

# Development of Educational Game-Based Social Science Pocketbook for Elementary School V Class Students

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**Abstract:** The purpose of this study was to design the development of a social studies pocket book based on educational games and to analyze the feasibility of a pocket book based on educational games on the theme of events in life to improve the learning outcomes of fifth-grade elementary school students. The pocketbook is a small book containing information that can be stored in a pocket so that it is easy to carry everywhere. The pocket book developed in this study is an educational game because it is hoped that students will be happier and more comfortable learning with the game. Playing is one of the activities children like in everyday life, so it can be used as a learning method at school. Research and Development (R&D) research uses the Borg and Gall method. It is collecting data using interviews, questionnaires, tests, and documentation. The subjects of this study were the fifth-grade students of Public Elementary School No. 1 Sari Gajah, Demak, with a total of 30 students as the experimental class and Public Elementary School No. 2 Sari Gajah, Demak, with a total of 25 students as the control class. The assessment of the development results is carried out by validators of material experts and media experts. The feasibility test results of the social media pocketbook based on educational games obtained a percentage of assessment by media experts of 74% (valid) and material experts of 93% (very valid). From the acquisition of the percentage of material and media experts, an average score of 83.5% was included in the valid/feasible criteria. So the social media pocket book based on educational games is worthy of being used as a social media learning medium for class V Elementary School material for the proclamation of Indonesian independence.

**Keywords:** Development, educational game, pocket book, social science

## 1. Introduction

The development of learning in elementary schools is currently quite fast. Various developments of model innovations and learning media concern educational researchers to improve the quality of learning. The integration between the model and learning media will affect students' learning success. The achievement of a goal in learning at school is supported by the use of the media used (Kusumaningtyas, Setyaningsih, & Sumartini, 2018). According to Farid (2017), learning media help the teaching and learning process and clarify the material presented to achieve learning objectives. Suitable learning media can increase students' curiosity to find new things, so teachers must be more innovative and creative in choosing media.

Learning media can be realized through printed teaching materials such as pocketbooks, modules, and textbooks. However, the paradigm and general perception inherent among educators is that making teaching materials is a complex and stressful job. According to Torro et al. (2021), the reality of education in the field, most educators still use conventional teaching materials, namely teaching materials that are live use, instant, and without any effort to plan, prepare, and arrange them themselves.

Based on a preliminary study in class V at three elementary schools throughout the Sultan Agung Regional Coordinator Education and Culture, Gajah Subdistrict, Demak Regency, the support for teacher learning is only limited to teacher books and student books published by the Ministry of Education and Culture. In addition, the interviews also showed that in theme 7, students had difficulty in Basic Competency 3.4 Social Studies subjects which contained the

struggle of the Indonesian people against the colonialists. From the characteristics of these basic competencies, practical teaching materials are needed, using core sentences and short examples to accelerate students' understanding (Eliana, 2012). Therefore, researchers will develop pocket book teaching materials as supporting teaching materials so that students quickly understand the contents of the material contained in these basic competencies.

Pocketbook teaching materials have concise, solid and clear material concepts accompanied by examples of exciting pictures so that readers are motivated to read anywhere and anytime. A pocketbook is a book of small size, lightweight, can be stored in a pocket, and is practical to carry and read (Yuliani & Herlina, 2015). Through pocketbooks, students can obtain information without wasting time finding out the essence of the data.

The pocket book developed in this study is equipped with educational games so that students will be more interested in learning the material on these basic competencies. Playing is one of the activities children like in everyday life, so it can be used as a learning method at school (Masruri, Raharjo, & Sunarto, 2020). Play is an exciting activity in a child's life that can bring good changes in various aspects of their lives. The educational games presented include crossword puzzles, word searches, matchmaking, and card games. The educational game is shown after the learning material because it aims to improve students' understanding of the learning material to achieve learning objectives in a fun, precise and fast way. Based on the description above, the researchers will conduct research and development with the title "Development of Social Studies Pocket Book with Educational Games Themes 7 Events in Life to Improve Learning Outcomes for Grade V Elementary School."

Based on the problems that occur in social studies learning activities, it is known that the main factor causing the low social studies learning outcomes is the teacher's difficulty in designing learning strategies to activate students. In addition, the use of social studies teaching media is still limited, because teachers still use conventional learning methods. As a result, students feel bored and lack interest in social studies subjects because the burden of social studies material is too much, causing the learning objectives not to be adequately achieved.

The objectives to be achieved in this study are first to describe the development of social media pocket book media based on educational games in class V with the theme of 7 events in life. Second, to analyze the feasibility of the social media pocketbook based on educational games in class V with the theme of 7 events.

## 2. Literature Review

Lack of access to students' textbooks or reference books as additional learning materials results in a lack of understanding of the knowledge they possess (Pudjiastuti, Sutisna, & Ati, 2020). When used for individual learning, teaching materials can serve as the primary information source, a tool for gathering and monitoring students' information gathering processes, and a resource for supporting other media used for individual learning. A teacher must be sensitive to the conditions in his teaching and learning activities, not only carrying out his obligations in completing the material but, more importantly, the teacher in providing material to students must be meaningful (Karmintoro et al., 2021). Furthermore, teachers must be professional in properly supporting the teaching and learning process so that they can choose and apply learning media that are in accordance with the material to be taught to their students.

The selection of suitable learning media will affect the learning process so that the goals to be achieved can be achieved easily so that in the end student learning outcomes will also increase. Kabha (2019) conducted a study entitled Cognitive, Affective, Social and Cultural Aspects of Teaching and Learning in Media Studies. Students, adequacy of space, duration of activities, control system and teacher performance of certain teaching functions, and additional knowledge.

One of the types of media developed in learning is Social Sciences Pocket Book media based on educational games. Educational game-based Social Science Pocket Book Media is an innovative media in the form of a small book that is equipped with attractive pictures and colours as well as game instructions that can create an exciting impression and have many benefits for its users. Small pocket books that are lightweight, portable, and easy to read wherever you are, claims (Utomo & Lusianto, 2019). This compact book's material is incredibly thorough and engaging to read thanks to its many innovative innovations. One of the features of a pocket book is that it is appealing and convenient to carry with you anywhere.

Pocketbooks offer qualities that can enhance student learning enthusiasm, enthusiasm, and demonstrate interest during the learning process (Andi, 2015). According to Rahmawati, Sudarmin, & Pukan (2013). So that they can work on the posttest questions at the end of the lesson, students are more engaged and attentive to the teacher's explanation. If every student can develop his or her mind to be able to digest the knowledge acquired in all phases of learning, the information presented can be well accepted and understood.

Sari (2016) developed a mind mapping-based pocket book learning media where shows the pocketbook was rated very well. This is shown by increasing student learning outcomes based on the student achievement.

Aini & Sunarti (2017) can be concluded that the Javanese script pocket book learning media is effectively used in teaching and learning. Furthermore, the difference in student learning outcomes is very significant, as much as 0.017, and the experimental class showed an increase in learning achievement in the high category; namely, the posttest average increased to 87.57 from 71.53 at the pretest.

### 3. Methodology

This type of research is Research and Development (R&D). Borg and Gall (Sugiyono, 2019) explain that research and development is a process or method used to validate and develop products. Developing a product in a broad sense can be in the form of updating an existing product (so that it becomes more practical, effective, and efficient) or creating a new product (which has never existed before).

This research refers to the research and development steps of Borg and Gall in Sugiyono (2017), which consists of ten steps, namely 1) research and data collection, 2) planning research, 3) design development, 4) initial field trials, 5) revision of trial results, 6) primary product field test, 7) revision of the main field test results, 8) wide-scale field trials/feasibility tests, 9) final revision of the results of the due diligence, and 10) dissemination and implementation of the final product.

**O<sub>1</sub> X O<sub>2</sub>**

Description:

O<sub>1</sub> = pretest value (before treatment)

O<sub>2</sub> = posttest value (after treatment)

Respondents of this study were teachers and students in elementary schools throughout the Gugus Sultan Agung Regional Coordinator Education and Culture, Gajah Subdistrict, Demak Regency. The teacher acts as a source of information and a guide in the implementation of learning using social media pocketbooks based on educational games on the theme of events in life. The teacher who became the source of the data in this study was the fifth-grade teacher from three elementary schools in the Gugus Sultan Agung Regional Coordinator Education and Culture, Gajah Subdistrict, Demak Regency. For students who are the subjects of the test are 35 students of class VI Public Elementary School No. 1 Sari. The topics in the small-scale trial are ten students of Public Elementary School No. 2 Sari and 25 students of Public Elementary School No. 1 Banjarsari as the control class.

### 4. Findings and Discussion

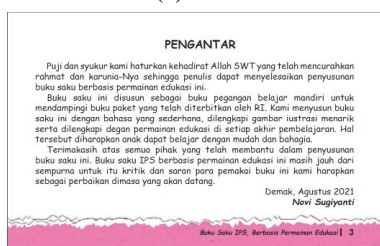
The design of learning media products for social studies pocketbooks based on educational games was made by considering the needs of teachers and students to adjust the characteristics of the learning media needed in the field. The social media pocket book design based on educational games consists of a pocket book cover, mapping of basic competencies and learning objectives, let's sing, fill in the material, and let's play (Qoiriyah, 2021). Here is the design of the social media book based on educational games.



(a)



(b)



(c)



(d)



**Figure 1.** (a) pocket book cover; (b) personal identity; (c) basic competencies; (d) and learning objectives; (e) let's sing; (f) material illustration; (g) pocket book material; (h) pocket book material; (i) pocket book material; (j) pocket book material (k) let's play; and (l) pocket book back cover

At the design validation stage, the product design is validated by two validators: media experts and material experts. The product validation assessment instrument used is a validation questionnaire. Design validation aims to determine the feasibility of social media pocketbook media based on educational games before being used for small-scale trials and large-scale trials.

The assessment of pocket book media based on educational games by experts on each aspect has a score of 5 if it is very good, four if it is good, three if it is sufficient, two if it is not good, and one if it is very bad. The results of the recapitulation of expert validation assessments are then classified into four criteria. The following are the criteria for the expert validation assessment.

**Table 1. Expert validation assessment criteria**

| Validity Criteria | Level of Validity   |
|-------------------|---|
| 85.01 – 100 %     | very valid, or can be used without revision                                   |
| 70.01 – 85.00 %   | valid, or can be used but needs to be revised                                 |
| 50.01 – 70.00 %   | not valid, or it is recommended not to use it because it needs major revision |
| 01.00 – 50.00 %   | invalid, or should not be used  |

The validation of media experts and material experts on pocketbook media based on educational games obtained a valid/proper assessment. Following the media criteria set in Chapter III, the media developed is considered suitable for

use if the acquisition of the validation value reaches the minimum category of quite valid (Akbar & Tzokas, 2013). The results of the media feasibility assessment that researchers have developed are material experts by Dr Erik Aditia Ismaya, MA gave a score of 93%, which is included in the very valid criteria. As for media experts Dr Nur Fajrie, M. Pd scored 74%. Based on the two results of the expert's assessment, it was obtained an average of 83.5% with proper criteria.

It can be concluded that the media developed by researchers regarding social studies pocketbook media based on educational games is in the appropriate category and can be used as social studies learning media. This follows the opinion of Anuar, Nizar & Ismail (2021), which states that the developed teaching media must meet eligibility standards.

## 5. Conclusions and Recommendations

Based on the results of research on the development of social studies pocket book media based on social studies learning educational games in fifth-grade elementary schools throughout the Sultan Agung cluster, it can be concluded that the social studies pocket book based on educational games was successfully developed by adapting the ten steps of the development stage of Sugiyono's development model (Sugiyono, 2017), namely 1) research and data collection, 2) planning research, 3) design development, 4) initial field trials, 5) revision of trial results, 6) primary product field test, 7) revision of the main field test results, 8) wide-scale field trials/feasibility tests, 9) final revision of the results of the due diligence, 10) dissemination and implementation of the final product.

The thing that distinguishes pocketbook media based on educational games from other pocketbooks is that this pocketbook media uses educational games in evaluating learning outcomes. With educational games, students become happier and their enthusiasm for learning increases, besides that, student learning outcomes in social studies subjects have increased.

The social media pocketbook based on educational games received an assessment percentage by media experts of 74% (valid) and material experts of 93% (very valid). So the social media pocket book based on educational games is worthy of being used as a social media learning medium for class V Elementary School material for the proclamation of Indonesian independence.

Based on the conclusions and implications of the research results, the following suggestions can be presented: Teachers and students can use the social media pocketbook based on educational games as learning media because it has been proven to help teachers deliver learning materials, create fun learning, and make it easier for students to understand learning materials.

Social studies pocketbooks based on educational games can improve cognitive learning outcomes and get positive responses from students. In future research, other social studies pocketbooks with different topics can be developed according to the needs and problems faced.

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## Conflict of Interest

The authors declare no conflicts of interest

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