

# Teaching Material Development of Explanation Text Based on Multiple Intelligences on 11th Grade Students in Vocational High School 1 Padangsidimpuan

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**Abstract:** *This study aims to (1) describe the process of developing explanatory text teaching materials based on multiple intelligences, (2) describe the feasibility of explanatory text teaching materials based on multiple intelligences and (3) describe the effectiveness of explanatory text teaching materials based on multiple intelligences. This research was conducted in 11th grade of vocational high school 1 Padangsidimpuan. The research method used is the Research and Development research method which refers to the Borg and Gall model. The results showed that (1) the process of developing teaching materials was carried out in three stages, namely preliminary studies, product development and trials. Based on the analysis of the needs, 100% of the teachers and students need data obtained from other teaching materials in explanatory text learning, product development is carried out with expert and material validation, and individual product trials score 88.89 in the excellent category, small group trials score 92, 75 with a very good category and limited field trials obtained a score of 94.75 with a very good category. (2) teaching material is declared feasible with 84.56% content eligibility percentage, 94.23% presentation eligibility, 93.27% language assessment, 96.88 multiple aspects intelligence feasibility and 84.17% graphic assessment. (3) teaching materials are declared effective for use in 11th grade students of vocational high school 1 Padangsidimpuan with an average of 60.63 pretest learning outcomes and 80.94 posttest. The results of this study prove that explanatory text teaching materials based on multiple intelligences are feasible, easy and effective to use in learning in 11th grade of vocational high school.*

**Keywords:** *development of teaching materials; explanatory texts; multiple intelligences*

## I. Introduction

The development of teaching materials by the teacher will make a very significant contribution in the learning process, in addition to the limitations of teaching materials about explanatory texts, the teaching materials developed will also provide in-depth understanding of the structure and substance or content of the language linguistically. But in reality, the explanatory text teaching material which is still unclear is explained as one of the causes.

This also happened at Padangsidimpuan Vocational School 1, which is the teaching material used by teachers is still limited to textbooks. The teaching material is not suitable with the students' needs in the explanatory text material. The teaching material only determines the understanding, characteristics, structure, and language rules of explanatory texts. This activity makes students bored and results in the low ability of students to understand the lessons and explore their skills. Explanations about explanatory texts can be very diverse because explanatory texts also discuss natural phenomena and social phenomena which can certainly find information tailored to students' abilities. Students have different abilities and intelligence from one student to another, so educators need to use a diverse approach. In learning in schools and schools, most students have difficulty in explanatory text material.

Based on the results of observations at State Vocational High School 1, it is found that the ability of students to write explanatory texts is still categorized as lacking well and truly. Writing explanatory text activities becomes something difficult and far from expectations. Thus, it is necessary to develop teaching materials in the form of modules to improve students' knowledge and learning outcomes in the learning process in writing explanatory text material.

The development of teaching materials is done as an effort to maximize the process of teaching and learning activities and determine the material based on the context of the situation in schools located in the regions. The development of explanatory text teaching material is expected to be able to help develop the thoughts, opinions, imagination and creativity of the students so that students are able to understand the structure of the explanatory text in accordance with their respective intelligence.

Tracing the study of the development of teaching materials to be conducted, the researcher conducted a preliminary study consisting of two steps, the first to conduct a field survey and the second to conduct a literature survey. Several previous studies on the study of writing explanatory texts, obtained data that student learning outcomes in writing explanatory texts is still low. These results are contained in a study conducted by Ekawati (2015) in her research article entitled "The Effect of a Problem Based Learning Model on the Ability to Write Explanatory Texts by 11<sup>th</sup> grade of SMA Negeri 1 Sei Kanan". Most students have difficulty in writing. This is evidenced by the low value of students in KD writing complex explanatory texts. The percentage of the average value of students' explanatory text writing skills under the KKM (75) is still high.

## **II. Review of Literature**

### **2.1 Teaching materials**

Broadly speaking, teaching materials or teaching materials consist of knowledge, skills and attitudes that students must learn in order to achieve predetermined competency standards. The teaching material in question can be either written material or unwritten material. With teaching material allows students to learn a competency or basic competencies in a coherent and systematic manner so that they are able to master all competencies in an integrated and integrated manner. The function of directed teaching materials for teachers and students as a source of information that makes it easy for students to understand a learning. The module also has criteria such as items that can be used as a tool to study the feasibility of teaching material books. BSNP states that there are four aspects that must be considered in the selection of books / subject matter, namely, the appropriateness of content, presentation, language and graphics. Modules are printed teaching materials that are designed to be studied independently by learning participants. Prastowo (2015: 106), "a module is basically a teaching material that is arranged systematically in a language that is easily understood by students according to their age level of knowledge, so that they can learn independently with minimal assistance or guidance from students."

### **2.2. Module**

Modules can be formulated as a complete unit that stands alone and consists of a series of learning activities arranged to assist students in achieving a number of objectives that are specifically and clearly formulated. The understanding of the module is explained more clearly

by Rufii (2015: 19) in the International Journal of Education Vol. 7, No. 1, with the following quote:

*A learning module usually begins with a list of materials which will benefit their users or learners in order that they will be engaged in using it for their learning. The module is accompanied by a specific learning objective, so that students know the objectives to be achieved after participating in learning. The module is basically structured as follow: learning aims, learning outcomes, resources, learning and teaching strategies, assessment criteria and evaluation.*

The quotation above gives the meaning of learning and learning by giving benefit to the user or students, so that students know the objectives to be achieved after participating in learning. Modules have a structure: learning objectives, learning outcomes, resources, learning and teaching strategies, assessment and evaluation criteria. Modules are teaching materials that are arranged systematically containing material, methods, boundaries of learning material, instructions for learning activities, exercises and ways of evaluating that can be used independently by students. Through this module, a person or participants learn to be able to learn themselves, not dependent on other parties.

The use of modules in teaching and learning activities aims to enable education to be achieved effectively and efficiently. Students can attend teaching programs according to their own speed and abilities, more independent learning, can know the results of their own learning, emphasize mastery. Hamdani (2011: 220), the purpose of the module preparation is to provide teaching materials that are in accordance with the demands of the curriculum by considering the needs of students, namely teaching materials that are appropriate to the characteristics of teaching materials and characteristics of students, as well as the setting or background of their social environment.

The purpose of the module preparation is also found in the Ministry of National Education (2008: 5), namely (1) Clarifying and facilitating the presentation of messages so that they are not too verbal. (2) Overcoming the limitations of time, space, and senses, both learning participants and teachers / instructors. (3) Can be used appropriately and varied, such as to increase motivation and enthusiasm for learning, develop the ability to interact directly with the environment and other learning resources that allow students or learners to learn independently according to their abilities and interests. (4) Allows students to measure or evaluate their own learning outcomes.

### **2.3. Explanation Text**

The text in the 2013 curriculum is not interpreted as a form of written language. The text is a complete expression of the human mind in which there are situations and contexts). Explanation text contains the process or activity of an event. Blake Eduqation (2006: 50) when the writer starts writing explanations, the writer first sets the phenomenon then explains why or how the phenomenon occurred. The author must obtain a lot of content knowledge before starting to write explanatory texts.

The explanatory text aims to explain how and why something in the world happens. This is about actions not about things. Explanation provides a valuable role in building and storing our knowledge. Technical and scientific writings are often expressed in the form of explanatory texts. Kosasih further (2014: 191), stated an important thing that needed to get the main attention in compiling explanatory texts is that explanatory texts are texts that explain a

phenomenon, whether it is related to nature, culture and social. The development can be patterned chronologically or causality.

Opinions that have been described above, it can be concluded that the explanatory text is one type of text which contains about the process of occurrence of an event both natural and social events and in the text the causes and consequences of an event are explained in detail. Explanation consists of several structures, the Ministry of Education and Culture (2014: 9), the explanatory text structure consists of general statements and the sequence of natural causes, the order of social causes. Furthermore, in the explanatory text there are linguistic rules in the book by the Ministry of Education and Culture (2014) consisting of (1) conjunctions; (2) verbs; (3) nouns; (4) complex clauses and simplex clauses; and (5) word terms. Explanation texts are considered good and right if they meet several aspects. There are several aspects that are determined in the assessment of writing explanatory texts. Ministry of Education and Culture (2014: 42-43), determines several things that must be considered in evaluating writing explanatory texts consisting of five aspects, namely (1) content; (2) text structure; (3) vocabulary; (4) sentences; and (5) mechanics. Each aspect is described in several criteria with different score ranges.

The theory of Multiple Intelligences states that intelligence includes eight intellectual abilities. Intelligence is not only seen from the value obtained by someone. Intelligence is the ability possessed by someone to see a problem, then solve the problem or make something that can be useful for others. In the beginning, Gardner stated that there were seven types of intelligence. According to the development of the research he conducted, Gardner also included intelligence in eight, intelligence and natural intelligence, according to Howard Gardner.

### **III. Research Method**

This research method is a research and development in the development of teaching materials written exploration based on Multiple Intelligences for the SMK grade level XI. (Sugiyono, 2015: 35), There are several research findings according to Borg and Gall are as follows: 1) Research and Collection of Information, 2) Planning, 3) Developing initial products, 4) Early field testing, 5) Product revision, 6) Field testing, 7) Revision, 8) Planning operational testing, 9) Developing operational testing, 9) Final testing, 9) 10) Design and implement the product. Teaching material developed was analyzed using a validation team of material experts and the design of teaching materials and assessment using rubrics developed by researchers by modifying expert opinions. Teaching material criteria are based on the suitability criteria of teaching materials based on multiple intelligences and based on the syllabus. The effectiveness and feasibility of teaching materials are based on teacher's questionnaire assessment which is continued with the test of influence on teaching materials based on multiple intelligences.

### **IV. Discussion**

The process of developing teaching materials in stage I is to bring up ideas / ideas by carrying out preliminary studies. The preliminary study was carried out by carrying out a field survey (needs analysis) and a literature survey. The literature review is in line with the results of the field survey namely Vocational School 1 Padangsidempuan using only the Ministry of Education and Culture, no teacher's efforts to develop explanatory text teaching materials, let

alone integrating learning models such as multiple intelligence. Therefore, learning media innovation is needed in the form of textbooks that accommodate the intelligence of students.

The results of the needs analysis questionnaire filled out by respondents can be summarized as follows:

- a. Most of the students (80%) said they did not know the teaching material in the form of modules, while all the teachers and a small number of students (20%) stated that they knew the teaching material in the form of modules.
- b. Teachers and students do not use teaching materials in the form of modules in the learning process.
- c. All teachers and students stated that they needed teaching materials based on multiple intelligences in the form of modules in the learning process.

The needs analysis data above shows that there is a need to develop teaching materials that can be used by teachers and students in the learning process. The development of teaching materials is certainly beneficial to improve the quality of learning. The results of the literature review, needs analysis, and results of this driving survey were used to design materials for the implementation of multiple intelligences-based explorations.

The development of teaching materials referred to is in the form of multi explained modes of modification based on multiple intelligences. Module differs from other printed teaching materials because in these teaching materials the approaches and approaches to different types of student intelligence are made. This type of freedom is mentioned in action with a diagram of the example explanation text and the level of difficulty and difficulty in exploratory. The exercises presented at each learning activity are accompanied by some intelligence. In addition, this explanatory text module contains various examples of explanatory texts, not only about natural disasters, but general phenomena that are close to student experience. The diversity of the text makes it easy for students to identify the linguistic characteristics of explanatory texts and the structure of explanatory texts. Thus, students more easily understand about explanatory texts and be able to achieve learning indicators on explanatory texts. This module is different from other printed teaching materials because in this teaching material approaches are made to different types of student intelligence. This type of intelligence is synergized with a diagram of examples of explanatory texts and the level of difficulty in compiling explanatory texts. The second thing that was done after the design was through the validation of the module by the students and the design. The validity of the method was done by Mr.Prof. Amrin Saragih, M.A., Ph.D, and Mr. Mara Untung Ritonga, M.Hum., Ph.D who are lecturers at the University of Medan. While the validation of the design was done by Mr.Dr. R. Mursid, ST, M.Pd., and Dr. M. Oky Fardian Gafari, S. Sos., M.Hum.

The results of the validation of the climate were obtained by an average of very good criteria. Obtaining a score of 84.56% in the category of "very good", obtaining a feasibility presentation of 94.23% with a category of "very good", obtaining an assessment of language 93.27% with a category of "very good" and a feasibility of multiple intelligences. The results of the validation of the design showed "very good" criteria with an average value of 84.17%.

The third thing that was done was the teacher's assessment of the module. The assessment was done by two Indonesian language teachers at State Vocational High 1 Padangsidempuan. The results of the teacher's assessment of the multiple intelligences-based implementation method were stated to be "very good" with an average rating of 93.38%.

Trial trials of products were conducted three times before the trial of individual trials (3 students), a small group test (9 students) and limited global test trials (32 students). The

acquisition of individual trials was declared "very good" with an average score of 88.89%. Acquisition of small group trial results was declared "very good" with an average value of 92.75%. Finally in limited field trials an average value of 94.75% was obtained with the criteria of "very good". Stages - the stages of developing explanatory writing text teaching materials based on multiple intelligences have been carried out. So the final product in the form of modules is ready to be used in learning Indonesian, especially in explanatory text material in 11th grade SMK.

The effectiveness of teaching materials can be seen after students use teaching materials that are developed. To find out the effectiveness of teaching materials developed, students are given a test to write explanatory texts after using teaching materials in writing explanatory text modules based on multiple intelligences. Student learning outcomes before using explanatory text teaching materials based on multiple intelligences obtained an average score of 60.47 with the category of "sufficient" meaning that the value achieved by students needs to be increased again. Whereas student learning outcomes after using multiple intelligences-based explanatory text teaching materials obtained an average score of 80.94 with the "good" category meaning that students' grades were better than before. The value of learning outcomes above indicates that the use of explanatory text teaching materials based on multiple intelligences makes the value of students' explanatory text learning better. the increase in learning outcomes is evidence that teaching materials based on multiple intelligences will be effective if used by students and teachers in learning. Thus there are differences in student learning outcomes using teaching materials based on multiple intelligences using textbooks. So it can be concluded that the teaching material of writing explanatory text based on multiple intelligences is already feasible and effective for use in learning Indonesian, especially in explanatory text material.

## **V. Conclusion**

The process of developing explanatory text teaching materials based on multiple intelligences is carried out with three stages: a preliminary study stage, initial product development and product trials. In the preliminary study stage, a needs analysis for teachers and students is conducted. From the needs analysis it is obtained that 100% of teachers and students of State Vocational High 1 Padangsidimpuan need companion teaching materials in learning Indonesian. In the initial product development stage, product design and product validation are carried out to 2 material experts and 2 design experts. After the validation process, the product is declared eligible to be tested. In the third stage product trials are carried out in three ways namely individual trials, small group trials and limited field trials. Individual trials received an average 88.89 participation in the "very good" category. Small group trials obtained an average percentage of 92.75 in the "very good" category. Limited field trials received an average percentage of 94.75 in the "very good" category. Based on these data, it is obtained teaching materials that are suitable for use by teachers and students in learning.

Explanation text teaching materials based on multiple intelligences for 11th grade students of State Vocational High School 1 Padangsidimpuan are declared to be eligible and suitable for use as students' independent teaching materials. This is obtained based on the results of the assessment of material experts and design experts on teaching materials. The results of the validation of material experts on the feasibility of the content obtained an average of 84.56% with a very good category, the feasibility aspect of the presentation obtained an average of 94.23% with a very good category, the assessment of language aspects gained an

average of 93.27 with an excellent category . Eligibility for multiple intelligences with an average of 96.88. For the assessment of graphics by design experts obtained an average of 94.58% with a very good category. Explanation text teaching materials based on multiple intelligences are declared effective in generating student learning activities and outcomes. This is evidenced from the test of student learning outcomes in writing explanatory texts. At the time of the pretest obtained an average of 60.63 and at the time of the posttest obtained an average of 80.94. Therefore learning by using explanatory text teaching materials based on multiple intelligences is better than before.

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