

# Development of Explanatory Text Materials Based on Problem Solving in Senior High School Pematangsiantar

Tiarma Nova Intan Malasari

Student Postgraduate Program in Indonesia Language Education  
Universitas Negeri Medan  
Medan, Indonesia  
tiarmamanalu050612@gmail.com

Biner Ambarita

Lecturer Postgraduate Program in Indonesia Language Education  
Universitas Negeri Medan  
Medan, Indonesia

Malan Lubis

Lecturer Postgraduate Program in Indonesia Language Education  
Universitas Negeri Medan  
Medan, Indonesia

**Abstract**-Problem solving method is not just a teaching method but also a method of thinking, because in problem solving can use other methods starting with looking for data to draw conclusions. The development of this problem solving text-based explanatory learning module is structured grammatically in a systematic order and meets the characteristics to support students in learning. This study aims to find out product development in the form of explanatory text learning module based on problem solving for senior high school students. The last test subject of two Indonesian subject matter experts, two design instructional experts, three students for individual testing, nine students for small group test and thirty-two students for field test. The data on the quality of this development product is collected by questionnaire which shows the test of material experts with very good category, excellent design test experts, excellent quality individual test, excellent small group test and the final assessment of field test with excellent quality, test results the effectiveness of students learning to use learning-based module of problem solving is shown by the result of data processing obtained by t-test. Thus, the development of instructional materials in the form of learning modules on explanatory text learning is very feasible, easy and effective to used on explanation text learning in senior high school.

**Keywords:** *problem solving, module, development*

## I. INTRODUCTION

Teaching materials is one source of learning is very instrumental in the learning process. This is expressed by Prastowo (2015), which concludes that teaching materials are all materials (information, tools, and text) systematically

arranged, showing the complete figure of competence to be mastered by learners and used in the learning process with the aim planning and review of learning implementation. The development of teaching materials needs to be done in an effort to improve learning outcomes and establish the material based on the context of the situation in the school. These teaching materials have a function to help learners in obtaining alternative teaching materials other than textbooks, and facilitate teachers in implementing learning. But the reality in the field, the teacher has not been creative in developing teaching materials. The teaching materials used in schools still have some drawbacks and weaknesses. Teaching materials presented by teachers are still not as relevant to the needs of learners. [3]

Development of teaching materials of explanatory text is expected to help develop the thoughts, opinions, imagination, and creativity of the students so that students are able to understand the structure of explanatory text in accordance with the surrounding environment. Factors that cause the learning material explanation text conducted by teachers in the classroom is still less interesting and monotonous is the teacher still using conventional materials that are oriented on the results of students, not on the learning process so that students are only given theories of writing and forced to understand the material, while still there are students who have not understood about the material of explanatory text and its concept. The accuracy of teachers in choosing, applying and developing teaching materials used in

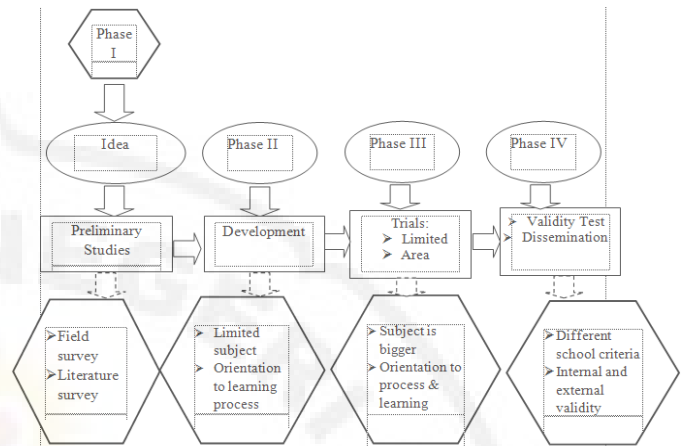
explanatory text materials greatly affect the learning process, but in this case the teacher is still not quite right.

This is reinforced by the observations and interview conducted by researchers at school. Based on the results of interviews with two Indonesian language teachers at senior high school Pematangsiantar, namely Susy Amny Magdalena, S. Pd., And Mrs. Sorta Manurung, S. Pd., Obtained information that teaching materials used by teachers have not been developed so that learning for the material explanatory text has not been maximized and has not reached all KD. It can be seen on the average score of learning result of Indonesian language learning which is still under KKM, as in the 2015 learning year.

Based on the theory, the development of teaching materials in the form of explanatory text module with problem-solving based is needed to support students in improving knowledge in explanatory text material. This module is also needed to support the progress of student learning outcomes in explanatory text material. The module is also developed with problem-solving methods, this method will serve as the color and characteristic of the module developed and make the module increasingly attract students' attention. According to (Gagne in Mulyasa, 2005) if a learner is confronted with a problem, in the end they are not just solving problems, but also learning something new [2]. Problem solving plays an important role both in science and in many other disciplines, especially for flexible learning. (Depdiknas, 2008) mentions: problem solving method is not just a teaching method but also a method of thinking, because in problem solving can use other methods starting with finding data to draw conclusions. [1]

## II. RESEARCH METHODS

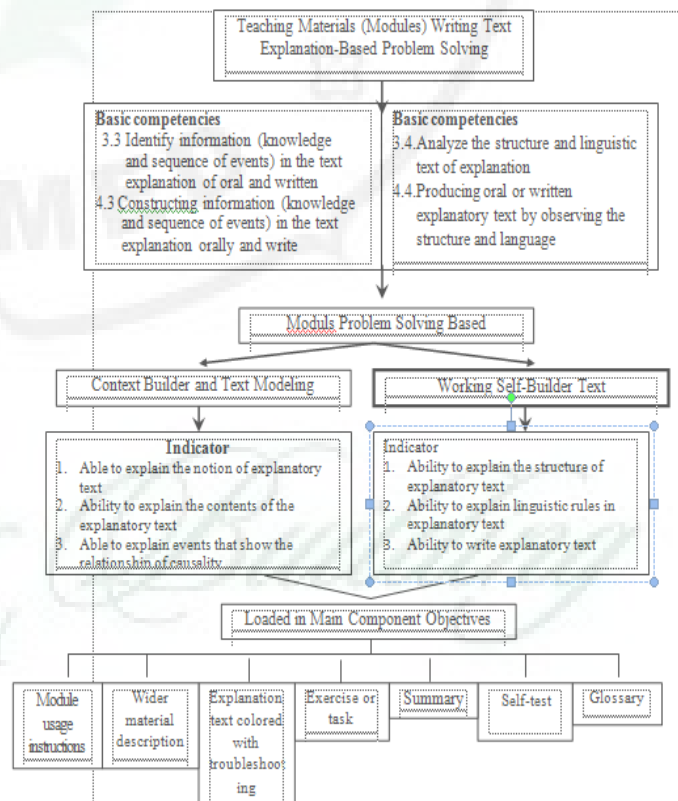
The type of this research is research development (Research and Development) that is development of writing text writing materials explanation-based problem-solving method for high school grade XI. According Sugiyono (2016), research and development methods are research methods used to produce a specific product and test the effectiveness of the product [5]. This research and development refers to the theory of teaching materials developed by Borg and Gall. The steps of development research according to Borg and Gall can be seen in the following diagram: [6]



Gambar 3.1 Chart of R & D Implementation Procedures (Sanjaya, 2014: 136)

This research was conducted on the students of class IX of senior high school 2 Pematang Siantar located at Patuan Anggi streets number 8, Suka Dame, North Siantar Subdistrict, Pematang Siantar City, North Sumatera. The developed teaching material was analyzed using the validation of the materials expert team and the instructional material design and the assessment using a rubric developed by the researcher by modifying the expert's opinion. The material criteria are based on the criteria of conformity of explanatory text materials based on problem solving methods and are based on revised 2013 syllabus curriculum 2016.

Design of explanation module based on problem solving can be seen in the following chart:



Instruments used in this study to collect data are grouped into 2 kinds, namely:

1. Instrument validation team of experts on learning materials writing explanatory text-based troubleshooting methods.
  - a. The questionnaire validation sheet of the subject matter material
  - b. Questionnaire design validation master of the questionnaire
2. Instrument responses of students and teachers on teaching materials
  - a. Individual trial 3 people
  - b. Trial of small group of 9 people
  - c. Field trials are limited to 32 people
  - d. Response Indonesian teacher 2 people

Data analysis techniques conducted in this development study is this data collected through expert validation, questionnaire distributed to students. Assessment instruments for validations and individual trials, small groups and limited field groups are created in the likert scale that has been scored as in the table below.

Table 3.5 Criteria Answers Instrument Validation Item with Likert Scale

No.	Answer	Scor
1	Very Good	4
2	Good	3
3	Not Good	2
4	Poorly	1

(Sugiyono, 2016: 93)[5]

Then the data is analyzed descriptively quantitative, that is calculated percentage of indicator for each category on instructional material developed.

$$\% \text{ skor} = \frac{\text{number of indicators per category}}{\text{the number of indicators of all categories}} \times 100\%$$

Based on the calculation of the formula above, the figure is generated in percent. The classification of the score is then changed to classification in the form of percentage (Sugiyono, 2011: 118), then interpreted with qualitative sentences. [4]

### III. RESEARCH RESULT

Based on the formulation, objectives, results and discussion of teaching materials development research in the form of explanatory text learning module based on problem solving proposed.

Based on the formulation, objectives, results and discussion of teaching materials development research in the form of explanatory text learning module based on problem solving previously mentioned, it can be concluded discussion and research results as follows. At the beginning of the study will spread questionnaire needs analysis to 34 respondents, consisting of 32 students and 2 teachers.

Based on the data needs analysis by students obtained the following conclusions:

1. All teachers and students (100%) said they were familiar with the explanatory text module based on problem solving.
2. All teachers and students (100%) stated that they do not use learning-based explanatory text module based on problem solving in the learning process and never use the media.
3. All teachers and students (100%) stated needing explanatory text learning module based on problem solving.

The validation result from the material expert, in the form of scoring score on learning component of explanatory text based on problem solving, can be known through the assessment done by the material expert from the quality aspect of the learning module which includes the quality of the content feasibility, feasibility of presentation, language feasibility, and feasibility based on method problem solving is rated "excellent" with the percentage of scores for validation scores from material experts is 95.08%.

The validation results of the design experts, in the form of scoring scores on the learning component of explanatory text based on problem solving, can be known through the appraisal done by the design expert from the quality aspect of the learning module that the aspect of the feasibility of grading is considered "excellent" with the percentage of scores for the validation score from design expert is 86.96%.

The validation result from the material expert, in the form of scoring score on learning component of explanatory text based on problem solving, can be known through the assessment done by the material expert from the quality aspect of the learning module which includes the quality of the content feasibility, feasibility of presentation, language feasibility, and feasibility based on method problem solving is rated "excellent" with the percentage of scores for validation scores from material experts is 95.08%.

The validation results of the design experts, in the form of scoring scores on the learning component of explanatory text based on problem solving, can be known through the appraisal done by the design experts from the quality aspect of the learning module that the aspect of the feasibility of the grading is considered "excellent" with the percentage of scores for the validation score from design expert is 86.96%.

Very good quality individual test (94,76%), very good small group test (97,64%) and last assessment of field test with excellent quality (96,20%), result of effectively test to student studying using learning based module problem solving is indicated by the results of data processing obtained value "t", then matched with the table at a significant level of 5% = 1.66. This proves that t count < t table is 1.66 < 4.07. Thus, it is concluded that the development of instructional materials in the form of learning modules on explanatory text learning is very feasible, easy and effective to used on learning text explanation in high school class XI.



#### IV. CONCLUSION

Teaching materials is one source of learning is very instrumental in the learning process. The development of teaching materials needs to be done in an effort to improve learning outcomes and establish the material based on the context of the situation in the school. Teaching materials have a very important position in learning, namely as a representation of the teacher's explanation in front of the class. Factors that cause the learning material explanation text conducted by teachers in the classroom is still less interesting and monotonous is the teacher still using conventional materials that are oriented on the results of students, not on the learning process so that students are only given theories of writing and forced to understand the material, while still there are students who have not understood about the material of explanatory text and its concept. The accuracy of teachers in choosing, applying and developing teaching materials used in explanatory text materials greatly affect the learning process, but in this case the teacher is still not quite right.

Based on the theory, the development of teaching materials in the form of explanatory text module with problem-solving based is needed to support students in improving knowledge in explanatory text material. This module is also needed to support the progress of student learning outcomes in explanatory text material. The module is also developed with problem-solving methods, this method will serve as the color and characteristic of the module developed and make the module increasingly attract students' attention. Problem solving plays an important role both in science and in many other disciplines, especially for flexible learning.

The development of this learning module is a programmable development in a systematic sequence and meets the characteristics to support students in learning. The last test subject of two Indonesian subject matter experts, two design instructional experts, three students for individual testing, nine students for small group test and thirty-two students for field test. Data about the quality of this development product were collected by questionnaire with the result of the research showed that the experimental material was very good (95,08%), the test of the excellent category learning to design expert (86,96%), the excellent quality individual test (94,76%), very good small group test (97,64%) and last assessment of field test with very good quality (96,20%), result of effectively test to student learning to use problem-based learning module is shown with result of data processing obtained value "t", then matched with table at significant level 5% = 1.66. This proves that  $t_{count} < t_{table}$  is  $1.66 < 4.07$ . Thus, it was concluded that the development of teaching materials in the form of learning modules on learning text of class XI high school explanation.

#### REFERENCES

- [1] Depdiknas. 2008. *Penulisan Modul*. Jakarta: Depdiknas.
- [2] Mulyasa. 2005. *Menjadi Guru Profesional: Menciptakan Pembelajaran Kreatif dan Menyenangkan*. Bandung: Rosda.
- [3] Prastowo, Andi. 2015. *Panduan Kreatif Membuat Bahan Ajar Inovatif*. Jogjakarta: Diva Press.
- [4] Sugiyono. 2011. *Metode Penelitian Kombinasi (Mixed Methods)*. Bandung: Alfabeta.
- [5] Sugiyono. 2016. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- [6] Sanjaya. (2014). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Predana Media Group.