



DEVELOPMENT OF ANDROID-BASED DIGITAL POCKETBOOK LEARNING MEDIA IN PANCASILA AND CITIZENSHIP EDUCATION SUBJECTS FOR CLASS VIII SMP

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ABSTRACT

This research aims to develop an Android-based digital pocketbook application learning media for the Pancasila Citizenship Education subject: determine the feasibility of an Android-based digital pocketbook application learning media based on the assessment of media experts, material experts, and learning language experts as well as learning media users. This research is development research (Research and Development) with the ADDIE (Analyze, Design, Develop, Implement, Evaluate) development model. Media validation was carried out by Material Experts, Media Experts and Language Experts for Pancasila Citizenship Education. The media developed was tested on 22 respondents. The results of the research show that the level of feasibility of the Articulate Storyline application learning media is based on assessments: 1) Material Experts obtained an assessment score of 82.86%, including in the very feasible category. 2) Media Experts obtained an assessment score of 82%, which is in the very worthy category. 3) Linguist experts obtained an assessment score of 85%, which is in the very appropriate category. 4) The respondent's assessment obtained an assessment score of 98%, including in the Very Decent category. The research results show that the Android-based Digital Pocketbook Learning Media developed is very suitable for use as a learning media for Pancasila Citizenship Education.

Keywords: Digital Pocketbook, ADDIE, Pancasila Citizenship, Android

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INTRODUCTION

Teaching materials are one of the factors that support the success of the teaching and learning process. Choosing good teaching materials will create an optimal learning process. Teaching materials are important because students can have many sources for their learning and cognitively, they will be able to stimulate children to be able to think

creatively in their learning activities. The choice of learning materials is important, because teaching materials are a factor that can make children's understanding better. There are two types of teaching materials, namely printed teaching materials and digital teaching materials ([Bentri, Hidayati, and Rahmi, 2019](#)) ([Syafri, Eldarni, & Rahmi, 2018](#)).

The 2013 curriculum has been implemented starting in the 2013/2014 academic year, starting with preparing student textbooks and teacher manuals, teacher training, training for principals and supervisors, mentoring and classroom learning. In the 2014/2015 academic year, implementation was implemented in all schools and madrasas in Indonesia, including in West Sumatra. The 2013 Curriculum implementation process involves many parties, who are expected to work in a well-coordinated system. If the system formed can run well, then the implementation process can run well, and if the opposite happens, it will result in failure ([Bentri, Hidayati, and Rahmi 2019](#)).

The development of technology and science is a factor that drives efforts to utilize technological results in the world of education. Educators are required to be able to use technological tools according to developments. ([Rohaeni, 2020](#)) According to the Minister of National Education Regulation Number 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies, it is explained that teachers must utilize information and communication technology for learning purposes. ([Rahmawati, Leksono, & Rohman, 2023](#)) In the Government Regulation of the Republic of Indonesia Number 74 of 2008 concerning teachers, article 3 paragraph four states that the pedagogical competencies that teachers must master in managing student learning, one of which is the use of learning technology. ([Febriyanti et al. 2023](#)) ([Bentri, Hidayati, & Rahmi, 2018](#)).

A crucial factor that can influence the learning process is the application of interactive learning media. One of the functions of media is that it can overcome the problem of students' low interest in reading books. ([Anita et al. 2021](#)) Books as a learning medium should make it easier and attract students' interest in mastering the learning material. ([Syafri & Novrianti, 2017](#)) By utilizing smartphone technology which has Android-based application creation features, it can help educators to understand the practical and interesting functions of these smartphones ([Hidayati A, Bentri, & Rahmi, 2017](#)).

According to Pribadi & Putri (2019: 1) teaching materials in general are something that contains things that can be learned. The use of this digital pocketbook teaching material is expected to increase students' interest in learning, and the material taken regarding disaster mitigation is also expected to increase awareness of the importance of caring for the environment. Digital pocketbook teaching materials are considered effective in discussing disaster mitigation material as well as an effort to instill knowledge from an early age regarding disaster management that can be carried out by each student. ([Anita et al. 2021](#)) ([R. Hidayati, Fauzan, & Hakim, 2019](#)). Multifaceted strategies employed by EdTech companies to navigate the complexities of the educational landscape, including product development, market positioning, user engagement and partnerships with educational institutions.

METHODS

This research uses the Research and Development (R&D) method which refers to a naturalistic paradigm with the researcher as the main instrument. Data collection: observation, interviews, and documentation. The development of the 2013 curriculum implementation strategy model with a scientific approach is carried out through several learning activities that can improve six aspects of development. ([A Hidayati et al., 2017](#)) ([Media & Media, n.d.](#)) Learning activities are carried out by utilizing learning resources outside the classroom using appropriate strategies, conversation methods, demonstrations, direct practice, singing methods, etc. Researchers have developed a learning strategy model with a scientific approach with the ADDIE model design. ([Rohaeni 2020](#)) ([Yusuf, Syafril, Zuwirna, & Hidayati, 2022](#)) ([Itriano & Amsal, 2023](#)).

The stages of this development model begin with the analyze and design phases, followed by the development and implementation stages. The final stage is the evaluation phase. The overall objective of this research is to assess the feasibility of the developed product. In this context, feasibility means that the developed product meets the established criteria. Feasibility also refers to the validity indicators with the aim of producing a product that is suitable for use based on the analysis of the research subject's needs conducted beforehand. ([Fadhila, Setyaningsih, Gatta, & Handziko, 2022](#)) ([Rizka, Ade, & Anugrah, 2023](#)) ([Rizka et al., 2023](#)).

Learning design is attached to learning technology which regulates the flow of thinking of a learning technologist in solving performance improvement problems. One approach to learning design is the ADDIE principle ([Prawiradilaga, 2012:60](#)). ([Abna Hidayati, 2023](#)) The ADDIE model appeared around 1990 and was developed by Reiser and Mollenda. The ADDIE model consists of Analysis, Design, Development, Implementation, Evaluation. The ADDIE model is a general learning model and is suitable when used for development research. This term is almost synonymous with instructional system development. When used in development, this process is considered sequential but also interactive, where the evaluation results of each stage can take learning development to the next stage ([Anafi, Wiryokusumo, & Leksono, 2021](#)).

"The ADDIE model is a model that is considered more rational and more complete compared to other models." Therefore, this model can be used for various forms of product development such as models, learning strategies, learning methods, media and teaching materials. The ADDIE model instructional design is a process used to develop educational products that can be accounted for using a research and development approach. ([Rohaeni 2020](#)) ([Bentri et al., 2018](#)).

At the design stage, a structure is created that attracts students' attention to the use of digital pocketbooks that are tailored to their needs. The design of this structure will be enhanced with edited and customized graphics to increase its appeal. Illustrations, videos, font types and audio in digital pocketbooks are also adjusted to the chosen

theme. The Android-based learning media design process is based on needs analysis, as depicted in Figure 1.

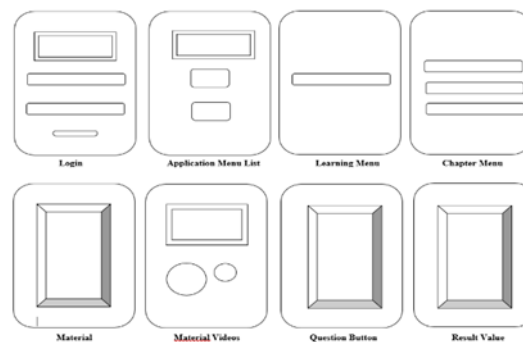


Figure 1. Design of digital pocketbook learning media

RESULT AND DISCUSSION

At the development stage, the digital pocketbook is produced according to a previously created design until the digital pocketbook is finished. The resulting product is then validated by expert validators. Validation is carried out based on media, content, and linguistic aspects. After the validation process, researchers also carried out a series of revision processes for the products developed based on improvements and suggestions from expert validators. The digital pocketbook learning media was validated by three validators, namely media experts, content experts and language experts. Apart from that, the validators involved are lecturers at Padang State University (UNP) ([Yeni, Zelhendri, & Darmansyah, 2018](#)) ([Zainil, 2022](#)).

Validation aims to assess the suitability of Android-based digital pocket book learning media in terms of content and presentation using technology in learning. ([Hidayat, Herawati, Syahmaidi, Hidayati, & Ardi, 2018](#)) ([Hidayati. A, Bentri, & Rahmi, 2017](#)). Content validation is carried out by assessing the suitability of using digital pocket books in the learning process in terms of the format that describes the substance and systematic nature. ([Hidayati, A., Efendi, & Saputra, 2020](#)) ([Hidayati. A, 2019s](#)) Furthermore, content validity also evaluates the suitability of the content of the Android-based digital pocket book learning media which shows the suitability of the teaching materials contained in the digital pocket book with various learning objectives. Its validity also tests the suitability of digital pocketbooks in terms of their usefulness, by stating both the learning impact and additional impacts obtained after digital pocketbooks are used in learning. The table below shows the validation results of the Android-based digital pocketbook based on expert opinions.

Table 2. Results of media expert assessment

Aspect	Maximum Score	Obtained Score
Appearance	35	32
Sound/ Audio	15	12
Media Usage/ Access	20	20
Functionality & Navigation	10	10
Interactivity	25	24
Validity Score		93%

Table 3. Results of content expert assessment

Aspect	Maximum Score	Obtained Score
Learning Objectives	26	22
Quality of Content/Material	32	25
Learning Material	27	22
Interactivity	23	23
Validity Score		85%

Table 4. Results of language expert assessment

Aspect	Maximum Score	Obtained Score
Adherence to Language Rules	10	9
Sentence Coherence	23	20
Relevance to Learners	31	30
Validity Score		95%

From the assessment results, in Table 2 the media expert gave a score of 93% for the digital pocket book learning media developed, in Table 3 the content expert gave a score of 85% for the content contained in the digital pocket book learning media, and in Table 4 for language experts give a score of 95% for linguistic harmony used in digital pocket book learning media in accordance with applicable regulations. Based on the third table, the validity category of the digital pocketbook learning media developed is included in the very valid category.

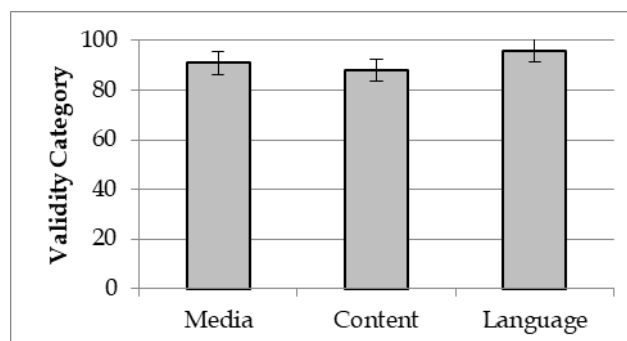


Figure 2. Interactive video validity results chart

The digital pocketbook learning media display without interaction and the display containing interactions such as questions can be seen in Figures 2 and 3 below:



Figure 3. Digital pocketbook display

The Implementation Stage

This stage is a trial stage for digital pocketbook learning media which has passed validation tests from experts. The trial was carried out by testing the product on 5 students to determine the level of practicality of the product. Students were asked to use the digital pocketbook learning media and then fill out a questionnaire regarding the ease/practicality of using the digital pocketbook learning media. The questionnaire consists of 19 statements which are divided into several aspects, namely: conditions of use, time effectiveness, and usability.

A summary of the results of small-scale trials can be seen in the table below.

Table 5. Results of the small-scale trial

Aspect	Maximum Score	Obtained Score
Usage Condition	170	163
Time Effectiveness	155	135
Usefulness	155	129
Validity Score		88%

Based on the table above, it can be observed that from the small-scale trial, a score of 88% was obtained, which already falls into the category of very high.

The Evaluation Stage

After the implementation phase is complete, the next step is evaluation. Previously, the digital pocketbook learning media had gone through a validation process by three validators. Each validator gave an assessment: 93% for digital pocketbook learning media, 85% for video content, and 95% for language suitability according to applicable guidelines. Based on these three assessments, it can be concluded that the digital pocketbook learning media developed is included in the very valid category.

Then it continued with a small-scale trial, where interactive video media, digital pocketbook learning media, was tested on five students, and the trial results reached a score of 88%. Therefore, it can be concluded that the digital pocketbook learning media developed is very practical to use. However, this trial was carried out on a small

scale, and it is hoped that in the future the digital pocketbook learning media can undergo testing on a larger scale.

CONCLUSION

Based on the results of the validity test, it is known that the digital pocketbook learning media developed is considered very suitable or very valid based on the validator's assessment so that it can be a viable alternative learning resource for students. Next, a small-scale trial was carried out on users, and the results of this activity showed that the digital pocketbook learning media developed was very practical to use. Therefore, the findings of this research can be used as a reference for ideas in analyzing digital pocketbook learning media as a product of educational technology development.

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