**BHARASUMBA: Jurnal Multidisipliner**

*http://azramedia-indonesia.azramediaindonesia.com/index.php/bharasumba/index*
DOI : https://doi.org/10.62668/bharasumba.v5i01.2170
Email : info@azramediaindonesia.com

Open Access

# DEVELOPMENT OF A POCKET BOOK AS A CLEAN AND HEALTHY LIVING BEHAVIOR (PHBS) EDUCATIONAL MEDIA AT PUBLIC ELEMENTARY SCHOOL 111 JAMBI CITY

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**Info Article**
Received :
02 November 2025
Revised :
02 Desember 2025
Accepted :
03 Januari 2026
Publication :
31 Januari 2026

***Keywords:***
*Media Development, Pocket Book, Clean and Healthy Living Behavior (PHBS), Elementary School*

**Kata Kunci:**
Pengembangan media, Buku Saku, PHBS, Sekolah Dasar

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***Abstract:*** *Practicing Clean and Healthy Living Behavior (PHBS) plays a crucial role effort to improve the health status of elementary school–aged children. However, the implementation of PHBS at Public Elementary School 111, Jambi City, is still relatively low, partly due to the limited availability of educational media that are attractive and easy for students to understand. This study aimed to develop PHBS educational media in the form of a pocket book and to analyze its feasibility as a health learning medium. This study utilized a Research and Development (R&D) approach following the ADDIE model, which includes the stages of analysis, design, development, implementation, and evaluation. During the development process, the product was validated by media experts, language experts, health promotion experts, and an institutional validator, as well as 19 fourth- and fifth-grade students of Public Elementary School 111 Jambi as participants. The results showed that the PHBS pocket book was considered feasible for use as a health education medium in elementary schools. This pocket book media is expected to increase students' knowledge and awareness in implementing PHBS in the school environment.*

**Abstrak:** Perilaku Hidup Bersih dan Sehat (PHBS) memegang peranan penting dalam upaya meningkatkan kesehatan anak-anak usia sekolah dasar. Namun, penerapan PHBS di Sekolah Dasar Negeri 111 Kota Jambi masih tergolong rendah, salah satunya disebabkan oleh keterbatasan media edukasi yang menarik dan dapat dengan mudah dimengerti oleh siswa. Tujuan penelitian ini adalah untuk mengembangkan media edukasi berupa buku saku PHBS serta menganalisis kelayakannya sebagai media pembelajaran kesehatan. Metode yang digunakan dalam penelitian ini adalah Research and Development (R&D) dengan model ADDIE, meliputi analisis, desain, pengembangan, implementasi, dan evaluasi. Proses pengembangan melibatkan validasi oleh ahli media, ahli bahasa, ahli promosi kesehatan dan validator instansi, serta 19 siswa kelas IV dan V SDN 111 Kota Jambi sebagai kelompok partisipan. Hasil penelitian menunjukkan bahwa buku saku PHBS layak dijadikan media edukasi kesehatan di sekolah dasar. Diharapkan media buku saku ini dapat meningkatkan pemahaman dan kesadaran siswa dalam menerapkan PHBS di lingkungan sekolah.

## INTRODUCTION

The education and health sectors are strategic efforts in improving the quality of human resources in Indonesia, which can be effectively implemented through educational institutions. The importance of maintaining health should be taught from an early age to school-aged children (Aminah et al., 2021). Schools are environments that are vulnerable to the transmission of various infectious diseases, such as hand, foot, and mouth disease, eye infections, dengue fever, measles, chickenpox, and mumps. Students' lack of understanding of clean and healthy living behavior can increase the risk of the spread of these diseases (Hidayati et al., 2023).

School-aged children represent approximately 30% of Indonesia's population and are considered a priority group for PHBS interventions because they are at an optimal developmental stage to form healthy habits that can persist into adulthood (Aminah et al., 2021). PHBS refers to a set of conscious behaviors aimed at maintaining personal and environmental health, including handwashing with soap, consuming nutritious food, using clean sanitation facilities, engaging in physical activity, proper waste disposal, and eliminating mosquito breeding sites. Despite its importance, the implementation of PHBS among school-aged children remains suboptimal, increasing their susceptibility to preventable infectious diseases. (PHBS, 2016; Ari Angga Rianto, 2023).

The Clean and Healthy Living Behavior (PHBS) program, initiated by the Ministry of Health of the Republic of Indonesia in 1995, is a long-term national effort to improve public health across various settings, including educational institutions, with a target implementation coverage of 70% (Wahyudi & Sari, 2024). However, data from the 2023 Indonesian Health Survey (SKI) indicate that only 48.2% of school-aged children practiced proper handwashing, 46.1% engaged in regular physical activity, and less than half routinely monitored their body weight and height ("Servei Kesehatan Indonesia (SKI) Tahun 2023," 2023). These findings reflect persistent gaps between program targets and actual behavior.

At the local level, the implementation of PHBS in educational settings in Jambi City remains uneven. Talang Bakung Public Health Center recorded PHBS coverage of only 53.70%, ranking second lowest in the city. Of the 54 schools in its jurisdiction, 25 had not implemented PHBS, including Public Elementary School 111 Jambi City. Preliminary observations at this school revealed inadequate sanitation facilities, the absence of hand soap, improper waste management, the presence of potential mosquito

breeding sites, and the availability of unhealthy snacks. Although PHBS education is delivered annually, students' practices remain inconsistent, indicating that existing educational methods are not yet effective in fostering sustained behavior change.

Several factors influence PHBS implementation, including knowledge, attitudes, and parental roles. Knowledge and positive attitudes are key determinants of healthy behavior, as they shape awareness and readiness to act (Nurochman & Balaputra, 2024). Therefore, effective health education strategies supported by appropriate educational media are essential to improve students' understanding and practice of PHBS.

Health education is not merely the transfer of information but a dynamic process aimed at behavior change (I. P. T. P. Sari, 2013). Educational media, particularly print media such as pocket books, are effective tools because they are practical, concise, visually engaging, and easy to carry, allowing repeated exposure to key health messages (Hidayah & Sopiyandi, 2018;Yuniarni et al., 2024). Previous studies have shown that pocket books are effective and feasible educational media. Several researchers reported that pocket books significantly improved knowledge and received high feasibility ratings from experts and users, with validation and trial results generally ranging from feasible to very feasible (Setyaningrum, 2020; Ahmad et al., 2017; Lolita & Ikhsanudin, 2023; Nadira et al., 2024; Ruhmawati et al., 2022).

However, there has been no systematically developed and validated PHBS educational pocket book specifically tailored to the context and needs of Public Elementary School 111 Jambi City. This gap highlights the need for context-specific educational media that align with students' characteristics and school conditions. Therefore, this study aims to develop a PHBS pocket book as an educational medium for elementary school students at Public Elementary School 111 Jambi City, with the objective of improving students' knowledge and supporting the implementation of Clean and Healthy Living Behavior within the school environment.

## METHOD

This study employed a Research and Development (R&D) design using the ADDIE approach, with a dominant emphasis on quantitative descriptive analysis supported by limited qualitative data. Although this research integrated qualitative and quantitative approaches, the primary focus was on product development and quantitative evaluation of feasibility, thus positioning the study mainly as a descriptive

quantitative R&D research. The R&D process involved seven stages, namely identification of potentials and problems, data collection, product design, product validation, product revision, product testing, and subsequent product revision, adapted from the complete R&D framework (Kamal, 2019).

The research subject was a PHBS pocket book developed based on expert input and field needs. The informants consisted of four expert validators, including a language expert, a media expert, a health promotion expert, and an institutional validator, as well as 19 participant validators who were fourth- and fifth-grade students of Public Elementary School 111 Jambi City. The participant validation was conducted as a small-scale trial (prototype testing) to assess the feasibility, clarity, and attractiveness of the developed product. Sampling was conducted using purposive sampling, resulting in a total of 23 respondents.

Data were collected using non-test instruments, including interviews and questionnaires. The questionnaire data were analyzed using a five-point Likert scale and converted into percentage scores. Data analysis was performed by calculating the average percentage of each item based on respondents' responses. This percentage analysis technique is commonly used in instructional media development research to determine the feasibility and acceptability of educational products.

$$P = \frac{\Sigma R}{N} \; x \; 100\%$$

Notes:

P = Final score percentage

∑R = Total score obtained from the assessment

N = Maximum possible score

**Source**: Sugiyono (2015:137) in Pop-Up Book Media Development **(2021).**(Firman & Julianto, 2021) In calculating the percentage of validation results by experts, assessment criteria were applied to evaluate the feasibility level of the developed product.

**Table 1. Feasibility Level Criteria**

| Percentage | Validity Level |
|---|---|
| >80% - ≤ 100% | Very Feasible |
| >60% - ≤ 80% | Feasible |
| >40% - ≤ 60% | Fairly Feasible |
| >20% - ≤ 40% | Less Feasible |
| 0% - ≤ 20 % | Not Feasible |

## RESULTS AND DISCUSSION

### Result

The pocket book was created following the ADDIE model, which includes Analysis, Design, Development, Implementation, and Evaluation. The development process followed the stages of the Research and Development (R&D) method proposed by Borg and Gall, with the following steps :

### 1. Analysis

### Potentials and Problems

The study started by identifying issues concerning the limited practice of Clean and Healthy Living Behavior (PHBS) among elementary school children. Based on the results of the 2023 Indonesian Health Survey (SKI), only 48.2% of school-aged children in Indonesia practiced proper handwashing behavior. A total of 96.3% of school-aged children used latrines for defecation. Meanwhile, the proportion of school-aged children who consumed fruits and vegetables reached 68.3%. Children who routinely engaged in sports or physical activity accounted for 46.1%. In addition, only 42.6% of children regularly measured their body weight, and 30.7% regularly measured their height ("Servei Kesehatan Indonesia (SKI) Tahun 2023," 2023). In Jambi City, Talang Bakung Public Health Center ranked as the second lowest in the implementation of PHBS in educational settings, with a coverage rate of 53.70%. Of the 54 schools within the working area of Talang Bakung Public Health Center, only 29 schools had implemented PHBS, while 25 schools had not. Public Elementary School 111 Jambi City is one of the schools categorized as not implementing PHBS. Based on the identified problems, there is a need to provide information on Clean and Healthy Living Behavior (PHBS) as an effort to encourage the adoption of healthy and hygienic habits among students. The delivery of such information requires the use of appropriate educational media. Therefore, this study selected an illustrated pocket book as a health education medium to convey PHBS messages to elementary school students.

### Data and Information Collection

Next, the researcher carried out a literature review using diverse sources, such as health articles, digital books, and scientific journals, to inform the development of educational media in the form of a pocket book on Clean and Healthy Living Behavior (PHBS).

## 2. Design

The product design process began by determining the theme of media development and the target group that would use the pocket book. In this study, the media was intended for fourth- and fifth-grade elementary school students. Subsequently, the content of the material was determined to ensure alignment with the established theme.

## 3. Development

The pocket book design that had been prepared in the previous stage was then developed into a more comprehensive educational media product using the Canva application, with the resulting design development as follows:


**Figure 1. Front and Back Cover**
**Source: Primary Data**


**Figure 2. Table of Contents and Material 1**
**Source: Primary Data**


**Figure 3. Material 2**
**Source: Primary Data**

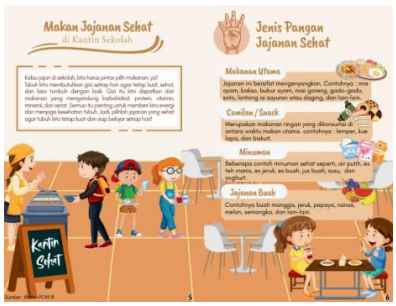


**Figure 4. Material 3**
**Source: Primary Data**


**Figure 5. Material 4**
**Source: Primary Data**


**Figure 6. Material 5**
**Source: Primary Data**


**Figure 7. Material 6**
**Source: Primary Data**


**Figure 8. Material 7**
**Source: Primary Data**


**Figure 9. Material 8**
**Source: Primary Data**


**Figure 10. Material 9**
**Source: Primary Data**

## 4. Implementation

a. Product Validation

Product validation involved several expert validators from various fields who were responsible for assessing the product and providing feedback and suggestions for improvement in order to support the refinement and enhancement of the quality of the educational media product. There were four validators involved, namely:

1. Media Expert Validation. The assessment outcomes from a single media expert validator are shown in the table below:

**Table 2. Recapitulation of Media Expert Assessment of the PHBS Pocket Book**

| No. | Assessment Aspects | Score n=1 | Number of Aspects | Maximum Score | Eligibility Percentage * |
|---|---|---|---|---|---|
| 1. | **Pocket Book Design** | | | | |
| | The pocket book title uses an attractive font | 5 | | | |
| | The pocket book title uses an appropriate font size | 5 | | | |
| | The pocket book has an attractive cover | 5 | | | |
| | The pocket book uses a font type that is easy to read | 4 | | | |
| | The pocket book has harmonious font sizing | 4 | 37 | 40 | 92 |
| | The pocket book contains illustrations that are attractive to students | 4 | | | |
| | The pocket book has a good color composition | 5 | | | |
| | The pocket book shows harmony between images and text | 5 | | | |

| | | | | | |
|---|---|---|---|---|---|
| **2.** | **Educational Media** | | | | |
| | The pocket book is able to attract reading interest | 5 | | | |
| | The pocket book helps readers understand the information content | 4 | 13 | 15 | 86 |
| | The pocket book can broaden readers' knowledge | 4 | | | |
| | **Total** | 50 | 50 | 55 | **90** |

***Feasibility:** Very Feasible (>80% - ≤ 100%), Feasible (>60% - ≤ 80%), Fairly Feasible (>40% - ≤ 60%), Less Feasible (>20% - ≤ 40%), Not Feasible (0% - ≤ 20%)
**Source:** Processed Primary Data

According to the validation conducted by the media expert, the product achieved a feasibility score of 90%, classifying it as highly feasible.

2. Validation by Health Promotion Experts

The results of the assessment conducted by one health promotion expert validator are presented in the following table:

**Table 3. Recapitulation of the Evaluation of the Pocket Book on Clean and Healthy Living Behavior by Health Promotion Experts**

| No. | Assessment Aspects | Score n=1 | Number of Aspects | Maximum Score | Eligibility Percentage * |
|---|---|---|---|---|---|
| **1.** | **Educational Media** | | | | |
| | The pocket book is able to attract reading interest | 5 | | | |
| | The pocket book helps readers understand the content of the material | 5 | 19 | 20 | 95 |
| | The pocket book can broaden readers' knowledge | 4 | | | |
| | The pocket book can serve as an approach medium for elementary school students | 5 | | | |
| **2.** | **Book Content** | | | | |
| | The pocket book presents material appropriate for elementary school students | 4 | | | |
| | The pocket book presents comprehensive material | 5 | | | |
| | The pocket book presents clear material | 4 | 23 | 25 | 92 |
| | The pocket book presents material that is easy to understand | 5 | | | |
| | The pocket book shows harmony between images and the material content | 5 | | | |
| **3.** | **Language** | | | | |
| | The pocket book uses vocabulary that is easy for elementary school students to understand | 5 | | | |
| | The pocket book uses appropriate language | 5 | | | |
| | The pocket book uses clear language | 4 | 23 | 25 | 92 |
| | The pocket book uses communicative language | 5 | | | |
| | The pocket book has a material flow that is easy to understand | 4 | | | |
| **4.** | **Book Appearance** | | | | |
| | The pocket book has an attractive cover | 5 | | | |
| | The pocket book uses an appropriate font type | 5 | | | |
| | The pocket book has a good color composition | 5 | 25 | 25 | 100 |
| | The pocket book has an attractive design | 5 | | | |
| | The pocket book contains appealing images | 5 | | | |

| | | | | |
|---|---|---|---|---|
| **Total** | 90 | 90 | 95 | **94** |

***Feasibility:** Very Feasible (>80% - ≤ 100%), Feasible (>60% - ≤ 80%), Fairly Feasible (>40% - ≤ 60%), Less Feasible (>20% - ≤ 40%), Not Feasible (0% - ≤ 20%)
**Source:** Processed Primary Data

Based on the validation results conducted by a health promotion expert, the pocket book obtained a feasibility percentage of 94%, categorized as very feasible.

3. Language Expert Validation

The results of the assessment conducted by a language expert are presented in the table below:

**Table 4. Summary of Pocket Book Evaluation on Clean and Healthy Living Behavior by a Language Expert**

| No. | Assessment Aspects | Score n=1 | Number of Aspects | Maximum Score | Eligibility Percentage * |
|---|---|---|---|---|---|
| **1.** | **Language** | | | | |
| | The pocket book uses writing in accordance with standard Indonesian spelling (EYD) | 4 | | | |
| | The pocket book uses vocabulary that is easy for elementary school students to understand | 4 | | | |
| | The pocket book uses communicative language | 3 | | | |
| | The pocket book uses effective language | 4 | 31 | 40 | 77 |
| | The pocket book uses clear language | 4 | | | |
| | The pocket book uses appropriate language | 4 | | | |
| | The pocket book shows harmony between images and content | 4 | | | |
| | The pocket book has a material flow that is easy to understand | 4 | | | |
| **2.** | **Educational Media** | | | | |
| | The pocket book is able to attract reading interest | 4 | | | |
| | The pocket book helps readers understand the information content | 4 | 12 | 15 | 80 |
| | The pocket book can broaden readers' knowledge | 40 | | | |
| | **Total** | 43 | 43 | 55 | **78** |

***Feasibility:** Very Feasible (>80% - ≤ 100%), Feasible (>60% - ≤ 80%), Fairly Feasible (>40% - ≤ 60%), Less Feasible (>20% - ≤ 40%), Not Feasible (0% - ≤ 20%)
**Source:** Processed Primary Data

Based on the validation results conducted by a language expert, the pocket book obtained a feasibility percentage of 78%, categorized as feasible.

4. Institutional Validation

Institutional validation was conducted by a validator from SDN 111 Kota Jambi, specifically a teacher responsible for the School Health Unit (UKS). The evaluation results can be seen in the following table:

**Table 5. Summary of Pocket Book Evaluation on Clean and Healthy Living Behavior by an Institutional Validator**

| No. | Assessment Aspects | Score n=1 | Number of Aspects | Maximum Score | Eligibility Percentage * |
|---|---|---|---|---|---|
| **1.** | **Educational Media** | | | | |
| | The pocket book is able to attract reading interest | 5 | | | |
| | The pocket book helps readers understand the content of the material | 5 | | | |
| | The pocket book can broaden readers' knowledge | 4 | 19 | 20 | 95 |
| | The pocket book can serve as an approach medium for elementary school students | 5 | | | |
| **2.** | **Book Content** | | | | |
| | The pocket book presents material appropriate for elementary school students | 5 | | | |
| | The pocket book presents comprehensive material | 5 | | | |
| | The pocket book presents clear material | 4 | 24 | 25 | 96 |
| | The pocket book presents material that is easy to understand | 5 | | | |
| | The pocket book shows harmony between images and content | 5 | | | |
| **3.** | **Language** | | | | |
| | The pocket book uses vocabulary that is easy for elementary school students to understand | 4 | | | |
| | The pocket book uses appropriate language | 4 | | | |
| | The pocket book uses clear language | 4 | 22 | 25 | 88 |
| | The pocket book uses communicative language | 5 | | | |
| | The pocket book has a material flow that is easy to understand | 5 | | | |
| **4.** | **Book Appearance** | | | | |
| | The pocket book has an attractive cover | 5 | | | |
| | The pocket book uses an appropriate font type | 5 | | | |
| | The pocket book has a good color composition | 5 | 25 | 25 | 100 |
| | The pocket book has an attractive design | 5 | | | |
| | The pocket book contains appealing images | 5 | | | |
| | **Total** | 90 | 90 | 95 | **94** |

***Feasibility:** Very Feasible (>80% - ≤ 100%), Feasible (>60% - ≤ 80%), Fairly Feasible (>40% - ≤ 60%), Less Feasible (>20% - ≤ 40%), Not Feasible (0% - ≤ 20%)

**Source:** Processed Primary Data

Based on the validation results conducted by a validator at SDN 111 Kota Jambi, namely the School Health Unit (UKS) teacher, the pocket book obtained a feasibility percentage of 94%, categorized as very feasible.

b. Product Design Revision

At this stage, design revisions were carried out based on feedback and suggestions obtained during the validation process by the experts. The product revisions are as follows:

1. Media Expert. Based on feedback and suggestions from the media expert, since the target audience is children, it is better to have more images than text. Therefore, several revisions were made by adding more illustrations and reducing the amount of text.
2. Health Promotion Expert. Feedback and suggestions from the health promotion expert included adding a book edition, enlarging the title size and standardizing the title font, adding material sources, and including a barcode for digital book access. Accordingly, revisions were made by adding a book edition, enlarging the title size and standardizing the title font, adding material sources, and including a barcode for digital book access.
3. Language Expert. The language expert suggested that the language in the pocket book was not yet sufficiently communicative for elementary school students. Therefore, the language in the pocket book was revised to use more communicative language suitable for elementary school children.
4. Institutional Validator. The institutional validator suggested standardizing the font used in the material sections. Therefore, the font in the material sections was standardized.

c. Product Trial. The pocket book was tested on a small group of 19 students aged 9–11 from grades IV and V at SDN 111 Kota Jambi. The trial took place in the classroom through face-to-face sessions, where each student received a copy of the pocket book and an evaluation form. The evaluation results from the participants are as follows:

**Table 6. Trial of the Pocket Book on Clean and Healthy Living Behavior**

| No. | Assessment Aspects | Score n=1 | Number of Aspects | Maximum Score | Eligibility Percentage * |
|---|---|---|---|---|---|
| **1.** | **Book Appearance** | | | | |
| | The pocket book has a cover that I find attractive | 80 | | | |
| | The pocket book has a color combination that I find appealing | 86 | | | |
| | The pocket book uses text that is easy to read | 87 | 418 | 475 | 88 |
| | The pocket book uses a text size that is easy to read | 80 | | | |
| | The pocket book contains attractive illustrations | 85 | | | |
| **2** | **Book Content** | | | | |
| | The pocket book helps me learn about Clean and Healthy Living Behavior (PHBS) at school | 94 | 185 | 190 | 97 |
| | The pocket book can increase my knowledge about Clean and Healthy Living Behavior (PHBS) at school | 91 | | | |

| | | | | |
|---|---|---|---|---|
| **3. Educational Media** | | | | |
| The pocket book can attract my interest in reading | 82 | | | |
| The pocket book is easy for me to use | 83 | 253 | 285 | 88 |
| I enjoy learning with the pocket book | 88 | | | |
| **Total** | 856 | 856 | 950 | **90** |

***Feasibility:** Very Feasible (>80% - ≤ 100%), Feasible (>60% - ≤ 80%), Fairly Feasible (>40% - ≤ 60%), Less Feasible (>20% - ≤ 40%), Not Feasible (0% - ≤ 20%)

**Source:** Processed Primary Data

Based on the product trial conducted with the participant group, the pocket book obtained a feasibility percentage of 90%, categorized as very feasible.

**5. Evaluation**

Formative evaluation of the pocket book development for Clean and Healthy Living Behavior (PHBS) in schools was conducted with expert validators and the participant group. The evaluation results from both groups, gathered during the implementation stage, are as follows

1. Media Expert. Evaluation focused on the book design and text, specifically adding more illustrations and reducing text.
2. Health Promotion Expert. Evaluation focused on the book design and content, including standardizing and enlarging subtitle fonts, adding the book edition, including a barcode for digital access, and citing material sources.
3. Language Expert. Evaluation focused on language aspects, noting that the language used in the pocket book was not yet fully communicative.
4. Institutional Validator. Evaluation focused on book appearance, specifically standardizing the font used in the material sections.
5. Participant Group. Evaluation from the participant group included comments that the text was somewhat small, some text in one material section about trash bins by color was difficult to see, and adding a plastic cover to protect the book.

This study developed the media using the ADDIE Model (Analysis, Design, Development, Implementation, and Evaluation) and the Research and Development (R&D) method based on Borg and Gall's procedures. The R&D process typically includes ten stages, such as identifying potentials and problems, collecting data, designing the product, validating it, revising it, conducting trials, and implementing further revisions. However, this study only utilized seven stages of the complete R&D method, so the resulting media product is intended solely as a prototype. This aligns with the research conducted by Pratiwi (2024) on the development of a pocket book

media for adolescent mental health at SMA Negeri 06 Kota Jambi, which also employed the ADDIE model with seven stages: The development of the media product involved identifying potentials and problems, collecting data, designing the product, validating it, revising it, conducting trials, and making final revisions **(Pratiwi, 2024).** This study began by identifying the problem of insufficient implementation of **Clean and Healthy Living Behavior (PHBS)** among elementary school children. It was found that, based on the **Indonesian Health Survey (SKI) 2023**, only **48.2%** of school children in Indonesia practice proper handwashing. **96.3%** of children use a latrine for defecation, while **68.3%** consume fruits and vegetables. Children who regularly engage in physical activity or exercise account for **46.1%.** Additionally, only **42.6%** of children regularly monitor their weight, and **30.7%** measure their height periodically ("Servei Kesehatan Indonesia (SKI) Tahun 2023," 2023). In Kota Jambi, Talang Bakung Community Health Center ranks second lowest in implementing PHBS in the educational sector, with a coverage of 53.7%. Of the 54 schools under its jurisdiction, only 29 schools have implemented PHBS, while the remaining 25 schools have not. SDN 111 Kota Jambi is categorized as a school that has not implemented PHBS. Based on these data, there is a potential to provide information on PHBS to increase students' awareness through engaging and accessible health education media, one of which is a pocket book. This aligns with research by Hanif et al. (2018) on the effectiveness of PHBS pocket books in schools, which demonstrated that the use of PHBS pocket book media is effective in improving both knowledge and the implementation of PHBS among elementary school students (Hanif et al., 2018).

The next step was to collect various information. In this study, information was gathered through interviews with the School Health Unit (UKS) teacher at SDN 111 Kota Jambi regarding the PHBS issues among elementary school children. The interview results indicated that the school regularly provides education related to PHBS for students, but it has not been effective in improving students' implementation of PHBS at school. Therefore, a media tool that can increase students' interest in learning about PHBS is needed. Next, the researcher carried out a literature review using various sources, such as health-related articles, digital books, and scientific journals, to guide the development of a pocket book on PHBS in schools.

The next stage involved product design, with the pocket book created using the Canva application. Titled 'Let's Live Clean and Healthy at School', the pocket book

comprises a front cover, back cover, and 22 pages. Once the design was completed, the researcher conducted product validation to determine its feasibility. As stated by Sugiyono (2015), product validation requires the participation of several experienced experts, each of whom evaluates the design of the product (Setiawati et al., 2024). The feasibility assessment results indicate that the PHBS pocket book achieved a very feasible category from most validators. The health promotion expert awarded a feasibility percentage of 94%, indicating that the pocket book is effective as an educational medium for elementary school children and has the potential to broaden students' knowledge. This finding aligns with Notoatmodjo's (2005) statement that health promotion media should be attractive and easy to understand to ensure effective message delivery to the target audience (Mufidah et al., 2024). Similar findings were reported by Nadira et al. (2024), who obtained a very feasible category in the development of a stunting pocket book for women of reproductive age, indicating the consistency of pocket books as effective health promotion media. (Nadira et al., 2024).

The media expert validation also showed a high feasibility score of 90%, categorized as very feasible. This result reflects the effectiveness of the visual design, color composition, and harmony between text and illustrations in enhancing students' interest and comprehension. From a pedagogical perspective, elementary school students are in the concrete operational stage, where learning is more effective when supported by visual elements. Therefore, the strong visual aspects of the pocket book play a significant role in attracting students' attention and facilitating understanding of PHBS concepts. In contrast, a study conducted by **Lolita and** Ikhsanudin **(2023)** on the development of a health pocket book as an educational medium for COVID-19 patients undergoing self-isolation obtained a **feasible** category from media expert validation (Lolita & Ikhsanudin, 2023). Meanwhile, Azizah and Rizqi **(2023)** reported a **93% feasibility score**, categorized as **very feasible**, in the development of a digital pocket book media on exclusive breastfeeding for pregnant women in Majakerta Village, Bandung Regency (Azizah & Rizqi, 2023).

In contrast, the language expert validation yielded a relatively lower feasibility score of 78%, although it still fell within the feasible category. This difference suggests that certain linguistic aspects require further refinement. The lower score may be attributed to the use of health-related terminology that is less familiar to elementary school students, sentence structures that are relatively long, or a level of formality that exceeds students' language development. These findings highlight that, despite strong

visual and content quality, language simplicity and communicative clarity remain critical factors in ensuring message comprehension among young learners. Improving the use of child-friendly, concise, and contextual language is therefore essential to enhance the overall effectiveness of the pocket book. In comparison, a study conducted by **Kurnianti et al. (2025)** reported a **95% feasibility score**, categorized as **very valid**, in the development of a pocket book media to increase social awareness among mosque youth in Pulau Semambu Village, Indralaya Utara District (Kurniati et al., 2025).

Based on the **institutional validation**, conducted by a teacher at **SDN 111 Kota Jambi**, the pocket book obtained a **94% feasibility percentage**, categorized as **very feasible**. This is consistent with the study by Niken et al. (2022), which found that teacher validation of a pocket book learning media using mind mapping and QR codes for grade VI ASEAN material scored 96.8%, categorized as very valid (Puspitasari et al., 2022). Overall, these results demonstrate that while the PHBS pocket book is highly feasible as an educational medium, further language refinement is necessary to optimize its pedagogical effectiveness. Integrating simple language with strong visual elements is expected to enhance students' understanding and encourage the consistent practice of Clean and Healthy Living Behavior in the school environment.

At this stage, the validators also offered feedback and suggestions to highlight the strengths and weaknesses of the pocket book. The identified weaknesses then served as the basis for improvements during the product revision stage. This aligns with **Sugiyono (2022),** who stated that once a product design is completed, it should be validated through discussions with experts to identify its shortcomings (Setiawati et al., 2024), which can then be addressed through design revisions. After the product revision, an initial trial was conducted through a **simulated use of the product**. The trial was carried out on a limited basis with **grade IV and V students at SDN 111 Kota Jambi**. The trial involved providing evaluation sheets to assess the feasibility of the pocket book, covering three aspects: **book appearance, book content, and educational media.**

The feasibility of the pocket book on Clean and Healthy Living Behavior at School was assessed through a trial with a participant group consisting of 19 students aged 9–11 years from grades IV and V at SDN 111 Kota Jambi. The trial yielded a feasibility percentage of 90%, categorized as very feasible. This is in line with the study conducted by Ratnasari et al. (2022), which obtained a 70.5% feasibility score from trials in the development of a pocket book as a learning media to improve literacy

among elementary school students (Ratnasari et al., 2022). Similarly, **Puspitasari et al. (2025),** in designing a pocket book to support healthy living in Islamic boarding school communities, reported a **trial result of 88%,** also categorized as **very feasible** (P. Sari et al., 2025).

## CONCLUSION

From the findings of the development study on the pocket book for Clean and Healthy Living Behavior at SDN 111 Kota Jambi, several conclusions can be drawn :

1. This study resulted in the development of a pocket book on Clean and Healthy Living Behavior (PHBS) using the ADDIE model through a Research and Development (R&D) approach. The development process was carried out systematically through the stages of analysis, design, validation, revision, and limited trials involving grade IV and V students at SDN 111 Kota Jambi.
2. The feasibility assessment indicated that the pocket book achieved high feasibility ratings, categorized as feasible to very feasible by expert validators and users. Therefore, the PHBS pocket book has strong potential to be utilized as a supporting health education medium in elementary school health promotion activities. However, this study is limited in that the developed pocket book is still in the form of a prototype and has not yet been tested for its effectiveness in producing measurable changes in students' clean and healthy living behaviors.

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