

Development Of Text Teaching Materials Of Regional Learning Biography In Mathematics And Natural Science Students Of State 5th School, Binjai Academic Year 2017/2018

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Abstract : *The purpose of this research is 1) to know how the development of Indonesian language teaching materials on biographical materials of regional figures in grade X students in Mathematics and Natural Sciences 2) to know the effectiveness of teaching materials of biographical text of regional figures in the students of class X of Mathematics and Natural Sciences, and 3) to find out the obstacles faced by teachers in developing teaching materials biography of daers in the class X students of Mathematics and Natural Sciences. This research uses R & D method. The subjects of this study are the students of class X of Mathematics and Natural Sciences-1 (MIA-1) of SMA Negeri 5 Binjai totaling 36 people. The steps used in this study is to collect data, product design, validation of experts, product revisions and product implementation. Based on the results of media expert validation obtained data of 86.60% with very good criteria. Furthermore, the material expert validation results obtained by 86.26% with very good criteria. In addition, the results of the assessment of Indonesian subjects subjects amounted to 94.60%. In general, if the average percentage of media expert validation, material expert, and subject matter of Indonesian subjects is 88.93% with very good criteria. then the average learning outcomes of learners who are taught using biographical module of local figures of 92.44 whereas the average learning outcomes of learners who are taught without using the biographical module of regional figures of 27.81. This indicates that the biography module of the regional figure is effectively used in the learning with the effectiveness value of 92.44.*

Keywords : *Development, Instructional Materials, Text of Biography, Regional Figure*

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I. Introduction

In Law Number 20 of 2003 concerning the National Education System stated that "Education is a conscious and planned effort to realize a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, morals noble, and the skills needed by him, society, nation and state. "This shows that education is an activity that is carried out consciously and planned. Education is not an activity that is carried out spontaneously and without preparation.

Besides being a conscious activity, it turns out that education is a fairly complex activity in its implementation. The implementation of education needs to comply with several principles. This is in accordance with the mandate of Law Number 20 of 2003 concerning the National Education System, namely:

1. Education is carried out in a democratic and fair manner and is not discriminatory by upholding human rights, religious values, cultural values and national diversity.
2. Education is organized as a systemic unit with an open and multi-meaning system.
3. Education is held as a process of civilizing and empowering students that lasts for life.
4. Education is carried out by giving examples, building willingness, and developing students' creativity in the learning process.
5. Education is carried out by developing a culture of reading, writing and arithmetic for all citizens.
6. Education is carried out by empowering all components of society through participation in the implementation and quality control of education services.

To realize the ongoing educational process that is in line with expectations, there is a need for maximum preparation. This needs to be done so that the educational objectives are in accordance with the mandate of Law Number 20 of 2003, namely "National education functions to develop the ability and shape the dignified character and national civilization in order to educate the life of the nation, aimed at developing the

potential of students to become believers and fear God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and being a democratic and responsible citizen can be achieved.

The implementation of the teaching and learning process in schools is certainly part of efforts to realize the goals of national education. The process involves many supporting elements. Some of these elements include competence of teachers and education personnel, completeness of facilities and infrastructure, availability of books as references, safe and conducive learning environment, and support from various parties.

Teachers as educators are qualified education staff as teachers, lecturers, counselors, tutors, widyaiswara, tutors, instructors, facilitators, and other designations that are appropriate to their specificities, and participate in organizing education. The teacher has an important role in the implementation of the teaching and learning process. The presence of the teacher besides being a source of information, of course also acts as a facilitator and motivator for students. In addition to being equipped with abilities in accordance with the educational background he has taken, a teacher must continue to strive to improve competence by participating in various training, education and training and participating in certain competitions. With the increase in competence possessed by a teacher, it is expected that it will maximize its role as information bearer for students.

Another element that is no less important for the implementation of teaching and learning in schools is the availability of supporting facilities and infrastructure. Especially in an all-developing era like today, the existence of facilities and infrastructure has become a supporting element that needs to be prioritized in its fulfillment. As a simple example, for example, the availability of Wi-Fi network facilities at school. In the past ten years, the presence of Wifi networks may be considered not very important because the development of information and communication is still manual. However, nowadays, the availability of Wifi networks is a must. Supporting information in teaching and learning activities develops so fast and can be easily found and used by students with the availability of Wifi networks. This certainly will not be done if the school does not have a Wifi network. The information needed by students is entirely dependent only on the information contained in the textbook and the information conveyed by the teacher.

In addition to teachers and Wifi networks, other elements that also need attention for the maximum implementation of the teaching and learning process to get results as planned are the availability of reference books. Currently the Ministry of Education and Culture has made every effort to provide textbooks for all subjects and all levels of education. Although the availability of Wifi networks can make it easier for students to access the information needed, but for schools that do not have a full Wifi network, of course, require other references. The availability of textbooks as reference sources is of course a separate solution.

The next element is a safe and conducive learning environment. The creation of a safe and conducive learning environment is also needed for the implementation of the teaching and learning process. Without a safe and conducive environment, of course, it will hinder the activities of delivering information to students. Students will feel uncomfortable at school. This if it persists, of course it will hamper students in understanding the subject matter delivered by the teacher. Therefore, the creation of a safe and conducive environment is also needed to support the implementation of the teaching and learning process.

Furthermore, the last element is the support from various parties is also needed for the implementation of the teaching and learning process. Parties who can determine the implementation of the teaching and learning process at school are the principal, school committee, parents, and stakeholders. Concerns of these parties contribute to the success or failure of the teaching and learning process. Without a guarantee of good policies in the field of education, of course, will hamper the implementation of education.

Next, discussing the availability of books as a learning resource, of course, discusses the role of books as teaching materials. As one source of learning, of course the availability of books needs attention. Some teachers still rely on books as supporting media to convey information to students. The more books available, of course, the more information that will be provided by the teacher to students will certainly enrich.

Actually, without having to depend on the availability of textbooks, a teacher can make his own teaching materials that are in accordance with the subject matter he will convey. Precisely by making their own teaching materials, it is expected that they will represent the characteristics of students. However, all this time what has happened in the field, more teachers rely on textbooks in schools. Teachers are still reluctant to develop their own teaching materials.

Material regarding the previous biography text is one of the materials that must be taught in class XI, but since the 2017/2018 school year the material on biographical texts is taught in class X. This is in accordance with the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 24 of 2016 concerning Core Competence and Basic Competence as an amendment to the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 67 of 2013 which regulates the same thing. In the Minister of Education and Culture there are 2 basic competencies in the realm of knowledge and 2 basic competencies in the realm of skills that discuss biography, namely:

Table 1.1 Basic Competencies in the Field of Knowledge and Skills

BASIC COMPETENCY	BASIC COMPETENCY
3.14 Assessing things that can be exemplified from biographical texts	4.14 Revealing things that can be exemplified by characters in biographical texts read in writing
3.15 Analyzing aspects of meaning and language in biographical text	4.15 Retelling the contents of biographical texts both oral and written.

Learning biographical text material of course requires a lot of literature. But in reality, the literature in school is still far from expectations. In student textbooks, only three biographical texts were discussed, namely the biographical text of B.J Habibie, the George Saa biography text, and the biography text of Ardian Syah. The number of biographical texts that only three texts are still considered insufficient if used as teaching material. Therefore, additional literature is needed so that more biographical characters are known to students. In addition, in the textbook students are not found biographies of the regional figures discussed. The characters discussed in the textbook of students are national figures from other regions. Not that these figures are not important, it's just that students need to get information about the life history of figures from North Sumatra. This is so that students know that local leaders from North Sumatra also have proud achievements in accordance with the field they are involved in.

In addition, the statement of the Indonesian language teacher at SMA Negeri 5 Binjai reinforces the lack of literature that discusses biographical texts. This was stated by Tiur Marondang, M.Pd, Salminawati Br. Tarigan, S.Pd, and Hermawati, S.Pd. In general, the three Indonesian language teachers argue that there still needs to be additional literature on biographical texts. There are also teachers who argue that the creativity of teachers in developing teaching materials for biographical texts is still low. This of course will have an impact on the availability of very little teaching materials because teachers do not want to develop biography text teaching materials independently.

Based on the explanation above, the writer raises a research title, namely "Development of Biographical Instructional Materials for Regional Figures in Students of Mathematics and Natural Sciences 5 Binjai Senior High School 2017/2018 Academic Year." develop their own teaching materials that will be used to convey the subject matter to students and as a result the availability of more varied teaching materials

II. Method

This research is a research and development research. As explained earlier, that development research is a research that aims to produce products and test the effectiveness of the products produced. This is in line with the opinion of Sugiyono (2010: 297) which states "Research and development methods or in English the Research and Development is a research method used to produce certain products, and test the effectiveness of these products." Through this research a product is produced. teaching materials for biographical texts in the form of modules for students of class X specialization in Mathematics and Natural Sciences Binjai 5 Public High School 2017/2018 school year. The teaching materials that will be produced at the end of this research are in the form of modules. Although before arriving at the final results in the form of modules, of course there are several stages that must be carried out by the researcher.

The reason for the authors choosing development research is to develop teaching materials for biographical texts from existing teaching materials. In the existing teaching materials, there is no discussion about the biographies of regional figures. Therefore, the teaching material that will be developed later, the writer will raise the biography of local figures such as Adam Malik, Sutan Takdir Alisjahbana (STA) and Tengku Amir Hamzah. Some of these figures would be worthy of being appointed to life stories so that students know that there are local figures who have proud achievements. In addition, the purpose of the appointment of biographies of regional figures is to raise the values of local wisdom contained in biographical texts. Another goal to be achieved by raising the biography of regional leaders is to raise students' confidence that many figures from North Sumatra whose names are appropriate to be juxtaposed with national figures from other regions.

There are several stages that must be carried out in research and development. This is in line with the opinion of Borg and Gall. In the opinion of Borg and Gall, the development research stage is as follows: 1) Research and information gathering, 2) Planning, 3) Developing 50 initial products, 4) Initial field testing, 5) Product revision, 6) Field trials, 7) Revision, 8) Operational field test, 9) Final product revision, 10) Product dissemination and implementation.

III. Result

Development research is research that aims to produce products. The types of products produced are in accordance with the research objectives to be achieved. Several development studies with observational text material that are relevant to this study include research conducted by Ernanda Ariyatna with the research title "Development of Teaching Materials Sending Biographical Retelling Texts Based on Students' Class XI

Thoughts in SMK Negeri 2 Medan." Based on expert validation results obtained data that 1) Feasibility of content is 85%, 2) Feasibility of presentation 96.8%, and 3) Feasibility of language 87.5%. Furthermore, the results of the responses of subject teachers were 92.5% and the results of student responses were 85.3%. Furthermore, based on the calculation of the effectiveness of the modules used, the results were 85.62%. Based on these results, the modules produced from the research are categorized as feasible and effective to be used in learning.

Other research that also addresses the problem that is still relevant to this research is the research conducted by Betharia Pane with the title of the research "Development of Learning Media Text Biography Re-Story Based on Adobe Flash Pro CS5 on Students of Class XI Medan Agung Budi High School." that 1) Feasibility of contents is 88.33%, 2) Feasibility of presentation is 88.0%, and 3) Feasibility of language is 85%. In addition, the average student learning outcomes obtained by using the program by 80.0%. This shows that the media developed is declared feasible to be used in learning and is effectively used to improve student learning outcomes.

The development of biographical modules for regional figures is carried out based on the stages as contained in the development procedure. The results of the development are in the form of products which are subsequently carried out due diligence or validation by the experts who have been determined. The experts of validation consisted of material experts, media experts, assessment of Indonesian subject teachers, and students' responses.

Based on the results of validation from media experts, the modules that have been developed are declared feasible to be used on a larger scale. This is based on the results of the media expert validation of 86.60% with very good criteria.

Furthermore, validation from material experts obtained percentage data, namely 1) Feasibility of content of 86.4%, 2) Presentation feasibility of 86.1%, and 3) Language feasibility of 86.1%. Based on the results of these calculations can be determined the average validation of material experts by 86.26% with very good criteria. Based on the response from the material expert, the biographical module of the regional figure that has been developed is declared feasible to be used in learning.

In addition to media experts and material experts, Indonesian language subject teachers also provide responses to the modules that have been developed. Of the 3 (three) respondents who gave responses, then the writer has tabulated the answers to 3 (three) Indonesian language teachers and obtained the percentage in the form of 1) Feasibility of content of 92.4%, 2) Presentation feasibility of 95.0 %, and 3) Language eligibility is 94.4%. From the results of the assessment of Indonesian subject teachers can be determined on average by 94.60% with very good criteria. The results of the responses of Indonesian language subject teachers are of course increasingly reinforcing that the modules developed have been worthy of being used as one of the learning resources, especially for students of class X Mathematics and Natural Sciences (MIA) in biographical text material.

The following results are a summary of the average percentage of the results of the assessment of the biographical module of regional figures by the Ahi Material, media experts, and Indonesian language subject teachers.

Table 4.15 Summary of Percentage of Average Assessment Results on Regional Leader Biography Text Modules by Media Experts, Indonesian Material Subjects and Teachers

No	Criteria	Average Percentage	Category
1.	Learning media experts	86,60 %	Very Good
2.	Expert learning material	86,26 %	Very Good
3.	Indonesian language teacher	93,93 %	Very Good
Average		88,93%	Very Good

IV. Conclusion

Based on the results of research and discussion of the results of the development of teaching materials biography text of regional figures, it can be concluded that the following conclusions:

- a) The results of the development of teaching materials for biographies of regional figures in the form of modules according to media experts obtained a percentage of 86.60% with very good categories. Furthermore, according to material experts, a percentage of 1) Feasibility of contents is 86.40%, 2) Presentation eligibility is 86.30%, and 3) Language feasibility is 86.10%. If taken on average, then the percentage of expert material validation is 86.60% with very good criteria. Whereas the results of the assessment of Indonesian subject teachers on the module of biographical texts of regional figures that have been developed obtained a percentage of 1) Feasibility of content of 92.40%, 2) Feasibility of presentation of 95.00%, and 3) Feasibility of language at 94.40% . If taken on average, the percentage of Indonesian language subject teacher assessment is 93.93% with very good criteria. Based on the results obtained, it

shows that the biographical module of regional figures that have been developed can be used as one of the learning resources for students.

- b) Based on the test of the effectiveness of the product carried out on the module biographical text of the regional figure it is known that the module of biographical text of the regional figure is effectively used in the learning process. This is evidenced by the results of the media effectiveness test of 92.44%.
- c) Obstacles faced by Indonesian language subject teachers in developing teaching materials include: lack of availability of collections of biographical textbooks in schools, lack of interest from subject teachers to develop teaching materials for biographical texts of regional leaders independently, and lack of motivation within each - each subject teacher to develop his own teaching material.

References

- [1] Arikunto, Suharsimi. 2003. Management Research. Jakarta: Rineka Cipta
- [2] Arikunto. 2005. Research Procedure A Practice Approach (Revised Edition V). Jakarta: Rineka Cipta
- [3] Arikunto. 2007. Research Management. Jakarta: Rineka Cipta
- [4] Ariyatna, Ernanda. 2018. Development of Teaching Materials for Writing Biographical Retelling Texts Based on Students' Mind Maps of Class XI SMK Negeri 2 Medan. Thesis: Postgraduate Program of Medan State University
- [5] Butler, Christopher. 1995. Statistics in Linguistics. Bandung: ITB Publisher
- [6] Ministry of Education. 2005. Large Third Edition Indonesian Dictionary. Jakarta
- [7] Hamdani. 2017. Teaching and Learning Strategy. Bandung: CV. Faithful Library
- [8] <https://id.wikipedia.org/wiki/Angket>
- [9] Kosasih, E. 2014. Types of Text in Indonesian Language Courses at SMA / MA / SMK. Bandung: Yrama Widya.
- [10] M.A, Sudjana. 2002. Statistics Method. Bandung: Tarsito
- [11] Meihardian, Fitri Ayu. 2017. Development of Literacy-Based Biographical Text Learning Materials in Class XI Tarbiyah Islamiyah High School. Thesis: Postgraduate Program of Medan State University
- [12] Mulyasa. 2006. Text in Indonesian Language Learning. Jakarta: PT. Garasindo Persada
- [13] Pane, Betharia. 2016. Development of Learning Media Text of Biography Re-Story Based on Adobe Flash Pro CS5 for Students of Class XI Medan Agung Budi High School. Thesis: Postgraduate Program of Medan State University
- [14] Prastowo, Andi. 2011. Creative Guidelines for Making Innovative Teaching Materials. Jogjakarta: DIVA Press
- [15] Bookkeeping Center. 2006. Selection and Utilization of Textbooks for Indonesian Language Lessons in Elementary, Middle School, High School. Jakarta.
- [16] Sanjaya, Vienna. 2008. Planning and Design of Learning Systems. Jakarta: Kecana Prenada Media Group
- [17] Sanjaya, Vienna. 2010. Education Process Oriented Learning Strategies. Jakarta: Prenada Media Group
- [18] Sitepu, B.P. 2005. Choosing a Textbook. Journal of Education. Sower 4, 113-126
- [19] Sitepu, B.P. 2008. Various Source Based Textbooks. Sowing Education Journal 10: 95-102
- [20] Sofian and Iif. 2011. Learning Development Construction. Jakarta: Pustakarya Achievement
- [21] Sugiyono. 2010. Quantitative, Qualitative and R & D Research Methods. Bandung: CV. Alfabeta
- [22] Sugiyono. 2016. Research and Development Methods (Research and Development / R & D). Bandung: CV. Alfabeta
- [23] Suherli, et al. 2016. Indonesian Language SMA / MA / SMK / MAK. Jakarta: Ministry of Education and Culture
- [24] Republic of Indonesia Law Number 20 Year 2003 concerning National Education System.

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