
Original Research Article

DEVELOPMENT OF STUDENT WORKSHEETS WRITE PROJECT BASED LEARNING-BASED EXPLANATORY TEXT FOR CLASS XI SENIOR HIGH SCHOOL

Abstract

Background: The problem in this research is related to the development of Student Worksheets writing project-based projectbased learning texts of class XI high school learners. The purpose of this study is to produce LKPD teaching materials to write project-based learning explanatory texts, knowing the feasibility and effectiveness of LKPD in writing explanatory texts in grade XI high school learners.

Research methods: methods used in this research and development (R&D) research. Data collection techniques with observations, interviews and deployment of questionnaires at three schools in Metro City.

Research results: The results showed that the product was successfully developed in the form of LKPD writing project based learning explanatory text, the feasibility of LKPD as a whole was declared "very feasible" by material experts, learning experts and practitioners with percentages of 82%, 84%, and 85.71%. LKPD effectively improves explanatory text writing capabilities with N-Gain by (0.38) (0.38) and (0.37 falls into the "medium" category

Keywords: LKPD, Explanatory Text, Project Based Learning

1. INTRODUCTION

1.1. Background Problem

Learning Indonesian basically aims to provide provisions to learners in the ability to communicate effectively and efficiently both oral and written. Effective and efficient learning does not occur by itself but is designed by teachers through the management of

learning and utilization of learning resources in creating an atmosphere conducive to purpose.

Skills performed in language learning are the skills of listening, speaking, reading and writing. These skills have their own realms but each other is closely related in learning Indonesian. One of the language skills is writing skills. These skills are the highest level of difficulty for learners compared to the other three skills. (Iskandarwassid, 2011)

One of the subjects achieved in the 2013 curriculum is the Indonesian regulated by Permendikbud number 24 of 2016 on core competencies and basic competencies in the 2013 curriculum for primary, secondary, and upper education. In the 2013 curriculum for writing skills lessons in High School Class XI learners, one of them contained an explanation text. The explanatory text is taught to students of class XI odd semesters in accordance with KD 3.4 Analyze the structure of the explanatory text and 4.4 produces explanatory text with regard to structure and language. Explanatory text is arranged with a structure consisting of parts that show general statements (openings), a series of explanations (contents), and interpretations / closing. Both the first and second statements are equally true and complementary. (Mahsun, 2013)

Based on preliminary studies obtained the results of questionnaire interviews in three schools that the availability of LKPD teaching materials used in three schools in preliminary studies that researchers do does not yet exist, but there is one school that uses LKPD but which is used is not artificial by teacher subjects, and has not been equipped regarding writing explanatory text. In this study using teaching materials in the form of student worksheets (LKPD) are sheets containing tasks that must be done by learners (Prastowo, 2012). Problems also arise in learning, namely the use of learning models in teaching and learning activities, therefore researchers want to use a learning model that is a learning model that is project based learning is a model with long-term activities that involve learners in designing, creating, and displaying products to overcome real-world problems. (Sani,2018)

1.2 Problem formula

Based on this background, the formulation of the problems in this study is as follows,

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1. how the development of LKPD writes project based learning-based explanatory texts for Class XI high school learners
 2. how the feasibility of LKPD development writes project-based learning project-based learning texts of class XI high school learners
 3. how effective the development of LKPD project-based learning-based explanatory text for High School Class XI learners

1.3 Research Objectives

Based on the background and formulation of the problem, this study aims to,

1. Produce Teaching Materials For LKPD Writing Explanatory Texts Based On Project Based Learning For Class XI SMA Students
2. Describe The Feasibility Of LKPD Writing Explanatory Texts Based On Project Based Learning For Class XI High School Students
3. Knowing The Effectiveness Of Project-Based Learning-Based Explanatory Text Worksheets For High School Students Class XI

1.4 Scope of research

1. The scope of this development research is
2. the research subjects are teachers and learners of class XI SMAS TMI Roudlotul Qur'an Metro, MA Rodulotut Tholibin, and Ma'arif High School 1 Metro year of study 2021/2022
3. The object of this research is the development of project-based learning LKPD and the ability to write high school exhibition text Class XI
4. The group's test location in this study was conducted at SMAS TMI Roudlotul Qur'an Metro, MA Roudlotut Tholibin and MA'arif 1 Metro High School.
5. The research time is the year of study 2021/2022 odd semester.

2. Research Method

2.1 Development Model

The development model used in the research is research and development (R&D) borg

and gall is an industry-based development model where research findings are used to design new procedures and products, which are then systematically tested in the field, evaluated, and refined until they meet the specified criteria, quality, or similar standards. (Borg and Gall, 1989)

The results of this research are not only the development of a product but also gain new knowledge or can answer practical problems. In this case, it can also be interpreted as a research method used to produce a special product, and examine the effectiveness of the product so that it becomes suitable for use (Sugiyono, 2015).

2.2 Steps of Research Development

The steps for using the research and development method according to borg and gall but the author simplifies it into seven adjusted to the characteristics, limitations of time, cost and energy, as well as the covid-19 pandemic, among others; 1) potential and problems; 2) data collection of teaching materials; 3) development of teaching materials through product design and development of initial product forms; 4) product evaluation through validation by relevant experts/experts; 5) revision of the product design as a result of validation; 6) testing of the product on peers and limited-scale class trials and revision of the test results followed by large-scale class trials; 7) revise it into an operational product in the form of LKPD which is ready to be tested for its effectiveness.

2.3 The Place Of Study,

Conducted at SmaSRoudlotul Qur'an Metro, MA RoudlotutTholibin Metro, and Ma'arif High School 1 Metro 2021/2022. The research was conducted with consideration of time, energy, and cost efficiency and also pandemic covid 19.

2.4 Product Specification Development

The research development product that will be produced is in the form of student worksheets to write explanatory texts based on project based learning for class XI high school students with the following specifications

1. This student worksheet is an assignment sheet that must be done by class XI SMA students

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2. Student worksheets contain instructions and activities to complete assignments in accordance with the basic competencies of writing explanatory text material to understand how students can make explanatory texts
 3. This student worksheet is structured with the title, learning instructions, basic competencies to be achieved, tasks and steps of work and assessment

2.5 Preliminary Study

1. Documentation, the results of documentation data in the form of learning tools, syllabus, lesson plans, student textbooks, media, teacher and library conditions.
2. Observation, data results, namely obtaining descriptive data regarding teacher activities in the use and utilization of media or teaching techniques, as well as evaluating student attitudes.
3. Questionnaire, the results of the questionnaire data get a description of the state of learning and Student Worksheets
4. Interviews, the results of interview data to determine the real conditions at the school, the subjects interviewed were teachers, students, and school principals.

2.6 Data, Instumen, And Research Subjects.

This research data is the first, qualitative data. Qualitative data in the form of descriptive data that contains comments, criticisms, suggestions, corrections and assessments given by practitioners and experts on the product. It can be speech (oral and written) from teachers, learners, teacher and student behavior and the attitude of teachers and students in the learning process. Data sources have two categories of research data sources. First, the source of LKPD teaching material product needs consists of learners from all three schools and subject teachers in all three schools. Second, the source of product validation data that will assess teaching material products from practitioners and experts / experts from the University of Lampung. Research instruments, used to assess the feasibility of LKPD. Instruments in the form of questionnaires or questionnaires were distributed to three schools. Data analysis technique, the last stage is data analysis that is using qualitative descriptive. The data analysis carried out is to review the teacher and student questionnaire sheet, and the validity sheet for expert tests.

2.7 Data analysis techniques

1. Data analysis is carried out by testing the questionnaire of learners and teachers as well as the validity sheet of expert tests. It is described as follows.
2. Analyzed data such as questionnaire sheets from material experts, learning experts, practitioners / peers and teachers Indonesian then changed from qualitative data to quantitative.
3. The results of the analysis of data that has been collected, then calculated the average score on each criterion assessed using the following formula (Sudjana, 2010)

$$X = \frac{\sum x}{N}$$

Description;

X = average score

N = number of penialaians

$\sum x$ = number of scores

1. The formula calculates the percentage of LKPD eligibility as follows.

$$\text{Percentage} = \frac{\text{total score}}{\text{max score}} \times 100$$

The results of the percentage of the score are converted into qualitative data using the interpretation of the score according to Riduwan&Sunarto (2009).

3. RESULTS AND DISCUSSION

3.1 Research Results

The results of this study explain three things, first the development of LKPD writing project based learning-based explanatory text for High School class XI learners in accordance with the curriculum of the 2013 revised edition. Second, the results of LKPD eligibility write an explanatory text with a Project Based Learning learning

model for high school students in class XI. Third, the effectiveness of LKPD writing Project Based Learning-based explanatory texts for class XI high school learners based on the assessment of material experts, learning experts, practitioners (peers), teachers, and learners based on Research and Development (R&D) research design.

3.2 Preliminary Study

Preliminary studies are conducted to obtain information about field conditions, needs, and feasibility of the development of teaching materials in the form of LKPD. Preliminary study results are used to design and develop products. Preliminary studies were conducted through observations and interviews of three schools, namely SMAS TMI Roudlotul Qur'an, MA RoudlotutTholibin, and Ma'arif 1 Metro High School. The results obtained in the form of the potential development of Student Worksheet teaching materials (LKPD) in subjects Indonesian for explanatory text writing materials.

The potential seen from the lack of interest of learners in learning to write explanatory texts. The potential is analyzed based on the results of observations and interviews to find out the state of the learning process that has been done, the absence of products developed, and the level of needs of teachers and learners to LKPD write the explanatory text developed.

3.3 Development Process

In the first development process, the initial product development was carried out by following the physical structure, the second was an analysis of basic competencies, core competencies, and competency indicators, the third was evaluation and revision, the four expert test results, namely material experts, learning experts and practitioners/colleagues.

Here are the results of the expert tests.

Table 1 : Results of the expert tests

No	Expert	Persentase	Category
1	Material	82 %	Highly Relevant

2	Learning	84 %	Highly Relevant
3	Practitioners	85,71 %	Highly Relevant

Based on the results of the experts, it was concluded that the Explanatory Text Writing Worksheet was categorized as "relevant / appropriate" to be tested on Class XI high school students in the three schools.

3.4 Product Trial

Product trials are conducted in two stages, the first is a limited scale stage trial and then the second is a wide-scale trial. The limited scale product test is intended to know the weaknesses of the product as the basis for the next product improvement, a limited scale test with a number of 30 participants, with 10 learners from 3 schools. The wide-scale test was conducted with 66 respondents.

Table 2 : SMAS Roudlotul Qur'an Metro

ResearchSub ject	The AttractivenessOf LKPD		Easeof Use LKPD		Benefitsof LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
1	35	87,5	24	85,71	11	91,66	70	87,5
2	33	82,5	22	78,5	12	80	67	83
3	35	87,5	25	89,28	11	91,66	71	88,75
4	39	97,5	23	82,14	9	75	71	88,75
5	37	92,5	27	96,42	12	100	76	95
6	38	95	24	85,71	15	93,75	77	96
7	37	92,5	26	92,85	12	100	75	93,75
8	36	90	27	96,42	11	91,66	74	92,5
9	30	75	21	75	10	83,33	61	76,25
10	30	75	21	75	9	75	60	75
Average	35	87,5	24	85,70	11,2	88,20	70,2	87,65

Based on the results of the calculations above, obtained data of 10 students of SMAS TMI Roudlotul Qur'an Metro class XI related to the feasibility of LKPD with an average value of 87.65 aspects of LKPD with an average value of 87.5 ease of use of LKPD obtained an average value of 85.70, and the usefulness of LKPD with an average value of 88.20.

Table 3 : MA RoudlotutTholibin Metro

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
1	31	77,5	26	92,85	10	83,33	67	83,75
2	36	90	24	85,71	12	100	72	90
3	35	87,5	24	85,71	11	91,66	70	87,5
4	31	77,5	22	78,5	9	75	60	75
5	30	75	21	75	9	75	60	75
6	33	82,5	25	89,28	10	83,33	68	85
7	32	80	22	78,5	9	75	63	78,5
8	34	85	21	75	11	91,66	70	87,5
9	30	75	24	85,71	11	91,66	65	81,25
10	30	75	21	75	9	75	60	75
Average	32,2	80,5	23	82,12	10,1	84,16	65,5	81,85

Based on the results of the calculation above, obtained data from 10 MA Roudlotut Tholibin class XI students related to the overall aspect of LKPD eligibility with an average value of 81.85, the results were obtained from the aspect of LKPD with an average value of 80.5, ease of use of LKPD obtained an average value of 82.12 and the usefulness of LKPD with an average value of 84.16

Table 4 : SMA Ma'arif 1 Metro

Research Subject	The AttractivenessOf LKPD		Easeof Use LKPD		Benefitsof LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
1	32	80	25	89,28	10	83,33	67	81,75
2	33	82.5	22	78.5	11	81.66	66	82.5
3	35	87.5	25	89,28	10	83,33	70	87,5
4	30	75	21	75	10	83,33	61	76,25
5	30	75	24	85,71	11	91,66	65	81,25
6	37	92,5	21	75	10	83,33	68	85
7	31	75	26	92,85	10	83,33	67	83,75
8	30	75	21	75	9	75	60	75
9	30	75	24	85,71	11	91,66	65	81,25
10	30	75	21	75	10	83,33	61	76,25
Average	31,8	77,81	23	82,53	10,2	84,25	65	81,05

Based on the results of the calculation above, the maximum value of the questionnaire for components based on the calculation above, obtained data related to feasibility with an average value of 81.05, aspects of LKPD with an average value of 77.81 ease of use of LKPD obtained an average value of 82.53, and the usefulness of LKPD with an average value of 84.25.

Table Of Assessment Results On A Wide Scale

Table 5 : SMAS Roudlotul Qur'an Metro

ResearchSub ject	The AttractivenessOf LKPD		Easeof Use LKPD		Benefitsof LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value

ResearchSub ject	The AttractivenessOf LKPD		Easeof Use LKPD		Benefitsof LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
1	35	87.5	24	85.71	11	91.66	70	87.5
2	32	80	22	78.5	12	100	66	82.5
3	31	77.5	26	92.85	10	83.33	67	83.75
4	36	90	28	100	12	100	78	97.5
5	36	90	24	85.71	12	100	72	90
6	38	95	28	100	10	83.33	74	92.5
7	30	75	22	78.5	11	91.66	63	78.75
8	30	75	21	75	9	75	60	75
9	31	77.5	22	78.5	10	83.33	63	78.75
10	37	92.5	26	92.85	11	91.66	74	92.5
11	40	100	25	89.28	11	91.66	76	95
12	31	77.5	22	78.5	10	83.33	63	78.75
13	35	87.5	24	85.71	10	83.33	69	86.25
14	31	77.5	22	78.5	10	83.33	63	78.75
15	36	90	28	100	12	100	78	97.5
16	35	87.5	25	89.28	10	83.33	70	87.5
17	37	92.5	26	92.8	9	75	72	90
18	36	90	25	89.28	11	91.66	72	90
19	36	90	25	89.28	10	83.33	71	88.75
20	35	87.5	25	89.28	10	83.33	70	87.5
21	36	90	25	89.28	11	91.66	72	90
22	34	85	27	96.42	11	91.66	72	90
23	35	87.5	23	82	10	83.33	68	85
24	36	90	24	85.71	11	91.66	71	88.75
25	33	82.5	25	89.28	10	83.33	68	85

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
26	36	90	25	89.28	11	91.66	72	90
Average	34.03	86.18	24.43	88.67	10.5	88.89	69.36	86.81

Based on the results of the calculation above, data obtained related to the feasibility of using LKPD with the average results of eligibility aspects 86.81, the use of LKPD obtained an average value of 86.18, aspects of ease of use of LKPD with an average value of 88.67, and the usefulness of the use of LKPD with an average value of 88.89. Thus, it can be concluded that the wide-scale use of LKPD in SMAS TMI Roudlotul Qur'an as a whole is good or suitable for use in learning.

Table 6 : MA Roudlotul Tholibin Metro

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
1	37	92.5	26	92.85	12	100	75	93.75
2	33	82.5	22	78.5	11	81.66	66	82.5
3	37	92.5	25	89.28	11	91.66	73	91.25
4	37	92.5	25	89.28	10	83.3	72	90
5	36	90	26	76	11	91.66	73	91.25
6	37	92.5	24	85.71	9	75	70	87.5
7	35	87.5	25	89.28	10	83.3	70	87.5
8	35	87.5	24	85.71	11	91.66	70	87.5
9	34	85	21	75	11	91.66	66	82.5
10	36	90	25	89.28	10	83.3	71	88.75
11	34	85	25	89.28	10	83.3	69	86

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Total	Value	Total	Value	Total	Value	Total	Value
12	30	75	21	75	10	83.3	61	76.25
13	34	85	23	82.14	10	83.3	67	83.75
14	35	87.5	25	89.28	10	83.3	70	87.5
15	36	90	23	82.14	11	91.66	70	87.5
16	36	90	25	89	11	91.66	72	90
17	30	75	21	75	9	75	60	75
18	31	77.5	24	85.71	11	91.66	66	82.5
19	31	77.5	23	82.14	11	91.66	65	81.25
20	33	82.5	20	71.42	11	91.66	64	80
Average	34.01	83.82	23.66	83,6	10.46	83.33	68.16	84.66

Based on the results of the above calculations, the data related to the attractiveness of LKPD obtained an average value of 83.82, the aspect of ease of use of LKPD with an average value of 83.6 and the usefulness of using LKPD with an average value of 83.33 as for the whole when viewed from the ease of use LKPD, ease of use of LKPD, and usefulness of LKPD obtained an average score with a feasibility value of 84.66.

Table 7 : SMA Ma'arif 1 Metro

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Jml	Nilai	Jml	Nilai	Jml	Nilai	Jml	Nilai
1	36	90	24	85.71	9	75	70	87.5
2	36	90	25	89.28	9	75	70	87.5
3	33	82.5	24	85.71	10	83.33	72	90
4	37	92.5	24	85.71	11	91.66	70	87,5

Research Subject	The Attractiveness Of LKPD		Ease of Use LKPD		Benefit of LKPD		Feasibility	
	Jml	Nilai	Jml	Nilai	Jml	Nilai	Jml	Nilai
5	38	95	26	92.85	9	75	73	91
6	35	87.5	23	82.14	9	91.66	69	86.25
7	37	92.5	24	85.71	10	83	71	88.75
8	31	77.5	23	82	9	83	64	80
9	35	87.5	24	85.71	11	91.66	70	87.5
10	37	92.5	24	85.71	9	75	70	87.5
11	36	90	25	89.25	10	83	71	88.75
12	37	92.5	24	85.71	9	75	71	88.75
13	37	92.5	26	92.85	11	91,66	74	92.5
14	38	95	27	96.42	9	75	75	93.75
15	31	77.5	24	85.71	10	83,33	65	81.25
16	37	92.5	26	92.85	11	91,66	75	93.75
17	36	90	27	96.42	9	75	72	90
18	38	95	24	85.71	15	93.75	77	96
19	36	90	23	82.14	11	91.66	70	87.5
20	39	97.5	23	82.14	9	75	71	88.75
Average	36	89,62	24,5	91,15	11,13	90,86	70	89,72

Based on the results of the above calculation, the data related to the attractiveness of LKPD obtained an average value of 89.62, the aspect of ease of use of LKPD with an average value of 91.15, and the usefulness of using LKPD with an average value of 97.98. as for the feasibility value of 89.72 with a very decent category.

Thus, it can be concluded that the trial of using a wide-scale LKPD at SMA Ma'arif 1 Metro was overall very good or very feasible to use in learning.

Table 8 Of Assessment Results On A Wide Scale

No	Aspect	Location	Location	Location	Average	Category
		1	2	3		
1	The attractiveness of LKPD	86,18	83,82	89,62	86,54	Highly Relevant
2	Ease of Use LKPD	88,67	83,6	91,15	87,80	Highly Relevant
3	Benefit of LKPD	88,86	83,33	90,86	87,68	Highly Relevant
Rata-rata		87.90	83,58	90	87.37	Highly Relevant

Based on the above, it can be explained that the attractiveness aspect of LKPD obtained an average score of 86.54, the ease of LKPD obtained an average score of 87.80 and the usefulness of LKPD obtained an average score of 87.37. Thus, it is concluded that the broad-scale test in the three schools as a whole is very suitable for use in classroom learning.

Table 9 : Pretest And Posttest Results Comparison Table

NO	Name Of School	Amount Learners	KKM	Pre Test	Post Test	N – Gain
1	SMAS TMI Roudlotul Qur'an Metro	26	75	72,73	83,34	0,38
2	MA Roudlotut Tholibin Metro	20	75	72,4	82,12	0,38
3	SMA Ma'arif 1 Metro	20	75	73,25	83,2	0,37
AVERAGE				72,79	82,88	0,37667

Based on the table, a comparison of pretest, posttest, and N-gain results in explanatory text writing skills, post scores from three schools were obtained 82.88 and then the average N-gain score was 0.37667. This test is intended to find out the level of effectiveness achieved from the use of LKPD in classroom learning. Differences in

learners' learning outcomes based on ability improvements measured through gain value prove that the use of LKPD-based project-based learning models writing explanatory texts can increase ability into moderate categories.

1. Conclusion

Based on the research results that have described the development of LKPD Writing Explanatory Texts Based on Project Based Learning, it can be concluded as follows.

1. Problems in the process of developing LKPD writing explanatory texts that were found at the time of data collection, namely, 1) lack of clear step-by-step guidelines for compiling explanatory texts, 2) students having difficulty developing ideas; and 3) the lack of learning models that can facilitate students to study independently or in groups.
2. Eligibility for the LKPD has been developed to meet the "highly relevant" criteria. The assessment is based on the assessment of one material expert, one learning expert, one practitioner, three Indonesian language teachers, and Class XI high school students from each school who are the object of the experiment. The material expert assessment based on all aspects assessed obtained a final score with a percentage of 82% declared "very relevant" based on the feasibility level table. The material expert's assessment of all aspects assessed obtained a final score with a percentage of 84% stated in the "very relevant" category, and lastly, the assessment from practitioners from the whole obtained a final score of 85.71% stated "very relevant", the last three Indonesian language teachers from each school obtained a score of 88.33% with the category "very relevant" to be used in learning activities to write explanatory texts.
3. Based on the calculation of the results of the pretest, posttest and N-Gain, the effectiveness values of 0.38, 0.38, and 0.37 are included in the medium category. Thus, the product of the Student Worksheet in the form of Writing Explanatory Texts Based on Project Based Learning is effectively used in learning.

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