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Analysis of Needs for Development of E-LKPD Writing Discovery Learning Based Procedure Text

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Abstract

The lack of use of e-LKPD in procedural text learning at the junior high school level is the problem of this research. For this reason, this study aims to analyze the needs for the development of e-LKPD writing procedural texts based on discovery learning. The method used is descriptive and qualitative with the research subject being a teacher at SMP Al-Kausar Bandar Lampung. The data collection tools used were interview guides and documentation. Data analysis used Miles & Huberman data analysis with data reduction, data presentation, and data validation. The results of school research require an e-LKPD that is in accordance with the curriculum and learning objectives. This research is expected to be a reference in the creation or development of e-LKPD as a learning medium for writing procedural texts based on discovery learning at the junior high school level.

Keywords: e-LKPD, procedural text, discovery learning

Introduction

A learning process in education has the goal of developing the potential of students so that they can become human beings who believe and fear God Almighty (Law No. 20 of 2003). Education as a marker of national civilization and efforts to humanize humans continues to experience change and development (Yamin, 2009; Hadiansah, 2022) ^[29, 10]. These changes and developments in education are carried out solely to be able to meet the demands of an increasingly advanced era. In the 21st century, education has entered its fifth revolution which is marked by the increasing use of information and communication technology in learning activities (Ashby, 1972) ^[2]. This can be seen in the development of education in Indonesia which has started to use online learning or online learning for both regular and tutoring lessons (Syarizka, 2019) ^[27], the National Examination system which has turned into an online based test (Pakpahan, 2016) ^[20], to the use of gadgets and the internet as learning support. These things indicate that the fifth educational revolution in the 21st century has spawned many new innovations.

Electronic LKPD (e-LKPD) is a set of teaching materials that are presented systematically in digital form so that students can learn without a teacher, arranged in a systematic and interesting manner which includes material content, methods and evaluations that can be used independently (Sukardi, 2018; Ministry of National Education, 2008) ^[25]. Electronic LKPD (e-LKPD) is not much different from printed modules, it's just that digital LKPD is more varied to be developed into more interactive teaching materials (Kosasih, 2022) ^[13]. The use of electronic LKPD (e-LKPD) in learning can help students more easily achieve learning objectives and provide a more interactive learning experience compared to using printed LKPD. This is because the e-LKPD utilizes multimedia facilities on the computer so that learning takes place more interactively. E-LKPD can be used for learning various subjects, one of which is Indonesian.

Learning Indonesian in the Merdeka Curriculum is text-based learning. Text-based Indonesian learning can provide opportunities for students to increase their understanding of various types of thinking structures, because each text has a thinking structure that is different from one another (Mahsun, 2014). This can improve students' critical thinking skills. One of the materials taught in Indonesian subjects is procedural text. However, there are still teaching materials related to procedural texts that are not in accordance with learning. This makes it difficult for educators to choose teaching materials that suit the needs of their students.

The results of a preliminary study conducted at SMP Al Kautsar Bandar Lampung showed that the learning of procedural texts in the Freedom Curriculum era was still experiencing problems, this was recorded from the learning outcomes in procedural text material that were not optimal. This is due to the lack of teaching materials that support learning and not yet implemented an attractive learning model for students. Teachers have not fully used teaching materials in the form of e-LKPD. The factors that come from students are students who are not ready to take part in learning to write procedural texts because they have not been able to write with the right structure and use good and correct language. The problems that arise in learning to write procedural texts require the application of appropriate teaching materials and learning models by the teacher to improve the quality of learning. On the other hand, there are still teachers who use books, just use them or just buy them. Prastowo (2011) stated that in the reality of education in the field, there are still many teachers who use conventional teaching materials, namely teaching materials that you just have to use, just buy, instant, and without the effort to plan, prepare, and compile them yourself. This will have a negative impact on students' writing abilities if the teaching materials used by the teacher are not contextual, unattractive, monotonous and not in accordance with students' needs. As a result, writing skills cannot improve properly. Therefore, to improve the quality of learning to write students need to develop teaching materials that are effective, efficient, and innovative. This is because the success of a lesson is influenced by the availability of teaching materials for teachers and students.

Based on the problems and objectives described above, it is important to carry out an analysis of the needs of e-LKPD in procedural text learning. This study aims to determine the needs of students and teachers for the development of e-LKPD teaching materials based on discovery learning as a procedural text learning media. The results of this needs analysis are expected to be used in the development of e-LKPD according to the needs of students and teachers. According to National Education (2003), the development of learning media must be based on an analysis of the needs of students and teachers. This needs analysis can be done through literature studies, observations, and interviews. Literature studies can be carried out to find out the latest developments in learning technology, while observations and interviews can be used to find out the needs of students and teachers in using e-LKPD.

Analysis of the needs of the E-LKPD has been carried out by previous researchers. The first related research is "E-LKPD Needs Analysis According to the Problem Based Learning Model to Improve Creative Thinking Ability by Umriani and Suparman (2019), the research results show that student creativity is still low, so teachers and students need E-LKPD. In particular, E-LKPD with the Problem Based Learning learning model. Subsequent related research by Hesti Wulandari and Suparman entitled "E-LKPD Needs Analysis to Stimulate Critical Thinking Ability", which concluded that academics' critical thinking skills were still low, so that E-LKPD could be used as textbooks, especially E-LKPD with inquiry models, needed by the teacher to support other textbooks that are already in class (Wulandari & Suparman, 2019).

The findings based on the study show that the level of

demand for E-LKPD among students and teachers is still high. Therefore, it is necessary to analyze the needs of the E-LKPD for learning procedural texts based on Discovery Learning which is supported by various relevant studies and explanations put forward by previous researchers.

Procedure text is a text that contains steps or stages that must be taken to achieve the goal (Kemdikbud, 2003). The text which is called procedure text is a text that explains in full, clear, and in depth the steps needed to carry out certain activities and habits in life. For example, tips for job interviews, how to write speeches, how to give speeches, dealing with floods and making food. According to Mahsun (2014) procedural/directive text is one type of text that belongs to the factual genre, the procedural subgenre. Every time someone carries out an activity, of course someone needs instructions as a guide to carry out an activity based on the steps with the right organization, these instructions are called procedural text.

The work steps that enter into the structural part are arrangements or wakes consisting of elements one to another in a single unit. Basically every text has a structure, as well as procedural text. Procedure text contains sections that show the purpose, materials and tools used, as well as work steps to be carried out. In this case the procedure text has a text that is not much different from other texts. According to Kosasih (2016) ^[14] the structure of the procedure text consists of a title, an introduction explaining the purpose, a number of materials needed to carry out a procedure, and a sequence of steps. Even so, the materials and tools section is not the main structure in the procedural text because materials and tools are also mentioned in the steps section. Materials and tools are optional. The goal is the final result to be achieved, while the steps are a discussion that usually cannot be changed. In the objective section, namely as an introduction or initial description of what will be presented, it is stated in the introduction section and in the steps section, the overall discussion of the sequence cannot be changed, while the reaffirmation section is the conclusion of the activities that have been carried out.

The problems that arise in learning to write procedural texts require the application of appropriate teaching materials and learning models by the teacher to improve the quality of learning, one of which is discovery learning. Darmawan Deni (2018) ^[5] explains that discovery learning (discovery) is the main activity in discovery learning. Through the effort to find will provide confirmation that the knowledge and skills and other abilities needed are not the result of remembering a set of facts, but are the result of one's own discovery. Learning activities that lead to discoveries have long been introduced in inquiry learning and discovery learning. Of course, from the two studies, in principle, there is not much difference. The point is the same, namely a learning model or system that helps students both individually and in study groups to find their own according to their respective experiences. The discovery learning learning model has the same principles as inquiry and problem solving. There is no principal difference between these three terms. Discovery learning places more emphasis on discovering previously unknown concepts or principles. The difference with discovery learning is that the problems faced by students are a kind of problem engineered by educators.

In applying discovery learning educators act as mentors by providing opportunities for students to learn actively. Sagala

Syaiful (2013) ^[24] explains that this discovery learning approach departs from the view that students as subjects and objects in learning, have the basic ability to develop optimally according to their abilities. The learning process must be seen as a stimulus that can challenge students to carry out learning activities. The role of the teacher is more to establish himself as a guide or learning leader and learning facilitator. Thus, students carry out more activities alone or in groups to solve problems with the guidance of the teacher. Sagala Syaiful (2013) ^[24] explains that there are five stages taken in carrying out the discovery approach, namely: 1) Formulation of problems to be solved by students; 2) Establish temporary answers or better known as hypotheses; 3) Students look for information, data, facts needed to answer problems/hypotheses; 4) Draw conclusions on answers or generalizations; 5) Applying conclusions/generalizations in new situations. Teknologi saat ini bertujuan untuk memecahkan dan memfasilitasi masalah belajar di mana saja, kapan saja, dan oleh siapa saja. Sekarang adalah waktu yang tepat untuk mendorong masyarakat untuk menggunakan teknologi dalam pengembangan sumber daya manusia, terutama di bidang pendidikan. Oleh karena itu, guru untuk mampu mengintegrasikan teknologi informasi dan komunikasi ke dalam proses pembelajaran dalam bentuk bahan ajar berbasis elektronik.

According to Supardi *et al.* (2018) ^[26] student worksheets (LKPD) are learning tools that students can use in increasing the involvement or activity of students in the teaching and learning process. Learning tools that can be used by students to increase student activity and involvement in the teaching and learning process are teaching materials. Furthermore, Azizah (2017) ^[3] student worksheets (LKPD) are a learning resource that can be developed by educators as facilitators in learning activities. In other words, LKPD, one of the learning resources that teachers can use as facilitators in their learning activities. In addition, according to Maimunah *et al.* (2019) ^[16] LKPD is a printed teaching material that contains sheets of paper containing material, summaries, and instructions for carrying out learning tasks that must be done by students and refers to the basic competencies that must be achieved. The purpose of using Student Worksheets (LKPD) is to help students find concepts (Putra, 2018) ^[21]. The Student Worksheet (LKPD) is also equipped with analytical questions so that it can assist students in associating the problems that have been observed with the concept of students' mindsets.

According to Noprinda *et al.* (2019) ^[18] the benefits obtained by using Student Worksheets (LKPD) include: 1) Facilitate educators in managing the learning process. 2) Help educators direct their students to be able to discover concepts through their own activities or in work groups. 3) Can be used to develop process skills and develop a scientific attitude and 4) Help educators monitor the success of students to achieve learning goals. Based on this, innovation is also needed in presenting LKPD, one of which is by using technology to support the learning process. This is in line with the literature review from Abustan & Nawir, (2018) ^[1] the use of technology has the main goal of facilitating and streamlining learning so that it is better than before.

This is in line with Fitri & Palewi (2020) stating that "E-LKPD is able to increase students' interest in learning". However, in reality, educators have not been able to develop LKPD in electronic form. In line with R. Fitri & Suparman, (2019) E-LKPD is not yet available and teachers are not able to make E-LKPD to answer learning needs. The resource

person advised that LKPD with character content is important and necessary in learning because the curriculum used now is an independent curriculum in which students are expected to be good not only in terms of cognitive but also good in terms of affective and psychomotor.

Method

The method used in this research is descriptive with a qualitative approach. The purpose of this study was to identify the needs of teachers and students in making discovery learning-based e-LKPD for procedural text learning in junior high schools. The subjects of this study were teachers and students of class VII at SMP Al-Kausar. Data collection techniques used are interviews and documentation. Interviews were conducted to gain a deeper understanding of the problems that arise in the field. While documentation studies will be needed to sharpen research analysis related to information obtained from interview results. In a documentation study, researchers collect printed and non-printed documents related to research. The data obtained in the documentation study was then used as a tool to check the suitability of the data obtained from the interviews.

The data analysis technique used is Milles and Huberman (1994) ^[17], with the stages of data reduction, data presentation, drawing conclusions, and validation. Triangulation techniques are also used to verify the effectiveness of data obtained from different sources. The data obtained from the interviews were processed with a qualitative descriptive analysis by describing them as a whole. Interview data is the main source in answering the research questions. The stages used in conducting data analysis are data reduction, data presentation and also data verification (Creswell, 2016) ^[4]. Data analysis begins with the results of interviews that have been carried out, then written down entirely. After that, the researcher abstracted the results of the interviews by focusing on matters related to the research and ignoring inappropriate information. Thus, the interview data will be confirmed with the documentation study data.

Findings

The results showed that there was a lack of student interest in learning to write procedural texts so that the development of e-LKPD writing procedural texts based on discovery learning was carried out by taking into account the potential and conditions of learning Indonesian at the Al-kausar Middle School level, Bandar Lampung. This potential is analyzed based on the results of observations and interviews to find out the state of the learning process that has been carried out so far, whether there are products being developed, as well as the level of need for teachers and students for e-LKPD to write discovery learning-based procedural texts that will be developed.

Observations were made to three Indonesian language study teachers at SMP Al-kausar Bandar Lampung. The results of observations and interviews conducted with Indonesian language subject teachers show that the textbooks used as supporting teaching materials for the textbooks are in accordance with the Core Competencies (KI) and Basic Competences (KD). 3.1 Construct information in the form of general statements and stages in procedural texts and KD 4.1 Designing general statements and stages in procedural texts with the right organization orally and in writing. However,

the textbook used is still general in nature which includes all KI and KD in learning in semester 1.

Table 1: Results of Teacher Interviews on the Need for Teaching Materials

No.	Question	Answer			Conclusion
		Teacher 1	Teacher 2	Teacher 3	
Availability of Teaching Materials					
1.	Do you use the e-LKPD as a student guide in learning activities?	Yes (LKDP)	There isn't any yet	Yes (LKPD)	One teacher stated that the school had not used teaching materials in the form of LKPDs instead of e-LKPDs. However, they still use textbooks that are in general circulation/just buy them.
	If so, what do you make the e-LKPD yourself?	No		No	
	If not, what are the commonly used procedural text writing learning guides?		Textbook		
Conformity with Learning Competency Standards					
2.	Is the student learning activity guide used in accordance with the KI and KD in learning to write procedural texts?	In accordance	In accordance	In accordance	The material presented was stated by 3 teachers in accordance with KI and KD Learning to write procedure texts
Presentation					
3.	Do the teaching materials used make it easier for you to achieve your students' learning objectives, namely being able to identify procedural texts by paying attention to their contents, general statements and stages?	Yes	Yes	Yes	The packaging of the material is good, but it tends to be presented in text form and lacks concrete examples that can help students find ideas and develop them on their own.
4.	Does the teaching material provide a step-by-step guide to writing procedural text?	Less applicable	Yes	Less applicable	
Material Enrichment					
5.	a. Does the student learning activity guide used provide material enrichment?	Yes	No	Yes	Enrichment is provided in the form of Activity Sheets LKPD which provides the steps as a guide for students to write procedural texts.
	b. If so, what kind of enrichment is presented in the procedural text writing material?	(LKPD)	an	(LKPD)	
	c. If not, what kind of enrichment is desired in procedural text writing materials?		Enrichment based on facts and the needs of students		
6.	a. Did you experience any problems while providing procedural text writing materials using the existing guidelines?	There is	There is	There is	Learning constraints due to the lack of clarity on the procedural text research guidelines used, such as operational steps and examples so that contextual problems are needed which are developed into discussions to help students write procedure texts.
	b. If so, what obstacles underlie the difficulties in teaching students to write procedure texts?	Less clear guidance, such as in the activity steps and examples presented	Guidance that is not clear, such as the activity steps	Guidance that is less clear, as in the activity steps and examples presented	
7.	Do you need an activity guide in the form of an LKPD to help teach students the material for writing procedure texts?	Yes, really need it.	Yes, really need it.	Yes, really need it.	
Discovery Learning Model-Based Addition					
8.	Do you agree if you develop an E-LKPD equipped with a Discovery Learning model, especially in procedural text writing material?	Agree.	Agree.	Agree.	Agree if it is associated with the Discovery Learning model to encourage independence and learning initiatives in students.

Table 2: Student Interview Results on the Needs of Teaching Materials

Aspect	Results of Interviews with Students
Availability of teaching materials	Students use learning textbooks that are in general circulation and some use LKPDs that are not made by the school teacher.
Conformity with learning objectives	1. All students stated that the material presented was in accordance with the learning objectives of writing procedural texts.
	2. There were several students who had different opinions, among them, three students stated that the material was quite easy to understand, but six students stated that there were not enough interesting illustrations to arouse

	learning enthusiasm and there were no real steps as a guide in writing procedure texts the good one.
Presentation	<ol style="list-style-type: none"> 1. Some students stated that the LKPD was accompanied by stages, but several other students responded that the stages in writing procedure texts on LKPD or textbooks were still general in nature and should have been prepared more specifically with real examples. 2. Some students stated that the form of the enrichment LKPD material provided was not very clear and several other students stated that there was no evaluation in learning. 3. The packaging of the material is good, but the material tends to be presented in text form, not accompanied by attractive illustrations or pictures, the examples presented are sometimes difficult to understand, and the steps are not very clear. 4. Need a guide to compiling texts and examples that can help students in writing procedure texts through a sequence of real steps. 5. Students need learning that is not monotonous and needs new innovations either through teaching media or teaching materials as a means to stimulate the process of developing creative ideas in writing procedure texts.

Discussion

Teacher Needs

The results show the following, interviews that have been conducted with SMP AL-Kausar Middle School teachers in Bandar Lampung. 1) Availability of teaching materials, from the three teachers one teacher stated that the school had not yet used teaching materials in the form of e-LKPD, but still used LKPD or text books that were publicly circulated, 2) Conformity with basic learning competencies, from the results of interviews with the three teachers in schools, three teachers stated that they were in accordance with KI and KD 3.1 Construct information in the form of general statements and stages in procedure text. KD 4.1 Designing general statements and stages in procedural text with proper organization orally and in writing, and 3) The packaging of the material is good, but tends to be presented in text form and does not present real examples that can help students find ideas and develop them on their own. 4) Material enrichment, from the results of interviews with the three teachers at school, three teachers stated that the guidelines were unclear, as in the activity steps and examples presented. The three teachers at the school also experienced learning difficulties due to the lack of clarity on the procedural text research guidelines used, such as operational steps and examples so that contextual problems were needed to be developed into discussions to help students write procedure texts. 5) Electronic Student Worksheets (LKPD) based on discovery learning require students to play an active role by finding information on their own and changing passive learning conditions to become active and creative.

Student Needs

The results of the interviews show that the LKPD is in accordance with the teacher's statement which states that the LKPD available is still only in the form of daily questions, here also the teacher does not understand the form and use of the actual LKPD, sometimes the teacher also only uses practice questions in the package book and does not make specific LKPD or e-LKPD. This is in line with research conducted by (Rahayu, Irianto, & Anggoro, 2019) that the teaching materials used in schools are still in the form of books.

The results of the study also show that students' needs for teaching materials include the following. 1) Availability of teaching materials, three students from one school use learning textbooks that are in general circulation. Meanwhile, six students used worksheets that were not made by the school teacher. 2) Conformity with the learning objectives, all students stated that the material presented was in accordance with the learning objectives of writing procedure texts. There were several students who had different

opinions, including three students who stated that the material was quite easy to understand, but six students stated that there were not enough interesting illustrations to arouse enthusiasm for learning and there were no real steps as a guide in writing procedural texts. Good. 3) Based on the presentation aspect, some students stated that the LKPD was accompanied by stages, but several other students responded that the stages in writing procedure texts on LKPD or textbooks were still general in nature and should have been prepared more specifically with real examples. In terms of packaging, the material is good, but the material tends to be presented in text form, not accompanied by attractive illustrations or pictures, the examples presented are sometimes difficult to understand, and the steps are not very clear, and a guide is needed to prepare procedural texts and examples that can be used. assist students in writing procedure texts through a sequence of real steps. 4) Regarding the project based learning model in learning, all students agreed to add the project based learning model in the LKPD in the hope that it would help and facilitate students in finding ideas when writing procedural texts and making learning more meaningful, especially in following the learning process and achieve learning goals. The results of the needs analysis and preliminary research on the implementation of learning in schools have not fully complied with the demands of the curriculum. This can be seen from observing the implementation of the learning process which should be carried out with a student center approach which makes students active in participating in the learning process.

Conclusion

Based on the results of the study it can be concluded the following matters:

- 1) E-LKPD can activate or make students enthusiastic in learning.
- 2) E-LKPD can be understood by students, including aspects of language, presentation LKPD and attractive LKPD display.
- 3) The content of the material in the LKPD has been integrated with the learning objectives.
- 4) It is better if the E-LKPD to be developed is based on the discovery learning model.

The results of this study are expected to help schools as input materials so they can choose appropriate teaching materials for learning Indonesian, especially learning procedural texts at the junior high school level. This analyzes the needs of E-LKPD based on Discovery Learning for students' procedural text learning. The research compiled requires further research to develop E-LKPD based on the needs of teachers and students in learning Indonesian at this time.

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