

Readiness of Teachers and Students in the Implementation of Thematic Blended Learning Science on Learning Outcomes in Elementary School Cluster 2, Banjar District, Banjar City

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Abstrak. The purpose of this study was to determine the effect of teacher and student learning readiness on student learning outcomes in Elementary School Cluster 2, Banjar District, Banjar City using Blended Learning. This study uses a survey research method. The population in this study were all teachers and students in cluster 2 of the State Elementary Schools in Banjar District, Banjar City who had met the criteria. The sampling technique used was purposive sampling technique with the Slovin formula. The subjects of this study were 50 teachers who were in schools in Cluster 2, Banjar District, Banjar City. Data analysis using multiple regression. The results showed that there was a significant influence between the readiness of the teacher in implementing blended learning on learning outcomes in thematic subjects of science at the Elementary School of Cluster 2, Banjar sub-district, Banjar City and there was a significant influence between the readiness of students in implementing thematic blended learning. science on learning outcomes at the Cluster 2 Public Elementary School, Banjar sub-district, Banjar City.

Keywords: readiness, blended learning, elementary school

1. Introduction

Thematic and integrated learning is contained in the Regulation of the Minister of Education and Culture Number 65 of 2013 concerning the standard process of the 2013 Curriculum. The meaning of integrated learning is the relationship between several basic competencies of a subject that gives rise to one or several learning themes. Integrated learning is also said to be learning that combines learning material for several subjects or scientific studies in one theme. Integration in learning is intended to make learning more meaningful, effective, and efficient (Kemendikbud, 2013). The readiness of teachers and students is one of the important factors that can support the successful implementation of e-learning based learning, including the implementation of blended learning [1].

The application of thematic and integrated learning is expected that students can understand the concepts they learn through direct experience and relate them to other related concepts. Thematic and integrated learning provides experiences and learning activities that are relevant to the development stages and needs of elementary school students. The developmental stages

of thinking in elementary school students have the characteristics of learning in a concrete, integrative, and hierarchical way [2].

Elementary Schools in Banjar District, Banjar City, in their thematic learning have implemented distance learning using the Blended Learning approach. By knowing the level of readiness for online learning that will be implemented, it is hoped that schools can determine the next steps to be taken. The level of readiness in each tested category besides being able to determine the level of readiness as a whole, it can also be seen that the readiness category is still low. The level of readiness in the low category will be followed up and the level of readiness in the high category will be maintained [3]. So that the school can make efficiency in school management.

E-learning readiness is defined as the ability to use e-learning resources and multimedia technologies to improve the learning quality [4]. The description can then be used as a reference to determine which elements deserve to be maintained, repaired or increased in readiness [5]. The readiness of teachers and students is one of the important factors that can support the successful implementation of e-learning based learning, including the implementation of blended learning [2-3].

According to Garrison and Kanuka, blended learning is an effective learning program that combines traditional learning models, collaborative learning, independent learning, practical learning, and experiential learning is intended so that students get an effective and efficient learning experience [6]. Besides, Graham argued that historically blended learning is a combination of face-to-face traditional learning with a distributed learning system or online learning [7]. Blended learning is sparked because of the need for face-to-face learning which is not available in online learning.

Ko and Rossen explained that a teacher can focus on several things that must be done when using a blended learning model or program, such as providing a syllabus, allowing students to review the syllabus, contacting students via email or other online communication media, presenting the progress of student achievement in real-time, maintaining interaction with students to maintain emotional relationships, and conducting evaluations [8]. A teacher may focus on some of the following activities, such as providing online learning syllabus posts if the learning is done online or using hardcopy if the learning is done in class..

2. Methods

This study is a survey with a quantitative research approach. This study's population consisted of students from 20 elementary schools from SD Negeri in Banjar District, Banjar City. This research sample consisted of 7 schools that met the criteria, with a total of 75 respondents. Teachers and principals from public elementary schools in cluster 2 of Banjar sub-district, Banjar City, were the subjects of this study. Based on the characteristics of the respondents, samples were drawn from seven public schools in Cluster 2, Banjar District, Banjar City, namely SDN 1 Balokang, which had six teachers and six students

The independent variable in this study is teacher readiness (X1), student readiness (X2) while the dependent variable is learning outcomes. The data collected in this study are in the form of teacher readiness score (X1), student readiness (X2) and learning outcomes. The data collection technique is done by 1) questionnaire, and 2) document recording. After that, the validity test, reliability test, normality test, linearity test and regression test are carried out.

3. Result and Discussion

Multiple linear regression analysis is used to analyze the effect of several independent variables on the dependent variable. The results of multiple regression analysis can be seen in Table 1.

Table 1. Results of multiple regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	13.366	32.609	
1 Teacher Readiness	.211	.100	.281
Student Readiness	.235	.110	.284

3.1 Dependent Variable: Achievement

Based on the results of the multiple regression analysis above, the regression equation can be drawn up as follows:

$$Y = a + bx_1 + bx_2$$

$$Y = 13,366 + 0,211 x_1 + 0,235 x_2$$

The regression equation above can be explained as follows:

- a = Constant value (a) shows a positive value of 13.366, this means that the student learning outcomes score is 13.366 units. Assuming there is no influence and changes from other variables (other variables remain / *ceteris paribus*)
- b x_1 = The regression coefficient value of the teacher's Readiness variable shows a positive value of 0.211, this indicates that each increase in the Readiness variable of the teacher in statistics is 1 1%, causing student learning outcomes to increase by 0.211 or 21.1%. Assuming there is no influence from other variables (other variables remain / *ceteris paribus*)
- b x_2 = - The regression coefficient value of the student's Readiness variable shows a positive value of 0.235, this indicates that each increase in student Readiness in statistics of one 1% causes student learning outcomes to increase by 0.235 or 23.5%. Assuming there is no influence from other variables (other variables remain / *ceteris paribus*)

Determination coefficient test (Adjusted R²) used to measure how far the model's ability to explain the variation in the dependent variable

Table 2. The Determination Coefficient of Model Model Summary

Model	R	R Square	Adjusted R Square
1	.420°	.176	.141

3.2 Predictors: (Constant), Readiness Siswa, Readiness Guru

Based on the table of the results of the analysis of the coefficient of determination regarding the influence of teacher readiness on learning outcomes, it is known that the adjusted R square value is 0.141. This shows that the ability of the teacher's readiness variable and student's readiness in explaining the learning outcome variable is 14.1%, while the remaining 85.9% is influenced by other variables not included in the research, for example learning methods, learning infrastructure, learning motivation, learning disciplines and so on which were not examined in this study.

Hypothesis testing is done using multiple regression t test. The results of the t test can be seen in

Table 3. Table The influence of Teacher and Student *Readiness* to Student Achievement Coefficients

Model	t	Sig.
(Constant)	.410	.684
TeacherReadiness	2.108	.040
Student Readiness	2.130	.038

Based on the Table 3, it can be concluded that student readiness affects learning outcomes through distance learning in the Cluster 2 Public Elementary School, Banjar District, Banjar City.

3.3 Dependent Variable: Achievement

The results of this study indicate that the readiness of teachers and students at SD Negeri cluster 2 in Banjar District, Banjar City is quite good. This can be seen from the implementation of Blended Learning in elementary schools in Banjar City, especially in Cluster 2, which have been implemented properly. Blended learning is an effective learning program that combines traditional learning models, collaborative learning, independent learning, practical learning, and experiential learning is intended so that students get an effective and efficient learning experience [6].

Teacher readiness has been seen very well from various aspects of readiness, including technological readiness, where most of the teachers already have technological devices and understand the use of technology in Blended Learning. Another aspect of the teacher is assisted

by the school and related agencies in preparing for Blended Learning, including the teachers preparing to take part in various trainings to increase their knowledge. All teachers support and help each other in preparing for Blended Learning for the sake of smooth learning so that learning objectives can be carried out well. Through this learning approach, a teacher may focus on some of the following activities, such as providing online learning syllabus posts if the learning is done online or using hardcopy if the learning is done in class [9].

The results of the research of students in SD Negeri in cluster 2 of Banjar District, Banjar City, the readiness of students in the implementation of Blended Learning in elementary schools had been well implemented. Student readiness is quite good from various aspects of readiness, including technological readiness, where 70% of students already have technological devices and understand the use of technology in learning other aspects besides technology and human resource readiness. Besides that, the support from parents has also been very good, students assisted by their parents at home are very good at taking online learning. Parents are very supportive in terms of finances and facilities and infrastructure. Students are assisted by parents and teachers to help each other if they have problems in Blended Learning. So that learning can be carried out well and smoothly.

The application of thematic and integrated learning, it were also used in blended learning, is expected that students can understand the concepts they learn through direct experience and relate them to other related concepts. Thematic and integrated learning provides experiences and learning activities that are relevant to the development stages and needs of elementary school students [6-7].

4. Conclusion

Blended Learning model can be used as a reference for use in learning during the covid-19 pandemic. Planning for learning must be well prepared and systematically designed by the teacher. As in general, teachers must prepare annual programs, semester programs, syllabuses, Lesson Plans, Student Worksheets, and also Learning Evaluation in accordance with blended learning model learning. The schedules need to be arranged between face-to-face learning and online learning. For online learning, teachers need to prepare specifically, such as Power Point media, learning videos made by teachers or from YouTube sources.

The process of student readiness on Blended Learning in SD Negeri in cluster 2 of Banjar District, Banjar City, is good enough. This can be seen from the implementation of Blended Learning in elementary schools in Banjar City, especially in Cluster 2 has been implemented well. This can be seen from the aspects of technological readiness, human resource readiness, cultural readiness, attitude readiness, policy readiness, and also financial readiness.

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