Effectiveness of Using Thematic Learning Modules in Non-Internet Access Areas During the Covid-19 Pandemic

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Abstrak. Selama masa pandemi *covid-19,* sebagian besar kegiatan dilakukan dari rumah termasuk kegiatan belajar mengajar dengan menggunakan jaringan internet. Hal ini menjadi kendala bagi guru-guru maupun siswa untuk melakukan pembelajaran, khususnya di daerah yang tidak memiliki akses internet (area non acces internet). Dengan demikian pembelajaran menggunakan modul menjadi alternatif pembelajaran selama masa pandemi *covid-19*. Oleh karena itu, penelitian ini bertujuan untuk mengetahui efektivitas penggunaan modul pembelajaran tematik selama masa pandemi *covid-19* di SDN 002 Tatale. Jenis penelitian yang digunakan adalah *pre-experimental design* dengan desain *one grup pre-post test.* Teknik pengumpulan menggunakan tes dan angket. Teknik analisis data melalui deskriptif kuantitatif. Efektivitas modul yang dikembangkan ditinjau dari keterlaksanaan pembelajaran, hasil belajar siswa, dan respons siswa. Instrumen yang digunakan adalah lembar tes dan lembar kuesioner. Sampel penelitian adalah siswa kelas V SDN 002 Tatale. Hasil penelitian ini menunjukkan bahwa penggunaan modul pembelajaran tematik selama masa pandemi covid-19 di *area non acces internet* SDN 002 Tatale Kabupaten Mamasa Sulawesi Barat cukup efektif. Hal ini dapat dilihat dari hasil signifikansi uji hipotesisi $t_{htung} > t_{tabel}$ yaitu -15.358 > 2.179 dengan nilai sig (2-tailed) .000 < 0,05.

Kata Kunci : Modul, *Area Non Acces Internet,* Pandemi Covid-19

Abstract. During the COVID-19 epidemic, most activities, including teaching and learning, are done out from home utilizing the internet network. This is a barrier to learning for teachers and students, especially in locations where there is no internet connectivity (non-internet access areas). As a result, during the COVID-19 pandemic, learning through modules becomes a viable option. As a result, the goal of this research is to see how successful theme learning modules were at SDN 002 Tatale during the covid-19 pandemic. A pre-experimental design with a one-group pre-post test design was employed in this study. Tests and questionnaires are used in the data collection process. Quantitative descriptive approaches are used to analyze data. The implementation of learning, student learning outcomes, and student reactions are used to assess the efficacy of the produced module. Test sheets and questionnaire sheets were utilized as instruments. SDN 002 Tatale fifth-grade pupils make up the research sample. The findings of this study show that the usage of theme learning modules in the non-internet access area of SDN 002 Tatale, Mamasa Regency, West Sulawesi during the COVID-19 pandemic was extremely beneficial. The significance of the hypothesis test $t_{htung} > t_{tabel}$, namely -15.358 > 2.179 with a value of sig (2-tailed).000 0.05, demonstrates this.

Keywords : Module, Non-Internet Access Area, Covid-19 Pandemic

INTRODUCTION

Since March 2020, Indonesia has been dealing with a catastrophic crisis, particularly the covid19 virus, which has been attacking humans all over the world. This virus can affect anyone, so everyone should be cautious. Coronavirus is a vast family of viruses that cause sickness in humans, according to WHO (2019). Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) are two disorders caused by this virus (Nahdi et al., 2020; Wax & Christian, 2020). Because of the calamity, all community activities, including teaching and learning, are carried out from home, as they recall the value of education for the nation's generation's children.

In general, teaching and learning takes place in face-to-face settings in schools, but since the COVID-19 virus struck almost every country, including Indonesia, there has been a shift in the learning system from one that allowed students to interact directly in the same environment to one that is conducted online. The Covid-19 pandemic has made it impossible to carry out routine teaching and learning activities. Hundreds of thousands of schools have been shuttered to prevent the spread of the disease; around 68 million kids study from home, and approximately four million

teachers engage in distant teaching activities (Kemdikbud, 2020). This is in accordance with Ekantini's (2020) assertion that the Covid-19 pandemic is having an impact on the field of education. More than 91 percent of the world's student population has been affected by school closures as a result of the Covid-19 pandemic (UNESCO).

Large-Scale Social Restrictions are one of the government's strategies for combating the Covid-19 pandemic (PSBB). Because of the existence of these government laws, traditional learning is no longer possible in certain locations. This forces distance learning, which has never been done at the same time before (Sun et al., 2020).

Teachers and students, as crucial aspects in teaching, must adapt by switching from traditional face-to-face (offline) education to online or remote education (Bao, 2020). Online learning is a type of technology-based education in which learning materials are transmitted electronically to students via a network. From the implementation of education throughout the epidemic, distance learning is an alternative as well as an educational innovation. However, certain areas do not have access to the internet. This creates a difficulty for teachers and students who want to continue learning in a circumstance when everyone is forced to stay at home, especially those who live in places without internet connection.

Adjustments to the learning media used by educators should accompany the transformation of the education system from traditional to distance learning. Anything that can be used to deliver messages or information in the teaching and learning process in order to stimulate students' attention and promote educational goals in schools is considered learning media (Azhar, 2010).

Distance learning, both online and in person, can be successful if students feel at ease and are driven by communication. Learning that promotes self-study is referred to as distance learning (Munir & IT, 2009). As a result, the learning media that is supposed to assist students in independent learning must be adjusted. Modules are one of the learning medium that may be used to facilitate distance learning.

The module is defined as a book designed with the goal of allowing students to learn alone or with the help of an instructor (Prastowo, 2012). "A module is the smallest unit of learning program that can be studied by students individually (self-instructional); after participants complete one unit in the module, they can move forward and study the next module unit," according to Surahman (2010), as quoted by Andi (2012). The module's importance in the learning process stems from the fact that it can let students learn independently and face-to-face (Nugroho et al., 2019).

Considering the Joint Decree of the Ministers of Education and Culture, Religion, Health, and Home Affairs of the Republic of Indonesia, regarding Guidelines for the Implementation of Learning in the 2020/2021 Academic Year and the 2020/2021 Academic Year During the 2019 Coronavirus Disease Pandemic (Covid-19), considering that, based on the results of the Government's evaluation, there is a need for face-to-face learning from students who have experienced the 2019 Coronavirus Disease Pandemic (Covid-19), there is

Minister of Education and Culture Nadiem Makarim also indicated that schools are permitted to hold limited face-to-face learning while adhering to health guidelines. Module-based learning remains an option for teachers in non-internet access regions, such as SDN 002 Tatale, who have limited time for face-to-face instruction. The goal of the study was to see how successful thematic learning modules were at SDN 002 Tatale during the COVID-19 epidemic.

METHOD

A pre-experimental design study with a one-group pre-post test design was used in this investigation. There was no control group in this study. For a period of time, students are provided special care or instruction (symbol X). In this study, subjects will be taught using modules from Theme 1 Sub-theme 1 Learning 1-8. Students are given a test before therapy to determine their initial knowledge and another test at the end of the course to determine their mastery. SDN 002 Tatale fifth-grade pupils make up the research sample.

This study took eight meetings to complete. The first face-to-face encounter consisted of a pretest and information on the modules that will be completed at each student's home over the next few days. Face-to-face meetings are held in accordance with health regulations. Students are given the opportunity to ask questions about learning with the module during the meeting until everyone understands. Furthermore, students study the module independently in their homes for six days, then meet with the teacher on the eighth day and take a post-test to determine how their learning outcomes have improved. As well as distributing questionnaires to evaluate how students reacted to the module-based learning that was implemented.

A test sheet was employed in this study to examine the improvement of student learning outcomes, and a questionnaire was used to assess the attractiveness of students to the module. The effectiveness of module-based thematic learning was evaluated in this study using three criteria: learning management, student learning outcomes, and student reactions. Student learning outcomes data were gathered via administering assessments before and after

the usage of thematic learning modules, and student answers were obtained from distributing questionnaires to students who had used thematic learning modules.

RESEARCH RESULTS AND DISCUSSION

The module is a learning resource that comprises a single subject matter and functions as an autonomous learning tool, allowing students to learn on their own (Seftiana, 2015). One of the module's advantages is that it allows students to design their own learning paths based on their interests and abilities (Aditia & Muspiroh, 2013). The learning module was created with the intention of being used as a learning support medium, with the hope of improving the quality of students' learning (Sukiminiandari et al., 2015). The following explanation describes the outcomes of the tests that were conducted on students after they learned to use the themed learning modules:

A. Results of the Learning Implementation Analysis

This module-based learning implementation observation sheet was created using learning steps that are current in nature. Teachers have very little time to manage learning in the middle of the COVID-19 pandemic. The observer writes down the results of his observations by filling out the observation sheet on the implementation of learning activities that have been provided, and then the teacher's implementation in managing learning is based on the teacher's activities during the meeting process with students with a limited time. Observations were made at the start of the meeting when the module was given to the students, who would work on it for a week at home. This observation is divided into five categories: "1" denotes "not well implemented," "2" denotes "not well implemented," "3" denotes "quite well implemented," "4" denotes "implemented," and "5" denotes "very well executed."

According to the findings of observational data analysis, the average value of the execution of learning stages utilizing the module is 95 percent in this study. The implementation of learning using modules with a limited period is deemed to be very well done or the category of implementation is very high, based on the category of implementation of the learning model that was determined previously.Analisis Respon Siswa

Berdasarkan rencana penelitian yang dibahas sebelumnya, indikator untuk respon peserta didik data akan diperoleh melalui penyebaran angket setelah peserta didik melakukan pembelajaran dengan menggunakan modul. Respon siswa kelas V SDN 002 Tatale setelah belajar dengan menggunakan modul yang diberikan dinilai melalui 10 aspek. Hasil respons siswa disajikan dalam tabel 4.4 berikut.

Table 1. Scores of Student Responses to the Use of Modules

Average Respondents ' Answers	Max Score	Average Overall Percentage
36,53	50	73,03%

Table 1 reveals that the overall average student response to module-based thematic learning is 73.03 percent positive/good, indicating that the metrics of student response effectiveness have been reached.

B. Inferential Statistical Analysis

- Normality Test

The criteria for the normality of the data distribution are determined by the suitability between the observed data and the normal distribution. The normality test will use the Kolmogorov-Smirnov test on SPSS. The results of the normality test on the questionnaire scores and post-test scores are presented in Table 4.2.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		13
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.56630412
Most Extreme Differences	Absolute	.155

	Positive	.112
	Negative	-.155
Test Statistic		.558
Asymp. Sig. (2-tailed)		.914
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

In the table, it is known that the value of sig (2-tailed) is 0.914 > 0.05, so it can be concluded that the residual value is normally distributed.

• Hypothesis Testing

Testing student learning outcomes after independent study using thematic modules (posttest) the Paired Sample T Test was conducted using SPSS (Statistical Package for Social Science) software. The results of the SPSS analysis for the value of learning outcomes can be seen in the following table:

Table 3. Hypothesis Testing for Learning Outcomes

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pretest - Posttest	-3.38462	.79461	.22039	-3.86480	-2.90444	-15.358	12	.000

Table 3 shows that $t_{htung} > t_{tabel}$ 18.177 > 2.179 with a value of sig (2-tailed).000 0.05, implying that there is a significant difference between mathematics learning results in pretest and posttest data, or that thematic learning is based on an effective module.

Data on student learning outcomes was acquired by comparing the results of the test taken before and after utilizing the learning module. The information is presented in table 4 below.

Table 4. Descriptive Statistical Data of Pretest, Post Test and Normalized N-Gain Values

Students Code	**Score**		**N-gain Score**	**N-gain Score in Percentage**
	Pre Test	**Post Test**		
1	6	9	.75	75
2	4	8	.67	67
3	5	8	.60	60
4	5	8	.60	60
5	5	9	.80	80
6	5	8	.60	60
7	4	7,5	.58	58
8	4	8	.67	67
9	5	7,5	.50	50
10	4	7	.50	50

11	3	8	.71	71
12	4	8	.67	67
13	5	7	.40	40
Average			0,6190 (61,90%)	
Lowest			40	
Highest			80	

According to the N-Gain score test calculation results, the average N-Gain score for the experimental class (module-based theme learning) is 0.6190, which falls into the Medium group because 0.3 g 0.7. Based on the category table for interpreting the effectiveness of the N-Gain value (percent) of 61.90, it can be determined that using the module improves student learning outcomes rather effectively. As a result, after independent study with the offered module, student learning outcomes improve.

The three criteria for the efficacy of the thematic features of module-based learning, namely the implementation of learning, student learning outcomes, and student reactions, are met based on the results of the previously given analysis. So, in class V SDN 002 Tatale, Mamasa Regency, West Sulawesi, it can be determined that theme learning using modules in non-internet access locations is beneficial. In the table below, you can see a summary of the achievement of theme learning efficacy based on the module that was obtained in the field and examined.

Table 5. Summary of Thematic Learning Effectiveness Achievements

Effectiveness Indicator	Criteria	Achievement	Decisioin
1. 1. Implementation of Learning (Average gain score)	71-85%	95 %	Fulfilled
1. 2. Hypothesis Testing Learning Outcomes n-gain criteria	$t_{htung} > t_{tabel}$ $X \leq 0,7$	18.177 > 2.179 0,610	Ho Accepted Sufficient
2. Students Response	70% x < 80%	73,03 %	Fulfilled

The built thematic learning module on theme 1 sub-theme 1 can help students learn in areas where they don't have access to the internet. Muzari (2016) agrees, stating that the module's application can provide various options for students to learn independently.

CONCLUSION

The usage of thematic learning modules in non-internet access areas during the COVID-19 pandemic was found to be quite beneficial at SDN 002 Tatale, Mamasa Regency, West Sulawesi, based on the findings of the study. The three requirements for the effectiveness of the thematic parts of module-based learning, namely the implementation of learning, student learning outcomes, and student responses, are met, as evidenced by the significance of $t_{htung} > t_{tabel}$. These findings are encouraging, implying that module-based theme learning at SDN 002 Tatale during the COVID-19 epidemic was a success.

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