

## DEVELOPMENT OF LITERATION BASED THEMATIC INTEGRATED TEACHING MATERIALS USING MICROSOFT SWAY FOR CLASS V STUDENTS OF ELEMENTARY/SD/SD

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### ABSTRACT

The integrated thematic textbook developed by the government and becoming a learning resource for elementary students already have the characteristics of literacy learning. However, using them for studying online is less effective. Therefore it is necessary to develop a teaching material that uses an online program/media which can be a reading source as well as a place to do exercises. This research is development research using the Borg and Galls design. The evaluation method used refers to a formative evaluation design consisting of expert reviews and small group evaluations. The validity data were collected through the validation of teaching materials by 5 experts and analyzed using quantitative descriptive techniques. Practicality data were collected through observing the implementation of learning and filling out questionnaires by teachers and students. The collected data from observations and questionnaires were analyzed descriptively and quantitatively. The results showed that the average expert and practitioner assessment of the content validity was 3.12 with the valid category and the construct validity 3.15 with the valid category. The average practicality assessment by students was 3.24 and by the teacher 3.25. This shows that the teaching materials developed are very practical. It can be concluded that literacy-based integrated thematic teaching materials using Microsoft Sway for grade V Elementary/SD students developed are valid and very practical.

*Keywords: Teaching Materials, Integrated Thematic, Literacy, Microsoft Sway*



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### INTRODUCTION

The COVID-19 pandemic that has hit the world has an impact on various segments of life, including the world of education. According to UNESCO data, on April 2, 2020, as many as 1,484,712,787 (84.8%) students in the world felt the impact of the closure of 172 countries to break the chain of the spread of COVID-19 (UNESCO, 2020). Almost all countries in the world have adopted policies to restrict activities. School closed. Children must follow lessons from their own homes.

Indonesia is experiencing the impact of the COVID-19 pandemic. According to UNESCO data on April 2, 2020, 68,265,787 students experienced the impact of large-scale social restrictions imposed. A total of 5,909,251 of them are pre-primary students, 29,425,748 Elementary/SD students, 24,893,570 middle school students and 8,037,218 post-secondary students (UNESCO, 2020). The Minister of Education and Culture of the Republic of Indonesia issued Circular No 4/2020 concerning Implementation of Education Policies in an Emergency for the Spread of COVID-19, where one of the contents describes learning carried out from home through online/distance learning (Mendikbud, 2020).

Learning that is carried out from home does not turn out to be going well, many socializations are suitable for teachers, students, and parents, including mastery of technology is still lacking, additional internet quota costs, additional work for parents to assist children in learning, communication and additional for parents in accompanying children to learn, communication and enhancement between students, teachers, and parents are decreasing and working hours are not limited for teachers because they have to communicate and coordinate with parents, other teachers, and school principals (Purwanto et al, 2020) (Aji, 2020). These constraints also cause the implementation of the 2013 Curriculum not to go well (Setyorini, 2020), so there is also concern that it will worsen the literacy skills of Indonesian students. Even though scientific literacy is very important to be applied in schools, especially in Elementary/SD so that students can find concepts and apply them in everyday life (Fitria, 2017b). According to 2018 PISA data, Indonesian students' literacy skills are still very low where in terms of reading competence, Indonesia is ranked 72 out of 77 countries. For math scores, Indonesia is ranked 72 out of 78 countries. While the Science score is ranked 70 out of 78 countries. This value tends to be stagnant in the last 10 - 15 years (Kasih, 2020).

The 2013 curriculum is designed to develop student competencies in the domains of knowledge, skills, and attitudes as a whole. The achievement process is carried out by combining the three domains through an integrated thematic learning approach. To support the achievement of curriculum goals, activity-based thematic books have been published that encourage students to achieve predetermined standards. The integrated thematic book describes the learning process that helps students achieve each expected competency through active, creative, challenging, and meaningful learning, and encourages them to think critically based on noble values (Maryanto, 2017).

The contents of integrated thematic books can be developed into teaching materials that can be accessed online using various software so that students can learn from home online. One of the software that can be used is Microsoft Sway. Microsoft Sway is software developed by Microsoft to make presentations easily but attractive. In this Microsoft Sway application, various attractive templates have been provided to choose from. Besides being able to type in the subject matter, in Microsoft Sway you can also add photos, videos, or links to certain websites to support learning. Giving practice questions can also be easier because Microsoft Sway can also be linked with Microsoft Forms to work on quizzes or practice questions. By using this Microsoft form, it teachers is also easier to provide assessments. Based on the description above, it is necessary to research the development of integrated thematic teaching materials based on literacy using Microsoft Sway. This study aims to obtain literacy-based integrated thematic teaching materials using Microsoft Sway for grade V Elementary/SD students that are valid and practical.

## **METHODS**

This type of research is development research (Research and Development/R&D) because the purpose of this study is to develop literacy-based teaching materials using Microsoft Sway in learning ecosystem themes for grade V Elementary/SD. The development model in this study follows the educational research and development model developed by Borg and Gall (Sugiyono, 2011). According to Borg and Gall, "educational research and development (R&D) is a process used to develop and validate educational production". Thus, a series of research and development steps are carried out in a cycle, and each step always refers to the results of the previous steps until finally a new educational product is obtained. The development procedure in this study was modified

from Borg and Gall, which consisted of several cyclical steps, namely: 1) research and information collecting, 2) planning, 3) develop a preliminary form of product, 4) preliminary field testing, 5) main product revision, 6) main field testing, 7) operational product revision, 8) operational field testing, 9) final product revision, 10) dissemination and implementation. This step can be adjusted according to the research needs. This research is only used until the 7th stage. Later, the next 3 stages can be continued to perfect the results of this development. The instrument for collecting data in this study was a questionnaire to measure validity and practicality.

## **RESULTS AND DISCUSSION**

### **Research and information collecting**

Research and information collection were carried out to identify problems and needs in the implementation of online learning in grade V Elementary/SD, especially on the theme of the sub-theme ecosystem 1. Data were obtained through interviews with class V teachers of Elementary/SD 20 Lubuk Alung, Ampek Nagari District, Agam Regency, collection of syllabus documents and plans. implementation of learning, as well as student books and teacher books on the theme of 5 Ecosystems.

The obstacle faced by teachers during online teaching is that not all students have an android cellphone, the network at the student's house is also not good, so the teacher cannot maximally deliver material to students. The time given to completing the lesson material and doing the exercises is lacking because students have to write in books and send assignments via WhatsApp or take them to school. This is also very inconvenient for teachers to provide assessments. According to the teacher, students can't understand the material in a short time because there is quite a lot of subject matter. Teachers are still new to this pandemic, so they are not yet trained to make teaching materials that can be used online. The teacher hopes that there will be interesting teaching materials that can increase student activity in online learning and can increase student curiosity.

Syllabus analysis is carried out to see the suitability of teaching material with the competencies that must be achieved by students. The main competencies in the ecosystem theme are 1) Accepting and carrying out the teachings of their religion; 2) Demonstrate honest, disciplined, responsible, polite, caring, and confident behavior in interacting with family, friends, teachers, and neighbors; 3) Understand factual knowledge by observing (hearing, seeing, reading) and asking questions based on curiosity about himself, God's creatures and their activities, and the objects they find at home and school; and 4) Presenting factual knowledge in a clear, systematic, and logical language, in aesthetic works, in movements that reflect healthy children, and in actions that reflect the behavior of children who are faithful and have noble character. The syllabus for grade V Elementary/SD theme 5 can be seen in the Appendix. The results of the syllabus analysis show that the material in the syllabus is by the competencies that must be achieved by students. The order of the material is also suitable so that it can be used as a reference for the development of teaching materials.

Analysis of the available student books and teacher books aims to see the suitability of the contents of the book, how to present and practice with the syllabus. In addition, it is also to assess whether the material presented in student books and teacher books has supported the literacy process for students. The results can be concluded that the material in the student book and the instructions in the teacher's book can support the literacy process for students so that the material and assignments in the book are good for use.

Student book analysis was carried out based on research conducted by Suyono, et al. (2017). The results found that in the thematic book of class V, ecosystem theme, sub-theme 1, there are patterns of literacy activities, namely: 1) schema-read-answer pattern. The activity begins with activating the student schemata then reading the text is continued by answering questions. Fourth, 2) the schemata-read-question pattern. The activity begins with activating the student schema then reading and then writing questions, 3) the question-read-answer pattern. The activity begins with arranging questions related to the reading, then the students read, followed by answering questions related to the reading content, 4) the reading-trial scheme. The activity begins with activating the student schemata then reading the text followed by trying something based on the text that has been read.

Interviews were conducted on three grade V students who had finished studying the material on Theme 5: Ecosystems. The three students each represent groups with high, medium, and low academic abilities. Interviews were conducted separately on January 7, 2021. Based on the results of the interview, it was obtained information on the difficulties of students during online learning. Students feel less interested in learning because the teacher only gives assignments according to what is in the student book. Students find it difficult to make assignments because they have to write assignments in books and then photograph them and send them to the teacher, or take them to school. In terms of language, students feel they can understand the language used in student books well. Students expect teaching materials that are interesting and not monotonous, only read but also can be watched in the form of interesting videos.

### **Planning**

At this planning stage, the selection of material to be taught is carried out based on the results of curriculum analysis, teacher interviews, and student interviews. The results concluded that the material in student books and teacher books was appropriate and already based on literacy, only need to change from the form of printed teaching materials to digital teaching materials that can be used online and are interactive. Several programs can be used to design teaching materials such as PowerPoint, Prezi, Canva, Google Slides, Microsoft Sway, Slidebean, and so on. The author chooses to use Microsoft Sway because besides being easier to use in designing the learning stage, it is also easier to design its appearance. After all, in Microsoft Sway you can embed pictures, videos, teaching materials, practice questions from other programs, such as from stored files. on computers, the web, youtube, Microsoft forms, google, and so on (Sudarmoyo, 2018).

The material used in this teaching material is taken entirely from student books and teacher books. Readings are immediately transferred to Microsoft Sway on the storyline menu. The dialog in the book is created with Powtown, then pinned to Microsoft Sway. Pictures, some are used from books, and some are downloaded or embedded from the web. Videos are added from the author's personal YouTube or other people's YouTube according to the material. Mind map creation is done using the google program. The discussion is designed using the jam board program. The practice questions are designed using Microsoft Form.

### **Develop preliminary form of product**

The initial product development of literacy-based thematic teaching materials using Microsoft Sway starts from moving the material in student books that are by the syllabus, to Microsoft Sway, in the storyline section. Transfer of material is carried out in stages according to the stages of learning. In this study, the teaching materials developed were

class V Elementary/SD theme 5 sub-theme 1 which consisted of 6 lessons. So that 6 teaching materials were made for 6 meetings.

The discussion on teaching materials is presented based on the order in the student book and added to the instructions in the teacher's book. In the beginning, it starts by presenting what will be learned that day. Then proceed by observing and discussing pictures and/or displaying conversations that lead students to study the material to be studied. After that students are invited to read and find important thoughts and information on the reading material. Students are also invited to practice observing their surroundings to study material on the readings they find around them and write them down on their own or by discussing with friends.

### Develop preliminary form of product

The data in the initial field test stage were the results of the validation of teaching materials by 5 experts consisting of 4 lecturers and 1 teacher. Experts consisting of lecturers consist of experts in the field of social studies, experts in the field of science, language experts, and media experts. Meanwhile, experts from teachers are practitioners who have experience teaching in Elementary/SD. The data on the validity of teaching materials were obtained through the validation sheet. The assessment given includes four aspects, namely the presentation of the material, the feasibility of the content, language, and the graphic aspects of the teaching materials. The validity of each aspect can be seen in Table 1 below.

Table 1 Content validity and constructive validity of teaching materials

Rated aspect	Validity			
	Contents	Criteria	Construct	Criteria
Content eligibility	3,08	Valid	3,06	Valid
Presentation of material	3,00	Valid	3,00	Valid
Language	3,08	Valid	3,21	Valid
Graphics	3,33	Valid	3,33	Valid
Average	3,12	Valid	3,15	Valid

Based on the results of the validation of the experts, it can be seen that the appropriateness of the content of the developed teaching materials is valid in terms of content and construct. Thus the material and exercises presented are suitable for use as teaching materials in thematic learning in grade V primary school. In integrated thematic learning, there is an integration between one subject and another. Science learning can accommodate other subjects such as Indonesian language subjects and cultural arts. The implementation of integrated science learning in Elementary/SD is very decisive in developing the character of students in Elementary/SD (Fitria et al, 2018).

Indicators of aspects of the presentation of material include techniques in presenting material, namely using literacy, systematic approaches, and clarity in presenting the material. The presentation of material on teaching materials has been arranged systematically, clearly, and completely. The presentation of material in teaching materials is relevant (relevant) to the theory of teaching materials, which includes, among others, learning instructions, competencies to be achieved, supporting information, exercises, work instructions, and evaluation. Thus the presentation of teaching materials is valid in terms of content (relevance). The developed teaching materials provide opportunities for students to read, write, think, ask, discuss, seek information to develop their literacy skills. Thus the presentation of the material in the developed teaching materials is valid in terms

of the construct (consistency). Indicators of linguistic aspects include readability, conformity with good and correct Indonesian rules, and language logic. According to experts, the linguistic aspects of the developed teaching materials are valid in content and construct. The teaching materials already use language and terms that are easy to understand. The sentences and grammar used are by Indonesian rules. Indicators of graphic aspects include the design of teaching materials. The design of the teaching materials developed uses a consistent size and type of writing as well as colors. According to experts, the graphic aspects of the teaching materials developed are valid in content and construct. In general, experts provide an assessment that is not much different from the teaching materials being developed. Two experts stated that the teaching materials developed were valid with revisions and three experts did not fill out the general assessment. Valid means that the assessment has provided accurate information about the learning media developed (Trianto, 2010). Revisions are made by the suggestions and assessments provided by each expert.

### **Main product revision**

Product revisions are carried out based on the assessments and suggestions given by experts on the validation sheet. The improvements suggested by experts include: 1) Adjusting the steps in the presentation of teaching materials according to literacy principles, 2) Avoiding consecutive questions so that they become clues for students, 3) Adjusting instructions in activities by presenting teaching materials according to literacy contexts, 4) Explain first how to find important information in the text, 5) Use of punctuation marks and word choices needs to be improved again, 6) There are still overlapping words and sentences, 7) Videos on learning media should have a talent voice that explains the visual, 8) All pictures/illustrations can be clicked but there is no benefit. It will be interactive if after clicking there is an explanation in the form of text or audio, 9) A place can be provided for students to write down reflections or report the results of their collaboration with parents. Everything has been fixed according to the suggestions, except for point 8 because Microsoft Sway does not yet support this.

### **Main field testing**

The main field test was carried out to see the practicality of the teaching materials being developed. This data was collected through a questionnaire. A score of 1 is given if you strongly disagree with the questionnaire statement, a score of 2 for disagree, a score of 3 for agreeing, and 4 for strongly agreeing. The questionnaire is composed of three indicators with 15 statements. The results of filling out the questionnaire by students showed that some students stated that the time to understand the material was by the time available. Likewise, for the ease of use of teaching materials and the benefits obtained in using these teaching materials, most students agreed. The data on the results of filling out the student questionnaire are presented in Table 2 below.

Table 2 Practicality of teaching materials based on the average student questionnaire indicators

Indicator	Average	Criteria
Time required	3,13	Practical
Ease of use of teaching materials	3,25	Very Practical
The benefits obtained after using teaching materials	3,23	Very Practical
Average	3,24	Very Practical

In addition to the practicality test from the student's side, a practicality test was also carried out from the side of the teacher who taught. The data on the results of filling out the questionnaire by the teacher can be seen in Table 3 below.

Table 3 Practicality of teaching materials based on the average teacher questionnaire indicators

Indicator	Average	Criteria
Time required	3,00	Practical
Ease of use of teaching materials	4,00	Very Practical
The benefits obtained after using teaching materials	2,75	Practical
Average	3,25	Very Practical

The results of the practicality test through filling out the questionnaire obtained information that students like to use the developed teaching materials because they are easy to understand so they do not need much guidance from the teacher. However, the practicality test results through a questionnaire filled out by the teacher found that this teaching material did not motivate students to do the exercises. This is because learning is carried out online, and outside of school study time, because the delivery of the material is not when the material is delivered as it should be, so this makes students less motivated to do the exercises. In addition, the material provided was for one day of the meeting, so it took up quite a lot of time for students and parents as learning guides at home.

This development can then be tested for its effectiveness using various learning models such as inquiry and discovery learning. Both of these models are proven to be effective in improving student learning outcomes in Elementary/SD (Fitria, 2017<sup>a</sup>; Fitria et al, 2018).

## CONCLUSION

The validation results of the expert review stage show that the integrated thematic teaching materials for literacy-based ecosystem themes using Microsoft Sway that have been developed already have content validity (relevance) and construct (consistency). The validity assessment includes aspects of the feasibility of content, material presentation, language and graphics. Every aspect that is validated has been categorized as valid in terms of content and construct by social studies experts, science experts and linguists. Even so, the teaching material prototype underwent a revision based on suggestions from experts and peers, as well as the students involved. The results of the evaluation involving grade VB students of ELEMENTARY/SDN 23 Padang Barat showed that the prototype of the teaching materials developed was practical. The presentation of the material in teaching materials is easy to understand, the language used is clear and easy to understand. This teaching material reduces student dependence on teachers.

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