

The use of application builder "appy pie" on college course of media learning as learning media in the form of mobile learning

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Abstract. The purpose of this research are to create and determine the feasibility of "Appy Pie" as the learning media in the form of mobile learning that contains the tutorial of media maker in media learning course. Preliminary research that was conducted to the 2016 Pendidikan Teknologi Agroindustri student which take the learning media course, the result shows 70.3 % of respondents had a problem as long as the learning process, furthermore 78.4 % respondents said that they need a source of learning like "media maker tutorial" which is need while they practiced in a course. There is required a facility like a media maker tutorial to create a media learning, with the availability of mobile learning the students can access the tutorial anytime and anywhere. The steps of this research include identification of potential problem, data collecting, product design, design validation, design revision, product trial on a small scale, product revision, product trial on a large scale, product revision and final product. Data analysis that used for this research is qualitative descriptive method. Validation result that used to acquire the eligibility level help the product get a "very eligible" status from media and linguistic expert, also get an "eligible" status from material expert. Most of respondents are agree with the quality and overview of mobile learning as learning media.

Keywords: mobile learning, learning media, Appy Pie

1. Introduction

The development of science and technology in the globalization era growth rapidly. In the early of 21st century, an advances science and technology have entered a various part of life, and there is no exception for education (Setyantoko, 2016). In education world science and technology development push learning process to be more applicable and interesting, one of common technology development is a smartphone. Wiryawan in 2011 said that the utilizing of smartphone technology have not only for communication and entertainment, but also for learning media. Smartphone user characteristic as learning media could be called as mobile learning, and it have a high flexibility to be used. Mobile learning could be defined as a learning which held with a software that installed in a gadget like mobile phone, personal digital assistants (PDAs) or laptop.

Agro Industri Technology Education Program Study is a one of program study in Faculty of Technology and Vocational Education at Universitas Pendidikan Indonesia. There is a course of Media Pembelajaran (Learning Media) which have to be taken, learnt, and mastered by every students. In learning process, every students demanded to generate a learning media like a practice of making learning media. In order to achieve optimum learning objectives, there is a preliminary observation to

gain an information about the comprehension of student related to media learning course. Based on preliminary research towards a 2016 host students which take the course, around 70.3 % of respondent have a problem during learn Learning Media course, the problem is about how to create the media itself. Furthermore around 78.4% of respondents state that there is a requirement of learning source like “media making tutorial” to facilitate the students while practiced to create a learning media. There for there is needed a facility in a form of “media making tutorial” to help lectures and students, particularly on Learning Media course.

The purpose of this research is to find out the steps of making learning media, also to acquired an information about the feasibility of learning media in a form of mobile learning in Media Learning course use an application buider “Appy Pie”, so that it can be an applicable learning media to the learning process.

2. Method

Research method that used ini this reasearch si development research that used to be called as research and development (R&D). The steps that used are (1) potential and problem identification (2) data collecting (3) product design (4) validation design (5) revision design (6) product trial in small scale (7) first product revision (8) using trial large scale (9) second product revision (10) final product.

Research instrument that used is product feasibility validation paper by media, material and linguistic expert, as well as use a questioner paper for students as respondent. Population that used in this research is a students from Agro Industri Technology Education Program Study Faculty of Technology and Vocational Education at Universitas Pendidikan Indonesia in host of 2016 for 27 students.

Data analysis that used for this research is static descriptive analysis from validation questionnaire and respondent question form. Validation questionnaire processed with descriptive with average answer scoring for each graded item (Arikunto, 2006). The formula that used is :

$$\text{Feasibility Percentage (\%)} = \frac{\text{Total Maximum Score (X)}}{\text{Maximum Score (Xi)}} \times 100 \dots \dots \dots (1)$$

Suitability aspects from media learning development can use media feasibility interpretation scale table from Table 1 below.

Table 1. Media Feasibility Interpretation Scale

Score	Criteria	Percentage	Conversion Result
1	Less	$X < 25\%$	Very Unfeasible
2	Enough	$25\% \leq X \leq 50\%$	Unfeasible
3	Good	$50\% \leq X \leq 75\%$	Feasible
4	Very Good	$X \geq 75\%$	Very Feasible

Source : Modification from Arikunto (2006)

As for the next results from students questionnaire assessment for the media product is interpreted based on the total of percentation which gained form Table 2 corelate with formula (2) .

$$\text{Percentage (\%)} = \frac{\text{Point (X)}}{\text{Maximum Point (Xi)}} \times 100 \dots \dots \dots (2)$$

Table 2. Students Respond Questionnaire Interpretation Criteria

Score	Criteria	Percentage
1	Less	$25\% < X \leq 43.75\%$
2	Enough	$43.75\% < X \leq 62.5\%$
3	Good	$62.5\% < X \leq 81.25\%$
4	Very Good	$81.25\% < X \leq 100\%$

Source : Modification from Sugiyono (2013)

3. Results and Discussion

3.1 Potential and Problem Identification

The potential things from Media Learning course are the needs of the media making tutorial for facilitate students while practice to make a learning media. Smartphone is a one of thing that had by almost all of students and become a huge potential to support the process of media learning development which interesting and help learners to gain an optimum learning.

3.2 Data Collecting

Media data support such as tutorial making media (e-modul, mind mapping, powtoon, prezi and tutorial video), media making tutorial video and a product sample learning media from 2016's students which completed the course.

3.3 Product Design

The next steps for product development are creat flowchart and story board, then the steps are :

3.4 Create Media Making Tutorial Video

Tutorial vdieo that was made had adjusted to media pratice which done by 2016's Student of Technology Agro Industry Education Program Study. Tutorial video stand of from several steps, such: (1) mind mapping, (2) Powtoon Animation, (3) Prezi Persentation, (4) Basic Tutorial of Video Editing. The researcher conduct a screen recording to all process of media making with additional voice recorder to make it more informative. A finished tutorial video uploaded to YouTube and an inserted to mobile learning application by it's Uniform Resource Locator (URL).

3.5 Create Media Making Tutorial E-Modul

E-Modul which is needed for this aplication is consisted from : (1) E-modul making, (2) Mind Mazpping, (3) Powtoon Animation Video Making, (4) Prezi Presentation Making, (5) Video Editing Tutorial. This modul contains practice steps just like a video tutorial, the differences are this one is served thourgh the writing form as work procedure with supporting picture to describe every tutorial steps.

3.6 Design Mobile Learning Application Throguh Appy Pie Website

To build an application, this research use an application builder called Appy Pie which is an online website. This application is called M-Learning Media Pembelajaran, it contains sveral menus which provided in application builder Appy Pie such as 'menu welcome', 'about peneliti', 'menu e-modul (it contains every e-modul tutorial in Pdf), 'menu video' (it contains tutorial video and media sample), and 'social network menu (it used to socializing with another user).

3.7 Design Validation

3.7.1 Media Validation

Media validation intended to examine the feasibility of mobile learning application which is seen from several aspects such media presentation, text and display from every contents. Media expert for this research is performed by an expertise of learning media technology expert. Validation data of mobile learning application which is gained from the expert is shown in Tabel 3.

Table 3. Media Expert Validation Results

Content	Aspects	Point Amounts	Validation Average	Interpretation
Mobile Learning Application E-Modul	Alignment, Font	12	89.58%	Very Feasible
	Shape, Color			
Tutorial Video Overall	Alignment, Font	8	90.60%	Very Feasible
	Shape, Color			
	Alignment	3	75.00%	Feasible
	Application Presentation	3	100.0%	Very Feasible
AVERAGE			88.80 %	Very Feasible

3.7.2 Material Validation

Material validation intended to examine the feasibility of mobile learning application which is seen from a suitability material, accuracy material and a lessons which developed to be several indicators. Material expert for this research is performed by a lecture who teach Learning Media courses at Agro Industry Technology Education Program Study. Validation data which is gained from the expert is shown in Tabel 4.

Table 4. Material Expert Validation Data

Aspect	Points	Validation Average	Interpretation
Material suitability	2	75.00%	Very Feasible
Material Accuracy	4	81.25%	Very Feasible
Learning	4	62.50%	Feasible
Average		72.90%	Feasible

3.7.3 Language Validation

Language validation intended to examine the feasibility of mobile learning application which is seen from a language structure which is developed to be several indicators. Language expert for this research is performed by a one of Bahasa Indonesia teacher who teach in a one of National Senior High School in Bandung. Validation data which is gained from the expert is shown in Tabel 5.

Table 5. Language Expert Validation Data

Content	Aspects	Point	Validation Average	Interpretation
Mobile Learning Application E-Modul	Comunicative, Suitable with rule of language, term, symbol and icon.	4	81.25%	Very Feasible
	Starightforward, Communicative, suitability with a learner's development, suitable with rule of language, term, symbol and icon.	10	87.50%	Very Feasible
Tutorial Video	Communicative, Term, Symbol and Icon.	4	81.25%	Very Feasible
Average			83.33%	Very Feasible

3.7.4 Design Revision

Design revision that conducted after validation is according to advice and revision from an experts. Media validator state that mobile learning application is “feasible to used without revision”, meanwhile material validator and language validator state that mobile learning application is “feasible to used with revision according to advice”.

3.7.5 Product Trial In Small Scale

Product trial is conducted to seven 2016's students which complete the Learning Media course, as before the students asked to download and install mobile learning application with the url <https://snappy.appypie.com/index/app-download/appId/bfd09a9110f9>. An Average results from several small scale trial aspects shown in Table 6.

Table 6. Average Aspects Score of Small Scale Trial

No	Aspects	Points	Average Score
1	Mobile learning quality application	7	80.10 %
2	Mobile Learning Application Display	6	77.98 %
3	Practical quality	5	83.57 %
Average			80.55 %

The results of small scale product trial have an average points around 80.55 %, which is it means a respondents are agree with several aspects that contained by the application. The next step is analysis the questionnaire for feedback or suggestions from the small scale trial to be used as basic of application's improvements before tested in a huge scale product trial. The feedback and suggestion from respondents is shown in Table 7.

Table 7. Feedbacks and Suggests for Small Scale Product Trial

No	Feedbacks and Suggests
1	Background needs an improvements and need to be more interesting, especially about color and design.
2	Need more fluid in transition, it seems boring while the application in use.
3	Folder separation for e-modul and media sample
4	Too much advert, especially while use an application.
5	It will be interesting if there were an additional picture or suitable illustrate.

3.7.6 1st Product Revision

Product revision conducted after small scale product trial with considering an advises for improvement from the questionnaire. First product revision's result could only solve four from five advises, such as background, menu display, picture additional and folder separation for each media.

3.7.7 Prodcut Trial In Huge Scale

This step was conducted after first product revision, suggests form the first trial were implemented in hugh scale for around 20 2016's students from Agro Industry Technology Education Program Study which had completed the Learning Media course. As before the students were asked to download and install a revised mobile learning application with url <https://snappy.appypie.com/index/app-download/appId/4b45558e1027>. An average results for each aspects in huge scale prodcut trial were shown in Tabel 8.

Table 8. Average Aspects Score of Huge Scale Trial

No	Aspects	Points	Average Score
1	Mobile learning quality application	7	84.82 %
2	Mobile Learning Application Display	6	83.54 %
3	Practical quality	5	84.25 %
Average			84.20 %

The results of hugh scale product trial have an average points around 84.24 %, which is it means a respondents are very agree with several aspects that contained by the application. However there several feedbacks and advises from the respondents as an improvements before produce a final product. The feedback and suggestion from respondents is shown in Table 9.

Table 9. Feedbacks and Suggests for Hugh Scale Product Trial

No	Feedbacks and Suggests
1	Video's link and media sample in e-module unable to be opened
2	The complete title of video should be clearly seen
3	The cover of modul is a good additional stuff
4	Optimise a social network feature for a discussion forum

3.7.8 2nd Product Revision

Product revision conducted after huge scale product trial with considering an advises for improvement from the questionnaire. Second product revision's result could only solve one from four advises, such

as change an early part of video so it could be clearly seen. Another respondents can choose tutorial video faster if the title of video was shown.

3.7.9 Final Product

Final product from this research is a Mobile Learning application for Media Learning course use an application builder Appy Pie which contains e-modul media maker tutorial, mind mapping, Powtoon, Prezi, video editing through Adobe Premiere Pro and it's samples. Mobile Learning product has passed two trials such as small scale and hugh scale trial. Most of respondent very aggree with the quality, display, and practicality of mobile learning as learning media. Final product of mobile learning application for learning media can be downloaded and installed at <https://snappy.appypie.com/index/app-download/appId/57a4894a4be9>.

4. Conclusion

Based on research results and discussion above, the conclusion of this research are : 1) The making of mobile learning for learning media refers to research and design method which through several steps : (1) Potentional and problem identification, (2) Data collecting, (3) Product design, (4) Validasion design, (5) Revision design, (6) Product Trial in a Small Scale, (7) First Product Revision, (8) Prodcut Trial in a Hugh Scale, (9) Second Prdocut Revision and (10) Final Product; 2) Based on validation results that conducted to acquire feasibility level as learning media, it gain a "Very Feasible" level from an experts of media and linguistic, also gain a "Feasible" level from material expert. Most of respondent are very agree with the quality and display of mobile learning as learning media.

5. References

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