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## Need Analysis of Development Work Sheet of Student (LKPD) in Writing Explanatory Text based on Fishbone Diagram

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**Abstract** This research is a stage in the development of LKPD writing explanatory texts based on fishbone diagrams for senior high schools. This study is to describe needs analysis of students in writing explanatory texts. The research method used was a survey method. Data collection techniques in this study were questionnaires. This research uses a Likert scale to measure the attitudes, opinions, and or perceptions of students regarding LKPD developed. This study uses a questionnaire that was made in the form of a checklist with an assessment range of 1 to 5. The questionnaire compiled was addressed to students in four high schools in Pekanbaru. This sampling technique is based on quota sampling determined by the researcher. The data analysis technique is done by changing the category value into an assessment score and analyzing the score. The results showed that 51.2% of students were unfamiliar with the fishbone strategy and 88.2% of the students wanted a LKPD that was designed clearly and detail. This shows the need for preparation of LKPD to write explanatory texts based on fishbone diagrams.

Keywords: need analysis, student worksheets, explanatory texts, fishbone diagrams

### 1. Introduction

In the era of curriculum 13, the concept of learning in Indonesia refers to a scientific approach that requires students to actively construct concepts, theories, cases through certain stages according to scientific concepts. The learning process has focused on student activities, involves process skills, and develops student character. Of course, this approach wants that students' cognitive can be honed, problem solving can be sharpened by students, needs of learning are considered important by students, ideas can be communicated directly by students, and learning outcomes traversed based on level thinking activities high by students.

High-level thinking processes are applied through the learning process in each subject. Indonesian language learning activities also emphasize the same thing. The learning preparation planned by the teacher detailly also influences the learning process so that students can be directed to think critically during the learning process. With active learning, students got direct experience so that it is not limited to the concept of knowledge. Teaching materials provided by teachers make it easier to direct scientific activities in the classroom. In addition, assignments in the form of student worksheets must also be clear. According to Prastowo (2015) compiling teaching materials is an activity that is not difficult. However, the limited literature causes teachers to tend to use teaching materials that are ready to use. The ready-made teaching materials used are student worksheets such as practice questions contained in student textbooks. In fact, through the LKPD prepared by the teacher concerned students have the opportunity to be actively involved with the material discussed because it is also adjusted to the conditions of the students at that time.

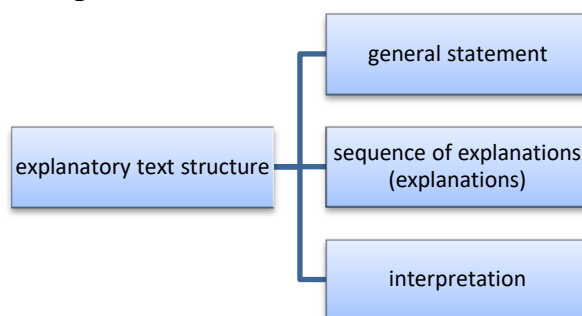
Suarman (2018) Teaching materials are materials, information, tools/ media that used by lecturers to carry out learning including creating an atmosphere that encourages students to learn. The form of teaching materials can be printed and non-printed materials. Printed teaching materials may take the

form of lecture material, problem solving guides, and learning guides, whereas non-printed teaching materials may take the form of audio, video/ film, or other multimedia required in the learning process. LKPD is defined as a printed teaching material in the form of sheets of paper containing material, summaries, and instructions for implementing learning tasks that must be done by students referring to basic competencies (KD) that must be achieved (Prastowo, 2012: 204). Student worksheets (LKPD) become a means to facilitate teaching and learning activities so that interactions between students and educators occur.

According to Prastowo (2012), LKPD is grouped into five forms, namely (1) LKPD that helps students find a concept, (2) LKPD that helps students implement and integrate various concepts that have been found, (3) LKPD as a learning guide, (4) LKPD as a reinforcement, and (5) LKPD as a practical guide. The elements in LKPD include (1) titles, (2) learning instructions, (3) learning indicators, (4) supporting information, (5) work steps, and (6) assessment. Widyantini (2013) said that LKPD as teaching material has elements which include (1) titles, (2) subjects, (3) semesters, (4) places, (5) learning instructions, (6) competencies to be achieved, (7) indicators to be achieved by students, (8) supporting information, (9) tools and materials to complete the task, (10) work steps, and (11) assessment.

In Indonesian subjects, LKPD can help students throughout the training process to understand the material presented. In basic competence (KD) writing explanatory text there are several KD, such as: KD 3.3. identifying information (knowledge and sequence of events) in the explanatory text orally or in writing; KD 3.4 analyzes the structure and language of explanatory texts, producing explanatory texts verbally or in writing by paying attention to the linguistic structure; KD 4.3 instructs information (knowledge and sequence of events) in the explanatory text orally or in writing; and KD 4.4. producing explanatory texts orally or in writing by paying attention to structure and language. LKPD is expected to help the aspects of students' knowledge and skills in explanatory text material in these basic competencies.

Priyatni (2015) said that the explanatory text is a text that explains the processes associated with natural, social, scientific, cultural, and other phenomena. The explanatory text comes from the author's question regarding "why" and "how" a phenomenon occurs. Anderson (2003) states that the explanatory text consists of three parts, namely (1) the description of the opening paragraph, (2) the sequence of sentences about how and why, and 3) the conclusion. This is in accordance with the explanation of the Ministry of Education and Culture (2013: 116) the structure of explanatory texts can be described as the following chart.



According to the NWS Department of School and Education (2012), there are four types of explanatory text: (1) Sequential explanation, which is a type of explanation that explains the detailed stages of a phenomenon. For example; sequence of the life cycle of the food chain. (2) Causal Explanation, which is a type of explanation that explains the origin or causes of changes in a matter gradually. For example; the process of landslides. (3) Theoretical Exploration, which is a type of

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explanation containing speculation of the likelihood that can occur behind a natural phenomenon. For example; the eruption of Mount Merapi might trigger another devastating natural disaster. (4) Factorial Explanation, which is a type of explanation that explains the effects and results of a process. For example; the effects of colonialism.

Writing explanatory texts can be helped through the Herringbone technique. The Herringbone Technique is a technique in which students can answer questions; who, what, when, why, where, and how through graphic images such as fish skeleton like fish bones'. The Herringbone technique was developed through fishbone diagrams which are useful for analyzing main ideas. Also included are six questions that can help students to organize the text in detail (Degaan dalam Faizah, 2014)

Fishbone diagrams will identify various potential causes of an effect or problem, and analyze the problem through a brainstorming session. Problems will be broken down into a number of related categories, including people, materials, machines, procedures, policies, and so on. Each category has causes that need to be elaborated through brainstorming sessions. The following fishbone diagram can be designed in LKPD.

Therefore, the opinions, perceptions, and suggestions of students through a questionnaire can find answers to the needs of students in preparing the student worksheet (LKPD) in writing explanatory texts. It is also an alternative to improving the provision of student worksheets in secondary schools for teachers and students, especially in Pekanbaru.

## **2. Methodology**

This research is a stage in the development of LKPD writing explanatory texts based on fishbone diagrams for senior high schools. The research method is a survey method. This method is used to evaluate one's feelings, behavior, thoughts, and opinions on certain subjects (Widi, 2009: 86). This method is used to describe students' needs for writing explanatory text material through needs analysis. Data collection techniques in this study were questionnaires. This research uses a Likert scale to measure the attitudes, opinions, and / or perceptions of students regarding LKPD developed. This study uses a questionnaire that was made in the form of a checklist with an assessment range of 1 to 5. The questionnaire compiled was addressed to students in four high schools in Pekanbaru. The schools are SMAN 1 Pekanbaru, SMAN 8 Pekanbaru, SMAN 12 Pekanbaru, and SMA Dharma Loka Pekanbaru. The sample in this study amounted to 100 students. This sampling technique is based on quota sampling determined by the researcher. In addition, the research sample is adapted to students who are experiencing the process of learning to write explanatory texts. The results of the needs analysis in the development of student worksheets (LKPD) writing explanatory texts are expected to improve the quality of LKPD according to the suggestions and criticisms expected. Data analysis techniques are done through changing the value of categories into assessment scores and analyzing scores for further categorized by the necessary category, sufficient , and there's no need.

## **3. Result and Discussion**

This study is based on 15 statements that are used to complete the preparation of LKPD Writing Explanatory Texts at the high school level. This statement includes, the concept of explaining the material in the learning process and the KD assignment concept of writing explanatory texts in high school. Statements presented to identify weaknesses and needs in learning material for writing explanatory texts. Based on the data obtained, the following respondent's response to the statement of the need to write a text of the overall explanation

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**Table 1.** Responses of Need Respondents to Write an Explanatory Text

No	Statement	SS	S	RR	TS	STS	Total
1	S1	28	65	7	0	0	100
2	S2	22	70	7	1	0	100
3	S3	28	59	12	1	0	100
4	S4	2	24	32	17	25	100
5	S5	28	65	7	0	0	100
6	S6	27	52	17	4	0	100
7	S7	24	63	12	1	0	100
8	S8	23	52	22	2	1	100
9	S9	16	49	26	8	1	100
10	S10	51	43	4	1	1	100
11	S11	49	43	7	1	0	100
12	S12	48	48	2	2	0	100
13	S13	22	51	18	6	3	100
14	S14	45	48	6	1	0	100
15	S15	31	49	16	2	2	100

The details of the need for the learning process of writing explanatory texts are presented in table 2 below.

**Table 2.** Need of a Learning Process for Writing Explanatory Texts

Total Respondent	Statement						
	S1	S2	S3	S4	S7	S10	S11
100 respondents	84,2	82,2	82,8	51,2	82	88,6	88,2

Referring to table 2, respondents responded that during the learning process of writing explanatory texts, 84.2% of respondents agreed that the learning objectives of explanatory texts were understood by students. Likewise 82.2% of respondents received a detailed explanation of the explanatory text material from the teacher. Students receive explanatory text material with an interesting learning model. It is known that 82.8% of respondents agreed with this statement. 82% of students also understand the working order of writing explanatory texts. However, 51.2% of respondents responded that students had never experienced learning to write explanatory texts with herringbone or fishbone diagram strategies. Of the 100 respondents in the response to the learning process of writing explanatory texts in school, students still gave a statement agreeing to the delivery of material with the latest learning model. This is seen based on 88.6% of students responding to it. Furthermore, 88.2% of students expect a book or worksheet to write explanatory texts with clear and detailed work instructions.

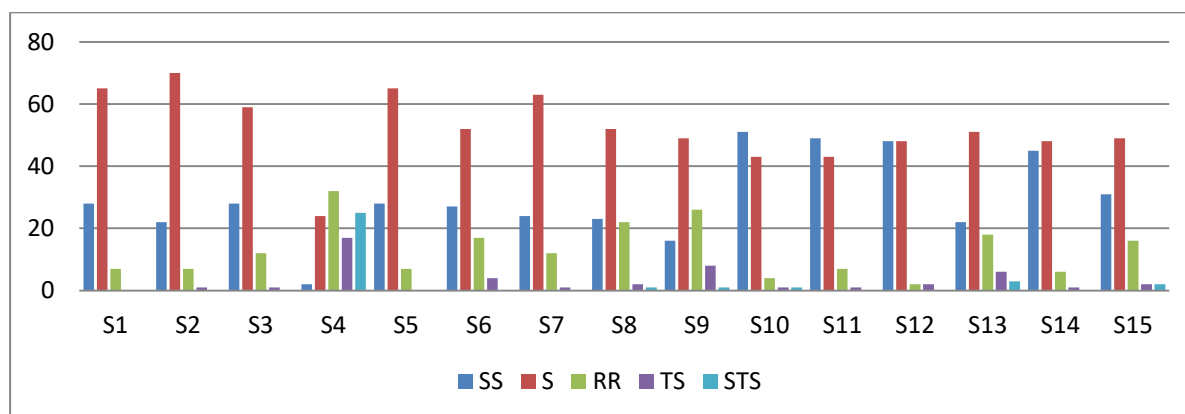
Thus, even though the percentage of the learning process of writing explanatory texts is considered to so far so good, students still expect an innovative learning model and student workbooks that are clear and detailed as new innovations in the process of learning to write explanatory texts at the secondary school level. In addition, the response to the introduction of fishbone diagrams is considered quite low so that this is enough to strengthen the need for an LKPD based on a fishbone strategy to facilitate

developing students in writing explanatory texts. Furthermore, in the aspect of assigning writing explanatory texts, the need for LKPD Writing Explanatory Texts can be seen in the following table 3.

**Table 3.** Need of LKPD Writing Explanatory Texts

Respondent	Statement							
	S5	S6	S8	S9	S12	S13	S14	S15
100 Respondents	87,4	80,4	79,2	74,8	88,4	77,4	86,6	80,2

During this time, students work on explanatory texts based on instructions and questions in the textbook. As many as 87.4% of students agreed to this statement. That is, so far the teacher tends to give exercises based on the problems contained in school textbooks. This is same with 80.4% of students stating that students work on the problem based on the instructions in the textbook. Follow-up from the assignment was also considered quite good because as many as 79.2 stated that students received the results of the work done and 74.8 respondents stated that they got feedback from the writing assignment they were doing. Thus, 88.4% of students expect there to be an evaluation in writing explanatory texts. 86.6% students also expect that the teacher facilitates assignments through questions from aspects of the knowledge and writing skills of explanatory texts. 80.2% of students agreed that the assignment of writing explanatory texts was done on student worksheets (LKPD) in the form of books. Overall, the response of respondents to the statement of the need to write explanatory text can be seen in Figure 1 below.



**Picture 1.** Respondents' Responses to the Need for Writing Explanatory Texts

Based on the picture 1. Respondents' responses to the statement of the need to write explanatory texts, agreed statements tend to be chosen by students. Although the learning experience, explanatory text material has been well received by students, but some weaknesses such as the application of writing strategies and student worksheets that have not been written by Indonesian teachers need to be considered for the preparation of students' worksheets.

#### 4. Conclusion

Based on the needs analysis of students in learning to write explanatory texts, there are 2 needs that underlie the preparation of LKPD writing explanatory texts. These needs include the application of writing techniques, particularly herringbone technique or fishbone diagrams and LKPD in the form of

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books with detailed work instructions and clear assessment rubrics. Students expect this need to be fulfilled through the preparation of the LKPD next.

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