

Model for Increasing the Effectiveness of Online Learning at Elementary School during the Covid-19 Pandemic

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Abstract:

Background: This study aims to analyze online learning methods, teacher abilities, infrastructure, student learning motivation, and parental involvement on the effectiveness of online learning.

Materials and Methods: The total number of AL-Falah Elementary School Students is 173. Furthermore, this research uses analytical and descriptive methods. Data analysis method using Structural Equation Model-Partial Least Square (SEM-PLS).

Results: The results of this study found that the Online Learning Method and student learning motivation did not significantly affect the effectiveness of online learning. Teacher ability, infrastructure, and parental involvement have a significant effect on the effectiveness of online learning.

Conclusion: The results of the study stated that the Online Learning Method (X1) and Student Learning Motivation had no significant effect on the Effectiveness of Online Learning (Y). While the other 3 variables, namely: Teacher Ability (X2), Infrastructure (X3), and Parental Involvement (X5) have a significant influence on the Effectiveness of Online Learning at AL-Falah Elementary School Bekasi.

Keyword : Online Learning Methods, Teacher Ability, Infrastructure, Student Learning Motivation, Online Learning Effectiveness.

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I. Introduction

AL-Falah Elementary School Bekasi is a private school under the auspices of the Ummu Amanah foundation which is located at Jln. Base II Rt 002/001 Kel. Stone Well, Kec. Bantar Gebang Bekasi City – West Java. This school stands on a land area of 1500 m². Located on the border between Bekasi City and Bekasi Regency. The school was founded in 2008 by Mr. Karyanto Biwowo ST and Mrs. WKA. Wulan Sari SP, MM. At the beginning of 2020 where Indonesia is experiencing a Covid-19 pandemic. This has an impact on the world of education, especially in elementary schools, especially at AL-Falah Elementary School Bekasi, so that the Ministry of Education and Culture provides solutions to the online teaching and learning process. However, in the online learning process, there are many obstacles that make online learning ineffective. So that the researcher tries to examine the factors that influence the effectiveness of online learning in AL-Falah Elementary School Bekasi, both from the online learning methods, teacher abilities, infrastructure, student learning motivation and parental involvement.

Online Learning Concept

The concept of online learning according to Hidayah et al (2020) the online learning process is a learning that uses access through the internet network in helping the interaction process between students and teachers when the learning process takes place. According to Rahmawati (2020) in Ayakeding et al., (2021) Online learning has advantages, namely students can learn anywhere and anytime, get a new learning atmosphere according to their respective learning styles, save on transportation costs, more time to gather with family, students are also more creative, independent, and responsible. Besides that, there are shortcomings in online learning according to Suhery et al., (2020) in online learning Ayakeding et al., (2021) where the lack of online learning, namely the lack of interaction between students and teachers, as well as the change in teaching methods that were originally face-to-face now have to use information technology, the lack of student motivation so that it is difficult to understand lessons, and not all places have facilities.

The Concept of Online Learning Effectiveness

according to Butnaru et al., (2021) Defines that the effectiveness of online learning is a student's perception of an online learning, where online learning can be seen whether or not it is effective from the perception of the school's students. As for Dilrukshi et al., (2014) Defines that what is said to be effective

learning is a teaching and learning process that successfully achieves learning objectives which can be seen from the analysis of learning outcomes, content quality, system quality and service quality. according to Hidayah et al., (2020) An online learning is said to be effective, it can be seen from the interest of students in learning activities, student achievement and in terms of infrastructure. So it can be concluded that effective learning can be seen by the interest of students in participating in the learning process, achievement of student learning outcomes and supporting infrastructure in the online learning process. As for the response from Surani and Mifthahudin (2018) djournal nature Ayakeding et al., (2021) If the learning objectives are successfully achieved, both in terms of quantity and in terms of student graduation, then a learning can be said to be effective.

Concept of Online Learning Method

according to Al-Mobaideen et al., (2012) Online learning is a learning system using an electronic system that uses internet facilities, as well as in delivering learning materials to students without face-to-face. so that learning can be done anywhere. Besides, according to Diah Rahmawati As'ari, (2008) defines an online learning method, which is an effort or a teacher's way of delivering learning material with the aim that students can understand the material and obtain information, so that learning objectives can be achieved. While the definition of the concept of online learning methods according to Marbun (2020).

Teacher Ability Concept

Butnaru et al., (2021) argues that teacher ability is a student's perception of the adaptation of teaching staff to new requirements in online education. Besides that Yusuf Siregar and Amiril Akbar (2020) stated that the ability of teachers greatly impacts the online learning process, where teachers are required to be able to understand the use of technology because not all teachers, especially elderly teachers, can master technology so that it can affect the quality of online learning, supporting facilities should be provided in advance such as laptops, computers and smartphone to make it easier for teachers to provide material in the online teaching and learning process, teachers do not yet have a distance learning culture because so far learning is done face-to-face so that teachers are accustomed to being in school to interact with students, with the implementation of this online teaching and learning process it makes teachers to be able to adapt in the face of new changes that can affect the quality of learning outcomes.

Infrastructure Concept

Kartika et al., (2019) defines infrastructure as one component in a teaching and learning process to support the potential of each student in each school, both formal and non-formal schools. Infrastructure is a necessity that must be available in supporting the teaching and learning process and in realizing an educational goal. This means that infrastructure is an important component in the teaching and learning process to realize an educational goal. The opinion of Sukmadinata in Absah et al., (2021) Learning infrastructure is all the equipment needed in the teaching and learning process to achieve effective and running educational goals. Besides, according to Sinta (2019) in (Ayakeding et al., 2021) argued that facilities and infrastructure are hardware and software components used to support online learning that clarify messages and information and facilitate learning processes and outcomes. This means that infrastructure is a significant factor that affects the online learning process, where if the infrastructure is inadequate then the online learning process does not run smoothly.

The Concept of Student Learning Motivation

according to Long et al., (2013) Motivation is a desire that arises from students to achieve a goal, such as interest, curiosity, and the desire to succeed. Another opinion says that motivation is a mover from within a person to carry out a certain activity or behavior in achieving a desired goal to obtain a success (Jannah and Sontani, 2018). This means that student learning motivation is an important factor in the learning process, because if there is no motivation from the students themselves, students are not interested in participating in online learning. As for Gustiani, Sri (2020) Student learning motivation is the initiation, direction, intensity, persistence, quality of goal-directed behavior.

Parental Involvement Concept

according to Fontenelle and Tereshchuk, (2021) Parenting involvement in online learning is a success factor in children's education. In addition, there is a concept according to Sari and Maningtyas, (2020) Parenting involvement is an important role in achieving online learning goals. During online learning, parents provide assistance and guidance in carrying out the tasks assigned by the teacher as well as learning facilities at home. As for the definition according to Wardhani and Krisnani (2020) where the involvement of parents (Parenting) is a motivating factor for their children to participate in the online teaching and learning process. This means

from some of the literature above that in the online teaching and learning process, the role of parents is needed in achieving online learning goals, especially for elementary school children.

II. Materials And Methods

In this study, researchers used 2 types of data, namely: (1) Primary data by distributing questionnaires to 173 al-Falah elementary school students from grade 1 to grade 6, structured interviews with Elementary School Al-Falah Bekasi management; (2) Secondary data through literature study. In addition, 2 research methods used in this study are: (1) Descriptive analysis method, namely the researcher performs a descriptive analysis using the average value for each variable; (2) Verification analysis method to test how much influence the causal variables, namely Online Learning Method (X1), Teacher Ability (X2), Infrastructure (X3), Student Learning Motivation (X4), and Parental Involvement on the effect variable, namely Online Learning Effectiveness (Y) using Partial Least Square (PLS). According to Ghozali (2014) the purpose of PLS is to help researchers to get the value of latent variables for prediction purposes. Descriptions and characteristics of the respondents involved in this study can be seen in the following table:

Table indikator 1:Description of the Research Object

Indikator.	Description	Amount	Percentage
		(Person)	(%)
1	Student Gender		
	Man	91	53%
	Woman	82	47%
2	Class		
	One	30	18%
	Two	30	17%
	Three	28	16%
	Four	28	16%
	Five	27	16%
	Six	30	17%
4	Parental Education		
	Indikator school	5	3%
	SD	35	20%
	junior high school	65	38%
	SMA/SMK	68	39%
5	Parents' job		
	entrepreneur	98	57%
	Private employees	46	26%
	Housewife	29	17%
6	Parent's Income		
	Rp. 1,000,000-5,000,000	154	89%
	Rp. 5,000,000 – 10,000,000	19	11%

Source: Processed by Researchers (2021)

Study Location: This research was conducted at AL-Falah Elementary School Bekasi whose address is at Jln. Base II Rt 002/001 Kel. Stone Well, Kec. Bantar Gebang Bekasi City – West Indikator.

Study Duration: March 2021 to December 2021

Sample sizes: 173 elementary school students AL-Falah Bekasi from grade 1 to grade 6.

Procedure methodology

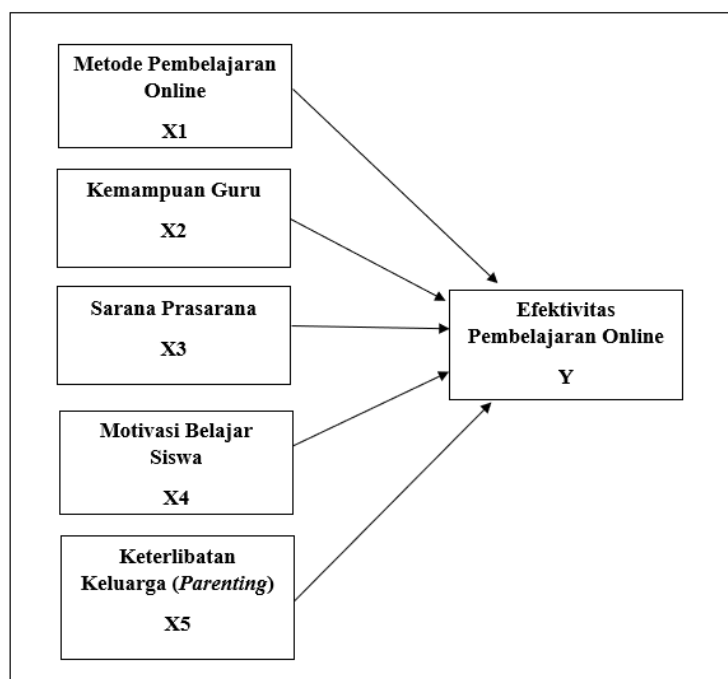
The researcher uses a descriptive variable analysis method using the average value for each variable and verification analysis by testing how much influence the causal variable (X) has on the effect variable (Y) through Partial Least Square (PLS) using Smart PLS 3.3.7

Table indikator 2:Operational Research Variables

Indikator.	VARIABLE NAME (CONCEPT, AUTHOR, YEAR)	DIMENSIONS	INDIKATOR	MEASUREMENT SCALE
1	X1 : Online Learning (using the internet to access material, to interact with content, instructors and other students; and to gain support during the learning process, to acquire knowledge, to build personal meaning, and to grow from the learning experience, Gustiani, Sri, 2020)	1. Content	1. Contents of learning materials using interactive content (audio, video animation, simulation)	Likert
			2. Content/learning materials are easy to understand and understand	Likert
		2. Instruction	3. Two-way communication about assignments via the internet	Likert
			4. Information on all assignments and semester exams is communicated directly (using zoom/google meet) and not directly via (Email/SMS)	Likert
			5. The form of information related to schools can be accessed anywhere and anytime by students	Likert
2	X2: Teacher's Ability (students' perception of adaptation of teaching staff to new requirements with online education, Butnaru at.all, 2021)	1. Teaching staff who are more tolerant	1. Teaching staff are more tolerant of students in the process of adapting online education (attendance, assignments, dress code)	Likert
		2. Teaching staff who are successful in delivering material to students	2. Teaching staff managed to convey ideas and information from learning materials effectively to students (easy to understand and understand by students)	Likert
		3. Teaching staff communication skills	3. There is no difficulty in communicating online with teaching staff either directly (google meet, zoom) or indirectly (email, whatsapp)	Likert
3	X3: Online Learning Facilities (Hardware and software components used to support online learning that clarify messages and information and facilitate learning processes and outcomes, ayakeding; at.all., 2021)	1.Hardware/Infrastructure	1. availability of internet network, (wifi, internet indikator)	Likert
			2. internet capacity (wifi/internet indikator) is very large, more than 50gb	Likert
			3. Availability of laptop/smartphone at home	Likert
		2.Software/system/application/content	4. Ease of obtaining the installation of the Google Meet and Zoom application software and WhatsApp both on laptops and smartphones	Likert
			5. the availability of an academic information system by the school containing the content of learning materials and assignment information values	Likert
4	X4 : Student Learning Motivation (initiation, direction, intensity, persistence, quality of goal-directed behavior, Gustiani, Sri, 2020)	1. Intrinsic	1. Motivation to learn to find out new knowledge	Likert
			2. Motivation to experience physical urges and excitement such as enjoyment in learning interesting material	Likert
			3. Motivation to do challenging learning activities such as completing assignments	Likert
		2. Extrinsic	4. Motivation to get awards (To get good grades)	Likert
			5. Motivation to avoid bad situations in the form of punishment for not going to class, not being able	Likert

			to take exams.	
			6. Motivation to get benefits and needs after completing learning activities (useful for getting a favorite junior high school	Likert
5	X5: Parental involvement (during online learning parents provide assistance and guidance in doing the tasks assigned by the teacher and learning facilities at home; Sari and maningtyas, 2020)	1. Provision of infrastructure for online learning at home	1. Provision of infrastructure in the form of smartphones, internet, laptops for online learning at home	Likert
		2. Granting permission to play outside the house	2. Granting permission to play outside the house during the covid pandemic	Likert
		3. take the time to accompany children in online learning	3. take time to accompany children during online learning	Likert
		4. foster children's interest in learning at home	4. Motivate children to study at home such as giving gifts	Likert
		5. assistance in carrying out school assignments	5. provide assistance to do all school assignments	Likert
		6. understanding of learning materials by parents	6. understanding of learning materials by parents	Likert
		7. management of children's play and learning at home	7. management of children's play and study time at home by parents	Likert
		8. use of learning media at home	8. the ability to use various learning media by parents (zoom, google meet, Whatsapp)	Likert
		9. the degree of saturation of parents during online learning at home	9. the level of parental saturation during online learning	Likert
6	Y : Effectiveness of Online Learning (Students' perceptions of the effectiveness of online learning, Butnaru at.all, 2021)	1. Active electronic communication with schoolmates and teachers	1. Willingness to actively communicate electronically with school friends	Likert
			2. Willingness to actively communicate electronically with teachers	Likert
		2. ease of adapting to education <i>on line</i> without direct help from the teacher	3. ease of adapting in the online learning process without direct assistance from teaching staff. (good use of zoom app, google meet, whatsapp)	Likert
			4. easy to adapt in the online learning process without the help of parents at home. (good use of zoom app, google meet, whatsapp)	Likert
		3. Study time management ability (discipline ability in studying at home)	5. able to self-discipline in the online learning process at home	Likert
			6. have time management skills to study at home	Likert
		4. Efficient online education	7. Efficient education (money, energy, time)	Likert
		5. did not find difficulties in obtaining learning materials through online platforms	8. found no difficulty in obtaining online learning materials through online platforms	Likert

Figure indikator. 1: Research Model



Hypothesis:

1. Hypothesis 1: Online Learning Methods have an influence on the effectiveness of online learning
2. Hypothesis 2: Teacher’s ability has an influence on the effectiveness of online learning
3. Hypothesis 3: Infrastructure has an influence on the effectiveness of online learning
4. Hypothesis 4: Student Learning Motivation has an influence on the effectiveness of online learning
5. Hypothesis 5: Parenting Involvement has an influence on the effectiveness of online learning

III. Result

Variable Descriptive Results

Researchers conducted descriptive testing through the results of the questionnaire to get the highest and lowest scores of the variables of Online Learning Method, Teacher Ability, Infrastructure, Student Learning Motivation, Parental Involvement, Effectiveness of online learning as shown in the following table:

Table indikator 3: Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	mean
Learning methods <i>On line</i>	173	1	5	4.08
Teacher's Ability	173	1	5	4.35
Infrastructure	173	1	5	4.11
Student's motivation to study	173	1	5	4.09
Parent Involvement	173	1	5	4.28
Online Learning Effectiveness	173	1	5	4.08

Source: Processed by Researchers (2021)

Based on the table above, the research variable is considered good because it has an average value of above three but the variables that are considered the best by the respondents are the teacher's ability of 4.35, parental involvement of 4.28, Online Learning Methods of 4.08, Motivation Student Learning is 4.09 and the effectiveness of online learning is 4.08. However, among the variables determining the effectiveness of online learning, the Online Learning Method variable has the lowest value in online learning during the Covid-19 pandemic, so it is not considered good among other variables.

Measurement Model Results (Outer Model)

Examiners assess the validity and reliability of the model by evaluating the measurement model (outer model). According to Ghozali (2015), the evaluation of the outer model with reflection indicators is carried out through convergent and discriminant validity of the indicators forming latent construction and composite reliability and cornbach alpha for the indicator block.

1. Convergent Validity

According to (Ghozali, 2014:40) an indicator is considered to have a high level of validity if it has a loading factor value greater than 0.60. So if the indicator has a loading factor value below 0.7, it will be dropped from the model.

Figure no. 2: PLS (First Run) Algorithm Results

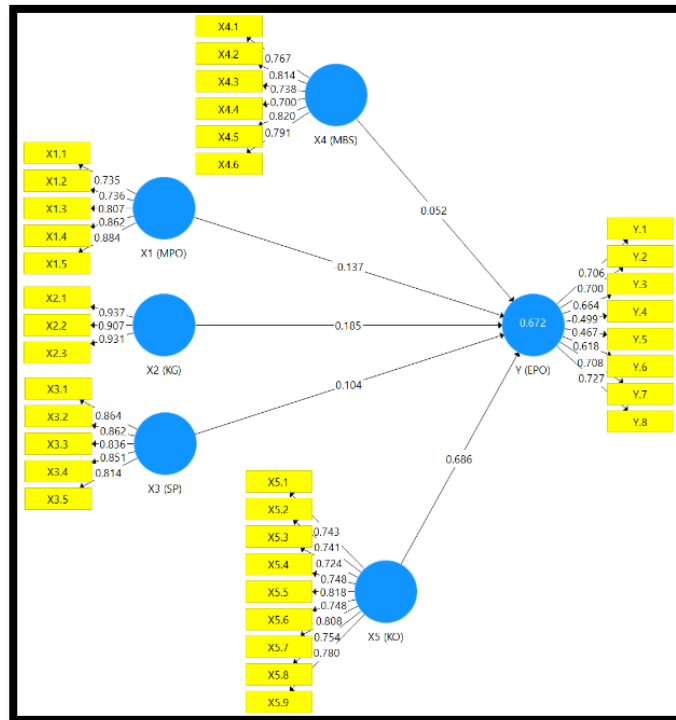


Table no 4: Convergent Validity Stage 1 Results

Code	Outer Loading	Condition	Description
MPO1	0.735	0.6	Valid
MPO2	0.736	0.6	Valid
MPO3	0.807	0.6	Valid
MPO4	0.862	0.6	Valid
MPO5	0.884	0.6	Valid
KG1	0.937	0.6	Valid
KG2	0.907	0.6	Valid
KG3	0.931	0.6	Valid
SP1	0.864	0.6	Valid
SP2	0.862	0.6	Valid
SP3	0.836	0.6	Valid
SP4	0.851	0.6	Valid
SP5	0.814	0.6	Valid
MBS1	0.767	0.6	Valid
MBS2	0.814	0.6	Valid
MBS3	0.738	0.6	Valid
MBS4	0.700	0.6	Valid
MBS5	0.820	0.6	Valid
MBS6	0.791	0.6	Valid
KO1	0.743	0.6	Valid

KO2	0.741	0.6	Valid
KO3	0.724	0.6	Valid
KO4	0.748	0.6	Valid
KO5	0.818	0.6	Valid
KO6	0.748	0.6	Valid
KO7	0.808	0.6	Valid
KO8	0.754	0.6	Valid
KO9	0.780	0.6	Valid
EPO1	0.706	0.6	Valid
EPO2	0.700	0.6	Valid
EPO3	0.664	0.6	Valid
EPO4	0.499	0.6	Invalid
EPO5	0.467	0.6	Invalid
EPO6	0.618	0.6	Valid
EPO7	0.708	0.6	Valid
EPO8	0.727	0.6	Valid

Figure no. 2:PLS Algorithm Results (Modification)

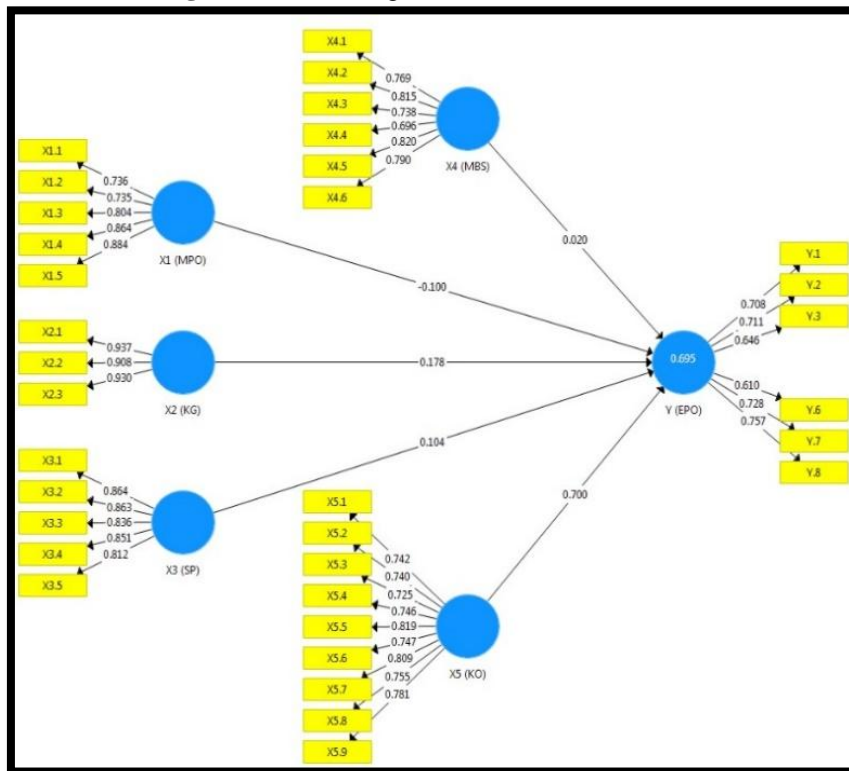


Table no 5: Convergent Validity (Modification) Results

Variable	Indicator	Outer Loading	Condition	Description
Online Learning Method	MPO1	0.736	0.6	Valid
	MPO2	0.735	0.6	Valid
	MPO3	0.804	0.6	Valid
	MPO4	0.864	0.6	Valid
	MPO5	0.884	0.6	Valid
Teacher's Ability	KG1	0.937	0.6	Valid
	KG2	0.908	0.6	Valid
	KG3	0.930	0.6	Valid
Infrastructure	SP1	0.864	0.6	Valid
	SP2	0.863	0.6	Valid
	SP3	0.836	0.6	Valid
	SP4	0.851	0.6	Valid
	SP5	0.812	0.6	Valid
Student's motivation to study	MBS1	0.769	0.6	Valid
	MBS2	0.815	0.6	Valid
	MBS3	0.738	0.6	Valid
	MBS4	0.696	0.6	Valid
	MBS5	0.820	0.6	Valid
	MBS6	0.790	0.6	Valid
Parent Involvement	KO1	0.742	0.6	Valid
	KO2	0.740	0.6	Valid
	KO3	0.725	0.6	Valid
	KO4	0.746	0.6	Valid
	KO5	0.819	0.6	Valid
	KO6	0.747	0.6	Valid
	KO7	0.809	0.6	Valid
	KO8	0.755	0.6	Valid
	KO9	0.781	0.6	Valid
Online Learning Effectiveness	EPO1	0.708	0.6	Valid
	EPO2	0.711	0.6	Valid
	EPO3	0.646	0.6	Valid
	EPO6	0.610	0.6	Valid
	EPO7	0.728	0.6	Valid
	EPO8	0.757	0.6	Valid

Based on Table 5 above, that the entire value of the loading factor of each variable is > 0.6. In addition, convergent validity is also assessed based on the Average Variance Extracted (AVE) value which can be seen in the following table

Table no 6: AVE (Average Variance Extracted) Test Results

Variable	AVE
Online Learning Method	0.651
Teacher's Ability	0.856
Infrastructure	0.715
Student's motivation to study	0.597
Parental Involvement	0.582
Online Learning Effectiveness	0.583

Based on Table 6 above, the results of testing the convergent validity of all research variables, namely Online Learning Methods, Teacher Ability, Infrastructure, Student Learning Motivation, Parental Involvement, and Online Learning Effectiveness have met the criteria with an AVE value > 0.50.

2. Discriminant Validity

After going through the convergent validity construct testing stage, the next step is the discriminant validity testing stage which is done by looking at the Square Root of Average Variance Extracted (AVE) value for each construct with the correlation value between constructs in the table. This model is often called the Fornell Larcker Criterion where an indicator is declared valid if it has the highest loading factor for the intended construct compared to the loading factor for the target construct. another construct.

Table no 7:Discriminant Validity Test Results (Fornell-Larcker Criterion)

Variable	X1	X2	X3	X4	X5	Y
Online Learning Method	0.807					
Master's Skills	0.795	0.925				
Infrastructure	0.486	0.541	0.846			
Student's motivation to study	0.553	0.616	0.443	0.773		
Parental Involvement	0.696	0.685	0.525	0.569	0.763	
Online Learning Effectiveness	0.591	0.647	0.529	0.519	0.695	0.819

Based on Table 7 above, that the value of the square root of average extracted (AVE) for each construct is greater than the correlation between one construct and another so that it meets the criteria as a good discriminant validity value.

Table no 8:Discriminant Validity Test Results (Heterotrait-Monotrait Ratio)

	Online Learning Method	Teacher's Ability	Infrastructure	Student's motivation to study	Parent Involvement	Y (EPO)
Online Learning Method						
Teacher's Ability	0.898					
Infrastructure	0.543	0.589				
Student's motivation to study	0.634	0.682	0.498			
Parent Involvement	0.784	0.748	0.582	0.632		
Online Learning Effectiveness	0.696	0.756	0.622	0.610	0.849	

Based on table 4.13 above, the HTMT output of all variables shows a value of <0.90. That is, each construct has a good discriminant validity value.

Table no 9:Discriminant Validity Test Results (Cross Loading)

Code	X1	X2	X3	X4	X5	Y
MPO1	0.736	0.655	0.398	0.478	0.534	0.467
MPO2	0.735	0.626	0.256	0.417	0.502	0.398
MPO3	0.804	0.565	0.384	0.379	0.555	0.467
MPO4	0.864	0.665	0.443	0.462	0.589	0.532
MPO5	0.884	0.698	0.452	0.493	0.618	0.506
KG1	0.726	0.937	0.441	0.578	0.655	0.600
KG2	0.762	0.908	0.435	0.523	0.559	0.549
KG3	0.724	0.930	0.614	0.603	0.680	0.642
SP1	0.446	0.510	0.864	0.396	0.478	0.464
SP2	0.417	0.488	0.863	0.407	0.442	0.478
SP3	0.377	0.440	0.836	0.363	0.418	0.444
SP4	0.449	0.453	0.851	0.345	0.475	0.450
SP5	0.358	0.388	0.812	0.360	0.404	0.391
MBS1	0.453	0.518	0.360	0.769	0.464	0.409
MBS2	0.509	0.555	0.372	0.815	0.480	0.446
MBS3	0.431	0.419	0.321	0.738	0.399	0.357

MBS4	0.297	0.347	0.275	0.696	0.276	0.302
MBS5	0.416	0.491	0.320	0.820	0.463	0.423
MBS6	0.432	0.493	0.390	0.790	0.511	0.443
KO1	0.619	0.566	0.486	0.541	0.742	0.532
KO2	0.524	0.558	0.375	0.367	0.740	0.576
KO3	0.434	0.400	0.341	0.345	0.725	0.533
KO4	0.493	0.633	0.518	0.479	0.746	0.637
KO5	0.546	0.505	0.413	0.332	0.819	0.643
KO6	0.490	0.544	0.362	0.487	0.747	0.628
KO7	0.521	0.487	0.341	0.403	0.809	0.711
KO8	0.551	0.487	0.370	0.494	0.755	0.646
KO9	0.603	0.531	0.418	0.465	0.781	0.680
EPO1	0.394	0.427	0.428	0.412	0.533	0.708
EPO2	0.433	0.429	0.372	0.375	0.576	0.711
EPO3	0.293	0.418	0.274	0.250	0.459	0.646
EPO6	0.253	0.394	0.322	0.225	0.469	0.610
EPO7	0.575	0.530	0.416	0.442	0.684	0.728
EPO8	0.450	0.484	0.375	0.415	0.648	0.757

Based on Table 9 above, the correlation value of the construct with its indicators is greater than the correlation value of the other constructs. Then, it can be concluded that all latent constructs show good discriminant validity and are considered reliable. Latent contracts predict indicators in their block better than indicators in other blocks.

Table no 9: Test results Composite Reliability and Cronbach's Alpha

Variable	Cronbach's Alpha	Composite Reliability	Description
Online Learning Method	0.864	0.903	Reliable
Master's Skills	0.916	0.947	Reliable
Infrastructure	0.900	0.926	Reliable
Student's motivation to study	0.865	0.899	Reliable
Parental Involvement	0.910	0.926	Reliable
Online Learning Effectiveness	0.786	0.848	Reliable

Based on Table 9 above, the composite reliability and Cronbach's alpha values have met the requirements, namely having a value of > 0.7 so it can be said that the variables of Online Learning Method, Teacher Ability, Infrastructure, Student Learning Motivation, Parental Involvement and Effectiveness of Online Learning are reliable or considered reliable.

Measurement Model Results (Inner Model)

Next, the researchers tested the structural model (inner model) with the aim of predicting the relationship and influence between the independent latent variable and the dependent latent variable by looking at the value of the coefficient of determination, namely R-Square (R²), F-Square (f²), and predictive relevance (Q²) to assess the structural (inner model) (Gozali, 2015).

Table no 10: R Square Test Results (R²)

Construct	R Square (R ²)	R Square Adjusted
Online Learning Effectiveness (Y)	0.695	0.686

Based on Table 4.15 above, the value of R Square is 69.5 percent. This means that the ability of the independent variable Learning Method (X1), Teacher Ability (X2), Infrastructure (X3), Student Learning Motivation (X4), Parental Involvement (X5) explains the dependent variable of online learning effectiveness by 69.5 percent and the rest (30, 5 percent) is a variable not examined in this study. However, the value of R square above is greater than 50 percent. This means that this research model is good, so the researcher suggests that further researchers who conduct research related to the effectiveness of online learning should re-examine

these research models, namely online learning methods, teacher abilities, infrastructure, student learning motivation.

Table no 11: f Square test results (f2)

Variable	f-Square	Description
Online Learning Method -> Effectiveness of Online Learning	0.011	Small
Teacher Ability -> Online Learning Effectiveness	0.031	Small
Infrastructure -> Effectiveness of Online Learning	0.023	Small
Student Learning Motivation -> Online Learning Effectiveness	0.001	Small
Parental Involvement -> Online Learning Effectiveness	0.686	Strong

Based on table 11 above, it is found that the Online Learning Method variable has a 0.11 percent (small) effect on the Effectiveness of Online Learning, the teacher's ability has a 3.1 percent (small) effect on the Online Learning Effectiveness, and infrastructure has a 2.3 percent effect. (small) on the effectiveness of online learning, student learning motivation has an effect of 0.01 percent (small) on the effectiveness of online learning. While the parental involvement variable has a strong influence on the effectiveness of online learning at AL-Falah Elementary School Bekasi, which is 6.86 percent.

Table no 12: Results Predictive Relevance (Q2)

Variable	SSO	SSE	Q ² (=1-SSE/SSO)
Online Learning Effectiveness	1038.000	705,736	0.320

Based on table 12, the results of the Predictive Relevance (Q2) calculation result in a value of 0.320 where the value indicates a value greater than 0, so it can be said that the model has a relevant and strong predictive value.

Hypothesis Test Results

According to Helm et al. (2009) in Hair et al. (2014), the path coefficient value is in the range of values of -1 to +1, where the path coefficient value close to +1 represents a strong positive relationship, and the coefficient value -1 indicates a strong negative relationship. The significance relationship between hypotheses can be seen with the parameter coefficient values and the t-statistical significance value in the bootstrapping report algorithm where the t-statistical significance value must be greater than 1.96 (Ghozali, 2014). The decision-making method is as follows:

- a) If P-Values > 0.05 or t-count < t-table, then Ho is accepted and Ha is rejected.
- b) If P-Values < 0.05 or t-count > t-table, then Ho is rejected and Ha is accepted.

Figure no 3: Hypothesis Test Results

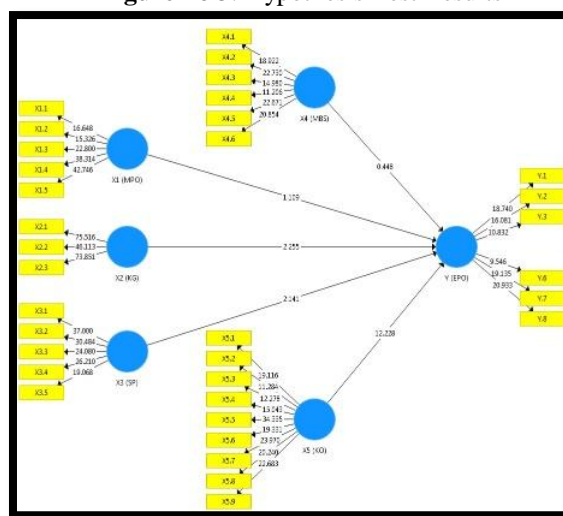


Table no 13: Hypothesis Test Results (Bootstrapping)

Relationships Between Constructs	Original Sample (O)	T Statistics (O/STDEV)	P Values
Online Learning Method -> Effectiveness of Online Learning	-0.100	1.109	0.268
Teacher Ability-> Online Learning Effectiveness	0.178	2.255	0.025
Infrastructure -> Effectiveness of Online Learning	0.104	2,141	0.033
Student Learning Motivation -> Online Learning Effectiveness	0.020	0.448	0.655
Parental Involvement -> Online Learning Effectiveness	0.700	12,228	0.000

1) Based on Table 13, it is known that the t-statistic value is 1.109 which is smaller than 1.96 and the P-Value value is 0.268 which is greater than 0.05. The original sample value is negative, which is -0.100. That is, Hypothesis 1 is rejected because even though the online learning method is good it will not increase the effectiveness of online learning.

2) Based on Table 13, it is known that the t-statistic value is 2.255 which is greater than 1.96 and the P-Value value is 0.025 less than 0.05. The original sample value is positive, which is 0.178. That is, the teacher's ability variable (X2) has a significant effect on the Online Learning Effectiveness variable (Y) so that hypothesis 2 is accepted.

3) Based on Table 13, it is known that the t-statistic value is 2.141 which is greater than 1.96 and the P-Value value is 0.033 which is less than 0.05. The original sample value is positive, which is 0.104. That is, the variable Infrastructure (X3) has a significant effect on the Online Learning Effectiveness variable (Y).

4) Based on Table 13, it is known that the t-statistic value is 0.448 which is smaller than 1.96 and the P-Value value is 0.655 which is more than 0.05. The original sample value is positive, which is 0.020. That is, the variable of Student Learning Motivation (X4) has no significant effect on the Online Learning Effectiveness variable (Y).

5) Based on Table 13 the results of calculations with hypothesis testing with a t-statistic value of 12.228 > 1.96 with a significance level of 0.000 < 0.05. So it can be concluded that Parental Involvement has a significant effect on the Effectiveness of Online Learning. So that hypothesis 5 is accepted.

IV. Discussion

(1) The Effect of Online Learning Methods on the Effectiveness of Online Learning

Based on the results of the hypothesis test in table 13 above that hypothesis one is rejected. This means that online learning methods have no significant effect on the effectiveness of online learning. The Online Learning Method has an original sample value of -0.100. This means that even though the online learning method is good, it will not increase the effectiveness of online learning. The parameters of the Online Learning Method which are considered unfavorable by the students of the AL-Falah Elementary School Bekasi are (1). Online learning materials delivered by teachers are not in the form of videos, but in the field implementation the majority of materials provided by teachers to students are in the form of text, (2). Online learning materials delivered by teachers are not easily understood by students of Al-Falah Elementary School Bekasi, because the majority of the forms of learning material provided by teachers to students are in the form of text through Whatsapp media, they rarely use zoom, google meet because the majority of teachers do not understand technology. This means that the Online Learning Materials provided in text form to Al-Falah Elementary School Students are not effective. So it is necessary for elementary school teachers to provide learning materials in the form of videos so that they are easily understood and understood by students of Al-Falah Elementary School Bekasi. As for the results of interviews with school management where AL-Falah Bekasi Elementary School teachers do not all understand ICT, especially in use (Google Meet and Zoom), so that the Online Learning Method used in delivering material to students uses Whatsapp Groups and materials in the form of The text, in terms of Online Learning Facilities, that the network in the Bekasi AL-Falah Elementary School area is not good enough because it is in the border area between the city of Bekasi and the Bekasi district so that the online learning process is not effective enough.

The results of this study are not relevant to the results of the study Chung et al., (2020) said that online learning methods affect the effectiveness of online learning. Where the online learning method in delivering learning materials given to students is done through Video Calls directly via Google Meet, Zoom, Whatsapp and indirectly through videos or power points that have been created and uploaded to Youtube and Google Classroom. according to Bahasoan et al., (2020) Online Learning Methods in delivering material using Whatsapp are more effective, so online learning methods impact the effectiveness of online learning.

(2) The Influence of Teacher Ability on Online Learning Effectiveness

Based on the results of Table 13 above, hypothesis 2 is accepted which states that the teacher's ability has a significant effect on the effectiveness of online learning. The large influence of the teacher's ability on the effectiveness of online learning is 0.031 (3.1 percent). This means that if the ability of the Al-Falah Bekasi Elementary School teacher has the ability to provide good online delivery of learning materials, it will increase the effectiveness of online learning. The ways to improve the ability of teachers are: (1) To improve the ability of teachers in the online teaching and learning process, AL-Falah Elementary School teachers must be able to provide tolerance to students in terms of attendance, collection of school assignments and how to dress during the online teaching and learning process. implemented;

The results of this study are in line with research conducted by Wardhani and Krisnani (2020) and Rahayu and Wirza (2020) where in online learning, the teacher's ability to deliver material to students greatly affects the effectiveness of online learning.

(3) The Effect of Infrastructure on the Effectiveness of Online Learning

Based on the results of the hypothesis table where hypothesis 3 is accepted which states that Sarana Prasana has a significant influence on the effectiveness of online learning. The large influence of infrastructure on the effectiveness of online learning is 0.023 (2.3 percent) meaning that if the school provides excellent infrastructure facilities in the form of an internet network, Smartphone devices (PC) and applications (Google meet and zoom), it will increase the effectiveness of online learning at AL-Falah Elementary School Bekasi. As for how to improve online learning facilities, namely (1) All AL-Falah Bekasi Elementary School Students must have the availability of internet network facilities (Wifi, Internet Credit;) in the online teaching and learning process; (2) AL-Falah Elementary School students must have internet capacity or internet quota that is large enough in the online learning process carried out through the zoom application, google meet requires large internet capacity.

The results of this study are relevant to Askar (2021), Purwanto et al., (2020), Fauzi and Khusuma (2020) that infrastructure facilities in terms of providing Smartphones, laptops and internet networks are very much needed in online learning, so that Infrastructure has a significant positive effect on the effectiveness of online learning.

(4) The Effect of Student Learning Motivation on the Effectiveness of Online Learning

Based on the results of the hypothesis test in table 13 above that, hypothesis four is rejected, which reads Student Learning Motivation does not have a significant influence on the effectiveness of online learning. This is because the results of the descriptive value of Student Learning Motivation are still considered low with an average value of 4.09. The parameters of Student Learning Motivation that are considered low in AL-Falah Bekasi Elementary School students are: (1) In the online learning process, the majority of AL-Falah Bekasi Elementary School students are not motivated to get good grades; (2) The majority of students of AL-Falah Elementary School Bekasi are not motivated to get a good junior high school or favorite junior high school after graduating from elementary school. This is because the parents of AL-Falah Elementary School Bekasi are mostly from the lower middle class, so they do not have the motivation to excel in the competition to get good grades and a higher strata education level. Besides that, students' learning motivation is low in the online learning process, the majority of housing conditions for AL-Falah Elementary School Bekasi students are in an environment where there are many children of the same age.

The results of this study are not relevant to research conducted by Muslimin (2020), Gustiani (2020), Winata (2021) which states that students who have motivation to learn both in terms of extrinsic and intrinsic can increase the effectiveness of online learning. So that students' learning motivation has a significant positive effect on the effectiveness of online learning.

(1) The Effect of Parental Involvement on the Effectiveness of Online Learning

Based on the results of Table 13 above, hypothesis 5 is accepted which states that parental involvement has a significant effect on the effectiveness of online learning. The large influence of parental involvement on the effectiveness of online learning is 0.686 (68.6 percent). This means that if the involvement of parents in the online teaching and learning process is high in the form of mentoring their children in online learning, it will increase the effectiveness of online learning. The ways to increase parental involvement are: (1) Parents of AL-Falah Bekasi Elementary School students assisting the teaching and learning process at home, providing online learning facilities such as internet facilities and Smartphone devices;

The results of this study are in line with research conducted by Cahyati and Kusumah (2020), Wardhani and Krisnani (2020), Dong et al., (2020), Sari and Maningtyas (2020) which state that parental involvement in terms of assistance and assistance has an effect on positive and significant on the effectiveness of online learning.

V. Conclusion

1. Online Learning Methods do not significantly affect the Effectiveness of Online Learning, this is because online learning methods have not been assessed by both students and parents because they have the lowest descriptive variable value among other causal variables, with an average value of 4.08.
2. The teacher's ability has a significant effect on the effectiveness of online learning with a large effect of 3.1 percent, This means that the teacher's ability is a model in increasing the effectiveness of online learning at the AL-Falah Elementary School Bekasi. Therefore, the management of AL-Falah Elementary School Bekasi should need to improve the ability of teachers in increasing the effectiveness of online learning, namely: (1) AL-Falah Elementary School should provide policies in the form of tolerance for student absenteeism, tolerance for collecting school assignments, tolerance for how to dress in the learning process teaching online, so that the online teaching and learning process becomes comfortable for students of AL-Falah Elementary School Bekasi; (2) The Principal of Al-Falah Elementary School should urge teachers to use applications (zoom, google meet) during the online teaching and learning process or provide information related to rules and information on subject assignments.
3. Infrastructure has a significant effect on the effectiveness of online learning with a large effect of 2.3 percent, This means that Infrastructure is a model in increasing the effectiveness of online learning at AL-Falah Elementary School Bekasi. Therefore, the management of Al-Falah Elementary School Bekasi should be able to provide infrastructure in the form of internet and smartphones for free to children who are really underprivileged by means of schools inviting collaboration with cellular or smartphone operators in terms of distributing free quotas and free smartphones.
4. Student Learning Motivation does not significantly affect the effectiveness of online learning, this is because student learning motivation has not been assessed high enough to carry out the online learning process, especially in grades one to three. Where the average value of student learning motivation is 4.09 percent.
5. Parental involvement has a significant effect on the effectiveness of online learning with a large effect of 68.6 percent, This means that parental involvement is a model in increasing the effectiveness of online learning at AL-Falah Elementary School Bekasi.. So that the AL-Falah Bekasi Elementary School should increase parental involvement in increasing the effectiveness of online learning, namely: (1) Parents of AL-Falah Bekasi Elementary School students provide assistance in the teaching and learning process at home, providing online learning facilities such as internet facilities and Smartphone devices; (2) It is hoped that parents of AL-Falah Bekasi Elementary School students can manage the time for their child's teaching and learning process at home and play time during the Covid-19 pandemic. This is because without parental control, the majority of elementary school students spend more time playing (playing games) than studying at home during the Covid-19 pandemic.

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