



## DEVELOPMENT OF E-LKPD BASED ON NUMERIC LITERACY WITH ISLAMIC VALUES USING LIVEWORKSHEETS ON ROOT FORMS

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### Abstract

*The development of digital technology demands more innovative, contextual mathematics learning, but the use of interactive learning media in schools remains suboptimal. Root forms are abstract mathematical concepts that require contextual, structured teaching materials. The results of the needs analysis indicate that students' understanding of this material is not optimal, the use of interactive media is still limited, and teaching materials have not integrated numeracy literacy and Islamic values explicitly in learning activities. This study aims to develop e-LKPD based on numeracy literacy containing Islamic values on the material of root forms and determine the level of validity and practicality as a teaching material to support learning. The study used the Research and Development method with the ADDIE model, with test subjects of class VIII A students of SMP Muhammadiyah 1 Yogyakarta. Data analysis was carried out qualitatively based on the results of teacher and student interviews, and quantitatively based on expert validation results using a Likert scale. The validation results showed a percentage of 70.58% from material experts and 78.75% from media experts with a valid category, while the trial obtained a percentage of 82.1% with a very practical category. Therefore, it is stated that e-LKPD is valid and practical to be applied in mathematics learning in schools.*

**Keywords:** e-LKPD; Islamic Values; Literacy Numeracy; Liveworksheets.

### Abstrak

Perkembangan teknologi digital menuntut pembelajaran matematika yang lebih inovatif dan kontekstual, namun pemanfaatan media pembelajaran interaktif di sekolah masih belum optimal. Bentuk akar merupakan materi matematika yang bersifat abstrak sehingga memerlukan bahan ajar yang kontekstual dan terstruktur. Hasil analisis kebutuhan menunjukkan bahwa pemahaman peserta didik terhadap materi ini belum optimal, pemanfaatan media interaktif masih terbatas, serta bahan ajar belum mengintegrasikan literasi numerasi dan nilai-nilai Islam secara eksplisit dalam kegiatan pembelajaran. Penelitian ini bertujuan mengembangkan e-LKPD berbasis literasi numerasi bermuatan nilai Islam pada materi bentuk akar serta mengetahui tingkat kevalidan dan kepraktisannya sebagai bahan ajar pendukung pembelajaran. Penelitian menggunakan metode Research and Development dengan model ADDIE, dengan subjek uji coba siswa kelas VIII A SMP Muhammadiyah 1 Yogyakarta. Analisis data dilakukan secara kualitatif berdasarkan hasil wawancara guru dan siswa, serta secara kuantitatif berdasarkan hasil validasi ahli menggunakan skala Likert. Hasil validasi menunjukkan persentase 70,58% dari ahli materi dan 78,75% dari ahli media dengan kategori valid, sedangkan uji coba memperoleh persentase 82,1% dengan kategori sangat praktis. Oleh karena itu, dinyatakan bahwa e-LKPD valid dan praktis untuk diterapkan dalam pembelajaran matematika di sekolah.

**Keywords:** e-LKPD; Literasi Numerasi; Nilai Islam; Liveworksheets.

## INTRODUCTION

Many aspects have been transformed by advances in digital technology in the modern era (Lase, 2016). These changes are marked by the development of the virtual world, increased connectivity, and the intensification of human interaction through technology (Sobri et al., 2020). The education sector is

also affected by the rapid development of digital technology in the modern era (Putrawangsa & Hasanah, 2018). Therefore, teachers play a very important role in advancing the education sector by mastering emerging platforms to create an effective learning process. This makes the teaching and learning process more interactive and attracts students' attention, thereby improving learning outcomes. (Khairanis & Aldi, 2025). In the context of the school where the research was conducted, the results of the numeracy literacy test showed that the average student score only reached 46.67, while the set KKM was 72. This indicates that students did not meet the completeness standards in numeracy and were still lacking in their abilities. Therefore, strong learning media are needed to improve students' understanding of ideas, reasoning, and problem-solving skills.

However, not all teachers can utilize technology optimally in learning activities (Irvani et al., 2020). Many learning methods are still conventional and have not fully integrated digital technology effectively (Entriza & Puspitasari, 2025). Challenges are also felt by students, where low numeracy and literacy skills and a lack of interest in learning make it difficult for them to connect mathematical concepts to everyday life. In fact, literacy is a crucial skill for facing the era of rapidly developing technology (Pratiwi et al., 2023). This condition is in line with the results of the 2022 PISA survey by the OECD, which showed that Indonesian students' literacy ranked 64th out of 82 countries, with an average of 366 out of 500 (Siregar et al., 2024).

One alternative to addressing the challenges of today's era is electronic student worksheets, which enable students to learn actively, independently, and contextually with the support of digital features (Prastika & Masniladevi, 2021). One effective platform to support interactive learning is *liveworksheets*, which allows teachers to transform conventional student worksheets into digital forms that can be automatically corrected by the system and accessed anytime and anywhere. Through this platform, teachers can design various types of questions, such as multiple choice, short answer, true or false statements, and matching answer pairs, thus supporting a more engaging and efficient learning process (Prabowo, 2021). By utilizing these features, *liveworksheets* can also optimize student learning through questions that require reasoning, conceptual understanding, and contextual application. Consequently, learning innovations that use digital technology must improve students' ability to think critically and contextually by improving their numeracy literacy (Rochaendi et al., 2025).

The ability to understand and use data consisting of numbers and symbols to solve problems and make decisions in everyday life is called numeracy literacy (Dadi & Kewa, 2020). This is in line with research by Myrela & Khuzaini (2024), who found that 73.3% of students were in the very poor category, while 26.7% were in the poor category. Therefore, mathematics learning needs to be directed so that students not only understand procedures but also think critically and contextually and are supported by learning media that instil spiritual and social values.

Furthermore, mathematics learning must build students' spiritual and social character in addition to focusing on cognitive aspects. In the context of Islamic schools, the integration of Islamic values into mathematics learning is crucial for developing religious character. Values such as honesty, discipline, and responsibility need to be instilled so that the learning process is not solely oriented towards cognitive abilities, but also towards the development of students' religious character (Dahirin & Rusmin, 2024). According to Kristanti et al., (2024) the integration of Islamic values into mathematics learning can be achieved by incorporating verses from the Qur'an, hadith, and life contexts that reflect Islamic principles without diminishing the substance of the mathematics itself.

Based on interviews with teachers and student questionnaires from SMP Muhammadiyah 1 Yogyakarta, it appears that teachers have never used digital LKPD, especially *Liveworksheets*, to teach mathematics. This is in line with research by Pribadi et al (2021) and Dadi & Kewa (2020) which stated that the use of LKPD, especially electronic problem-based learning, has not yet been implemented. In contrast, most students believe that technology-based e-LKPD can help them understand the material

because the presentation is interactive and interesting, as stated by Prabowo (2021) that e-LKPD, based on *Liveworksheets*, can improve learning outcomes.

Teachers also revealed that questions containing numeracy, literacy and Islamic values are still rarely used because they depend on the material being taught. Considering the Islamic-based school background, the subject matter will be more relevant if the teaching material is combined with Islamic values, allowing teachers to strengthen students' understanding of the lesson while building their character (Tiana et al., 2023). The material on root forms is considered quite suitable for numeracy literacy that incorporates Islamic values. However, its application is still limited because it is difficult to contextualise in real life and requires reasoning and critical thinking skills grounded in an understanding of exponents. This is in line with Hidayat & Nuraeni (2022) and Lisa (2025) who stated that the material on root forms is often considered difficult and that students still struggle to solve contextual problems. Therefore, students' numeracy literacy skills have not developed optimally.

Although research on e-LKPD has been conducted, such as Prabowo (2021) study, which emphasized improving learning outcomes through *Liveworksheets*, and Tiana et al. (2023) study, which developed an Islamic-values-based LKPD for character building, these studies have not yet systematically integrated numeracy literacy and Islamic values into the material on root forms based on digital platforms. Some studies still focus on media interactivity or the integration of religious values in general, without specifically examining how to strengthen numeracy literacy in the context of abstract algebra. Thus, there is a research gap in the development of e-LKPD that is not only interactive but also integrates numeracy literacy and the Islamic values context into material on root forms.

As an example of integrating numeracy literacy and Islamic values in the material on root forms, students can be given the following contextual problem: Mr Asep was entrusted with building a water reservoir for ablution in a mosque so that the congregation would be more comfortable during worship. The tank was designed as a block without a lid and must hold 720 litres ( $720,000 \text{ cm}^3$ ) of water at a height of 50 cm. To maintain trust and work with Ihsan, Mr Asep needs to calculate the tank's base area and length accurately so that the volume meets the needs without wasting materials. If the base of the tank is square, determine the length of the base side and express the result in the simplest root form.

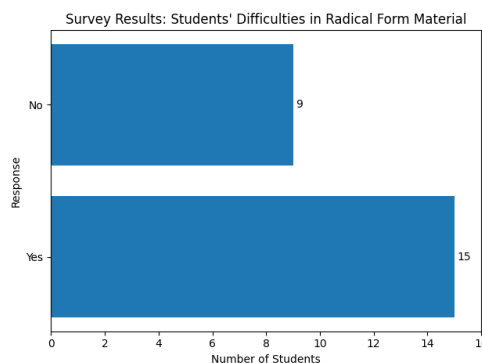


**Figure 1. Questionnaire results: Students' difficulties with root form material**

Furthermore, the displayed diagram of questionnaire results shows that most students also found the material on root forms difficult to understand. Therefore, it is necessary to innovate learning media that can help students understand the concept of root forms by combining numeracy literacy integrated with Islamic values through the development of e-LKPD based on numeracy literacy containing Islamic values using *Liveworksheets* on the material on root forms which is expected to produce valid and practical learning media in the teaching and learning process in class VIII of SMP Muhammadiyah 1 Yogyakarta.

## METHOD

A research and development method aimed at producing learning media and assessing their validity. This analytical approach focuses on developing learning tools and evaluating the quality and validity of the resulting product (Slamet, 2022). Therefore, the ADDIE model is used as the research model. The first stage of analysis, activities focused on identifying appropriate materials based on the results of pre-research, selecting the target class, namely class VIIIA, and adjusting it to the applicable curriculum. The design stage *was* carried out by compiling the initial design of the E-LKPD using the Canva application, which included compiling the appearance, content structure, and design of learning activities based on numeracy literacy and Islamic values. Next, during the development stage, the E-LKPD design was uploaded and integrated into the Liveworksheets platform to create an interactive learning medium, while a validity instrument was compiled to be used by experts to assess the content and media.

The implementation stage was conducted through field trials in small classes of approximately 3 students and large classes of approximately 29 students. The small group test aimed to identify initial product deficiencies, while the large group test was conducted to obtain more representative practicality data. The implementation was carried out at SMP Muhammadiyah 1 Yogyakarta during December 2025 – January 2026. The research subjects were class VIII A students selected through sample selection based on considerations of the suitability of the root form material and recommendations from subject teachers. The number of subjects was adjusted to the characteristics of development research that focused on limited trials, not on experimental effectiveness testing. Meanwhile, the evaluation stage *was* carried out continuously at each previous stage (analysis, design, development, and implementation); if deficiencies or input from validators or trial results were found, revisions and improvements were made to the product so that the resulting E-LKPD became more valid, practical, and usable for use in learning.

This study focused solely on testing the product's validity and practicality. Therefore, data were collected through several stages, namely: (1) interviews with mathematics teachers and several students to identify needs and problems related to the use of learning media, (2) validation of the e-LKPD product by experts to measure the level of validity, and (3) distribution of questionnaires to students after the implementation of e-LKPD to determine its level of practicality. Data analysis was conducted qualitatively and quantitatively. Qualitative analysis was used to examine input from validators and interview results, while quantitative analysis was used to calculate the level of validity and practicality using a five-level Likert scale (5 = strongly agree, 4 = agree, 3 = somewhat agree, 2 = disagree, 1 = strongly disagree). Through this analysis, we obtained an overview of the validity of numeracy literacy-based learning, which incorporates Islamic values, in supporting mathematics learning. The following formula was modified from Riduwan to process the obtained data (Fadillah et al., 2023).

$$\text{Validity Score} = \frac{\sum \text{Obtained Score}}{\sum \text{Maximum Score}} \times 100\%$$

**Table 1. Criteria for Assessing the Validity of e-LKPD**

| Percentage Score (%)  | Assessment criteria |
|-----------------------|---------------------|
| $81\% < N \leq 100\%$ | Very Valid          |
| $61\% < N \leq 80\%$  | Valid               |
| $41\% < N \leq 60\%$  | Quite Valid         |
| $21\% < N \leq 40\%$  | Invalid             |
| $0\% < N \leq 20\%$   | Totally Invalid     |

*Source: Riduwan (2013)*

According to Riduwan (2013) and Lestari et al, (2022), as shown in Table 1, e-LKPD is declared valid if it obtains a validity value of  $\geq 61\%$ . An e-LKPD product is considered practical if the student

questionnaire results are  $\geq 61\%$ , the same as the validity value (Krisnanti et al., 2020). The calculation of the practicality level is carried out using the same percentage formula as in the validity test, namely:

$$\text{Practicality Score} = \frac{\sum \text{Obtained Score}}{\sum \text{Maximum Score}} \times 100\%$$

**Table 2. Criteria for Assessing the Practicality of e-LKPD**

| Percentage Score (%)  | Assessment criteria |
|-----------------------|---------------------|
| $81\% < N \leq 100\%$ | Very Practical      |
| $61\% < N \leq 80\%$  | Practical           |
| $41\% < N \leq 60\%$  | Quite Practical     |
| $21\% < N \leq 40\%$  | Impractical         |
| $0\% < N \leq 20\%$   | Very Impractical    |

Source: Riduwan (2013)

## RESULTS AND DISCUSSION

To help students understand mathematics more contextually and interactively, this study developed a numeracy literacy-based e-LKPD (learning resource) containing Islamic values. The e-LKPD consists of four main sections: an introduction, presentation of material and example questions, numeracy literacy-based practice questions integrated with Islamic values, and learning evaluation. The ADDIE model was used to develop the e-LKPD because it provides a systematic development flow and allows the product to be tailored to students' needs and characteristics.

The first stage involved analyzing learning needs through classroom observations, interviews with mathematics teachers, and distributing questionnaires to students to obtain a realistic picture of the implementation of mathematics learning in schools. This activity focused on examining the characteristics of the material, the implementation of the learning process, teaching materials, and the media used, particularly for the topic of root forms. The findings from this needs analysis were then systematized and presented in Table 3.

**Table 3. Results of Mathematics Learning Needs Analysis**

| No. | Analysis Components          | Description of Findings                                                                                                                             |
|-----|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Material Characteristics     | The material on root forms requires a more contextual presentation because its understanding is not yet comparable to other mathematical materials. |
| 2.  | Implementation of Learning   | Mathematics learning is not fully supported using interactive learning media.                                                                       |
| 3.  | Teaching materials           | The teaching materials used are still conventional.                                                                                                 |
| 4.  | Utilization of Digital Media | The use of digital media in mathematics learning is still relatively limited and is only used at certain moments, such as during quizzes.           |
| 5.  | Learning Content             | Learning materials do not yet explicitly integrate numeracy literacy and Islamic values, especially in root form material.                          |

Based on Table 2, mathematics learning on the topic of root forms still requires the support of teaching materials that are arranged in a more contextual and structured manner. The limited use of interactive learning media and the lack of integration of numeracy literacy and Islamic values indicate an opportunity to develop teaching materials that are appropriate to the needs of students. The findings of the analysis are in line with research by Muliwana (2024) who stated that the limited contextual teaching materials can affect mathematical problem-solving abilities. Therefore, based on the findings

at this analysis stage, it was decided to develop e-LKPD on the material of root forms that are tailored to the needs of students and the results of interviews with teachers, by integrating numeracy literacy and Islamic values to support learning using the *Liveworksheets* platform.

Based on the results of the needs analysis, the *design phase* focused on designing the structure, learning flow, and initial appearance of the e-LKPD. At this stage, Canva was used as a tool to compile the framework and visual design of the e-LKPD, including page layout, color selection, typography, and the arrangement of learning components. The e-LKPD was designed with an introduction, presentation of material and example questions, numeracy literacy-based practice questions containing Islamic values, and learning evaluation. An example of the initial design of the e-LKPD on the root shape material designed using Canva is shown in Figure 2.



Figure 2. Initial e-LKPD framework design developed using Canva

Evaluation at the design stage involves examining the design's suitability for learning objectives and student characteristics. This design aligns with Aziz et al., (2025) findings, which states that good visual design planning can help improve readability and student engagement in digital-based learning.

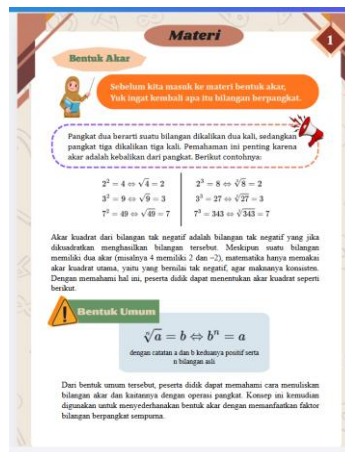


Figure 3. Design of the Presentation Framework for Material and Example Questions for e-LKPD

In addition to the visual aspect, the evaluation at the design stage also focused on the suitability of the presentation of the material and example questions shown in Figure 3 with the learning objectives and characteristics of the material on root forms. Figure 3 shows that the material is structured by starting with reinforcing the concept of exponents as prerequisite knowledge, thus providing a conceptual foundation before students learn root forms. The example questions are presented in stages with

systematic explanations, so that the solution flow can be followed coherently. This presentation demonstrates an effort to accommodate the characteristics of the material on root forms through structured explanations and symbolic representations.

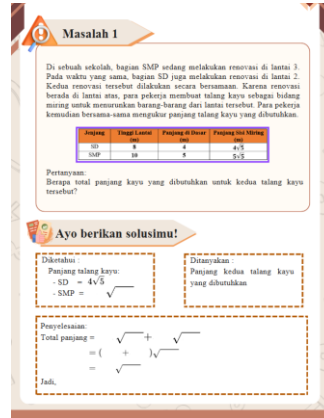


**Figure 4. Design of the e-LKPD Question Presentation Framework**

Figure 4 displays an example of a contextual problem in e-LKPD designed to link the concept of radicals to real-world situations. The problem is presented in a structured manner, consisting of known, asked, and solved stages, so that students receive clear guidance in understanding the problem-solving process. This presentation aims to help students not only understand the procedure for calculating radicals but also build a conceptual understanding of the relationships between the concepts used. The step-by-step solution structure allows students to systematically follow the process from basic concepts to more complex stages. This is supported by Setiawan & Indana (2021) who stated that presenting instructions starting from basic concepts to more complex concepts in the preparation of structured LKPD can help students solve problems and optimize conceptual understanding and procedural mathematical skills.

Furthermore, Figure 4 contains a contextual problem that emphasizes the Islamic value of mutual assistance (ta'awun). The simultaneous renovation of a school building and the collaborative process of measuring a wooden gutter illustrate the importance of cooperation in completing a project. Through this context, students not only apply the concept of root shape to determine the length of an inclined plane but also reflect on the meaning of collaboration and mutual assistance in everyday life. This integration demonstrates that mathematics learning can be a means of character development, not simply mastering symbols and procedures.

This contextual, values-based approach is also consistent with the example questions presented in the background section, such as calculating the capacity of a water basin for ablution, which is linked to the values of amanah and ihsan. Thus, the integration of Islamic values in e-LKPD is not a symbolic addition but rather is presented through problematic situations that require the application of mathematical concepts while instilling moral meaning. This aligns with Tiana et al. (2023) research, which states that developing Islamic value-based LKPD is effective when these values are integrated within the context of learning problems. Furthermore, Hikmah et al (2023) findings indicate that LKPD integrating Islamic values at the junior high school level can help shape students' Islamic character. Thus, the developed e-LKPD not only supports numeracy literacy but also contributes to strengthening students' character.

Theoretically, numeracy literacy is not only related to the ability to perform calculations, but also the ability to understand, interpret, and use mathematical concepts in various life contexts (Dadi & Kewa, 2020). Numeracy literacy in the context of radical forms is not only related to the ability to

simplify radical forms, but also the ability to understand the relationship between radicals and exponents and interpret calculation results in real-world contexts. In these contextual problems, students are required to identify relevant information, choose a solution strategy, and explain the meaning of the results obtained. Thus, learning radical forms through this contextual approach supports the development of numeracy literacy that is conceptual and applicable, not merely procedural. In the development stage, the concept developed during the design stage is realized into a numeracy literacy-based e-LKPD product containing Islamic values using the *Liveworksheets platform*. The product is then evaluated through validation by material experts and media experts to assess the validity of e-LKPD before being implemented in learning. The results of the validation by material experts and media experts are presented in Table 3

Table 4. Validation Results

| Validator             | Percentage (%) | Category |
|-----------------------|----------------|----------|
| Subject Matter Expert | 70,58%         | Valid    |
| Media Expert          | 78,75%         | Valid    |

Based on the validation results, the developed e-LKPD was categorized as valid and suitable for use with several improvements. The validation results from subject matter experts indicated that the e-LKPD met the learning objectives and effectively integrated numeracy literacy and Islamic values. However, several aspects still need improvement. Some recommendations from material experts include adding concept maps, increasing the number of questions in each activity, improving contextual questions to make them more logical and relevant to everyday life, compiling assessment rubrics, adding enrichment questions, and varying learning videos to make the presentation of the material more optimal and easier to understand.

Despite meeting the valid category, the material expert score, which fell short of the very valid category, indicates that the appropriateness of the content and the depth of the presentation still require strengthening. Based on the validation sheet, indicators such as the completeness of the material, the variety of practice questions, and the reinforcement of activities that support learning outcomes scored well, but not optimally. This indicates that conceptually, the material aligns with the learning objectives but still requires enrichment to encourage deeper exploration of students' reasoning. Furthermore, the abstract and symbolic nature of root forms presents a unique challenge in developing varied and realistic contextual problems. Root forms generally emerge as the result of mathematical representations, so developing the problem context requires careful design to maintain logic and avoid appearing forced. Therefore, the revision focused on deepening the context, adding exercise variations, and strengthening the presentation structure. Meanwhile, the media expert validation results provided two main recommendations: adding page numbers to facilitate navigation and replacing the term "student" with "educator" to comply with academic writing standards. Improvements to the e-LKPD were made based on input from the validators before being piloted during the implementation phase. A comparison of the e-LKPD display before and after the revision of the media expert validation results is shown in Figures 5 and 6.

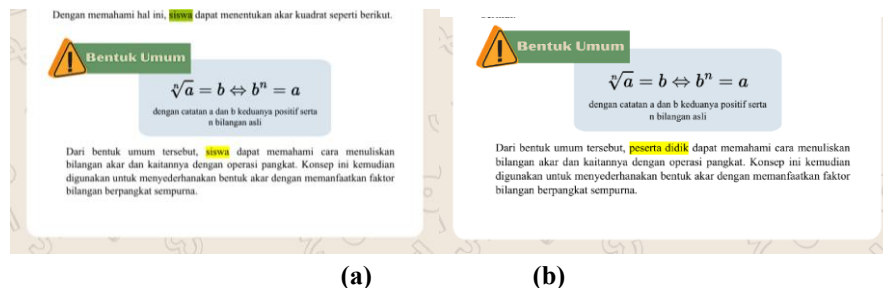


Figure 5. (a) before revision and (b) after revision

Figure 5 shows a change in the wording of the e-LKPD, namely the replacement of the term "student" with "participant" (educator). In the pre-revised version, the term "student" was still used, while in the post-revised version, all sections of the e-LKPD consistently use the term "participant" (educator). This change was made to conform to academic writing standards and the terminology used in formal learning documents.

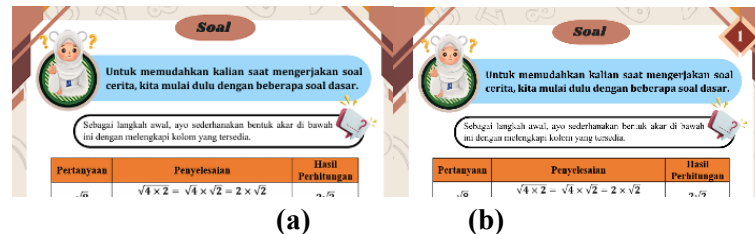


Figure 6. (a) before revision and (b) after revision

Based on Figure 6, the pre-revised version of the e-LKPD did not include page numbers, whereas the post-revised version consistently added them. The addition of page numbers aims to make it easier for students to navigate the contents of the e-LKPD and to assist teachers in guiding the learning process. Based on validation results from material and media experts and the revisions made, the developed e-LKPD was declared valid for use as a supporting teaching material for mathematics learning. Improvements made, particularly in the consistency of terminology and the addition of page numbers, made the e-LKPD more systematic and user-friendly for both students and teachers. Therefore, the revised e-LKPD can proceed to the implementation stage to assess user responses in the learning process.

In addition to expert validation, the discussion of e-LKPD development also needs to be reviewed from the characteristics of the root form material and the design of the developed e-LKPD. The root form material is an abstract mathematical material because it involves symbols, algebraic operations, and is related to the concept of exponents, so it requires appropriate representation and context so that it can be understood meaningfully by students. The results of the needs analysis indicate that students' understanding of this material is still not optimal, so supporting teaching materials are needed that are able to present the concept of root forms in a more contextual way. The developed e-LKPD is designed by emphasizing the relationship between the concept of root forms and contextual problems relevant to everyday life and Islamic values, equipped with known, asked, and solution columns to help students follow the flow of problem solving. Thus, this e-LKPD is designed to facilitate understanding of the concept of root forms through contextual presentation and in accordance with the characteristics of the material.

The implementation phase began with a small group trial involving three students. Evaluation at this stage focused on readability, clarity of instructions, and ease of use of the e-LKPD. The trial results showed that the e-LKPD could be used well, and no significant errors were found. Next, the e-LKPD was trialled in a large group within one class. Evaluation was conducted through student and teacher response questionnaires to assess the practicality of using the e-LKPD. The analysis results showed a practicality score of 82.1%, categorized as very practical. This finding is in line with previous research by Khuzaimah & Sapta (2025), which stated that interactive digital learning media tend to receive positive responses from users. The evaluation stage is the final stage, summarizing the results of the formative evaluation at each ADDIE stage. The evaluation was conducted by reviewing the results of the needs analysis, product design, expert validation, and the results of the usability trial. Based on the overall evaluation process, the developed e-LKPD was declared valid and practical for use as supporting teaching material for mathematics learning on the topic of root forms. Overall, the research results indicate that the developed e-LKPD meets the validity criteria for use in learning because it can attract

students' attention and support their engagement in learning activities. The use of this e-LKPD also fosters students' enthusiasm for learning, supports the achievement of learning objectives, and improves understanding of root forms. These findings align with Yuristia (2022) the opinion that the media created can attract students' attention, support student involvement in learning, and achieve learning objectives.

## CONCLUSION

Based on the results of research conducted using the ADDIE model, it can be concluded that the e-LKPD based on numeracy literacy containing Islamic values developed through the Liveworksheets platform on the root form material has met the validity and practicality criteria as a supporting teaching material for mathematics learning. This is indicated by the validation results from material experts of 70.58% and media experts of 78.75% which are included in the valid category, as well as the practicality test results of 82.1% which are included in the very practical category. The development process through the ADDIE stages produces an e-LKPD product that is systematically arranged, interactive, and in accordance with the characteristics and needs of students so that it is able to support student involvement in learning. Thus, the developed e-LKPD can be used as an alternative digital learning media that helps understand mathematical concepts contextually and integrates Islamic values in learning. For further research, it is recommended to test the effectiveness of e-LKPD on improving learning outcomes and students' numeracy literacy skills in more depth. In addition, schools are expected to improve learning support facilities, particularly by providing a more stable and easily accessible internet network, so that digital-based learning can be implemented more optimally in the future.

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