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The Influence of Teacher Readiness and Learning Facilities on Student Learning Motivation: Blended Learning as a Mediating Variable

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Abstract

Student learning motivation after the Covid-19 pandemic has become an interesting topic, student learning motivation plays an important role in the learning process. Problems with student learning motivation can arise due to a lack of teacher readiness or lack of support for learning facilities. These factors can hinder students' interest and enthusiasm in the learning process. The aim of this research is to determine the effect of teacher readiness and learning facilities on student learning motivation with blended learning as a mediating variable. The method used in this research is quantitative with an ex-post facto approach. The sample in this research was 12 teachers and 108 students spread across 4 vocational schools in Minahasa. The analysis technique used was Structural Equation Modeling with SmartPLS 3.0 supporting software. The results of this research show that teacher readiness, learning facilities and blended learning have a significant effect on student learning motivation. Blended learning can mediate teacher readiness and learning facilities on student learning motivation. Teacher readiness and learning facilities have an important role in motivating student learning and blended learning is a learning model to increase student learning motivation.

Keywords: *Blended Learning; Learning Facilities, Student Learning Motivation, Teacher Readiness*

Introduction

The Covid-19 pandemic has resulted in changes in various fields, one of which is education. The Covid-19 pandemic has had a significant impact on the education sector globally, including Indonesia (Syah, 2020). This pandemic has also caused the closure of schools and universities, thus disrupting the education system and causing learning to be incomplete and widening the assessment of opportunities and achievements that previously existed (Siahaan, 2020 ; Goldberg, 2021). The transition from face-to-face learning to distance learning is one of the most prominent changes (Nyoman Serma Adi et al., 2021). The Indonesian government has implemented various policies to mitigate the spread of COVID-19, such as physical distancing and implementing online learning (Siahaan, 2020). The impact of the pandemic on education has been felt globally and has forced educators to adapt to new ways of learning and teaching (Sobana, 2020).

Student learning motivation after the Covid-19 pandemic has become an interesting topic (Haryani & Nursanti, 2022). Student learning motivation is a very important factor in learning success (Rahman, 2021). Students who have high learning motivation will be more enthusiastic about learning and more motivated to achieve their learning goals. Motivation is a desire that encourages students to be active in the learning process (Di Serio et al., 2013; Khan et al.,

2019). Students who are highly motivated to learn and demonstrate positive learning behavior generally succeed in achieving the required level of competency (Tokan & Immaculata, 2019). Motivation plays a crucial role in shaping students' actions and behavior in various contexts and situations, becoming the basis that drives them to achieve set goals (Rafiola et al., 2020).

Learning facilities refer to the physical space where students receive education and training. Learning facilities play an important role in academic performance and student motivation (Barrett et al., 2019). Learning facilities are all equipment, materials and furniture that are directly used in the learning process which can make it easier for students to learn (kingsley, 2019; Nevitaningrum, 2022; Wulandari et al., 2021). It has been observed that physical school facilities are an important tool to facilitate and stimulate learning programs (Akomolafe & Adesua, 2016). School facilities must create an ideal environment for academic success (Yangambi, 2023). Several studies show that learning facilities can increase students' learning motivation, because a more adequate learning environment will bring deeper knowledge and higher learning motivation (Hardiana et al., 2023a; Susanti & Lian, 2021). Learning facilities have a fairly large role in influencing students' learning motivation. In the end, learning facilities have a significant impact on students' learning motivation and learning material understanding of the subject matter.

A combined method that integrates aspects of online learning and conventional classroom teaching methods (Iqbal et al., 2022). This is a type of learning that takes place partly face-to-face and partly in virtual and online settings (Dziuban et al., 2018). This method allows for more communication channels between students and between students and their teachers (Platonova et al., 2022). The design of a blended learning environment, including the quality of technology and use of tools such as blogs and wikis, can influence its effectiveness (Kintu et al., 2017).

The formulation of the problem is to influence teacher readiness and learning facilities on student learning motivation with blended learning as a mediating variable. Figure 1 presents the conceptual framework of this research. The hypothesis based on theoretical studies is as follows:

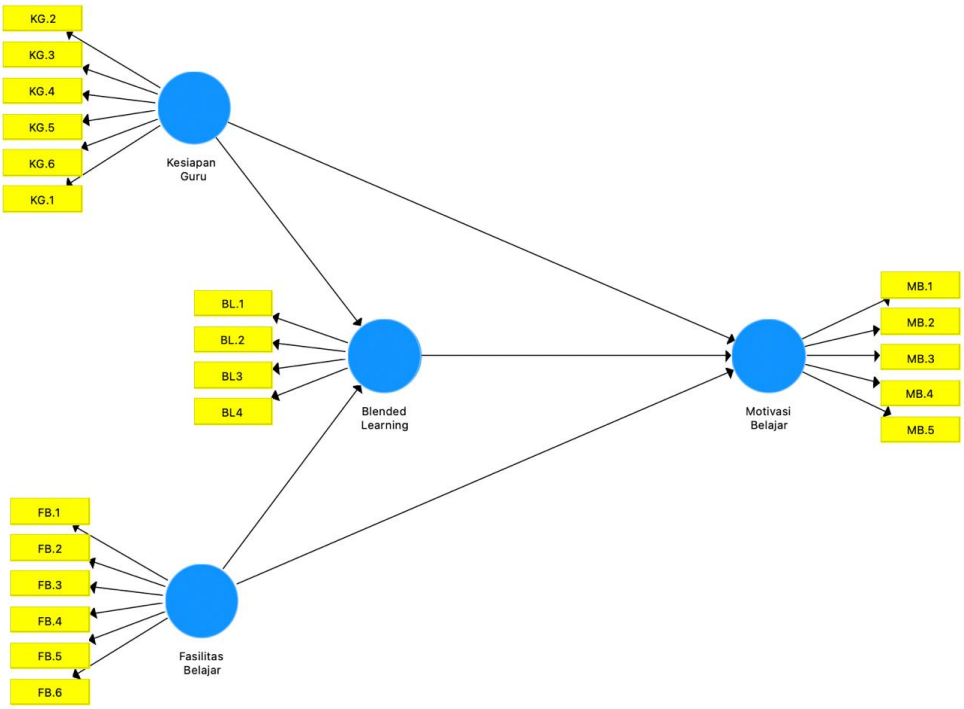

Figure 1. Conceptual Framework

H1: Teacher Readiness has a positive effect on Learning Motivation
H2: Teacher Readiness has a positive effect on Blended Learning
H3: Learning facilities have a positive effect on learning Motivation
H4: Learning facilities have a positive effect on Blended Learning
H5: Blended Learning has a positive effect on Learning Motivation
H6: Blended Learning can mediate Teacher Readiness on Learning Motivation
H7: Blended Learning can mediate Learning Facilities on Learning Motivation

Method

This research is quantitative research with an ex-post facto research approach that adapts research design (Cohen et al., 2011). The data in this research was collected through a questionnaire designed with statements based on existing parameters. Following the existing conceptual framework and theoretical studies, direct, mediating and moderating effects are measured based on actual data that occurs. The research was conducted at four vocational schools in Minahasa, North Sulawesi, Indonesia, with a visual communication design skills program. A total of 12 teachers and 108 students were involved in this research, who were selected using probabilistic random sampling techniques. The research sample allocation is shown in Table 1.

Table 1. Research Participation

School	Status	Teacher	Student
SMK N 1 Tondano	Negeri	3	30
SMK N 3 Sonder	Negeri	3	29
SMK S Anugrah Tondano	Swasta	3	25
SMKS Regenerasi Tateli	Swasta	3	24
Total		12	108

Data collection was carried out using a closed questionnaire technique. The research instrument used a questionnaire consisting of 21 statements with four answer choices, namely: very difficult, difficult, easy and very easy. The composition of the contents of the questionnaire instrument is based on the variables Teacher Readiness, Learning Facilities, Blended Learning and Learning Motivation. The following indicators for instrument development are shown in Table 2:

Table 2. Research Instruments on teacher readiness, learning facilities, blended learning. and learning motivation

No	Variabel	Indikator	Item	Sumber
1.	Teacher Readiness	Teacher Readiness	2	(Al-Said, 2023; Nurzen, 2022; Reskiawan, 2021)
		Learning Media	2	
		Teacher Skills	2	
2.	Learning Facilities	E-learning	2	(Akomolafe & Adesua, 2016; Sojanah & Ferlinda, 2019)
		Study room	2	
		Information Media	2	
3.	Blended Learning	Attitude assessment	2	(Ibrahim & Nat, 2019; Zavyalova, 2020)
		Knowledge assessment	1	
		Skills assessment	1	
4.	Learning Motivation	Asking question	1	(Elmirawati et al., 2013; Marliana et al., 2023)
		Self-Efficacy	2	
		Desire to succeed	2	

Structural Equation Modeling (SEM) analysis was used to test the hypothesis of direct influence between variables and the mediating role through path analysis (Gunzler et al., 2013). Path analysis measures the direct influence of teacher readiness, learning facilities and blended learning on student learning motivation. As a comparison, path analysis measures the role of blended learning in mediating the influence of teacher readiness and learning facilities on learning motivation. Data analysis in this research used SmartPLS 3.0 supporting software.

Results

Instrument validity and reliability

Construct Reliability and Validity tests were carried out to test the validity and reliability of the instruments used to measure the variables of teacher readiness, learning facilities, blended learning and learning motivation before proceeding to the next analysis. The measurement instruments for the four variables showed valid results showing more than 0.5 each for blended learning (0.5>0.735), learning facilities (0.5>0.596), teacher readiness (0.5>0.623) and learning motivation (0.5>0.628) and reliability which shows more than 0.7 (blended learning) = 0.879; learning facilities = 0.862; teacher readiness = 0.879; learning motivation =0.716). The results of the research show that the four measuring instruments are accurate enough to measure blended learning, learning facilities, teacher readiness and learning motivation. The results of the construct reliability and validity test analysis can be seen in table 3.

Table 3. Construct Reliability and Validity Test

	Cronbach's Alpha	Average Variance Extracted
Blended Learning	0,879	0,735
learning facilities	0,862	0,596
teacher readiness	0,879	0,623
learning motivation	0,716	0,628

Model Fit Indeks

The model developed refers to the construction stage and is tested repeatedly until the final model is produced. Testing of this model confirms the suitability of the standard structural model so that it can explain the correlation. coefficients between variables and the role of mediation. The third fit index is presented to guide the analysis, as shown in Table 4. The results show that all aspects of fit in the basic model have good indices in accordance with the existing critical value criteria. The expected small chi-square value is confirmed through analytical evidence. Probability value = 0.423, CMIN/DF = 0.978, RMSEA = 0.054, GFI = 0.996, AGFI = 0.911, TLI = 0.995 and CFI = 0.998 structural model analysis can be carried out (Westland, 2015).

Table 4. Model Fit Index

Goodness ofFit Indices	*Cut – Off Value*	*Hasil*	*Description*
X2 Chi Square	Diharapkan Kecil	30,812	Small
Probabilitas	≥ 0,05	0,423	Good Fit
CMIN/DF	≤ 3,00	0,978	Good Fit
RMSEA	≤ 0,08	0,054	Good Fit
GFI	≥ 0,90	0,996	Good Fit
AGFI	≥ 0,90	0,911	Good Fit
TLI	≥ 0,90	0,995	Good Fit
CFI	≥ 0,95	0,998	Good Fit

Based on table 4, it can be concluded that the model suitability test was accepted by all. According to (Hair et al., 2019) the use of 4 – 5 goodness of fit that meets the requirements is sufficient to assess the suitability of a model.

Direct Effect Results

The results of the direct influence test can be seen in table 5. Presents the results of path analysis with estimated correlation coefficient values above the minimum significant limit of p=0.05. Teacher readiness has a positive effect with a path coefficient value of .238 and a p-value of .023 so that H_1 is significant. Furthermore, teacher readiness has a positive effect on blended learning with a path coefficient value of .636 and a p-value of .002 so that H_2 is significant. Furthermore, learning facilities have a positive effect on learning motivation with a distance coefficient value of .373 and a p-value of .011 so that H_3 is significant. Furthermore, learning facilities have a positive effect on blended learning with a distance coefficient of .321 and a p-value of .000 so that H_4 is significant. Furthermore, finally, blended learning has a positive effect on learning motivation with a coefficient of .498 with a p-value of .021 so that H_5 is significant.

Table 5. Direct Effect Results

Hypothesis	Estimate	SE	p-values	*Description*
Teacher readiness -> *Blended Learning* (H_1)	.238	.228	.023	Significant
Teacher readiness -> learning motivation (H_2)	.636	.628	.002	Significant
learning facilities -> learning motivation (H_3)	.373	.401	.011	Significant
learning facilities -> *Blended Learning* (H_4)	.321	.332	.000	Significant
Blended Learning -> learning motivation (H_5)	.498	.514	.021	Significant

Mediation Results From Blended Learning

The mediation role test considers bootstrapping results with a 97.55% confidence interval using 500 iterations. The mediating role tested by blended learning can mediate teacher readiness towards learning motivation and learning facilities towards learning motivation. The results of the analysis obtained results that support its mediating role for all variables. To see the results of the mediation test, you can see Table 6, which presents the role of blended learning mediation in mediating the indirect impact of teacher readiness and learning facilities. Blended learning can mediate teacher readiness towards learning motivation with a path coefficient value of .151 and a p-value of .012 so that H_6 is significant. Likewise, blended learning can mediate learning facilities on learning motivation with a coefficient value of .076 and a p-value of .003 so that H_7 is significant.

Table 6. Mediation Results from Blended Learning

	Estimate	SE	p-values	*Description*
teacher readiness -> *Blended Learning* -> learning motivation (H_6)	.151	.149	.012	Significant
learning facilities -> *Blended Learning* -> learning motivation (H_7)	.076	.069	.003	Significant

Discussion

Learning motivation has an important role in achieving learning goals and improving students' abilities at school. Motivation influences a person's ability to learn independently and determines his or her success in learning. Teacher readiness in the classroom has a role in motivating student learning, teacher readiness is one of the factors that influences students to

be motivated to take part in learning. This research shows that teacher readiness has a significant effect on student learning motivation. This research is in line with Johnson (2017). Teachers can increase student learning motivation by creating a conducive learning environment, encouraging support for student independence, relevance, and interconnectedness of material, developing student competence and interest. towards the subjects taught and displays enthusiasm and energy when teaching. Learning facilities also play an important role in motivating student learning so that students are comfortable in the learning process and encourage students to participate in learning happily. This research shows that learning facilities have a significant influence on student learning motivation. This research is in line with (Akomolafe & Adesua, 2016; Hardiana et al., 2023) emphasizing the importance of complete facilities in supporting teachers and students in the teaching and learning process, because these facilities increase learning motivation. students and supports teacher performance in delivering. educational material.

Teacher readiness in the blended learning process is the teacher's ability to face the challenges faced in implementing this learning model. Blended learning, which combines direct learning and distance learning, requires joint synergy from students and teachers. This research shows that teacher readiness has a positive influence on blended learning. Teacher readiness for blended learning in vocational education is very important for the successful implementation of this teaching approach. Learning facilities are also a factor in the success of blended learning. This research shows that learning facilities have a positive effect on blended learning. Blended learning shows that learning facilities, such as interactive e-learning, can increase student activity, motivation and learning outcomes in vocational schools.

Blended learning is a learning model that combines distance learning and classroom learning. This research shows that blended learning has a positive effect on student learning motivation. research conducted by (Islam et al., 2018; Mustika Permata & Nanda, 2021) shows a significant increase in motivation and learning achievement due to the use of the blended learning model.

This research shows that blended learning can mediate teacher readiness on student learning motivation and learning facilities on student learning motivation. Blended learning helps teachers prepare themselves to motivate students through a combination of online and face-to-face learning. By leveraging technology, teachers can create engaging learning experiences, increase student engagement, and provide real-time feedback. In addition, diverse learning facilities, including online resources and physical classrooms, provide students with easier access and flexibility in learning, which in turn can increase their motivation to explore learning materials. Thus, blended learning acts as an effective mediation to improve teacher readiness and learning facilities to support student learning motivation.

Conclusion

This research shows the influence of teacher readiness, learning facilities and blended learning on student learning motivation and blended learning can mediate teacher readiness and learning facilities on student learning motivation. In this research, it was found that teacher readiness and learning facilities have an important role in motivating student learning and blended learning is a learning model to increase student learning motivation with teacher readiness and learning facilities as supports so that blended learning can be carried out well.

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