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THE DEVELOPMENT OF E-LKPD (STUDENT WORKSHEET) IN SCIENCE LEARNING IN GRADE V AT SIEM PRIMARY SCHOOL

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ABSTRACT

During the Covid-19 pandemic, schools did many ways to keep the learning going, such as implementing online learning using learning tools that were also in the form of online, one of which was the E-LKPD or digital-based student worksheets. E-LKPD is a student work guide to make it easier for students to carry out learning activities electronically seen on desktop computers, notebooks, smartphones, and mobile phones. This study aimed to determine the development of E-LKPD in science learning at grade V of Siem Primary School. The type of research used is Research and Development or R & D research, using the ADDIE development design. Instruments or tools used for data collection are validation sheets and questionnaires. This validation sheet contains responses or opinions regarding E-LKPD, making it easier for validators to provide responses and assessments. Based on the results obtained, the development of E-LKPD has reached the very feasible category with an average score of 3.66. This assessmen includes aspects of feasibility, language, presentation, and graphics. Thus, the development of the E-LKPD shows that the criteria are very suitable for use in learning. Based on the results of the student questionnaire, 13 students out of a total of 16 people gave a response that strongly agreed on the developed E-LKPD, or with a percentage reaching 81.25%.

ABSTRAK

Di masa pandemi Covid-19, sekolah melakukan banyak cara agar pembelajaran tetap berjalan, seperti menerapkan pembelajaran daring menggunakan perangkat pembelajaran yang juga berupa daring, salah satunya E-LKPD atau lembar kerja siswa berbasis digital. E-LKPD merupakan pedoman karya siswa untuk memudahkan siswa dalam melakukan kegiatan pembelajaran secara elektronik yang terlihat di komputer desktop, notebook, smartphone, dan telepon genggam. Penelitian ini bertujuan untuk mengetahui perkembangan E-LKPD dalam pembelajaran IPA di kelas V SD Siem. Jenis penelitian yang digunakan adalah Penelitian dan Pengembangan atau penelitian R&D, menggunakan desain pengembangan ADDIE. Instrumen atau alat yang digunakan untuk pengumpulan data adalah lembar validasi dan angket. Lembar validasi ini berisi tanggapan atau pendapat terkait E-LKPD, sehingga memudahkan validator dalam memberikan tanggapan dan penilaian. Kuesioner berisi beberapa pertanyaan yang diajukan kepada mahasiswa untuk mengetahui uji coba pengembangan E-LKPD dengan mengisi kuesioner berdasarkan pendapat pribadi.

Berdasarkan hasil yang diperoleh, pengembangan E-LKPD telah mencapai kategori sangat layak dengan skor rata-rata 3,66. Penilaian ini mencakup aspek kelayakan, bahasa, presentasi, dan grafis. Dengan demikian, pengembangan E-LKPD menunjukkan bahwa kriteria tersebut sangat cocok digunakan dalam pembelajaran. Berdasarkan hasil angket siswa, 13 siswa dari total 16 orang memberikan tanggapan yang sangat setuju dengan E-LKPD yang dikembangkan, atau dengan persentase mencapai 81,25%.

PRELIMINARY

Education in Indonesia has undergone several system changes in its application, such as changing the curriculum from KTSP to becoming the 2013 Curriculum (Diputra, 2017). This action or change was not carried out as a government experiment but to keep up with the times, namely the development of education that has entered the era of openness or globalization. The era of openness or globalization is marked by the ease of getting information through media or technology. Technology in the era of globalization is often referred to as the digital era or the era of the industrial revolution 4.0, which expects quality human resources or has skills (Hilty & Huber, 2018)

At the beginning of 2020, the world was on alert with the coronavirus (COVID-19). The transmission of Covid-19 is so fast that World Health Organization (WHO) has designated the corona virus or Covid-19 as a pandemic. The status of the global epidemic indicates that the spread of Covid-19 is happening so fast that almost no country in the world can avoid the corona virus. Governments in various countries have implemented lockdowns or quarantines.

The definition of quarantine, according to the Law of Republic Indonesia Number 6 of 2018 concerning health quarantine, is the restriction of activities or separation of a person who is exposed to an infectious disease as stipulated in the legislation even though he has not shown any symptoms to prevent the possibility of spreading it to people around him (Law No. 6 of 2018). The Indonesian government urges residents to stay at home and isolate themselves during the pandemic. One of them is the application of the PSBB rules, which stands for Large-Scale Social Restrictions made in the context of handling COVID-19 so that the virus does not spread more widely (Pratiwi & Fasha, 2015).

In this social restriction effort, the Indonesian government also has limited activities outside the home, such as educational activities through online learning. It requires educators, especially teachers, to innovate, changing face-to-face learning patterns into non-

face-to-face learning patterns. Learning models could be used by teaching staff as a medium for delivering knowledge, namely online learning and mixed learning (a combination of two learning methods, namely face-to-face and online learning) (Rindaningsih, 2018). The online learning method does not require students to be present in class. Students can access learning through internet media(Idris, 2018). This learning transition forces various parties to follow the path taken so that learning can take place by utilizing technology as an online learning medium. This technology also has several problems such as low mastery of technology, limited facilities, and infrastructure, internet network, costs, and decreased motivation of teachers and students for various reasons, one of which is boredom when using the technology (Chew et al., 2018).

There are many ways that the school does so that learning continues, such as implementing online and offline learning. Although sometimes the learning objectives to be conveyed have not been appropriately achieved, it is hoped that in the process, students can receive learning well because this includes the efforts made by schools to educate students. Students learn online by studying materials or materials uploaded by the teacher through agreed media. If there are still things that are not clear from the material provided, students can discuss them with the teacher through online media.

Online and offline learning systems inevitably have to be carried out during the covid-19 outbreak as students cannot be left on long holidays while waiting for Covid 19 to disappear. However, there are several obstacles, such as the reduced duration of learning, so that the learning time is limited so that the material presented is not complete. In addition, offline learning has the disadvantage of being constrained by slow internet and limited internet quota (Saputra & Hertanto, 2018)

During the pandemic, schools use various applications such as WhatsApp, Google Classroom, Google Meet, and Zoom to keep the learning going. Of course, the teacher will guide the learning process in advance to run smoothly. Students are interested in online learning because the process is new and more enjoyable; it fosters a high curiosity so that students become active. However, there are obstacles, such as students who do not do assignments because they do not have to support technological facilities such as smartphones.

Not a few of their parents cannot provide a smartphone, or there is only one smartphone, so they have to take turns with other families. Another obstacle is that there is no signal in their area, and there is no adequate quota. Based on these considerations, this school tries to use offline learning through face-to-face. Students who attend must be

limited to half of a class of 20 students; only ten students who attend are divided based on odd and even sequences which refer to the attendance list. Learning time is also limited to only 23 minutes or 30 minutes for one hour lesson. However, schools have never forced their students to choose offline learning. Students are given the freedom to choose, so some students are still doing online learning. Overall, the percentage who do offline learning is 98%.

In the era of digitalization, human activities are facilitated by technological advances. The existence of a computer or laptop has a positive impact on education. However, they cannot always be used optimally in the learning process at school. In fact, with computers, students and teaching staff can reduce the use of manual teaching aids and replace them with digital teaching aids, one of which is the E-LKPD.

E-LKPD is a student work guide that makes it easier for them to participate in electronic learning activities that can be accessed via desktop computers, notebooks, smartphones, and mobile phones. E-LKPD is also a solution for giving assignments to students. Digital worksheets consist of sheets containing assignments that students must do. These tasks can be in the form of academic tasks or practical tasks. The worksheets are designed using computer-based technology.

E-LKPD has many advantages, one of which saves paper as the material used to print LKPD. Based on the literature study, E-LKPD makes the learning process more enjoyable. It can be seen from the increase in students' cognitive learning outcomes by 0.44 in the medium category. E-LKPD also visualizes concepts to be easy to understand and can be used independently anywhere and anytime. For teachers, LKPD can help teachers take advantage of the role of technology that is currently developing as well as assist teachers in overcoming low student learning outcomes in one of the materials, namely the Water Cycle.

Through interviews with teachers at schools, it is known that the development of E-LKPD has been implemented before. However, the authors developed the E-LKPD in science learning to obtain actual learning outcomes that are still not going well. With E-LKPD, it is hoped that students will have a higher interest and enthusiasm in learning science.

Natural Sciences (IPA) is the systematic and organized knowledge regularly, generally accepted (universal), in the form of a collection of data from observations and experiments, and in general, its use is limited to natural phenomena. Its development is not only marked by the existence of collection of facts but also by the scientific method and scientific attitude. Natural science is one aspect of education that uses science to achieve

educational goals, especially science education goals. Furthermore, learning science is ideal for acquiring competencies (skills, maintaining attitudes, and developing mastery of concepts related to everyday experience).

From this explanation, it can be concluded that science is a systematic collection of theories. Its application is generally limited to natural phenomena, born and developed through scientific methods such as observation and experimentation, and demands scientific attitudes such as curiosity, openness, and honesty. Science learning is an interaction between learning components in the form of a learning process to achieve goals in predetermined competencies.

Based on the existing problems, the researcher conducted pre-research, reflecting through observation and interview data so that problems were found related to science learning outcomes at Siem Primary School. Among them are learning activities where the learning process is still lacking in direct observations and experiments on the material. It leaves the impression that students only listen to the teacher's explanations and memorize the textbooks. The Student Activity Sheets used are also focused on the material text and questions, lacking in developing student activities directly related to the environment around students.

For this reason, researchers want to develop and improve on these shortcomings. The development of E-LKPD is one solution to make LKPD a practical and attractive medium. The development of this digital LKPD refers to the shortcomings of the previously described digital LKPD. The developed digital worksheets will have exercises that can be done in one answer, videos and animations are also added, and student work can be saved in PDF. Based on the background stated, the researcher is interested in conducting a research entitled "Development of E-LKPD in Science Learning in grade V of at Siem Primary School."

In this study, researchers focus on learning science in grade V. The scope of this research is the development of E-LKPD. Based on the background described above, the formulation of the problem in this study is how to develop E-LKPD in science learning in grade V at Siem Primary School. This study aimed to determine the development of E-LKPD in science learning in grade V SD Negeri Siem.

Science is a systematic effort to create, build, and organize knowledge about natural phenomena. This effort begins with human nature, which is full of curiosity. It is then followed up by investigating to find the most straightforward explanation but by consistently trying to explain and predict natural phenomena. This investigation includes

observing activities, formulating problems, formulating hypotheses, designing experiments, collecting data, analyzing, and concluding. These investigations generally lead to follow-up questions that are more detailed, more complicated, and require more effort to investigate. This research activity requires appropriate technology, namely the latest available technology. On the other hand, this research activity will eventually produce newer technology.

METHOD

The approach used is a descriptive quantitative approach. The data collected comes from interview scripts, field notes, documents, researcher notes, and other supporting official documents. The purpose of using a descriptive quantitative approach is to describe the empirical reality behind the phenomena that occur in the development of E-LKPD in-depth, detail, and thoroughly to measure the results of student achievement.

Descriptive research aims to determine the existence of independent variables, either only on one or more variables (stand-alone variables). In this study, descriptive research with a qualitative approach was used to explain the implementation of the program as well as the constraints/obstacles in the cooperation or partnership that were carried out, while a quantitative approach was used to determine how effective the school learning program was (Sugiyono, 2017).

An effective development model demands a match between the approach used and the product produced. ADDIE stands for analysis, design, development, implementation, and evaluation. The analysis stage relates to analyzing the situation and the environment to obtain what products should be developed. The design stage is designing a product according to what is needed. The development stage is the activity of making and testing the resulting product. At the implementation stage, there is the use of products that have been tested. The final stage is an evaluation which is an activity to assess the steps and products that have been made. The following is the flow of research carried out in this research.

1. Analysis stage. In the first stage, the researcher observed and analyzed the problems found in the research location. The analysis results are then evaluated to proceed to the next stage.
2. Design stage. In the second stage, the researcher makes initial draft of the E-LKPD design and evaluates the results of the designs that have been made.

3. Develop stage. In the third stage, the researcher describes the results of the design or design development that has been made and evaluates based on the results of validation and testing on limited tests and extensive trials.
4. Implementation stage. At this stage, the research results that have been evaluated can be used and applied to the research site.

An analysis is an initial stage related to environmental and situation analysis. Analysis is related to analysis activities on work situations and the environment so that it can be found what products need to be developed (Sugiyono, 2017). In the early stages of this development research, starting with analyzing the problems at Siem Primary School, students had difficulty understanding the water cycle process and human activities that affect it. It is because the teacher does not use the media in learning.

Design is the activity of designing a product according to the desired needs, Design is a product design activity according to what is needed. At this stage, the developed E-LKPD is made as attractive as possible by using technology and supporting facilities in the form of printer machines, computers, banners, HVS paper, images of the water cycle, and human activities that affect the water cycle.

Development is the stage of making the previously designed E-LKPD. Development is an activity of making and testing products." The results of the development of the E-LKPD made are adapted to the characteristics, namely simplicity, presenting one main idea, in color, and clear writing. The development results are then validated by media and material experts to be evaluated. Whether the LKPD is feasible or not to be tested in a limited and broad trial can be decided.

The implementation stage is applying the product or using the product." At the implementation stage, E-LKPD is applied or used as a learning medium on the water cycle process and human activities that affect it.

The developed E-LKPD requires information in the form of facts and opinions, so a subject is needed. The subjects in this study were validators, teachers, and students. The students' subject is grade V SD Negeri Siem, totaling 16 people. This research was conducted offline at school. Research on the development of E-LKPD for science learning on water cycle materials is applied to students at SD Negeri Siem.

Instruments or tools used for data collection are validation sheets and questionnaires. This validation sheet contains responses or opinions regarding E-LKPD, which makes it easier for validators to provide responses and assessments. The

questionnaire contains several questions posed to students to find out about trials on the development of E-LKPD by filling out a questionnaire based on their personal opinion. The following is an explanation of the instruments used.

Instrument validity is an activation process to assess the product made by giving an assessment based on rational thinking on the development of the E-LKPD that is being developed. Validation can be done by asking several experts in their fields to assess the designs made. The validation sheet used in this study validates two aspects of the review: the design aspect, the material aspect, and the language aspect of the product being developed. The display aspect consists of six positive statements regarding information about the development of E-LKPD in the developed Water Cycle material. Furthermore, the material aspect consists of four statements regarding the clarity or accuracy of the material used, and the language aspect consists of ten statements regarding the accuracy of using language methods following the enhanced spelling.

The expert validation sheet has 20 positive statements consisting of three aspects as previously described. The validation sheet contains several questions shown to several media experts or so-called expert teams that aim to obtain criticism, corrections, and suggestions for the development of E-LKPD. The scale is used as a reference for the answers to the questions on the validation sheet with the levels of answers being very decent (5), decent (4), reasonably decent (3), not feasible (2), and very not feasible (1). Optional answer choices may only tick the intended answer.

The following instrument used is a questionnaire sheet. The questionnaire contains questions addressed to respondents to find out information about their opinions on an object of study. The questionnaire used in this study used a Likert scale with positive statements. Students respond to a questionnaire containing 20 statements relating to the development of E-LKPD due to the trial. Closed answer choices using a Likert scale as a data measurement. In this study, a questionnaire was used to measure science learning media related to the subject's learning process. Students answer questionnaires to obtain data related to the practical value of using science learning. If the development of an E-LKPD has been proven valid, practical, and effective, it is declared feasible for teaching material in schools.

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After distributing student response questionnaires, the researcher proceeded to the next stage, namely data analysis. The analysis was carried out based on the validator and student assessments obtained previously. After the data collected is verified, the next step is an analysis of the results obtained. The data from the validation results from the expert team were analyzed using the percentage formula. The assessment scores used are: (4) Very Feasible, (3) Feasible, (2) Less Feasible, (1) Not Feasible. The calculation results of the validation score are used to determine conclusions or media eligibility categories according to the aspects studied. The following is the feasibility classification divided equally according to 4 categories on the Likert scale. The division of the range of media eligibility categories can be seen in Table 1 below:

Table 1. Criteria for Product Validity and Revision

No	Percentage (%)	Category
1	3.26 – 4.00	Very Feasible
2	2.51 – 3.25	Feasible
3	1.76 – 2.50	Less Feasible
4	1.00 – 1.75	Not Feasible

(Sugiyono, 2013: 93)

The data obtained through a test questionnaire of students on virtual book media is still in the form of data describing aspects of student responses. The student response data used were obtained from questionnaires that had been distributed. The assessment scores used are: (5) strongly agree, (4) agree, (3) disagree, (2) disagree, (1) strongly disagree. The percentage of student responses can be calculated using the following equation.

RESULTS AND DISCUSSION

This study uses the ADDIE development model, with analysis, design, development, implementation, and evaluation stages. The first stage in this research is analysis. At this stage, doing an environmental and situation analysis is done. The results obtained at this stage are as follows.

Researchers developed the E-LKPD at SD Negeri Siem based on pre-research observations that the researchers conducted at SD Negeri Siem by making observations.

Teachers have implemented the development of LKPD, and researchers want to develop E-LKPD using technology in science learning. The development of the E-LKPD is intended so that students can develop actual learning outcomes from science learning that is still not going well, and the goal is that students are more interested in science learning. The problem at Siem Primary School is that students have difficulty understanding the water cycle process material and human activities that affect it because teachers do not use media in learning.

The second stage is design or planning. At this stage, the E-LKPD has four design steps, including the preparation of the E-LKPD framework, collection, and selection of references, the preparation of the design and features of the E-LKPD, and the preparation of the E-LKPD assessment instrument. The following is the result of the E-LKPD development plan. The E-LKPD that will be developed consists of the main parts, namely the beginning, content, and end. The initial section contains covers, competencies, indicators, learning objectives, instructions, and learning activities.

The cover on this E-LKPD consists of one type of cover. The front cover contains the title of the teaching material, namely the grade V Student Worksheet (LKPD), illustrated writing drawings, student identification names, attendance list number, theme, sub-theme, class/semester, and academic year. Basic Competencies are the minimum knowledge, skills, and attitudes that students must achieve to show that students have mastered the competency standards that have been set. At the same time, the learning objectives are the direction to be achieved from a series of activities carried out in the learning process.

The third stage of the ADDIE development model is the development stage. This stage aims to see the feasibility of developing the E-LKPD that has been designed. After getting a feasibility assessment from the lecturer team, the development of the E-LKPD was revised according to the criticisms and suggestions from the expert team of validators.

The validator consists of 3 expert lecturers and 16 students. Helminsyah, M.Pd is a material expert, Munzir, M.Pd is a design expert, and Harfiandi, M.Pd is a linguist and student responses. This validation is done by going directly to experts to assess and validate the products made. Experts are asked to rate it to identify its strengths and weaknesses.

The validation results in the form of suggestions and comments from experts are used to revise the development of the E-LKPD made. The validation results can be seen in Table 2 below.

Tabel 2. Lecturer Validation Result Data

Aspect	Indicator	Score
1. Eligibility	1. The material presented is under the Core competencies and Basic Competencies	3
	2. Each core activity presented has a clear learning objective	4
	3. Accuracy of facts in material presentation	3
	4. The truth of the concept in the presentation of the material	4
	5. The accuracy of the theory in presenting the material	4
	6. Accuracy of procedures/methods in presenting material	4
	Total	**22**
	Average	**3,66**
2. Language	1. Interactive communication	4
	2. The accuracy of sentence structure	3
	3. The standardization of the terms used is under the Indonesian language rules	3
	4. Grammatical accuracy is under Indonesian rules	4
	5. Application of spelling under Indonesian rules	4
	6. Consistency in writing scientific/foreign names	4
	Total	**22**
	Average	**3,66**
3. Presentation	1. The suitability of the technique of presenting the material with the syntax of the learning model	4
	2. Concept regularity	3
	3. References and sources in the presentation of text, tables, images, and attachments are included	4
	4. Identification of tables, figures, and attachments are complete	4
	5. Application of numbering and naming of tables, figures, and appendices	3
	Total	**18**
	Average	**3**
4. Graphics	1. The typography of the letters used makes reading easy and interesting	4
	2. Design appearance, color, center of view, composition, and size of layout elements are harmonious and according to function	4
	3. Illustrations can explain and facilitate understanding.	3
	Total	**11**
	Average	**3,66**

Based on the validation data analysis results, the development of E-LKDP is based on the average results of the validation results of three expert lecturers. Material experts assess several aspects of the water cycle material: indicator coverage and time allocation. Design experts assess several aspects: the colors at each point need to be reduced again so that the writing is more precise, more organized, and attracts students' interest to read it. Linguists assess several aspects, namely the need to simplify language and sentence structure so that they can be arranged more systematically.

Based on the data in Table 2 above, it can be seen that the development of E-LKPD that has been developed has reached the very feasible category with an average score of 3.66. This assessment includes aspects of feasibility, language, presentation, and graphics. Thus, the development of the E-LKPD shows that the criteria are very suitable for use in learning.

The cover design on this E-LKPD consists of one type of cover, namely the front cover. The front cover contains the title of the teaching material, namely "V grade Student Worksheet (LKPD), illustration of writing pictures, student name identification, student attendance list number, theme, sub-theme, class/semester, time allocation, and academic year. The color design is adjusted from one color to another. The cover design is also made attractive to arouse enthusiasm and interest in studying the material presented in the E-LKPD. In this basic competency, the number of abilities that students in certain subjects must master is made as a reference for compiling competency indicators. If the indicator aims as an achievement, then the learning goal is the behavior to be achieved or targeted by students on the condition and level of competence.

The last stage is the implementation stage or the use of the E-LKPD product. The implementation stage is applying the product or using the product (Sugiyono, 2017). At the implementation stage, E-LKPD can be applied or used as a learning medium in the water cycle process. This implementation was carried out at Siem Primary School on April 1-5, 2021, with 16 students. The results of student responses through the provision of questionnaires can be seen in Table 3 below.

Table 3. Student Questionnaire Results

No	Name	Score	Description
1.	MA	95	Strongly Agree
2.	AR	100	Strongly Agree
3.	YA	90	Strongly Agree
4.	SQ	80	Agree
5.	FR	77	Agree
6.	AV	96	Strongly Agree

7.	FC	88	Strongly Agree
8.	SH	90	Strongly Agree
9.	AM	93	Strongly Agree
10.	SM	81	Strongly Agree
11.	MS	100	Strongly Agree
12.	AS	75	Agree
13.	NR	90	Strongly Agree
14.	IR	86	Strongly Agree
15.	FH	81	Strongly Agree
16.	FJ	80	Strongly Agree

Based on Table 3 above, it can be seen that 13 students out of 16 people gave a strongly agree response to the developed E-LKPD, with a percentage reaching 81.25%. The E-LKPD that researchers have developed is suitable for use in science learning because the material used in the E-LKDP is exciting, and students can easily understand the material. This E-LKDP can be used in offline learning, such as during a pandemic. The teacher can provide the E-LKPD in a soft copy and send it to the student guardian group so that students can study independently with parental guidance.

This research produces an E-LKPD product for students in grade V SD Negeri Siem. The development of E-LKPD was developed based on the ADDIE development model, which consists of five stages, namely analysis, design, development, implementation, and evaluation. This study aims to determine the development of the E-LKPD, which researchers developed to conduct trials at Siem Primary School.

Analysis is an activity that includes sorting, parsing, differentiating something to be classified and grouped according to specific criteria, and then looking for an estimate of its meaning and relation (Saputra & Hertanto, 2018).The analysis is not just a search or investigation but an activity planned and carried out seriously by using critical thinking to derive conclusions from what is estimated. At this analysis stage, the researcher conducted an analysis of the environment and situation at SD Negeri Siem through observations.

The design stage is a design pattern that is the basis for making an object such as clothing. Designs are produced through thoughts, considerations, calculations, tastes, arts, and hobbies of many people who are poured on paper in the form of images (Nikiforos et al., 2020). At the design or design stage, this E-LKPD has four steps, namely preparation, collection and selection of references, preparation of designs and features, and assessment instruments. At this stage, the authors design the E-LKPD as attractive as possible so that students are more enthusiastic and motivated in learning.

According to Sugiyono, 2011, the stage of developing a method used to produce specific products and test the effectiveness of these products. So at this development stage, we can see how far the feasibility of the E-LKDP developed to test the effectiveness of students in learning E-LKPD. Meanwhile, at the implementation stage, it is a dynamic process where the policy implementer carries out an activity or activity so that in the end, it will get a result that follows the goals or objectives of the policy itself (Sadono et al., 2014). The implementation phase related to the material for the water cycle process is carried out from April 1 to 5, 2021.

The validation expert's assessment of the feasibility aspect of learning shows a validity score of 4.33. The score indicates that E-KLPD is appropriate in terms of content, including the scope of the material, conformity with essential competencies and indicators, the correctness of the concept of the material through student activities, and the quality of practice questions. The scope of the material presented in this E-LKPD follows the subject matter and learning objectives. In terms of the assessment aspect, the linguistic expert validator obtained an average of 4. The validity score indicates that the developed E-LKPD is appropriate in terms of language. The language aspect includes the accuracy of language and sentences. The language used in this E-LKPD is a language that is generally known and easily understood by students. It follows what was expressed by Jean Piaget, who stated that language is not a particular natural feature, but one of several abilities that originate from cognitive maturity (Heriyanto, 2016).

In the presentation aspect, the validator expert gave a validity score of 3. The validity score indicates that the E-LKPD that has been developed has been appropriate in terms of learning which includes clarity of learning objectives, the ability to increase student interest in learning, student motivation, clarity of instructions in the use of E -LKPD, materials, and practice questions, as well as reference sources. In addition, the validation expert's assessment of the graphic aspect showed a validity score of 1.83. The validity score shows that the E-LKPD that has been developed is appropriate in terms of appearance, which includes the opening section, clarity of the main menu, developer profile presentation, the accuracy of selection and readability, attractiveness of images and color accuracy. E-LKPD is designed as attractive as possible so that students can increase interest in learning and motivation of students. To attract students' interest in learning, E-LKPD must have a good appearance, be equipped with adequate material, appropriate text size, and need to pay attention to the type of writing so that it can be read easily (Mardhatillah,

2017). The validation score indicates that the developed E-LKPD is suitable for the learning process in terms of feasibility, language, presentation, and graphics.

CONCLUSION

The E-LKPD product is strongly feasible to use based on the results obtained from the validation sheet, which reaches the very feasible category with an average score of 3.66. This assessment includes aspects of feasibility, language, presentation, and graphics. Thus, the development of the E-LKPD shows that it is in the same criteria for use in learning. From the results of the student questionnaire, it is known that 13 students out of a total of 16 people gave a very agreeable response to the developed E-LKPD, with a percentage reaching 81.25%.

Based on the findings of the wideness of this research stage, the advantages and limitations of E LKPD were found. The advantages of this E LKPD are:

1. Learning is more practical and effective
2. E LKPD is an alternative learning medium that can be used in learning in elementary schools.
3. Encourage students to think critically, innovatively and creatively
4. Develop the value of effective cooperation between group members.
5. Learning occurs independently and conventionally, both of which have advantages that can complement each other.

As for the limitations of this E LKPD as a:

1. Not every learner has the same ability and skills to do learning independence at E LKPD.
2. If each learning model syntax is set up a good time allocation, then this learning model will consume a lot of time.

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