertext Preprocessor (PHP) Framework self-paced instruction model on the Learning Management System (LMS) of the Open University. This research is intended so that users can use it easily and correctly to improve the scientific field quality through the Massive Online Open Courses (MOOCs) service. This research is intended so that users can use it easily and correctly to improve the scientific field quality through the Massive Online Open Courses (MOOCs) service. Ten and twenty steps test the Design and content used in this study. The data collection instruments used are questionnaires and field observations. The use of questionnaires related to expert assessment questionnaires, Design and content practitioners, and assessments from linguists. The data analysis technique used is to describe all validators' opinions, suggestions, and responses obtained from the criticism and suggestion sheets, then continue the analysis by calculating the percentage of the item score of each answer to each questionnaire question. The results showed that the design and content development manual for the PHP Framework self-paced instruction model on the Learning Management System is feasible for Open University MOOCs. This book is integrated with implementing the material of video-based MOOCs with eight session views.

Keywords: Design, development, Framework, hypertext preprocessor, content, Open University

1 INTRODUCTION

Hypertext Preprocessor, PHP is a server-side script programming language designed for Web development. PHP is a server-side programming language processed on a server computer. PHP can be used for free and is Open Source. PHP is released under the license PHP Licence, slightly different from the *General Public License (GNU) commonly used for Open Source projects* (Jannah et al., 2019). PHP is open-source; users can modify and develop applications or systems as desired. Programmers first used the Framework in 2004. frameworks are software to make it easier for programmers to create applications or the Web that contain various functions, plugins, and concepts to form a particular system. With the Framework, an application will be composed and neatly structured. Programmers first used the Framework in 2004 (Amri et al., 2017).

Software Framework provides a collection of basic code that can assist in developing and merging different components in a piece of software (Paikens & Arnicans, 2008). A programming

framework can simplify the process of coding program functions by reducing the code of repetitive operations (Upton, 2007). The Framework's purpose is to help perform common activities, so the Framework provides many libraries for database access, session data management, and so on (DocForge, 2010). Web programming framework based on the Hypertext Preprocessor (PHP) programming language Facilitates the application development process, helping to structure the functions of a system in a faster time because you don't have to write it from scratch. Kaerangka can improve the quality and stability of programming code arrays(Yicheng, 2011).

Massive Open Online Course (MOOCs) adalah program pembelajaran online terbuka secara masif dalam pembelajaran berbasis online untuk mendukung perolehan keterampilan literasi (Johan, 2015). MOOCs are learning tools open to all group needs (Uan, L & Powell, S., 2013). MOOCs aim to provide time and space, unlimited participation, and open access through the website.

Furthermore, MOOCs provide an interactive user forum to help build a community of participants, tutors, and teaching assistants. This new mode began to be used in 2012 as the latest development in distance education Design and Content Development MOOCs Open University is expected to make the potential that participants have to be able to develop. Design and Content Development at Open University MOOCs is one of the steps of change for the better. In this development, a self-paced instruction model will be applied that allows participants to adjust their learning time according to their abilities.

Learning Management System (LMS) is a web-based software or technology application used to plan, implement, and assess a certain learning process (Susilo, 2019). Typically, a learning management system allows instructors to create and deliver content, monitor attendee participation, and assess attendee performance online. In addition, the LMS can also allow attendees to use interactive features such as threaded discussions, video conferences, and discussion forums. A learning Management System (LMS) is a web-based system that allows instructors and participants to share instructional materials, make class announcements, submit and return coursework, and communicate online (Doğancı Ülker, 2016).

Kumar, M., Benjamin Packer, and Daphne Koller in Zheng W., Guoqiu X.Z., Zhu W.Y. Yu H. & Gan J (2018:1) self-paced learning implements a learning mode from simple to hard by simulating human or animal learning mechanisms. The proposed method can automatically assign a weight to each sample and then gradually adds important representatives in the iterative process to train the feature selection model. Hence, the impact of outliers can be relieved or removed.

The results of research related to PHP, Saragih A. et al. (2015) concluded that the Design of the E-Library Application using the PHP Programming Language provides convenience for library employees in processing data, such as adding, changing, and deleting data. Manurung, IGH. (2015) concluded that a PHP program could minimize and even eliminate shortcomings in handling online information.

It was related to the background study of the introduction of PHP Framework- MOOCs and the results of previous research. However, the research on PHP mentioned above focuses more on its use than its Design and Content. The study of material on the PHP Framework in modules is still very limited, so it is important to research and develop Design and Content. Therefore, get to know PHP Framework-MOOCs with the Design and content development subtopic research by getting to know PHP Framework with a Self-paced instructional model in the Open University learning management system.

2 METHOD

a. Research Model

Research development to produce product Design and Content. Get to know PHP Framework in printed books and MOOCs applications. That agrees with Sepaham Borg & Gall (Setyosari, 2013: 222) that development research is developing and assessing products.

b. Development Procedure

The development procedure adopted by Sugiyono (2014: 298), namely there are ten steps in carrying out research and development, namely: (1) problem identification, (2) data collection, (3) product design, (4) design validation, (5) design revision, (6) product trial, (7) product revision, (8) usage trial, (9) product revision, 10) final product. According to research needs. The researcher constructed a draft development model that will be used in this study.

c. Product Trials

Product Trials are carried out in three stages: expert validation (material and design experts), practitioners, limited user trials, and field trials. Validate practitioners. Little user tests and field tests involve participants. The trial design can be described in the pipeline as follows

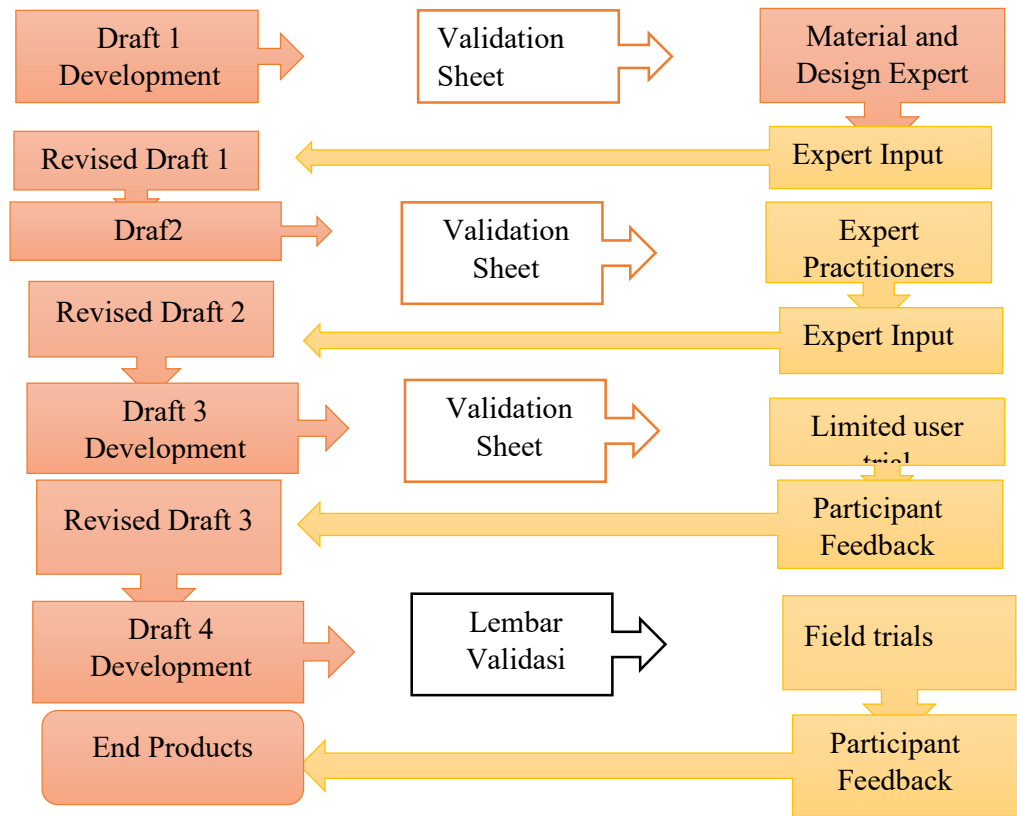


Figure 1: Test Design

These steps can be observed as a development flow to provide clearer knowledge and understanding.

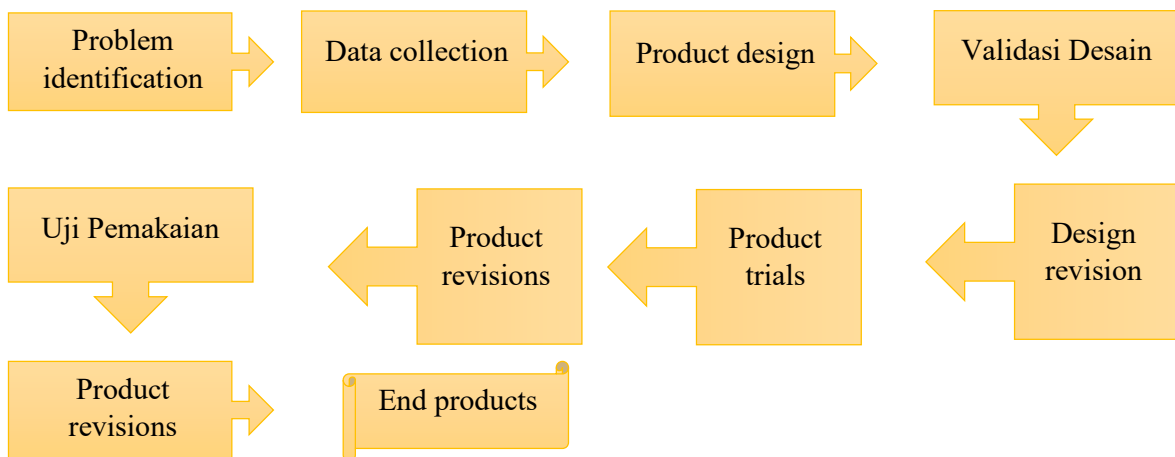


Figure 2 Steps – Steps of Development Form

A. Data Collection Instruments

The data collection instruments used in this research and development are observation techniques and questionnaires. The questionnaires are related to material expert assessments, learning design expert assessments, and linguist assessment questionnaires. Data analysis techniques

The data obtained are then analyzed. The data analysis technique in this study is to describe all validators' opinions, suggestions, and responses received from the criticism and suggestion sheets. The data from the questionnaire is qualitative data that is quantified using a four-level Linkert scale and then analyzed through the calculation of the percentage of item scores on each answer to each question in the questionnaire.

B. Road map

The road map for research and community service can be interpreted as a detailed work plan document that integrates the entire plan and implementation of research and community service within a certain period (Effendy, 2015). This road map is based on the suitability of the Indonesian field of study background. This road map is intended as an instrument that will monitor changes in activities while looking at their characteristics.

3 RESULTS AND DISCUSSION

A. Research Results

This development research resulted in a book and application of MOOCs titled: "Design and Content Knowing PHP Framework." The display of books and application MOOCs is as follows. Penyajian Data Uji Validasi The book product, "Design and Content to Know PHP



Framework and MOOCs application, has been validated by material, content, and linguist experts and information system students of UPBJJ Makassar Open University. The validation results in question are as follows.

1. Material Expert Validation Test

The material validation test from material experts confirms that the book "Design and Content against Knowing the PHP Framework" and the MOOCs application are very worthy of being used by the community, students, and educational personnel or the percentage is very feasible to reach 100%. The basis for the analysis of material validation tests, namely the average percentage of material expert Validation Tests = $X: X_i = 100\%$. Once converted with the conversion table, the average 100% achievement rate percentage is at a decent qualification.

2. Design Expert Validation Test

The design validation test from a design expert provides validation that the book "Design and Content against Knowing the PHP Framework" and the MOOCs application are very worthy of being used by the community, students, and educational personnel or the percentage is very feasible to reach 100%. The basis for the design validation test analysis, namely the Average percentage of the Design expert Validation Test = $X: X_i = 100\%$. Once converted with the conversion table, the average 85% achievement rate percentage is at a decent qualification.

3. Linguist Validation Test

The language validation test from linguists provides validation that the book "Design and Content against Knowing the PHP Framework" and the MOOCs application are very worthy of being used by the community, students, and educational staff, or the percentage is very feasible to reach 100%. The basis for the language validation test analysis is the average percentage of the Validation Test for Linguists = $X: X_i = 100\%$. Once converted with the conversion table, the average 100% achievement rate percentage is at a decent qualification.

4. Product Trials

Product trials are assessed in terms of material, Design and language, carried out on a per-participant basis, and field trials with Open University Students of the Information Systems Study Program. The product trial results showed that the Average Percentage of Individual practices = $X: X_i = 437/5 = 87.4\%$. After being converted with the conversion table, the average percentage of the achievement rate of 87.4% was at a very decent qualification.

Furthermore, as many as 13 (thirteen) people with the same criteria carried out field trials by Open University students from the Information Systems Study Program. The total percentage obtained through field trials of Open University students of the Information Systems Study Program was 13 people, with a percentage achievement of 1090.90%. So it can be calculated as $P = 1090.90/13$ or converted into 83.92% cent. Thus it can be concluded that the learning media being on conversion is very feasible.

B. Product Revisions

Product revision is carried out after the data obtained through the Open University field trial to students of the Information Systems Study Program is completed by the reviewer. The trial results are as follows: Product revision is carried out after the data obtained through the Open University field trial to students of the Information Systems Study Program is completed by the reviewer. The trial results are as follows: Product revision is carried out after the data obtained through the Open University field trial to students of the Information Systems Study Program is completed by the reviewer. The results obtained from the trial are: Hasil uji validasi perorangan mendapatkan perolehan rerata 87,4% dengan kategori konversi sangat layak

The results of the field validation test showed a state gain of 83.92% with a very decent conversion category

Based on the data obtained from individual and field trials, the Material Knowing PHP Framework is categorized as feasible, so it does not need to be revised.

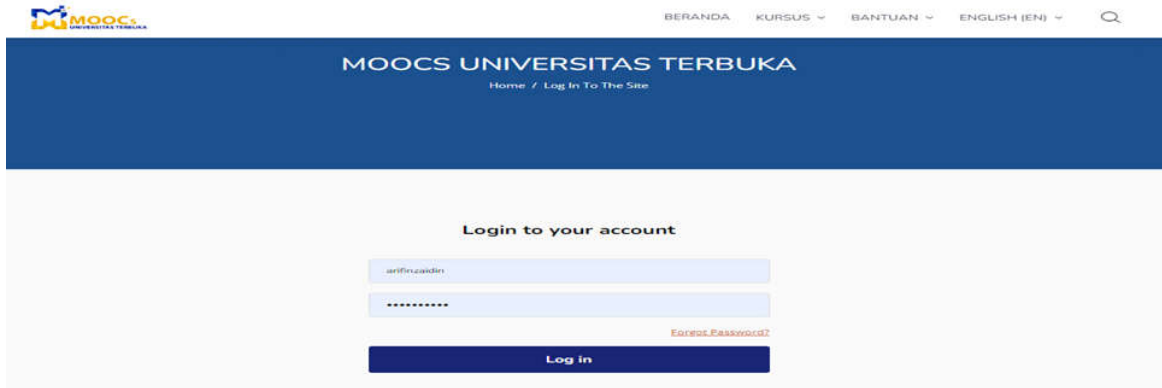
C. Implementasi Material On UT MOOCs

How to Learn Material in MOOCs

This section will explain how to learn the Design and Content Materials Getting to Know the PHP Framework available at the Open University MOOCs.

a. Login

Participants perform Login to the <https://moocs.ut.ac.id/> website to access the available materials. The Login view is shown below.



b. Finding a Course

Furthermore, participants are looking for a course on Design and Content to Know the PHP Framework on MOOCs. Display in the following image.

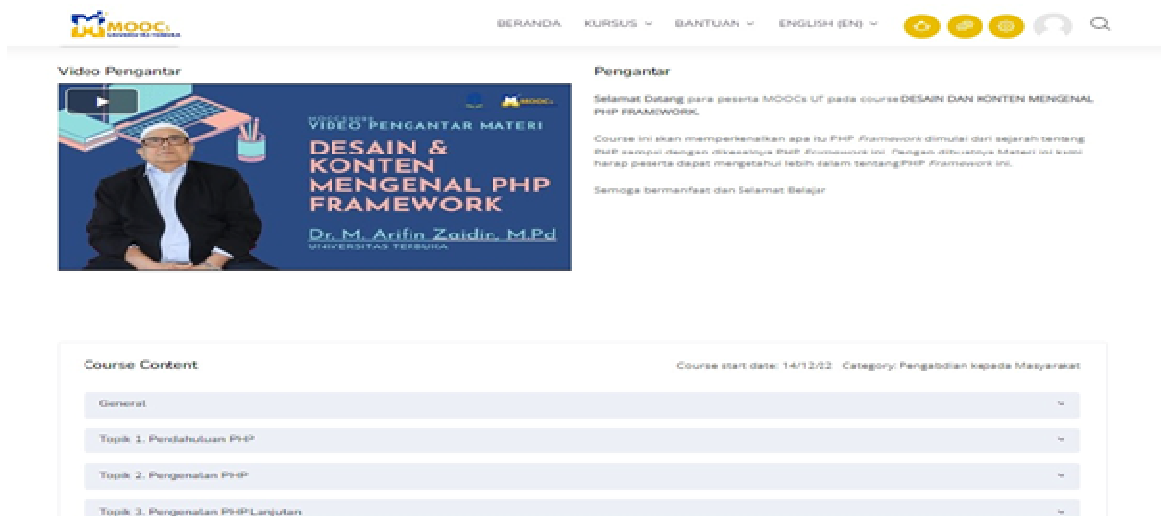
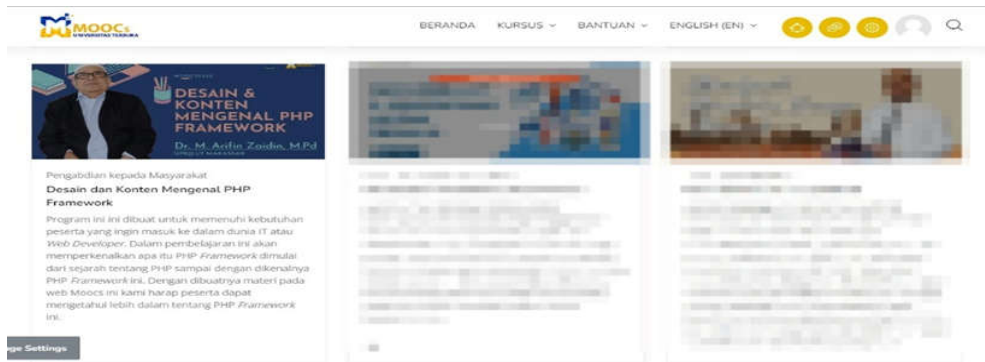


Participants

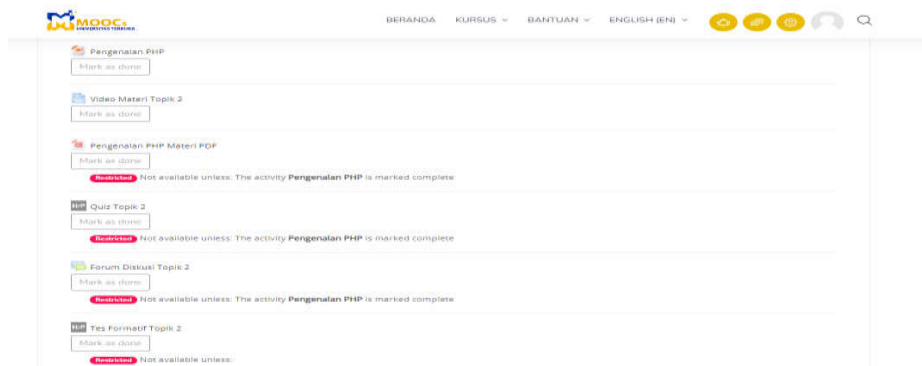
select the Community Service course menu and search for the PHP Framework Design and Content course. Display In The Following Figure.

Next will display the Course Display that will be completed on the MOOCs. The initial display of the selected course will show an Introductory Video about the course material, Foreword, Course Content, and Course Topics where there are 8 Topics, 1 Competency test, and a Course Certificate if you have completed the course.

Course content and topics include 8 Topics, a competency test, and a course certificate if you have completed the course. Tampiln in Figure follows.



Furthermore, participants will access material on each topic that is already available in the course, where there is PPT material, a video presentation of the material on the subject, a Quiz containing ten numbers of questions, a discussion form related to the material, and a formative test containing five multiple choice numbers. Each available topic has the same process up to the last issue.



4 CONCLUSION

Following the results and discussion, it can be concluded that the results of the validity of the design expert state that the book Design & Content Knows PHP Framework are very feasible to use in self-paced instruction, the results of the reality of the material expert state that the book Design & Content Knowing PHP Framework is possible *used in self-paced instruction, the results of the validity of linguists state that the PHP framework design & content book is very feasible to use in self-paced instruction*, the results of student validity state that the book Design & Content Knowing PHP Framework is possible to be used in independent learning in self-paced education, and the Book Desai and Content Know PHP Framework designed with video-based PHP Framework materials in the ease of self-paced instruction, as well as the implementation of the material, can be seen in the Open University MOOCs in the Content of Community Service.

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