Improving the Effectiveness of Islamic Religious Education Learning Through Transformational Leadership, Implementation of Cooperative Learning Models, and Learning Motivation

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#### Abstract

The composed combination includes human elements, materials, facilities, equipment and procedures to change student behavior in a positive and better direction with the potential and differences that students have to achieve predetermined learning goals, this is what is meant by learning effectiveness. Learning effectiveness is an important element related to achieving educational goals. Religious subjects are learning that is always a benchmark for behavior and attitudes. It is known that the effectiveness of learning Islamic Religious Education subjects at private vocational schools in Bogor Regency is not as expected. Therefore, research is needed to obtain information on variables related to increasing learning effectiveness. The aim of this research is to carry out strategies and ways to increase learning effectiveness by conducting research on the influence between the implementation variables of the cooperative learning model, transformational leadership and learning motivation. This research uses the path analysis method to determine the influence between the variables studied and the SITOREM method for indicator analysis to obtain strategies and ways to increase learning effectiveness.

**Keywords**: Learning Effectiveness, Implementation of the Cooperative Learning Model, Transformational Leadership, Achievement Motivation, SITOREM Analysis

#### **ABSTRAK**

Perpaduan yang tersusun meliputi unsur manusia, bahan, sarana, peralatan dan tata cara untuk mengubah perilaku siswa ke arah yang positif dan lebih baik dengan potensi dan perbedaan yang dimiliki siswa untuk mencapai tujuan pembelajaran yang telah ditentukan, inilah yang dimaksud dengan efektivitas pembelajaran. Efektivitas pembelajaran merupakan salah satu unsur penting yang berkaitan dengan pencapaian tujuan pendidikan. Mata pelajaran agama merupakan pembelajaran yang selalu menjadi tolok ukur tingkah laku dan sikap. Diketahui bahwa efektivitas pembelajaran mata pelajaran Pendidikan Agama Islam di SMK swasta di Kabupaten Bogor belum sesuai dengan yang diharapkan. Oleh karena itu, diperlukan penelitian untuk memperoleh informasi mengenai variabel-variabel yang berhubungan dengan peningkatan efektivitas pembelajaran. Tujuan penelitian ini adalah untuk melakukan strategi dan cara meningkatkan efektivitas pembelajaran dengan melakukan penelitian pengaruh antara variabel penerapan model pembelajaran kooperatif, kepemimpinan transformasional dan motivasi belajar. Penelitian ini menggunakan metode analisis jalur untuk mengetahui pengaruh antar variabel yang diteliti dan metode SITOREM untuk analisis indikator guna memperoleh strategi dan cara meningkatkan efektivitas pembelajaran.

**Keywords:** Efektivitas Pembelajaran, Penerapan Model Pembelajaran Kooperatif, Kepemimpinan Transformasional, Motivasi Berprestasi, Analisis SITOREM

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## INTRODUCTION

Education is a learning and teaching process that aims to develop human potential optimally through various teaching and learning activities. The main goal of education is to help individuals achieve optimal intellectual, social, emotional and physical abilities, as well as assist individuals in developing the skills, knowledge and values needed for everyday life (Nuriansyah, 2020). Education has a very important role in human development, because education can help individuals understand the world around them, understand their role in society, and prepare them to face the challenges of life in the future (Dermawan et al., 2023a). Apart from that, education is also the foundation for the social and economic development of a country, because education can improve the quality of human resources and prepare individuals to participate in social, economic and political life (Santoso, 2019).

According to the Big Indonesian Dictionary, effectiveness comes from the word effective, which means influence or result. Effectiveness is an effort to achieve predetermined targets in accordance with needs, plans, using data, facilities and available time to obtain maximum results both quantitatively and qualitatively. (Supardi, 2013:164). To increase effectiveness in learning activities, several factors must be taken into account: including class conditions, learning resources, media and tools.

Islamic religious education needs to be taught to students at every level of education, from elementary education to tertiary education. Education at the level of discourse and in practice is a humanization process, namely humanizing humans or a process of human maturity towards the formation of a complete human being (insan kamil), namely the achievement of true humanity. The formation of a complete human being is the goal to be achieved in the educational process and is the main focus of attention in the implementation of education itself.

Today's teachers are teachers who are ready to face learning in all conditions, both normal and abnormal conditions such as today so that there are no longer any teachers who are still confused and cannot determine strategic, efficient and effective steps in designing and implementing learning because all It is already available on the internet or Google, both material and applications, the teacher only has to choose the application that he wants to use, but he needs to have knowledge of how to apply it first, which requires energy and time to learn.

Miarso (2004) said that learning effectiveness is one of the quality standards of education and is often measured by achieving goals, or can also be interpreted as accuracy in managing a situation, "doing the right things". According to Supardi (2013), effective learning is a combination that

includes humans, materials, facilities, equipment and procedures directed at changing student behavior in a positive and better direction according to the potential and differences that students have to achieve the learning goals that have been set.

Hamalik (2001) states that effective learning is learning that provides students with the opportunity to learn themselves or carry out as many activities as possible for students to learn. Providing opportunities for independent study and activities as widely as possible is expected to help students understand the concepts being studied.

Effective learning is a combination that includes human elements, materials, facilities, equipment and procedures to change student behavior in a positive and better direction with the potential and differences that students have to achieve the learning goals that have been set (Supardi, 2013: 164). The success of learning will be effective depending on various factors. One of them is how we as teachers can package learning strategies. (Saefuddin and Berdiati, 2014: 40)

Slavin (1994) divided four main elements in effective teaching or called QAIT (Quality, Appropriateness, Incentive, Time) (Supardi, 2013: 169). In line with that, the principles that must be adhered to in realizing an effective learning process include: experiencing, interacting, reflecting, developing desires.

There are several key aspects in effective learning as stated by Guntur (2004) in (Supardi, 2013: 166-168), namely: Clarity; Variety (Variety); Task Orientation (Task Orientation); Student involvement in learning (Engagement in learning); Achievement of high student success rates (Student success rates). In order for learning to be effective, several components, facilities and learning resources must be managed well. The use of media in learning can generate motivation, new interests and desires in learners (Saefuddin and Berdiati, 2014:62)

It is hoped that the use of learning media can help increase the effectiveness of learning and convey messages and lesson content at that time. In this research, the effectiveness indicators that will be used focus on the media used, namely learning videos. It is hoped that the use of media in the form of videos can convey material in detail, make the learning process more interesting and improve the quality of students' learning outcomes.

Cooperative learning is a form of learning in which students learn and work in small groups collaboratively, whose members consist of four to six people with a heterogeneous group structure (Rusman, 2011: 202). In the view of Abdulhak (2001) in (Rusman, 2011: 203) that not all group learning is said to be cooperative learning. According to him, cooperative learning is carried out through sharing processes between learning participants, thereby creating a shared understanding

In line with the views above, Nurhayati (2002) in (Rusman, 2011: 203) also sees cooperative learning as a learning strategy that involves student participation in a small group to interact with each other. Tom V. Savage also stated that cooperative learning is an approach that emphasizes cooperation in groups.

## **Learning Effectiveness**

Based on the opinions and theories presented by Dundon & Wilkinson, (2020), Kaizen et al., (2012), Rabiah, (2019), Poornima M. Charantimath, (2020), Tribus, (2010), Jayawardana, (2017), Nurtanto et al., (2020), Darma et al., (2021), it can be synthesized that Learning Effectiveness is a combination that includes human elements, materials, facilities, equipment and procedures to change student behavior in a positive direction. and better with the potential and differences that students have to achieve the learning goals that have been set. The indicators of learning quality are as follows: 1). Clarity (Clarity); 2). Variety (Variety); 3). Task Orientation (Task Orientation); 4). Student involvement in learning (Engagement in learning); and 5). Achievement of high student success rates (Student success rates).

## **Transformational Leadership**

Based on the opinions and theories presented by Fred Luthans. (2021 p, 392), Stanley C. Ross (2021. p 192), Mullins, laurie J.(2016 p, 326), Kinicki, Angelo. (2016, p 246), Fred Luthans. (2021 p, 393), Gert Alblas and Ella Wijsman (2021, p 229-230), Stephen P. Robbins and Timothy A. Judge. (2019, p 476. p, 480), Debra L. Nelson. (2018, p. 57 p 211), Colquitt, Jason et al. (2019, p 456-457), Terri A. Scandura, (2019, p 302), Joseph E. Champoux, (2017, p, 412), and Andrew J. DuBrin, (2019, p, 252), can be synthesize that transformational leadership is the behavior of a leader who is able to create fundamental changes and is based on values, beliefs, attitudes, behavior, emotions in order to achieve a predetermined vision. The indicators of transformational leadership are as follows: 1). Ideal influence (Idealized influence), namely the leader acts as a role model or role model, 2). Inspirational motivation (Inspirational motivation), namely the leader creates a clear picture of the future situation in an optimistic manner, 3). Intellectual stimulation (Intellectual simulation), namely leaders stimulate people by creating a supporting climate environment.

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## Implementation of the Cooperative Learning Model

Based on the opinions and theories presented by Rusman (2018, p. 202), Warsono & Hariyanto (2014, p. 161), Roger, (2015, p. 29), Syaifurahman & Ujiati, (2013, p. 75) Parker (2015, p. 29), 2015.p.29), Hamdayama (2016, p. 145) can synthesize that the Cooperative Learning Model is a learning model that emphasizes collaborative activities of students in learning in the form of small groups to achieve the same goal by using various kinds of learning activities to improve abilities. students in understanding lesson material and solving problems collectively. The indicators of learning quality are as follows: 1) promotive interaction; 2) individual accountability; 3) interpersonal and small-group skills (interpersonal and small-group skills); and 4) group processing.

#### **Motivation to Learn**

Based on opinions and theories presented by George & Jones (2016: 157-160), Pinder (2015: 13), Robbins & Judge (2016: 214), Luthans (2016: 37-40), Schermerhorn, Hunt Jr, Osborn, & Bien (2015: 108-115), Schermerhorn (2015: 404), Greenberg & Baron (2017: 248), Robert & Angelo (2014: 205), Wexley & Yukl (2015: 16-18), Gomes (2014: 188), Robbins & Judge (2016: 201), Colcuitt, LePine, & Wesson (2015: 168), it can be synthesized that learning motivation is the level of encouragement, desire and movement power that grows within a person, both originating from within and outside himself to carry out a job with high enthusiasm using all the abilities and skills he has with the aim of maximum achievement, which can be measured through the following dimensions and indicators: a). Intrinsic Dimensions with indicators: 1). Achievement, 2) Confession, 3) Responsibility, 4) Progress, and b) Extrinsic Dimensions with indicators: 5) Compensation, 6) Study Conditions ), 7) Status, and 8) Study Procedures.

## **SITOREM**

SITOREM is an abbreviation for "Scientific Identification Theory to Conduct Operation Research in Education Management", which can generally be interpreted as a scientific method used to identify variables (theory) to conduct "Operation Research" in the field of Education Management (Soewarto Hardhienata, 2017).

In the context of Correlation and Path Analysis research, SITOREM is used as a method to carry out: 1). Identify the strength of the relationship between the Independent Variable and the Dependent Variable, 2) Analyze the value of the research results for each indicator of the research

variable, and 3) Analyze the weight of each indicator for each research variable based on the criteria "Cost, Benefit, Urgency and Importance".

Based on the identification of the strength of the relationship between research variables, and based on the weight of each independent variable indicator that has the greatest contribution, a priority order of indicators that need to be immediately improved and those that need to be maintained can be arranged. Analysis of the value of the research results for each indicator of the research variable is calculated from the average score of each indicator for each research variable. The average score for each indicator is a reflection of the actual condition of these indicators from the point of view of the research subject.

### **RESEARCH METHODS**

As explained above, this research aims to find strategies and ways to increase the effectiveness of learning in Islamic religious education subjects at private vocational schools in Bogor Regency, through research on the strength of influence between Learning Effectiveness as the dependent variable and Transformational Leadership, Implementation of the Cooperative Learning Model, and Motivation. Learning as an independent variable. The research method used is a survey method with a path analysis test approach to test statistical hypotheses and the SITOREM method for indicator analysis to determine optimal solutions for increasing the effectiveness of learning in Islamic religious education subjects.

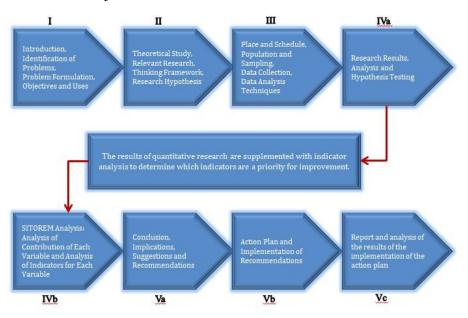


Figure 1. Quantitative and SITOREM Step

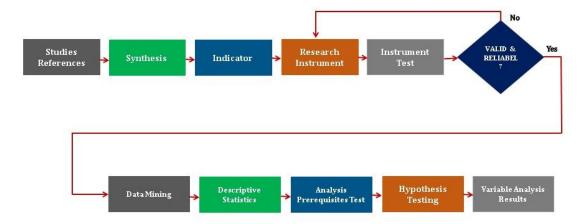


Figure 2. Quantitative Research Step

The research was conducted on foundation permanent teachers (GTY) of Bogor Regency Private Vocational High Schools (SMK) with a teacher population of 289 people, with a sample of 168 teachers calculated using the Slovin formula taken from Umar.

Data collection in this research used a research instrument in the form of a questionnaire which was distributed to teachers as research respondents. The research instrument items come from the research indicators whose conditions will be studied. Before being distributed to respondents, the research instrument was first tested to determine its validity and reliability.

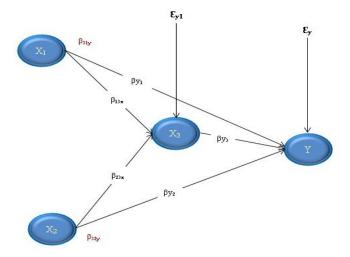


Figure 3. Research Constellation

X1 = Transformasional Leadership

X2 = Implementation of the Cooperative Learning Model

X3 = Motivation to Learn

Y = Learning Effectiveness

### RESEARCH RESULTS AND DISCUSSION

## **Convergent Validity Test**

Evaluation of construct validity is carried out by calculating convergent validity. Convergent validity is known through the loading factor and Average Variance Extracted (AVE) values. An instrument is said to meet the convergent validity test if it has a loading factor and Average Variance Extracted (AVE) above 0.5. The results of convergent validity testing are presented in the following table:

**Table 1.** Convergent Validity Test Results

Variable	Dimensions	Indicator	Loading Factor	AVE
		Clarity	0.781	
Learning Effectiveness		variety	0.829	
(Y)	-	Task Orientation	0.792	0.637
		Engagement in learning	0.841	
		Student success rates	0.745	
		Idealized influence	0.748	_
Transformasional		Inspirational motivation	0.863	0.646
Leadership $(X_1)$	-	Intellectual simulation	0.834	
		Individual consideration	0.763	
		Interaksi Promotif	0.707	
Implementation of the		Akuntabilitas individu	0.748	0.595
Cooperative Learning Model (X <sub>2</sub> )	-	Keterampilan interpersonal dan kelompok kecil	0.843	
		Pemrosesan kelompok	0.728	
		Achievement	0.838	
	Instrinsic	Confession	0.81	
	Dimension	Responbility	0.855	
Maria (W.)		Progress	0.799	0.565
Motivation to Learn $(X_3)$		Compensation	0.804	0.565
	Ekstrinsic	Studying Condition	0.851	
	Dimension	Status	0.805	
		Study Procedur	0.771	

### **Discriminant Validity Test**

Discriminant validity is calculated using cross loading with the criterion that if the cross loading value in a corresponding variable is greater than the correlation value of the indicator in other variables, then the indicator is declared valid in measuring the corresponding variable. The results of the cross loading calculation are presented in the following table:

Table 2. Result of Cross Loading Discriminant Validity Testing

Indicator	Transformasiona	Implementation of the Cooperative	Motivation to Learn		Learning	
HithCator	l Leadership	Learning Model	Intrinsi c	Ekstrinsi c	Effectiveness	
X1.1	0.748	0.298	0.303	0.288	0.271	
X1.2	0.863	0.3	0.365	0.292	0.374	
X1.3	0.834	0.346	0.387	0.309	0.409	
X1.4	0.763	0.286	0.259	0.196	0.312	
X2.1	0.327	0.707	0.386	0.369	0.498	
X2.2	0.178	0.748	0.233	0.246	0.371	
X2.3	0.283	0.843	0.292	0.261	0.525	
X2.4	0.359	0.728	0.311	0.223	0.379	
X3.1.1	0.299	0.327	0.838	0.58	0.371	
X3.1.2	0.364	0.321	0.81	0.546	0.364	
X3.1.3	0.373	0.365	0.855	0.594	0.39	
X3.1.4	0.334	0.346	0.799	0.563	0.383	
X3.2.1	0.225	0.289	0.576	0.804	0.338	
X3.2.2	0.279	0.361	0.587	0.851	0.412	
X3.2.3	0.33	0.276	0.54	0.805	0.298	
X3.2.4	0.27	0.272	0.531	0.771	0.255	
Y.1	0.355	0.419	0.321	0.304	0.781	
Y.2	0.35	0.483	0.407	0.325	0.829	
Y.3	0.317	0.485	0.358	0.329	0.792	
Y.4	0.358	0.577	0.397	0.341	0.841	
Y.5	0.345	0.4	0.331	0.319	0.745	

### **Construct Reliability**

Calculations that can be used to test construct reliability are Cronbach alpha and composite reliability. The test criteria state that if the composite reliability is greater than 0.7 and the Cronbach alpha is greater than 0.6 then the construct is declared reliable. The results of composite reliability and Cronbach alpha calculations can be seen through the summary presented in the following table:

**Table 3.** Construct Reliability Testing Results

Variabel	Cronbach's Alpha	Composite Reliability
Transformasional Leadership (X <sub>1</sub> )	0.858	0.898
Implementation of the Cooperative Learning Model (X <sub>2</sub> )	0.817	0.879
Motivation to Learn (X <sub>3</sub> )	0.754	0.843
Learning Effectiveness (Y)	0.890	0.912

## Coefficient of Determination (R<sup>2</sup>)

The Determination Coefficient (R2) is used to determine the magnitude of the ability of

R<sup>2</sup> results can be seen in the following table.

endogenous variables to explain the diversity of exogenous variables, or in other words to determine the magnitude of the contribution of exogenous variables to endogenous variables. The

**Table 4.** Result of the Coefficient of Determination (R<sup>2</sup>)

Variabel Dependen	R Square	R Square Adjusted
Motivation to Learn (X <sub>3</sub> )	0.255	0.248
Learning Effectiveness (Y)	0.438	0.430

## Predictive Relevance (Q<sup>2</sup>)

The  $Q^2$  value can be used to measure how well the observed values are produced by the model and also the estimated parameters. A  $Q^2$  value greater than 0 (zero) indicates that the model is said to be good enough, while a  $Q^2$  value less than 0 (zero) indicates that the model lacks predictive relevance. The following are the results of the Predictive Relevance ( $Q^2$ ) test:

**Table 5.** Result of Predictive Relevance Testing (Q<sup>2</sup>)

Variabel Dependen	SSO	SSE	Q² (=1-SSE/SSO)
Motivation to Learn (X <sub>3</sub> )	1832.000	1573.914	0.141
Learning Effectiveness (Y)	1145.000	836.365	0.270

The results in table 5 show that all variables produce Predictive Relevance ( $Q^2$ ) values greater than 0 (zero) which indicates that the model is said to be good enough

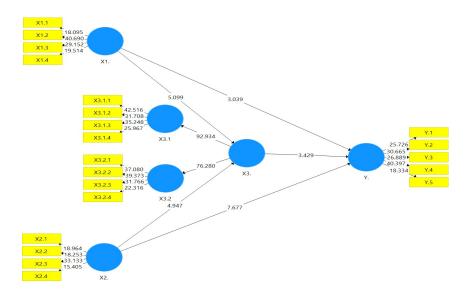


Figure 4. Research Constellation

## **Hypothesis Test**

Significance testing is used to test whether there is an influence of exogenous variables on endogenous variables. The test criteria state that if the T-statistics value is  $\geq$  T-table (1.96) or the P-Value is <significant alpha 5% or 0.05, then it is stated that there is a significant influence of exogenous variables on endogenous variables. The results of significance testing and models can be seen through the following figures and tables.

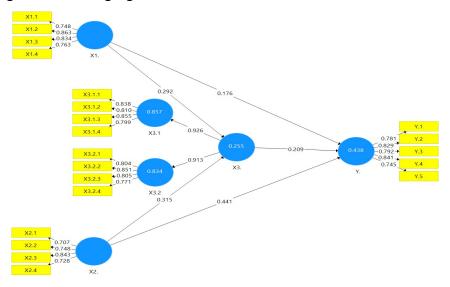


Figure 5. Analysis Results

Complete hypothesis testing is presented in the following table:

**Table 6.** Hypothesis Testing Results

No.	Path	Coefisien	T Statistics ( O/STDEV )	P Values
1.	Transformasional Leadership $(X_1)$ -> Motivation to Learn $(X_3)$	0.292	5.099	0.000
2.	Transformasional Leadership $(X_1)$ -> Learning Effectiveness $(Y)$	0.176	3.039	0.002
3.	Implementation of the Cooperative Learning Model $(X_2)$ -> Motivation to Learn $(X_3)$	0.315	4.947	0.000
4.	Implementation of the Cooperative Learning Model (X <sub>2</sub> ) -> Learning Effectiveness (Y)	0.441	7.677	0.000
5.	Motivation to Learn $(X_3)$ -> Learning Effectiveness $(Y)$	0.209	3.429	0.001

## The Influence of Transformational Leadership (X<sub>1</sub>) on Learning Motivation (X<sub>3</sub>)

Testing the influence of Transformational Leadership  $(X_1)$  on Learning Motivation  $(X_3)$  produces a T statistics value of 5.099 with a p-value of 0.000. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of

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Transformational Leadership  $(X_1)$  on Learning Motivation  $(X_3)$ . The resulting coefficient value is positive, namely 0.292. Thus, it can be interpreted that the better Transformational Leadership tends to increase Learning Motivation.

## The Influence of Transformational Leadership (X1) on Learning Effectiveness (Y)

Testing the influence of Transformational Leadership  $(X_1)$  on Learning Effectiveness (Y) produces a T statistics value of 3.039 with a p-value of 0.002. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of Transformational Leadership  $(X_1)$  on Learning Effectiveness (Y). The resulting coefficient value is positive, namely 0.176. Thus, it can be interpreted that the higher the Transformational Leadership, the more likely it is to increase Learning Effectiveness.

## Effect of Implementing the Cooperative Learning Model (X<sub>2</sub>) on Learning Motivation (X<sub>3</sub>)

Testing the effect of implementing the Cooperative Learning Model ( $X_2$ ) on Learning Motivation ( $X_3$ ) produced a T statistics value of 4,947 with a p-value of 0.000. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of the Implementation of the Cooperative Learning Model ( $X_2$ ) on Learning Motivation ( $X_3$ ). The resulting coefficient value is positive, namely 0.315. Thus, it can be interpreted that the better the implementation of the Cooperative Learning Model, the more likely it is to increase learning motivation.

#### Effect of Implementing the Cooperative Learning Model (X<sub>2</sub>) on Learning Effectiveness (Y)

Testing the influence of the Implementation of the Cooperative Learning Model ( $X_2$ ) on Learning Effectiveness (Y) produced a T statistics value of 7.677 with a p-value of 0.000. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of the Implementation of the Cooperative Learning Model ( $X_2$ ) on Learning Effectiveness (Y). The resulting coefficient value is positive, namely 0.441. Thus, it can be interpreted that the better the implementation of the Cooperative Learning Model, the more likely it is to increase the effectiveness of learning.

### Influence of Learning Motivation (X3) on Learning Effectiveness (Y)

Testing the influence of Learning Motivation (X<sub>3</sub>) on Learning Effectiveness (Y) produces a T

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statistics value of 3.429 with a p-value of 0.001. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of Learning Motivation (X<sub>3</sub>) on Learning Effectiveness (Y). The resulting coefficient value is positive, namely 0.209. Thus, it can be interpreted that the higher the learning motivation, the more likely it is to increase learning effectiveness.

**Table 7.** Indirest Effect Hypothesis Testing

No	Variabel Indirect	Coefisien	T Statistics ( O/STDEV )	P Values
1.	Transformasional Leadership $(X_1)$ -> Learning Effectiveness $(Y)$ -> Motivation to Learn $(X_3)$	0.061	2.518	0.012
2.	Implementation of the Cooperative Learning Model $(X_2)$ -> Learning Effectiveness $(Y)$ -> Motivation to Learn $(X_3)$	0.066	2.943	0.003

## The Influence of Transformational Leadership (X<sub>1</sub>) on Learning Effectiveness (Y) Through Learning Motivation (X<sub>3</sub>)

Testing the influence of Transformational Leadership ( $X_1$ ) on Learning Effectiveness (Y) through Learning Motivation ( $X_3$ ) produces a T statistics value of 2.518 with a p-value of 0.012. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is a significant influence of Transformational Leadership ( $X_1$ ) on Learning Effectiveness (Y) through Learning Motivation ( $X_3$ ). Thus it can be stated that Learning Motivation ( $X_3$ ) is able to mediate the influence of Transformational Leadership ( $X_1$ ) on Learning Effectiveness (Y).

# The Effect of Implementing the Cooperative Learning Model (X<sub>2</sub>) on Learning Effectiveness (Y) Through Learning Motivation (X<sub>3</sub>)

Testing the effect of implementing the Cooperative learning Model ( $X_2$ ) on Learning Effectiveness (Y) through Learning Motivation ( $X_3$ ) produces a T statistics value of 2.943 with a p-value of 0.003. The test results show that the T statistics value is > 1.96 and the p-value is < 0.05. This means that there is an influence of the implementation of the cooperative learning model ( $X_2$ ) on learning effectiveness (Y) through learning motivation ( $X_3$ ). Thus it can be stated that Motivation ( $X_3$ ) is able to mediate the influence of the Implementation of the Cooperative Learning Model ( $X_2$ ) on Learning Effectiveness (Y).

## **Optimal Solution for Improving Learning Quality**

Based on the results of statistical hypothesis testing, determining indicator priorities, and calculating indicator values as described above, a recapitulation of research results can be made which is the optimal solution for increasing learning effectiveness as follows:

**Table 8.** SITOREM Analysis

	Transformational Leadership (βy1 = 0,176) (rangk.III)					
	Indicator in Initial State		Indicator after Weighting by Expert	Indicator Value		
1	Idealized influence	1 <sup>st</sup>	Inspirational motivation (27.37)	3.88		
2	Inspirational motivation	$2^{nd}$	Individual consideration (25.33)	4.10		
3	Intellectual simulation	$3^{\text{rd}}$	Idealized influence (24.16)	4.00		
4	Individual consideration	$4^{th}$	Intellectual simulation (23.14)	3.61		
	Implementation of the Coo	perativ	ve Learning Model (βy2 = 0,441) (rangk.I)			
	Indicator in Initial State		Indicator after Weighting by Expert	Indicator Value		
1	Promotional Interaction	1 <sup>st</sup>	Promotive Interaction (26.47)	3.57		
2	Individual accountability	$2^{nd}$	Batch processing (24.54)	4.02		
3	Interpersonal and small group skills	$3^{rd}$	Interpersonal and small group skills (24.51)	3.68		
4	Batch processing	$4^{th}$	Individual accountability (24.48)	4.04		
	Motivation	to Lea	$rn (\beta y3 = 0.209) (rangk.II)$			
	Indicator in Initial State		Indicator after Weighting by Expert	Indicator Value		
1	Achievement	1 <sup>st</sup>	Progress (14.14)	3.82		
2	Confession	$2^{nd}$	Compensation (14.02)	3.84		
3	Responbility	$3^{rd}$	Studying Condition (13.14)	3.78		
4	Progress	$4^{th}$	Confession (13.10)	4.14		
5	Compensation	$5^{th}$	Responsility (12.06)	4.56		
6	Studying Condition	$6^{th}$	Study Procedur (12.02)	4.56		
7	Status	$7^{\text{th}}$	Achievement (11.12)	3.98		
8	Study Procedur	$8^{th}$	Status (10.40)	4.02		
	,	fektivit	as Pembelajaran			
	Indicator in Initial State		Indicator after Weighting by Expert	Indicator Value		
1	Clarity	1 <sup>st</sup>	Task Orientation (21.24)	3.78		
2	Variety	$2^{nd}$	Variety (21.06)	3.65		
3	Task Orientation	$3^{rd}$	Clarity (20.16)	4.15		
4	Engagement in learning	$4^{th}$	Student success rates. (19.12)	3.86		
5	Student success rates	$5^{th}$	Engagement in learning (18.42)	4.16		
	SITO	PREM A	NALYSIS RESULT			
	Priority order of indicator to be Strengthened		Indicator remain to be maintained			
	Promotional Interaction		1. Group processing			
_	Interpersonal and small group skills		2. Individual accountability			
3	rd Progress		3. Confession			
4	Compensation		4. Responsibility			
5	Stadying Conditions		5. Study Procedure			
6			6. Status			
7 <sup>th</sup> Inspirational motivation			7. Individual consideration			
8			8. Idealized influence			
9			9. Clarity			
10 <sup>th</sup>	<i>3</i>		10. Engagement in learning			
11 <sup>tl</sup>	Student success rates					

#### **CONCLUSIONS**

Based on the results of the analysis, discussion of research results and hypotheses that have been tested, it can be concluded as follows:

- 1. Increasing Learning Effectiveness can be done by using strategies to strengthen variables that have a positive influence on Learning Effectiveness.
- 2. Variables that have a positive influence on learning effectiveness are transformational leadership, implementation of the cooperative learning model, and learning motivation. This is proven by the results of variable analysis using the SEM PLS method.
- 3. The way to increase learning effectiveness is to improve weak indicators and maintain good indicators for each research variable.

Based on the research conclusions above, the following implications can be drawn from this research:

- 1. In order to increase the effectiveness of learning, it is necessary to strengthen transformational leadership and implement the cooperative learning model as an exogenous variable with learning motivation as an intervening variable.
- 2. If Transformational Leadership is to be developed, it is necessary to improve the indicators that are still weak, namely: inspirational motivation, and intellectual stimulation as well as maintaining or developing indicators: individual consideration and role models
- 3. If the Implementation of the Cooperative Learning Model is to be developed, it is necessary to improve the indicators that are still weak, namely, Promotional Interaction, and Interpersonal and Small Group Skills, as well as maintaining or developing indicators: Group Processing, and Individual Accountability.
- 4. To increase Learning Motivation, it is necessary to improve indicators that are still weak, namely Progress, Compensation, Learning Conditions, and Achievement, as well as maintaining or developing indicators: Recognition, Responsibility, Learning Procedures, and Status.

## REFFERENCE

Buchanan, D. A., & Huczynski, A. A. (2019). Organizational behaviour. Pearson UK.

Hanum, U; Hermawan, A, (2024), Optimizing Teacher Engagement: The Role of Self-Efficacy, Interpersonal Communication, Organizational Culture, and Job Satisfaction Using Path and SITOREM Analysis, Bulletin of Social Studies and Community Development. 3 (1), 2024,

19-33. https://imrecsjournal.com/journals/index.php/bsscd

Hermawan, A. (2023). Pemodelan Kepemimpinan Melayani Kepala Sekolah. Penerbit Lembaga Kajian DIALEKTIKA.

- Hermawan, A., Ghozali, A. F., & Sayuti, M. A. (2023). Optimization for Increasing Teacher Performance through Strengthening Teamwork, Interpersonal Communication, Adversity Intelligence, and Work Motivation. International Journal of Scientific Research and Management (IJSRM), 11(10), 5239-5248.
- Hermawan, A., Muhammadi, A. M., & Indrati, B. (2023). Modeling and Optimization of Service Investigation Services: Empirical Study Using Pop-SDM Approach at Head of Private Smk School in Bogor District, Indonesia. International Journal of Business and Social Science Research, 4(9), 15–28.
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2021). Exploratory Sequential Analysis Of Servant Leadership Reviewing From Adversity Intelligence, Proactive Personality, Team Work, Organizational Commitment And Work Motivation. Journal of Positive Psychology and Wellbeing, 5(4), 969–986.
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2022a). Modeling and of Strengthening *Servant Leadership. Edunity: Social and Educational Studies*, 1(03).
- Hermawan, A., Setyaningsih, S., & Hardhienata, S. (2022b). Servant Leadership Strengthening Modeling. IJMIE: International Journal of Management, Innovation, and Education, 1(1), 42–50.
- Hermawan, A., Sunaryo, W., & Hardhienata, S. (2023), Optimal Solution for OCB Improvement Through Strengthening of Servant Leadership, Creativity, and Empowerment. Aptisi *Transactions on Technopreneurship (ATT)*, 5(1Sp), 11–21.
- Hermawan, A., & Susanti, E. (2023). Pemodelan dan Optimasi Penguatan Kepemimpinan Melayani. Jurnal Penelitian, Pendidikan Dan Pengajaran: JPPP, 4(3), 232–250.
- Hermawan, A.; Ghozali, AF; Savuti, MA (2023), Modeling Strengthening Teacher Creativity. IOSR Journal of Business and Management (IOSR-JBM) DOI. 10.9790/487X-2510044252 e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 25, Issue 10. Ser. 4 (October. 2023), PP 42-52 www.iosrjournals.org
- Hermawan, A (2025), Enhancing Quality Of Teacher Services Through Strengthening Knowledge Management, Interpersonal Communication, Organizational Support And Job Satisfaction. Asian Business Research Journal. Vol. 10, No.1, 11-22, 2025 ISSN: 2576-6759. DOI:

p-ISSN: 2549-3310 e-ISSN: 2623-2901

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6759/article/view/245

- Hermawan, A; Sintesa, N; Wardani, AK (2025), *Improving the Quality of Vocational School Teacher Services through Strengthening Knowledge Management, Interpersonal Communication, Organizational Support and Job Satisfaction*. American International Journal of Business Management (AIJBM) ISSN- 2379-106X, www.aijbm.com Volume 08, Issue 02 (February- 2025), P. 37-51.
- Hermawan, A; Wardani, AK; Satriyo, B; (2025), *Enhancing the Quality of Teacher Services through Strengthening Personality and Organizational Justice*. International Journal of Multidisciplinary Research and Growth Evaluation. ISSN (online): 2582-7138 Vol.6 Issue 01. P.397- 406
- Hermawan, A (2025), Enhancing Quality Of Teacher Services Through Strengthening Knowledge Management, Interpersonal Communication, Organizational Support And Job Satisfaction, Jurnal Inovasi Pendidikan MH Thamrin. LPPM. Vol. 9 (1) Maret 2025 p-ISSN: 2549-3310 e-ISSN: 2623-2901 DOI: <a href="https://doi.org/10.37012/jipmht.v9i1.2460">https://doi.org/10.37012/jipmht.v9i1.2460</a> P.1-18
- Hermawan, A, (2024), *Improving quality of Teacher Services through Strengthening Knowledge Management, Interpersonal Communication, Organizational Support and Job Satisfaction.*International Journal of Social Science and Economics Invention (IJSSEI) ISSN: 2455-6289
  Vol. 10 No. 04 (2024) | 2024-12-25 https://doi.org/10.23958/ijssei/vol10-i04/374. P. 43-54
- Hermawan, A; Wardani, AK; Susilowati, E; Hanum, U, (2024), *Strategies for Optimizing Teacher Service Quality through Strengthening Knowledge Management, Interpersonal Communication, Organizational Support, and Job Satisfaction*. Pedagogy Review. 3 (1), 2024, 01-19. DOI: <a href="https://dx.doi.org/10.61436/pedrev">https://dx.doi.org/10.61436/pedrev</a> https://imrecsjournal.com/journals/index.php/pedrev
- Hermawan, A, (2024), A Combined Path-SITOREM Analysis to Investigate Effective Islamic Instructional Strategies through Transformational Leaderships, Motivation, and Cooperative Learning Method. Research in Education, Technology, and Multiculture. 3 (1), 2024, 01-17 DOI: <a href="https://imrecsjournal.com/journals/index.php/rietm">https://imrecsjournal.com/journals/index.php/rietm</a>
- Joseph, O. O., & Kibera, F. (2019). Organizational culture and performance: Evidence from microfinance institutions in Kenya. *SAGE open, 9(1), 2158244019835934*.
- Rusnadi, S., & Hermawan, A. (2023). Strategi Optimal Peningkatan Kualitas Layanan Guru

Jurnal Inovasi Pendidikan MH Thamrin

p-ISSN: 2549-3310 e-ISSN: 2623-2901 Hal: 38-55 Vol. 9 (1) Maret 2025

Sekolah Menengah Kejuruan (SMK) Melalui Penguatan Knowledge Management, Komunikasi Interpersonal, Dukungan Organisasi dan Kepuasan Kerja. Jurnal Syntax Admiration, 4(11), 2127–2146.

- Radnawati, D., & Hermawan, A. (2023). The Optimal Solution for Strengthening the Quality of Teacher Services Through Personality Development and Organizational Justice. *International Journal of Social Science Research and Review*, 6(12), 161–173.
- Rusnadi, S; Sumiati; Hermawan, A, (2023), Optimal Strategy to Improve the Quality of Vocational Teacher Services through Knowledge Management, Interpersonal Communication, Organizational Support and Job Satisfaction. International Journal of Social Science And Human Research ISSN (print): 2644-0679, ISSN (online): 2644-0695. DOI: 10.47191/ijsshr/v6-i11-42, Impact factor- 6.686. https://ijsshr.in/v6i11/42.php P. 6888 -6899
- Siregar, UR; Hermawan, A (2024), Strategies to Improve Teacher Engagement through strengthening Self-Efficacy, Interpersonal Communication, Organizational Culture and Job Satisfaction, Russian Journal of Agricultural and Socio-Economic Sciences (RJOAS) ISSN 2226-1184 http://rjoas.com/issue-2024-12/article 05.pdf. P. 38-50.
- Siregar, UR; Hermawan, A, (2024), Strategies to Improve Teachers' Organizational Citizenship Behavior Through Strengthening Transformational Leadership and Self-Efficacy. International Journal of Business and Applied Social Science (IJBASS) E-ISSN: 2469-6501 VOL: 10, ISSUE: 11 November/2024 DOI: http://dx.doi.org/10.33642/ijbass.v10n11p4 P.35-43
- Wardani, AK; Hermawan, A; Setyaningsih, S, (2024), Optimization of improving teacher organizational citizenship behavior (OCB) through strengthening transformational leadership and self-efficacy, International Journal of Multidisciplinary Research and Growth Evaluation (IJMRGE) ISSN (online): 2582-7138 DOI: https://doi.org/10.54660/.IJMRGE.2024.5.6. P.1348-1355.
- Wardani, AK; Hermawan, A, (2024), Strategy to Improve the Quality of Teacher Services through Strengthening Personality and Organizational Justice. International Research Journal of Economics and Management Studies (IRJEMS). Eternal Scientific Publications ISSN: 2583 - 5238 / Volume 3 Issue 11 November 2024 / Pg. No: 143-153 Paper Id: IRJEMS-V3I11P114, Doi: 10.56472/25835238/IRJEMS-V3I11P114