DEVELOPMENT OF INTERACTIVE E-BOOK TEACHING MATERIALS BASED ON LOCAL WISDOM USING WORDWALL EDUCATIONAL GAMES

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INFO ARTICLE
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Abstract. This research is based on an analysis of teaching materials that do not contain local wisdom values and a lack of creativity to develop innovative teaching materials using technological developments in the learning process due to time and human resources constraints faced by teachers. This study aimed to assess the feasibility and practicality of using interactive e-book instructional resources that incorporate local knowledge, using wordwall educational games. This study's research and development methodology relates to utilizing the R&D development model with the ADDIE step, which includes five stages: Analyzing, Designing, Developing, Implementing, and Evaluating. The results of the eligibility validation of media experts yielded a score of 82.2%, which indicated "Very Valid." The three expert validations show that using wisdom-based interactive e-book teaching materials using Wordwall educational games is feasible for testing. The results of the practicality of e-book interactive teaching materials products received good feedback from educators and students, respectively, at 98% (very good) and 100% (very interesting). Based on the findings presented, the conclusion is that using interactive e-books as teaching materials based on local wisdom with Wordwall educational games is suitable for implementing an educational learning framework. The three expert validations show that using wisdom-based interactive e-book teaching materials using Wordwall educational games is feasible for testing. The results of the practicality of e-book interactive teaching materials products received good feedback from educators and students, respectively, at 98% (very good) and 100% (very interesting). Based on the findings presented, the conclusion is that using interactive e-books as
teaching materials based on local wisdom with Wordwall educational games is suitable for implementing an educational learning framework. The results of the practicality of e-book interactive teaching materials products received good feedback from educators and students, respectively, at 98% (very good) and 100% (very interesting). Based on the findings presented, the conclusion is that using interactive e-books as teaching materials based on local wisdom with Wordwall educational games is suitable for implementing an educational learning framework.

INTRODUCTION

Education is a systematic effort that aims to maximize students' potential through facilitating learning activities that utilize various media and tools available in the immediate environment. This statement is in line with Law No. 20 of 2003, which stipulates that education requires deliberate and systematic efforts to create an environment that is conducive to learning and to facilitate the development of students' innate abilities; therefore, education that cannot be separated from the learning process is essential to implement. A teacher can design the learning process by taking into account the stages of child development according to Jean Piaget, which consist of the sensorimotor stage (0-2 years old), the preoperational stage (2-7 years old), the concrete operational stage (7-11 years old), Marinda 2020). Educators must consider these stages in designing educational activities, which include planning, implementing, and evaluating learning to create effective learning outcomes.

The learning process is carried out in order to achieve the goals that have been set, namely developing existing components. According to Nurafni et al. (2020), the effectiveness of the learning process depends on the teacher's ability to develop the main components in the form of objectives, materials, strategies and learning evaluation. One of the strategies that educators can apply to improve learning outcomes is the development of learning materials that effectively foster student motivation and involvement in the learning process. Prastowo (2015) emphasized that teaching materials include various forms of materials or resources that are arranged in such a way as to foster a conducive learning environment, thus motivating students to be involved in the learning process.

Developing suitable learning materials for teaching activities is a fundamental competency teachers must have (Nurafni et al., 2020; Sadewo et al., 2020). Nevertheless, most educators in educational institutions rely on conventional teaching resources, including teacher and student handbooks.
It is proven by the opinion of Prastowo (2015), who emphasized that quite a few educators still rely on traditional learning materials that are available for purchase, requiring minimal effort in planning, preparation and preparation. When teachers only focus on traditional learning materials without including creativity in designing innovative learning materials, the quality of learning decreases, resulting in decreased engagement, monotony.

One of the innovative learning materials can be created by utilizing technological developments followed by changes in how humans learn, and it is in line with the opinion of Anwar Wibawa (2019), which states that the way of human life and the way humans learn has changed along with the development of information and communication technology. Students' ability to operate technology such as tablets, laptops, cellphones and others from elementary school to tertiary level makes the need for textbooks packaged in electronic form essential to make it easier for students to learn. It requires educational institutions to apply technology to learn in schools, especially in creating innovative teaching materials.

Interactive e-book teaching materials are innovative teaching materials as a form of technology application that teachers and students can use as learning resources. According to Karyada et al. (2022), e-books are digital teaching materials that display writing, images, sound, video or animation. Presentation of questions (quizzes) using educational games in e-books makes learning fun because it makes it easy for students to remember the material. Rochmada Suprayitno (2022) states that educational games can make the learning process enjoyable, add new experiences for students in the learning process, and train students' concentration and memory. If educational games are made appropriately according to learning objectives, student learning outcomes will be better (Gea et al., 2023).

The need for e-book teaching materials that align with the socio-cultural environment and student characteristics is urgent. This need arises because of the rapid technological advances and the continuing changes in the education curriculum in Indonesia. According to Nurafni et al. (2020) stated that in the modern era, there is a growing tendency to ignore local culture, local wisdom, and regional characteristics because the learning process in schools pays little attention to local wisdom in particular. As a result, individuals fail to recognize, develop and apply local wisdom values in their area. Local wisdom is a topic for developing teaching materials that are important to be taught to students in elementary schools, which is in
accordance with opinions Yonanda et al. (2022), which emphasizes that the values of local wisdom are the responsibility of schools and teachers to introduce these values to students, (Sadewo & Purnasari, 2021). Ministry of Education and Culture Regulation Number 79 of 2014 outlines the importance of understanding the local wisdom of the area where students live in educational institutions through subject matter on local content (Ministry of Education and Culture, 2014). Many regional teaching materials do not use material about local wisdom values. In order to support student competence at this time, an e-book is needed that is integrated with local potential or content so that students have knowledge of local wisdom in their area. Suwarno & Rahmatullah (2020). Therefore, it is crucial to utilize interactive e-books as learning materials based on local wisdom, with the use of word wall educational games, in order to enhance the learning experience. This approach not only adds an element of interest and fun to the learning process but also motivates students and facilitates their understanding of the material being taught.

Based on these existing problems, the objectives of research development are 1) Knowing the feasibility of interactive e-book teaching materials for learning based on local wisdom using word wall educational games; 2) Knowing the practicality of interactive e-book teaching materials based on local wisdom using word wall educational games.

**METHOD**

This research and development applies a research-based development (R&D) approach, utilizing the ADDIE development model as one potential model for carrying out R&D activities. The result of this research and development effort is the creation of Interactive E-book Teaching Materials Based on Local Wisdom through Wordwall Educational Games Theme 8 Subtheme 1 Learning 3 Elementary Schools specifically for class V. The results of the research will be presented using descriptive methods.

**Targets/Goals**

Teachers and students of grade V elementary schools were the targets in this study as those who used interactive e-books as local wisdom-based learning materials through word wall educational games in the learning process. The process of implementing interactive e-book products as learning materials is expected to get a positive reaction from students and educators.

**Research subject**

The research subjects consisted of
experts, including media experts, material experts and language experts, who assessed the feasibility of the product. Then, the fifth-grade teacher responded to the interactive e-book teaching material product to find out the practicality of the product being implemented for fifth-grade students with a total of 25 students.

**Research procedure**

The research procedures follow the ADDIE development model, which includes five stages. ADDIE development model, according to Branch (2009:3), has five steps in product development, including 1) Analyze (Analysis); 2) Designing; 3) Develop (Development); 4) Implementing (Implementation); and 5) Evaluate (Evaluation). The ADDIE development procedure is easy to understand, simple and considered quite effective and efficient so that it can be applied to develop this product.

**Data and Instruments**

Questionnaires/questionnaires are used as instruments to collect research data. According to Sukmadinata (2016), Questionnaires are a way to collect data indirectly, where the author does not interact directly with respondents. Instead, a questionnaire is used as an instrument for collecting data, which consists of a series of questions or statements that require responses from participants.

Research on the development of interactive e-books as local wisdom-based learning materials through the use of word wall educational games uses an instrument in the form of a closed questionnaire consisting of a feasibility questionnaire for validation from several experts, including media, material, and language experts using a Likert scale of 1-5. In addition, a practicality questionnaire will be given to teachers using a Likert scale of 1-5 and a student response questionnaire using the Guttman scale.

**Data collection technique**

The techniques for collecting data in this development research include interviews, questionnaires, documentation and rating scales.

**Data analysis technique**

The use of techniques in analyzing data in this development research is qualitative and quantitative descriptive techniques. The data analyzed relates to the practicality analysis of the teacher's response to the feasibility analysis results carried out by several experts, including media, material, and language experts. The measurement scale used in this research is the Likert scale. Meanwhile, the Guttman scale was applied to analyze data on the practicality of student responses. According to Sugiyono (2020), the Guttman measurement scale produces definitive
answers, such as "yes-no", "true-false", "never-never", "positive-negative", and similar choices. In this case, the Guttman scale is in the form of a checklist, where each answer is given a score ranging from 0 (lowest) to 1 (highest).

\[ \bar{x} = \frac{\sum x_i}{N} \]

Information:
- \( \bar{x} \): Average value
- \( \sum x_i \): Total value of each data
- \( N \): Amount of data

Then, the sum of each data is also converted into percentage form, with the formula:

\[ P = \frac{f}{N} \times 100\% \]

Information:
- \( P \): Percentage
- \( f \): Total value of collected results data
- \( N \): Maximum score

(Ridwan, 2012)

The percentage results obtained are implemented in the following criteria:

Table 1. Assessment Criteria

<table>
<thead>
<tr>
<th>No</th>
<th>Percentage</th>
<th>Eligibility Criteria</th>
<th>Criteria for the Practicality of Teacher Responses</th>
<th>Criteria for the Practicality of Student Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0-20 %</td>
<td>Invalid</td>
<td>Not good</td>
<td>Not attractive</td>
</tr>
<tr>
<td>2.</td>
<td>21-40 %</td>
<td>Less Valid</td>
<td>Not good</td>
<td>Less attractive</td>
</tr>
<tr>
<td>3.</td>
<td>41-60 %</td>
<td>Fairly Valid</td>
<td>Pretty good</td>
<td>Quite interesting</td>
</tr>
<tr>
<td>4.</td>
<td>61-80 %</td>
<td>Valid</td>
<td>Good</td>
<td>Interesting</td>
</tr>
<tr>
<td>5.</td>
<td>81-100 %</td>
<td>Very Valid</td>
<td>Very good</td>
<td>Very interesting</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

Research result

The development of interactive e-books as learning materials was carried out through several stages. These stages were carried out using the R&D method with the ADDIE development procedure. Branch (2009) states that the ADDIE development model has five steps, including 1) Analyze, 2) Design, 3) Develop, 4) Implement, and 5) Evaluate. The results of development based on the ADDIE development model can be explained as follows:

1. Analysis (Analysis)

The initial stage that must be carried out is analysis, namely, an analysis of potential problems and
needs in the learning process. This form of analysis includes analysis of teaching materials at school, analysis of student characteristics, analysis of core competencies (KI), learning materials, learning objectives, practice questions, evaluation, and analysis of basic competency mapping (KD) covering theme eight subthemes, learning 3, in the field of language Indonesia with KD 3.8 and 4.8, IPS field with KD 3.3 and KD 4.3 and PPKN field with KD 1.3, KD 2.3, KD 3.3 and 4.3.

Analysis of potential problems and needs in the learning process was conducted through interviews with KORWILCAM elementary school superintendents and fifth-grade teachers. Based on the analysis of the results of the interviews, the learning process in the classroom already used thematic book teaching materials. However, the current learning materials have not linked the values of local wisdom, and the questions (quizzes) in the book are in printed form; teaching materials that link local wisdom values using digital-based questions (quizzes) have never been applied.

2. Design

In this stage, the researcher designed a conceptual framework for product development. In this case, the researcher determines the content and material to be used with the conceptual content design of interactive e-book teaching materials, including page covers, prefaces, introductory e-books, table of contents, instructions for use or learning instructions, fundamental competencies and learning indicators, learning objectives, materials, questions (quizzes), bibliography and developer profile.

Based on the e-book teaching material design framework, it will be prepared using the Canva application based on the zine flipbook feature, which is equipped with questions (quizzes) arranged using a word wall educational web game and supporting features such as learning videos, audio, images, supporting links and animations.

The material in the e-book is adjusted to the indicators and KD of learning. Then, in the material and questions (quizzes), material about local wisdom values will be inserted.

3. Development

In this stage, researchers make products. Researchers create products based on a conceptual framework designed at the design stage in the product manufacturing step. It is then actualized into authentic, interactive e-book products as learning materials.
based on local wisdom through word wall educational games. The design of this learning material is made through the use of the Canva application. Then, when the design of the learning material has been completed, the next step is to actualize it into the zine flipbook to add interactive accents such as images, audio, supporting links, word wall educational web games, and learning videos from YouTube. At this stage, the researcher also created questions (quizzes) through wordwall educational games to foster students' interest in working on questions and make learning more fun. Interactive e-book products as learning materials based on local wisdom through the use of ready-made word wall educational games and then creating barcode sheets and e-book links to make accessing the e-book learning materials easier.

In the material on the diversity of Indonesian culture, Civics subjects are inserted material on the regional culture of Central Java, such as the traditional clothes of Kanigaran, Basahan, and Jawi jangkep, the traditional house of Central Java "Joglo" and the traditional house of Tikelan Banyumas, local language (Javanese and Banyumasan dialect), art regional dances consisting of regional dances (Sermpi Dance, Lengger Dance, Ebeg Dance and Gambyong Dance) and audio regional songs (Songs of Gundul Pacul, Gambang Suling, Lir-Iilir and Ricik-Ricik Banyumasan). Furthermore, the non-fiction text material also inserts local wisdom values by presenting non-fiction texts on the Tikelan traditional house in the Banyumas area. IPS presents material about the types of local wisdom community businesses by giving examples of community business potential in the Banyumas area. The e-book learning materials, in addition to material and questions (quizzes), inserted local wisdom material, are also equipped with pictures or animations of Serimpi dance, Ebeg dance, Javanese gamelan musical instruments, puppet characters who have become regional icons of Banyumas, namely punakawan figures Bagong and Petruk, and the Joglo traditional house icon at the bottom centre of the page. The Joglo traditional house icon can be clicked or pressed to go to the menu page. The following are views of interactive e-books as local wisdom-based learning materials when displayed on a laptop device: the Joglo traditional house icon at the bottom centre of the page. The Joglo traditional house icon can be clicked or pressed to go to the menu page. The
following are views of interactive e-books as local wisdom-based learning materials when displayed on a laptop device: the Joglo traditional house icon at the bottom centre of the page. The Joglo traditional house icon can be clicked or pressed to go to the menu page. The following are some views of interactive e-books as local wisdom-based learning materials when displayed on a laptop device:
In the development stage, after product development is complete, experts in media, materials, and language will validate the product through questionnaires. The expert validation process is carried out to determine the feasibility of the product, whether the manufacture of interactive e-book products as learning materials is valid and suitable for use or not based on the indicators on the questionnaire sheet for each expert validation. The following is an explanation of the results of media expert product validation:

Someone who carries out a validation assessment from a media expert is a lecturer, who is assessed through the use of a 1-5 scale questionnaire instrument. A media expert validator carried out the evaluation of various aspects such as usability, media content, and appearance. The average result was 4.1, and the percentage calculated was 82.2%, categorized as "Very Valid". The findings of the media expert validator's assessment show that interactive e-books as local wisdom-based learning materials through
word wall educational games are considered feasible for testing, based on the revisions and suggestions provided by the validator. Table 2 displays the results of evaluations conducted by media experts.

Table 2. Results of Media Expert Assessment

<table>
<thead>
<tr>
<th>Assessment Aspects</th>
<th>Indicator</th>
<th>Score</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspect Media content and display</td>
<td>The attractiveness of the e-book display</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Instructions for using the e-book are easy to understand</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Attractive e-book cover design</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Suitability of e-book font types</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Accuracy of layout selection</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>The attractiveness of e-book images</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Appropriateness of supporting features used (images, video, audio, animation and supporting links)</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td>Usage Aspect</td>
<td>Using e-books is fun and interactive</td>
<td>3</td>
<td>Fairly Valid</td>
</tr>
<tr>
<td></td>
<td>Ease of accessing e-books</td>
<td>3</td>
<td>Fairly Valid</td>
</tr>
<tr>
<td>Total score</td>
<td></td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>4,1</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td>82.2%</td>
<td>“Very Valid”</td>
</tr>
</tbody>
</table>

The person who carried out the validation assessment from a material expert was a lecturer in the PGSD Study Program at Muhammadiyah University, Purwokerto. Based on the results of the material expert validator's assessment questionnaire on the assessment questionnaire sheet, which contains seven statements covering material aspects, the average result obtained was 4.86, and the calculated percentage was 97.1%, categorized as "Very Valid". The findings of the media expert validator's assessment show that interactive e-books as learning materials based on local wisdom through Wordwall educational games are considered worthy of trial based on revisions and suggestions provided by the validator. Table 3 displays the results of the evaluation carried out by material experts.
Table 3. Results of Material Expert Assessment

<table>
<thead>
<tr>
<th>Assessment Aspects</th>
<th>Indicator</th>
<th>Score</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Aspects</td>
<td>Suitability of material to learning objectives</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Material suitability with essential competencies and learning indicators.</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Suitability of the questions (quiz) presentation with the material in the e-book.</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>The attractiveness of e-books can increase students' interest in reading and understanding the material.</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Systematic presentation of e-book material</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>The suitability of the contents of the e-book with the learning material (includes material elements of local wisdom)</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td></td>
<td>Presentation of examples and illustrations makes it easy to understand the material</td>
<td>5</td>
<td>Very Valid</td>
</tr>
<tr>
<td>Total score</td>
<td></td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td>97.1%</td>
<td>&quot;Very Valid&quot;</td>
</tr>
</tbody>
</table>

The person who carries out the validation assessment from a linguist is a lecturer who teaches Indonesian, which is assessed using a questionnaire instrument on a scale of 1-5. The assessment carried out by the language expert validator included four statements related to language aspects, so the average result was 4.25, and the calculated percentage was 85%, which was categorized as "Very Valid". The findings of the linguist validator's assessment show that interactive e-books as learning materials based on local wisdom through word wall educational games are considered worthy of trial, based on revisions and suggestions provided by the validator. Table 4 displays the results of the evaluation carried out by linguist experts.
Table 4. Results of Language Expert Validation Assessment

<table>
<thead>
<tr>
<th>Assessment Aspects</th>
<th>Indicator</th>
<th>Score</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Aspects</td>
<td>Language suitability with the level of thinking ability of fifth-grade elementary school students</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Sentences do not have a double meaning</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Sentences in the e-book comply with the rules of language or EYD</td>
<td>4</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Consistency in the use of terms in e-books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total score</td>
<td></td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td>85%</td>
<td>“Very Valid”</td>
</tr>
</tbody>
</table>

Based on the assessment findings of the three expert validations, including media, material and language experts, the conclusion is that interactive e-book products as local wisdom-based learning materials through the use of word wall educational games in grade V elementary schools meet the suitability criteria by producing an average score from media experts 4.1≈82.2%, material experts 4.86 97.1% and linguists 4.25 85%. These results indicate that the product≈≈Interactive e-book teaching materials based on local wisdom using Wordwall educational games for grade V elementary schools are worth testing in the learning process.

4. Implementation (Implementation)

The implementation phase is carried out when the product development process is completed. In this stage, a product trial was carried out which was carried out on June 31, 2023, with 25 students in class V of elementary school. At the end of the implementation stage, researchers asked students and teachers to fill out a response questionnaire to determine the practicality of interactive e-books as learning materials based on local wisdom through Wordwall educational games. The teacher response questionnaire sheet uses a Likert scale of 1 (not good) to 5 (very good), while the Guttman scale is used on the student response questionnaire sheet in the form of "yes" or "no" in the form of a checklist. In this scale, a score 1 indicates the highest level of agreement, while 0 indicates the
lowest level of agreement for each answer.

The questionnaire given to teachers and students consisted of ten closed-ended questions related to the product, explicitly focusing on material composition, appearance, and language. The findings obtained from the teacher response questionnaire and student responses regarding the application of interactive e-books as learning materials based on local wisdom are presented in Table 5:

<table>
<thead>
<tr>
<th>Table 5. Teacher and Student Response Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent</td>
</tr>
<tr>
<td>Class V Student Response</td>
</tr>
<tr>
<td>Class V Teacher Response</td>
</tr>
</tbody>
</table>

Based on the student response questionnaire results, a score of 100% was obtained, which was categorized as "Very Interesting". In addition, the results of the practicality assessment, which were obtained from the teacher's response questionnaire, resulted in a score of 98%, which was categorized as "Very Good". Thus, using e-books as learning materials based on local wisdom through word wall educational games is considered suitable for implementation in learning.

5. Evaluation (Evaluation)

This stage is carried out at the end of each ADDIE stage, from the analysis to the implementation stage. This stage contains suggestions and criticism regarding interactive e-book products as learning materials based on local wisdom through Wordwall educational games. Student responses in learning that apply learning materials are enthusiastic and active. The success of this learning must be connected to the results of the development of interactive e-book teaching material products, which have been said to be worthy of trials due to expert validation. Based on feasibility trials from experts and elementary school trials, the evaluation results show that product development is considered feasible with revisions and can be used in the learning process. Developing interactive e-books as learning materials based on local wisdom has advantages. It can foster students' enthusiasm for learning and make the learning atmosphere more enjoyable or less efficiently boring during learning. The characteristics of
students' learning styles differ; using these learning materials can facilitate understanding of the subject matter, especially for students whose learning characteristics are reading texts (verbal or linguistic) and audiovisuals. Not only that, this interactive e-book teaching material can also increase students' insight regarding local wisdom. Interactive e-books as learning materials based on local wisdom are presented in digital format, making it easier for users to access them anywhere and anytime.

**Discussion**

*E-books* are interactive as local wisdom-based learning materials through the use of word wall educational games on theme material eight sub-themes 1 of class V 3 learning in elementary schools as a result of product development in this study through the application of the ADDIE model which showed positive and significant results. Learning using interactive e-books provides a new learning experience for fifth-grade elementary school students; generally, they are enthusiastic about using interactive e-books as learning materials.

The learning materials produced in the final product have gone through the feasibility trial stage, which is based on several interactive e-book indicators that have been fulfilled, according to Wardani et al. (2021), consisting of criteria for appearance, material content and language. The eligibility criteria for interactive e-books on display or media aspects and material aspects are also supported by research conducted by Aprillianti & Wiratsiwi (2021), and the feasibility of interactive e-books on language aspect criteria is supported by research conducted by Puspita et al. (2021). These criteria have been met until the product can be said to be feasible, according to experts who have gone through a revision stage before being implemented in the learning process. In the learning process, learning materials are an essential aspect which is included in it, which functions as a valuable resource for teachers and students. These learning materials can improve students' learning experiences, as evidenced by the positive results observed in using interactive e-books as learning materials based on local wisdom. It also aligns with Kurlila's (2019) perspective, which emphasizes that learning materials are specifically designed to support student learning and encourage improvements in the learning process.

Incorporating the Wordwall educational game in developing interactive e-books as learning materials based on local wisdom can enhance the learning experience by making it more exciting and enjoyable, and this is in line
with the perspective of Nisa and Susanto (2022), who argue that Word walls can function as a pedagogical instrument to make evaluations interesting for students through educational games. Various supporting features (images, videos, audio and supporting links), the selection of colourful designs and Wordwall educational games make interactive e-books as learning materials more engaging. As a result, this creates an exciting learning experience that fosters enjoyment and increases students' enthusiasm for the learning process. The findings of two studies have proved the use of interactive e-books as learning materials based on local wisdom. The first research was by Widiantari et al. (2021), entitled "Interactive Teaching Materials Based on Local Balinese Wisdom with the Theme of the Beauty of Togetherness". The second research, by Wendo et al. (2022), titled "Development of Electronic Teaching Materials Based on Local Wisdom of Ngada Theme of Always Saving Energy for Class IV Elementary School Students in Ngada Regency".

Based on the results of the product development practicality questionnaire, the teacher responded that interactive e-books as learning materials can help teachers make learning more meaningful and fun and stimulate 21st-century skills and digital literacy. The content and design of teaching materials are appropriate to the child's age and differentiated learning. The practicality or convenience of interactive e-books is based on criteria according to Aprillianti and Wiratsiwi (2021), which have been fulfilled to get good responses from students and teachers. Based on the practical results of teacher and student responses and the feasibility of the validation expert, interactive e-books as learning materials based on local wisdom can be declared feasible and applied to the learning process.

Based on the results of the development research analysis, there are several advantages of developing interactive e-book products as learning materials, including 1) The use of various supporting features (images, videos, audio and supporting links), the selection of colourful designs and the use of wordwall educational games in interactive e-book teaching materials make learning fun and can increase students' enthusiasm for learning; 2) Presentation of material and questions (quizzes) for educational wordwall games in interactive e-book teaching materials that are contextually adapted, making the material more accessible for students to understand and increasing students' knowledge about local wisdom.
CONCLUSION

Based on the research results, the development of interactive e-book products as learning materials based on local wisdom through the use of Wordwall educational games is carried out in a structured and systematic manner in accordance with the ADDIE stage, which includes five stages, including Analyzing, Designing, Developing (Development), Implement (Implementation), and Evaluate (Evaluation). Product trials were carried out in class V, which went smoothly and received positive responses from teachers and students. The results of the analysis of feasibility calculations from media expert validation obtained a score of 4.1 82.2%; material expert validation produced a score of 4.86 97.1%, while linguist validation produced a score of 4.2585%. The three product validation results are in the "Very Valid" category and are suitable for testing. The questionnaire analysis of teacher responses produced a final score of 4.998%, categorized as "Very Good". Meanwhile, in the questionnaire, student responses scored 100% in the "Very Interesting" category. Thus, the conclusion is that interactive e-books as learning materials based on local wisdom through the use of word wall educational games are suitable for use in the learning process.

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