

The Development of Digital Media Book as a Supplement Material for Human Resources Management Courses Lesson

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Abstract: The purpose of this study was to produce a digital book media worthy enough as a media used in teaching the courses of human resource management. This study is a research and development. The development of this research use a modification of the 4D Model into 3D with the define phase (definition), design (planning) and development (development). This digital book media has been validated by experts and students questionnaire responses beforehand. The results showed an average assessment expert validation materials of 83-87% of media expert validation, assessment of student responses to 86%, so it can be concluded that the digital book media can used as a media in learning process resulted in a good outcome.

Key words: Development, digital book, human resource management, enough, average, materials

INTRODUCTION

The management of human resources is the process of utilizing a human as workers humanely so that, their physical and psychological potential can work optimally to achieve the organization goals (Nawawi, 2003) while according to Edwin (2002), the management of human resources is a planning, organizing, directing and supervision activities, procurement, development, compensation administration, integration, maintenance and disposal of human resources in order to achieve various goals of individuals, organizations and communities.

In the study subjects of the management of human resources at the University of PGRI Semarang it is a necessity for a breakthroughs by using instructional media for example as one contributing factor to successful learning in universities is the use of media learning that is exciting, innovative and creative that it can increase the students interest to learn the object. Learning media is a tool that has a function to convey a message to the students who is in the process of learning from their lecturer (Hujair, 2011), a media means for communication (Smaldino *et al.*, 2011). And an important part of the learning process (Achmad *et al.*, 2016).

Based on an observations conducted in the graduate program of PGRI Semarang University, showed that the lecturers did not yet use an effective media that can be accessed via. smartphone, for example the lack of digital book media in the learning course of human resources management, so it is necessary to develop digital media

book so that, students can learn independently from their respective smartphones, a media of e-Book where they learn the subject by using books which utilizes electronic media (Saglam, 2011). In a simple term, an e-Book or digital book is an electronic book or digital book. Electronic books are digital versions of books that generally consists of a collection of papers that contain text or images. e-Book itself makes the text and images in a digital information either in plain text format, *.pdf, *.jpeg, *.lit and *.html. If viewed more deeply, e-Book is one that utilizes computer technology to deliver multimedia information in a more compact and dynamic form. e-Book is also able to integrate the impressions of sound, graphics, images, animations, movie and so that, the information presented is richer than the conventional book. At least this is what makes the advantages of e-Books began to trend (Siagian, 2014).

Results of research conducted by Suarsana (2013) showed that, through the use of digital books in learning, the ability to think critically and learning outcomes of the students has increased significantly, it is in contrary to some of the researchers who discovered that teaching materials in the form of digital books are not always able to increase the ability of students critical thinking. Ayoti and Moses (2013) for example, states that the use of digital book will lower student results if the preparation on student learning environment and facilities is lacking which include lack of instructional media resources. Therefore, it is necessary to conduct a further research related to the development of digital books both in school and in college.

Main problem:

- How to develop a valid digital book media used in the learning courses of human resources management?
- What is the response of Universitas PGRI Semarang graduate students in their use of digital book media in their human resources management courses?

MATERIALS AND METHODS

Method of research: This research is a development research. Which according to Punaji (2015) that development is a means to develop a specific product, design or design, strategy, approach or a model. This study is a development of digital book that refers to the 4-D Models with some modifications (Hamdani, 2011). Instructional design model 4D consists of four main stages, namely define (definition), design (design) develop (development) and disseminate (deployment). The researcher however, did not do any disseminate stage because of limited research time and target so, the researchers simply do the test up to the limitation given.

Research subject and time limitation: The subject on this research are post-graduate students of Universitas PGRI Semarang conducted in a time limited test in 2015.

Development procedure: The procedure of developing digital books in this study refers to the 4-development. In the instructional design model of 4D, the researchers took steps to develop up to the third stage, namely (development). Broadly speaking, the 3 stages mentioned can be seen (Hamdani, 2011).

Definition stage (define): The purpose of this stage is to establish and define the terms of the learning. the stage begins with analysis of the purpose and the restriction of materials of the developed device. This phase includes five main steps, namely the beginning and end of the analysis, the analysis of the character of students, material analysis, task analysis and the formulation of learning objectives. Tahap perencanaan (design).

The purpose of this stage is to prepare a prototype of learning media as how to make the mentioned media can be seen in an shown in Fig. 1.

Development (develop): The purpose of this stage is to make the learning media which has been further improvised based on the input from experts Fig. 2.

Data collection technique: The data collection techniques mentioned are as the following: the instrument used in the validation of these experts is a validation sheet. Where the necessary validation sheet are the mentioned.

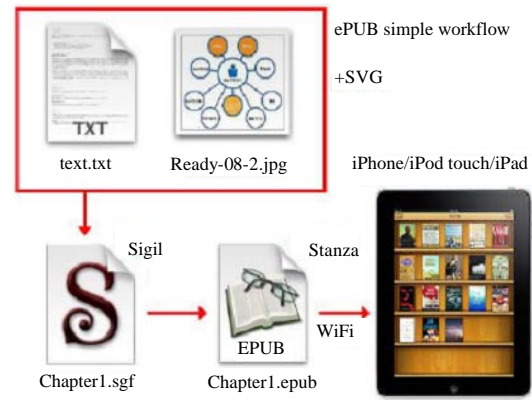


Fig. 1: How to make digital book



Fig. 2: Develop media of digital book design

Sheet material expert validation: Expert validation sheet is a sheet material which is addressed to experts in math learning materials. In this case the material expert is a postgraduate lecturer of PGRI Semarang University and math teacher. The experts will validate the materials on the product which results in the digital content of the material in the book.

Sheet media expert validation: Media expert validation sheet is a sheet addressed to media experts. Media expert then judge on the product display, the consistency of its digital books, digital book format and its appeal.

Sheet questionnaire (Questionnaire): The questionnaire is a technique of data collection which is done by giving a set of questions or a written statement to the respondent to answer. The instrument uses a Likert's scale of questionnaire. In this study, a questionnaire used to determine student results on digital media book. This questionnaire given to the students in the experimental class after they use the digital book learning.

Data analysis technique: Quantitative data assessment scores obtained from filling the questionnaire (questionnaire) expert and expert media subject material which analyzed with reference adapted by using a Likert's scale which will be described qualitatively.

According to Suharsimi (2013) Likert's scale arranged in the form of a statement followed by a response that shows five levels. In this study, the scale used is: very good (SB) with a score of 5, good (B) with a score of 4, quite good (CB) with a score of 3, less good (KB) with a score of 2 and No good (TB) with a score of 1.

In this research development, scores of research can be achieved when the average ratings of each item indicators questionnaire (questionnaire) in the high category. Indicators for each item category indicators questionnaire (questionnaire) is said to be high (T) if the value is ≥ 3 and is said to be in the low category (R) if the value < 3 .

To analyze the data from the questionnaire (questionnaire) carried out the steps as described Schunk (2012) in a qualitative descriptive analysis as follows.

Step 1: Research that add a tick on the check mark in each column and subsequently look for the percentage of each category.

Step 2: Sum all of the tick on each column contained in the matrix tools. This amount compared to the amount of the entire description of the material in order to find the percentage from it.

Step 3: Write down the amount of percentage in each column. In order to give meaning and a decision-making it is used as an indicator for a successful provision of expert validation of learning media and materials. In the expert test learning media and materials, the percentage of each item was successful or valid when the results are in the range of 81-100 and 61-80% or in the range of 41-60% is the criteria of "very good", "good" or "fair".

RESULTS AND DISCUSSION

Research result

Define (definition): The preparations made before the research is a step to define the 4D development

procedures are as follows: observation and consultation with the lecturer of the course management of human resources. Where the observation of the learning process, researchers can identify if there is a lack in the learning process.

Design (designation): On this designation stage in the development of 4D procedures. The product designation stage researchers draft designs to develop digital media books that will be used as a medium of learning. Things that are necessary in preparing the product is a set of subjects that will be developed namely the human resources management courses as a result of this development the validity level tested. The validity of instructional media can be known through the analysis results from the demonstration activity.

Media validation result: Media expert analyse in terms of the aspects of software engineering the aspects of audio-visual communication based on the calculation, the known percentage of questionnaires from media experts are 87% which is an excellent qualifications result so, the media can be tested with a decent learning only requires a little revision. General comments from the validator 1 is tested in the field without any revision. But validator 2 require revision as for some revision is carried out as follows. The revision of the media book design by media experts.

Before revision:

- Less supportive
- Background too flashy
- The layout are less interactive

After revision:

- The application can be more supportive by adding more RAM
- The background now more elegant
- The layout now more interactive

Validation material result: Analysis on the subject matter which the expert review using the aspect conformity with curriculum materials the aspects of the depth of the material and the accuracy of the material aspect. Validation is done by two experts that are competent in their field. Based on the calculation, known percentage is 83% which is in a very good qualified state that means the media are worthy to test. While the general comments of the validator is feasible in which media is tested in the field with minimal revision. Although, the validator are viable to be tested without revision. The revisions are as the following.

Media design revision from material experts

Design before revision:

- In need of an in-depth material source
- The material accuracy must be increased

Design after revision:

- The material is now sufficient
- The material has been synchronized with the syllabus

Student's reaction result: The products were tested in the form of digital book as a supplement material of management human resources course. Digital book is taken up by 30 students. The student response to this digital book is viewed by filling out a questionnaire given to student researchers to fill. Analysis of student responses in terms of aspects of design and ease of use from the aspect of the presentation of the feasibility, appropriateness of material as well as aspects of the student's curiosity. Based on the calculation, the percentage result is 86%. Once converted, these percentages are in excellent qualifications so that, digital book fit for use as a medium of learning in matter.

This type research is a research and development that will produce a product. The products created in this research is the medium of learning in the form of digital media book on the subject of human resources management.

Based on the assessment and response from media experts, subject matter experts and the results of student response in general this learning media has advantages compared to conventional learning media. Media digital book is categorized in the qualification of very well, so it's a worthy learning media used in human resources management learning courses in the graduate program PGRI University of Semarang.

In trials of the product carried out in the 2015/2016 class management education program in postgraduate study which consisted of 34 students. Digital book also has a good physical appearance and attractive. Table of contents and concept maps to help understand the material. Have a good level of clarity in the instructions for use of digital books, learning objectives, exposure to the material, summary, assignments, formative tests, worksheets and evaluation in the digital book. So that, the material descriptions, examples, assignments, formative tests, worksheets and easily understood by the student evaluation. It states that the learning media is very interesting and is used as a medium of learning support in solving problems in the classroom.

The results are consistent with the benefit of learning media stated by Latuheru (1988), claim that if the

instructional media used well in the learning process then there are some benefits that can be obtained: the student's attention to the subject matter will be higher; student gets more concrete experience, encourage students to dare to work independently; the results obtained by students is hard to forget. Broadly speaking media have an advantage in learning easier for students to learn the subject matter.

The research results of this development was supported by the results of previous studies, among others, according to Suarsana (2013) in his research shows that through the use of e-Module-oriented problem solving, critical thinking skills of students has increased. Then backed according to Somayasa *et al.* (2013) shows that the development of realistic mathematics module is able to improve the results of class X student at SMK Negeri 3 Singaraja Bali. And with digital math game can make college student to be happy and enjoy to follow our lecturer in the class (Achmad and Sudargo, 2016).

CONCLUSION

Based on the research result and discussion that has been done it can be concluded that:

- Generated book is a valid digital media according to media experts and subject matter experts that are used in human resources management course learning model 4D with 83 and 87% response, this indicates that digital media books eligible for use in the learning process
- The student response was 86% on the use of digital media book. It shows that students are very pleased with the media being used as a supplement material of human resources management course

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