Journal of Education and e-Learning Research
Vol. 12, No. 2, 239-250, 2025
ISSN(E) 2410-9991 / ISSN(P) 2518-0169
DOI: 10.20448/jeelr.v12i2.6758
© 2025 by the authors; licensee Asian Online Journal Publishing Group

The effect of learning leadership and capacity building on students' distance learning behaviour mediated by teachers' performance

Fahrurrozi[1]
Mustaqim[2]
Hasbiyallah[3]
Suparta[4]


(✉ Corresponding Author)

[1,2]*Universitas Islam Negeri Walisongo Semarang, Indonesia.*
[1]*Email: fahrurozi@walisongo.ac.id*
[2]*Email: mustaqim@walisongo.ac.id*
[3]*Universitas Islam Negeri Sunan Gunung Djati Bandung, Indonesia.*
[3]*Email: hasbiyallah@uinsgd.ac.id*
[4]*Institut Agama Islam Negeri Syaikh Abdurrahman Siddik Bangka Belitung, Indonesia.*
[4]*Email: partasuparta23@yahoo.co.id*

Abstract

This study examines the influence of learning leadership and capacity building directly or indirectly on students' distance learning behaviour mediated by teachers' performance. Data were collected through a Google Forms questionnaire using stratified random sampling involving 43 teachers and 289 students from state and private Madrasah Tsanawiyah in Semarang City. Additionally, the data were analyzed using multiple regression, f-test, t-test, and path analysis with the assistance of SPSS 23. The study showed varied relationships among learning leadership, capacity building, teachers' performance, and students' distance learning behaviour. Leadership and capacity building simultaneously affect teachers' performance. However, only the capacity-building variable separately affects teachers' online teaching performance. Learning leadership, capacity building, and teachers' performance simultaneously or separately in different relationship patterns did not affect students' distance learning behaviour. The findings suggest that inadequate leadership and a lack of distance learning capacity building contribute to teachers' unpreparedness to implement effective distance learning. This unpreparedness leads to ineffective students' distance learning behaviour. Therefore, teachers must develop the necessary skills to enhance students' ability to engage in distance learning. This development should be supported by strong leadership and initiatives to build their capacity, ultimately resulting in more effective distance learning experiences.

Keywords: Capacity building, Learning leadership, Students' distance learning behaviour, Teachers' performance.

Citation | Fahrurrozi, Mustaqim, Hasbiyallah, & Suparta. (2025). The effect of learning leadership and capacity building on students' distance learning behaviour mediated by teachers' performance. *Journal of Education and E-Learning Research*, *12*(2), 239–250. 10.20448/jeelr.v12i2.6758
History:
Received: 15 January 2025
Revised: 28 April 2025
Accepted: 22 May 2025
Published: 9 June 2025
Licensed: This work is licensed under a Creative Commons Attribution 4.0 License
Publisher: Asian Online Journal Publishing Group

Funding: This research is supported by Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Walisongo Semarang, Indonesia (Grant number: 546/Un.10.3/D/TA.01.07/08/2021).
Institutional Review Board Statement: The Ethical Committee of the Research and Community Service Institute, Universitas Islam Negeri Walisongo Semarang, Indonesia has granted approval for this study on 22 December 2021 (Ref. No. 1979/UN.10.0/L.1/TA.00.08/12/2021).
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

Contents

© 2025 by the authors; licensee Asian Online Journal Publishing Group

Contribution of this paper to the literature

This study contributes valuable insights for developing effective strategies to enhance students' distance learning behaviour. Teachers' unpreparedness in remote teaching would hurt the students' distance learning behaviour. Learning leadership and capacity building for teachers related to distance teaching determines teachers' performance in remote teaching, ultimately affecting students' distance learning behaviour.

1. Introduction

"Freedom to Learn," a policy introduced by the Indonesian Minister of Education and Culture enables distance learning to occur at various times and locations. Given the numerous challenges faced by schools in Indonesia during the COVID-19 pandemic, it is crucial to anticipate and address distance learning effectively and promptly. During the pandemic, several problems emerged in online education, including inadequate infrastructure, limited teacher competencies, and insufficient parental support (Bustanuddin & Aziza Bustanil, 2022; Ladyanna & Aslinda, 2021; Redjeki, Hermino, & Arifin, 2021). According to students' perspective, many experienced learning difficulties and saturation in distance learning, mainly due to a lack of motivation and interest in their studies (Yuzulia, 2021). This situation led to significant learning loss among Indonesian students (Kertih, Widiana, & Antara, 2023; Yuliyanto & Yamin, 2022). Additionally, issues related to the digital divide among students and their online engagement often dominated by social networks rather than educational content, further exacerbate these challenges (Hidayah, 2022). This overview highlights the complex problems and challenges of distance learning that require careful understanding.

The study of distance learning is seen from the perspective of teachers' quality in carrying out the learning process and the leadership of school principals so far. The issue of capacity building for teachers and students' distance learning behaviour has not been used as an important variable in the success of distance learning. Gopal et al.'s study (2021) showed that online classes consisting of teacher's quality, learning design, student feedback, and student expectations affect students' learning satisfaction. Pambudi and Gunawan's study (2020) showed that learning leadership and academic supervision conducted by school principals affect teachers' online teaching skills. Meanwhile, other studies under normal conditions showed that school principals' capacity building and leadership lead to high and low teachers' performance (Nur Eni & Yasir Arafat, 2020; Rahmawati & Permana, 2020). Selvi (2010) illustrated the factors that affect students' learning motivation in online learning. Other studies showed that intrinsic motivation directly affects learning behaviour (Tokan & Imakulata, 2019). The above studies explain the quality of learning in different contexts, i.e., online and offline. The above studies have not placed diverse variables simultaneously in the context of distance learning. This study focuses on how learning leadership and capacity building affect students' distance learning behaviour through teachers' teaching performance in distance learning.

This paper aims to address the shortcomings of previous studies by examining the variables of learning leadership, capacity building, teachers' performance, and students' distance learning behavior within a single study and specifically in the context of distance learning. The focus of school principals on distance learning and capacity building are crucial factors that influence teachers' performance. Additionally, teachers' performance has a significant impact on students' distance learning behavior. This study seeks to answer the following three questions: First, do learning leadership and capacity building influence teachers' performance? Second, do learning leadership, capacity building, and teachers' performance affect students' distance learning behavior? Third, do learning leadership and capacity building impact students' distance learning behavior through the mediation of teachers' performance? The findings from these questions aim to contribute valuable insights for developing effective strategies to enhance students' distance learning behaviors.

This study argues that learning leadership and capacity building positively influences teachers' teaching performance. Additionally, learning leadership and capacity building as well as teachers' performance directly impacts students' distance learning behaviour. Specifically, learning leadership and capacity building affects students' distance learning behaviour through the mediation of teachers' performance. The relationships among these variables are strong. Learning leadership involves actions taken by principals to foster a productive and satisfying work environment for teachers, ultimately aiming to enhance learning conditions for students (Wahyudi, Narimo, & Wafroturohmah, 2020). Capacity building is a process that occurs within individuals, community groups, organizations, or institutions to improve their competencies. This improvement optimizes their performance regarding their primary tasks and functions, helps them find solutions to problems, formulates plans to achieve goals, meets various needs, and enhances the overall quality of these needs (Milen, 2004). Performance refers to an individual's work related to their responsibilities based on their professional duties.

One of the responsibilities of teachers is to effectively teach and support the learning process, which is an essential aspect of their performance. A teacher must be capable of creating high-quality learning experiences to fulfill this duty. According to Suwardjono (1991) learning behaviour consists of activities that individuals engage in repeatedly until they become automatic or occur spontaneously. Thus, students' distance learning behaviour will not be well if it is not supported by the teacher's teaching performance, capacity building, and learning leadership according to the needs of distance learning. Learning leadership and capacity building for teachers related to distance learning must be well-prepared in the context of independent learning concepts. Both will impact improving teachers' teaching performance and will ultimately shape positive students' distance learning behaviours.

2. Literature Review

2.1. Learning Leadership

Learning leadership emphasizes elements closely related to education, such as curriculum design, teaching and learning processes, assessment, teacher development, excellent service in learning, and the creation of school learning communities (Bush & Glover, 2014). Learning leadership focuses on how school leaders collaborate with teachers to enhance teaching and learning, ultimately leading to increased student achievement (Owen, Toaiauea, Timee, Harding, & Taoaba, 2020). The primary goal of learning leadership is to facilitate an environment where

© 2025 by the authors; licensee Asian Online Journal Publishing Group

student learning and achievement can thrive (Carraway & Young, 2015). In the context of distance learning, learning leadership is seen as a process of social influence within the learning environment mediated by information technology. This process aims to bring about changes in individuals' and groups' attitudes, feelings, thoughts, behaviours, and performance (Alotebi, Alharbi, & Masmali, 2018).

The characteristics of effective learning leadership include collaborating with teachers to set goals, providing necessary learning resources, supervising lesson plans and learning activities and evaluating the curriculum and its implementation (Adegbemile, 2011). Principals must communicate effectively, offering teachers guidance, advice, mentoring, support, and encouragement to enhance teaching and learning competencies. Ineffective communication between principals and teachers can hinder learning leadership, particularly in guiding the teaching and learning process (Awang et al., 2020).

2.2. Capacity Building

Capacity building is a process aimed at enhancing the capabilities of individuals, community groups, organizations, or institutions. This improvement is designed to optimize performance in their primary tasks and functions, develop solutions for emerging problems, create strategies to achieve goals, and enhance the overall quality of meeting various needs (Milen, 2004). When it comes to teacher competence, capacity building focuses on enhancing teachers' knowledge, skills, attitudes and behaviours within educational organizations. An increase in teachers' knowledge involves mastering relevant content while improving their skills pertains to the various competencies necessary for effectively fulfilling their main responsibilities. Additionally, teachers must develop positive attitudes linked to their emotions and personality traits to ensure the successful execution of their duties in schools (Harrison, 2019).

There are several capacity-building activities for teachers which include training organized by district training and monitoring teams, workshops, regular weekly meetings, and programs offered by non-governmental organizations for school teachers (King, 2018). In terms of the content and materials for teacher professional development, the work of a collaborative partnership among five teacher preparation programs in Appalachian Ohio provides an example with four types of professional development: training on the appreciation of regional cultural values and new classroom integration techniques; capacity building in global and international education; establishing criteria for identifying prospective mentor teachers during field experience and teaching practice; and the design and implementation of online professional development modules for in-service teachers (Trube, Prince, & Middleton, 2012). The scope of capacity building is assessed based on various aspects, including the duration of training, relevance of training materials to specific fields of study, the organization of training, and the levels of training provided (Sujiono, 2010).

2.3. Teacher Performance

Performance refers to a set of behavioral values demonstrated by team members, encompassing both positive and negative contributions toward achieving organizational goals. It emphasizes the significance of behaviours—those duties and responsibilities that lie at the core of a job (Colquitt, Wesson, & LePine, 2018). Essentially, performance results from the work and progress an individual has made within their field. The performance system includes both team member behaviours and their outcomes (Sunaryo, 2020; Waang, Matin, & Ahmad, 2019). This definition clarifies that performance involves the quality and quantity of work a team member accomplishes while fulfilling their responsibilities.

Teacher performance encompasses the essential behaviour that teachers exhibit when instructing their students. As planners, teachers must analyze the needs of their students to effectively deliver lessons. This includes selecting and mastering teaching materials, determining suitable learning methods and approaches, developing syllabi, creating semester programs, and preparing comprehensive learning plans (Adejumobi & Kola Ojikutu, 2013). In Indonesia, teacher performance is evaluated through competency tests followed by ongoing professional development. Law Number 14 of 2005 emphasizes that teachers have the responsibility to educate, teach, guide, direct, train, and evaluate students. Furthermore, Regulation of the Minister of Education and Culture No. 15 of 2018 established that teacher performance consists of lesson planning, delivering instruction, assessing learning outcomes, guiding and training students, and carrying out additional tasks related to the core activities within a teacher's workload.

2.4. Learning Behaviour

Learning behaviour refers to the repeated actions performed by individuals during learning activities that eventually become automatic or occur spontaneously (Suwardjono, 1991). It is also related to a willingness to understand, engage in meaningful learning and use appropriate strategies to acquire knowledge (Geitz, Joosten-ten Brinke, & Kirschner, 2016). Learning behaviours can include activities such as classroom participation, extracurricular involvement, and task completion. These behaviours are observable through students' responses to academic assignments and learning situations (Li, Wang, & Xie, 2024). Learning behaviour represents the willingness and the action of engaging in repeated learning to gain knowledge based on this definition.

Effective learning behaviour encompasses habits such as attending classes, reading books and visiting the library. Students displaying active participation in lessons often demonstrate specific characteristics, including paying attention, taking notes, asking questions for clarification, completing assignments, and actively engaging while seated in class (Gie, 1988). When it comes to reading, effective students show characteristics that include preparing materials before lessons, reading until they fully understand the content, maintaining good reading habits, grasping the material highlighting important sections of the text, concentrating, and utilizing recommended and additional textbooks (Mahardika, 2003). For library visits, students who exhibit strong learning behaviours tend to use their free time efficiently, practice reading skills at the library, borrow books during every visit, go to the library regularly, and check out books when they need information (Gie, 1988).

© 2025 by the authors; licensee Asian Online Journal Publishing Group

3. Method

3.1. Research Design

This study employs a quantitative method to investigate the relationship between independent and dependent variables. It utilizes a path analysis model to examine the causal relationships among these variables, exploring how independent variables can directly and indirectly influence dependent variables. The research focuses on whether learning leadership and capacity building impacts the distance learning behaviour of Madrasah Tsanawiyah (MTs) students in Semarang, Indonesia. Figure 1 illustrates the direct and indirect effects of learning leadership and capacity-building on students' distance learning behaviour with teacher performance serving as a mediating factor.

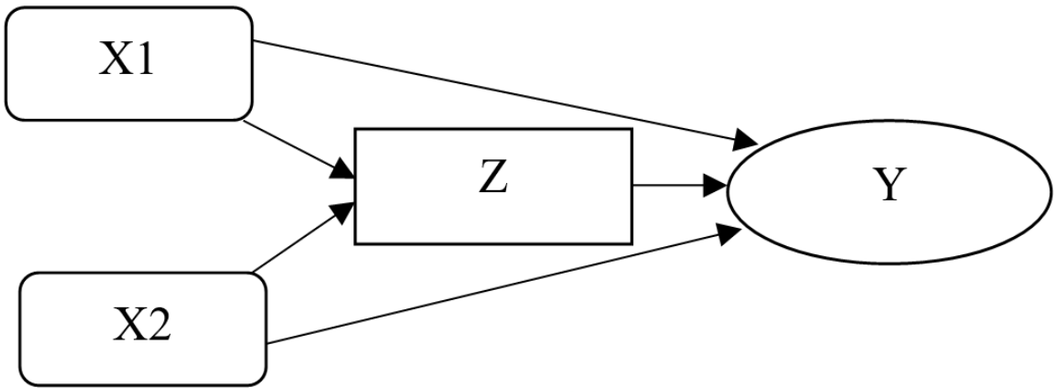

Figure 1. Research design.

Note: X1 = Learning leadership
X2 = Capacity building
Z = Teachers' performance
Y = Students' distance learning behaviour

3.2. Participants

The population of this study is 50 teachers and 1710 students from three MTs. The sampling technique used is stratified random sampling. The number of samples in this study is 43 teachers and 289 students. The determination of the number is based on the opinions of Isaac and Michael, with a margin of error of 5% (Sugiyono, 2010). The number of samples from each school is described in Table 1.

Table 1. Determination of sample quantity.

Respondents	Schools	Number of samples	
Teachers	State MTs	25/50 x 43	= 22
	Private MTs Fatahillah	12/50 x 43	= 10
	Private MTs Nurul Huda	13/50 x 43	= 11
Number of teacher samples			43
Students	State MTs	998/1710 x 289	= 169
	Private MTs Fatahillah	502/1710 x 289	= 85
	Private MTs Nurul Huda	210/1710 x 289	= 35
Number of student samples			289

3.3. Instruments

The research instruments were developed based on the indicators of the research variables as explained before. The learning leadership variable includes collaborating with teachers in determining goals, providing learning facilities, supervising lesson plans, supervising learning activities, evaluate the curriculum and its implementation (Adegbemile, 2011). The capacity building variable consists of the duration of training time, the relevance of training materials to the field of study, training organizers, and training levels (Sujiono, 2010). The teachers' performance variable includes planning lessons, learning, and assessing learning adopted from Regulation of the Minister of Education and Culture No. 15 of 2018. Students' distance learning behaviour consists of attending lessons, reading books, and visiting the library (Suwardjono, 1991). All items are measured on a Likert-type scale ranked from 1(strongly disagree) to 5 (strongly agree). Validity and reliability tests were carried out before distributing the questionnaire. The validity test results on each questionnaire item showed that r calculated > r table (0.398) with a significance level of 1%, so all items were declared valid and could be used. The reliability test results on all research variables showed that Cronbach's alpha was above 0.908, so it was declared reliable.

3.4. Data Collection and Analysis

The research data was collected through questionnaires distributed through Google Forms. The principals of the three MTs helped the researchers send Google Forms to the teachers. Then, the teachers distribute it to the students. The obtained data was then analyzed with the help of the SPSS 23 application. The analysis is carried out in three stages which are as follows: First, the relationship between learning leadership (X1) and capacity building (X2) with teachers' performance (Z) was analyzed by multiple regression, simultaneous t-test, and partial t-test. Second, the relationship between learning leadership (X1), capacity building (X2), and teachers' performance (Z) with students' distance learning behaviour (Y) was analyzed by multiple regression, simultaneous f-test, and partial t-test. Third, the relationship between learning leadership (X1) and capacity building (X2) with students' distance learning behaviour (Y) mediated by teachers' performance (Z) was analyzed by path analysis.

© 2025 by the authors; licensee Asian Online Journal Publishing Group

4. Findings and Discussion

4.1. Findings

4.1.1. Classical Assumption Test

Before conducting a hypothesis test, the researcher conducted a classical assumption test. The researcher tested the obtained data's normality, multicollinearity, and heteroscedasticity. Data is normally distributed, free from multicollinearity and heteroscedasticity.

4.1.1.1. Normality Test

The results of the normality test indicate that substructural data 1 and 2 are normally distributed as shown in Figures 2a and 2b.

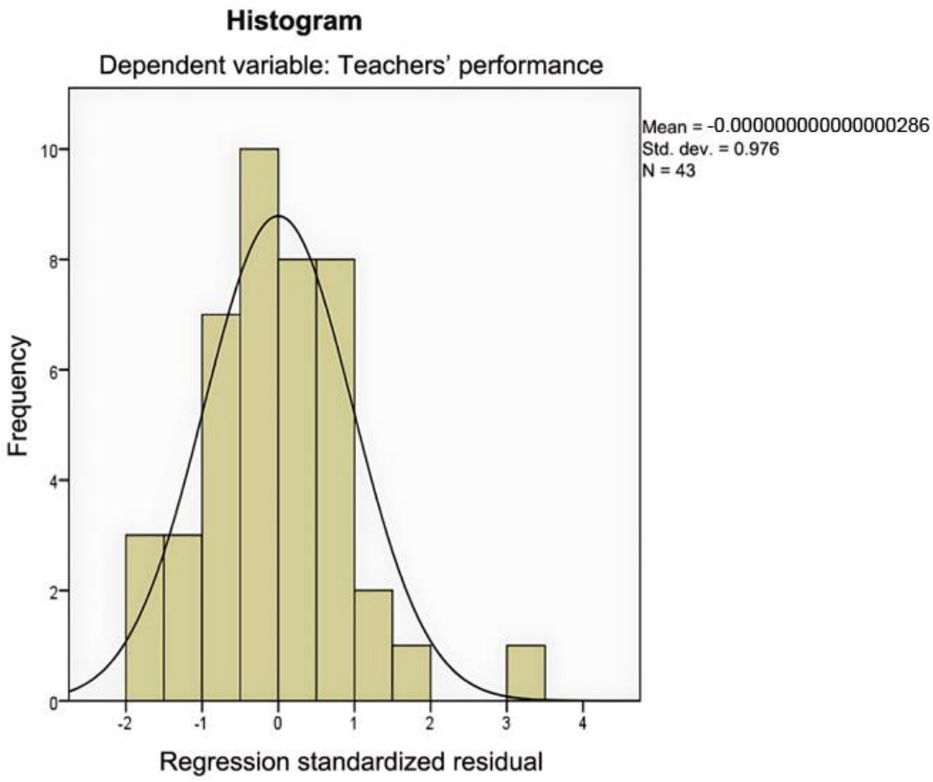

Figure 2a. Substructural normality test 1.

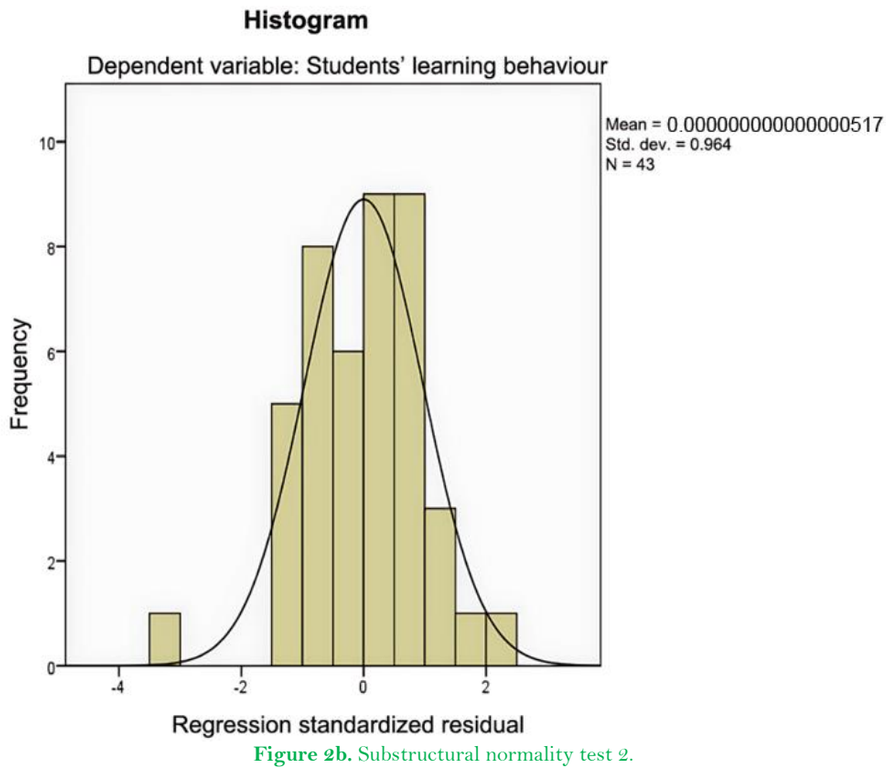

Figure 2b. Substructural normality test 2.

4.1.1.2. Multicollinearity Test

The results of the multicollinearity test indicate that substructural data 1 and 2 are free from multicollinearity. This conclusion is supported by tolerance values greater than 0.1 and variance inflation factor (VIF) values less than 10 as shown in Tables 2a and 2b. This testing method is commonly used to detect the severity of multicollinearity in regression analysis.

© 2025 by the authors; licensee Asian Online Journal Publishing Group

Table 2a. Substructural multicollinearity test 1.

Types		Collinearity statistics	
		Tolerance	VIF
1	(Constant)		
	Learning leadership	0.541	1.849
	Capacity building	0.541	1.849

Table 2b. Substructural multicollinearity test 2.

Types		Collinearity statistics	
		Tolerance	VIF
1	(Constant)		
	Learning leadership	0.517	1.934
	Capacity building	0.394	2.540
	Teachers' performance	0.476	2.102

4.1.1.3. Heteroscedasticity Test

The results of the heteroscedasticity test indicate that the substructural data sets 1 and 2 are free from heteroscedasticity. This conclusion is supported by the data distribution which does not follow any specific pattern as illustrated in Figures 3a and 3b.

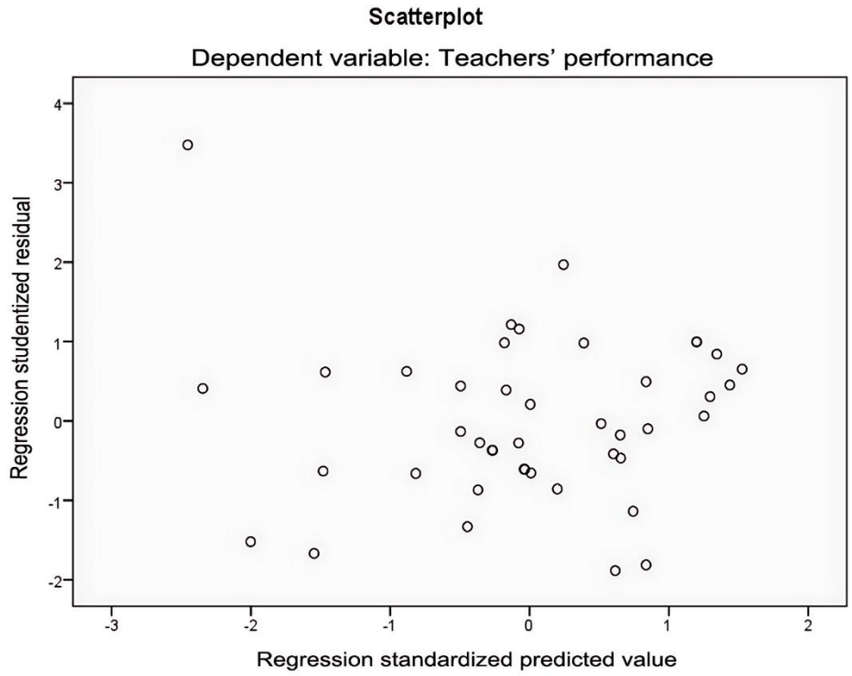

Figure 3a. Substructural heteroscedasticity test 1.

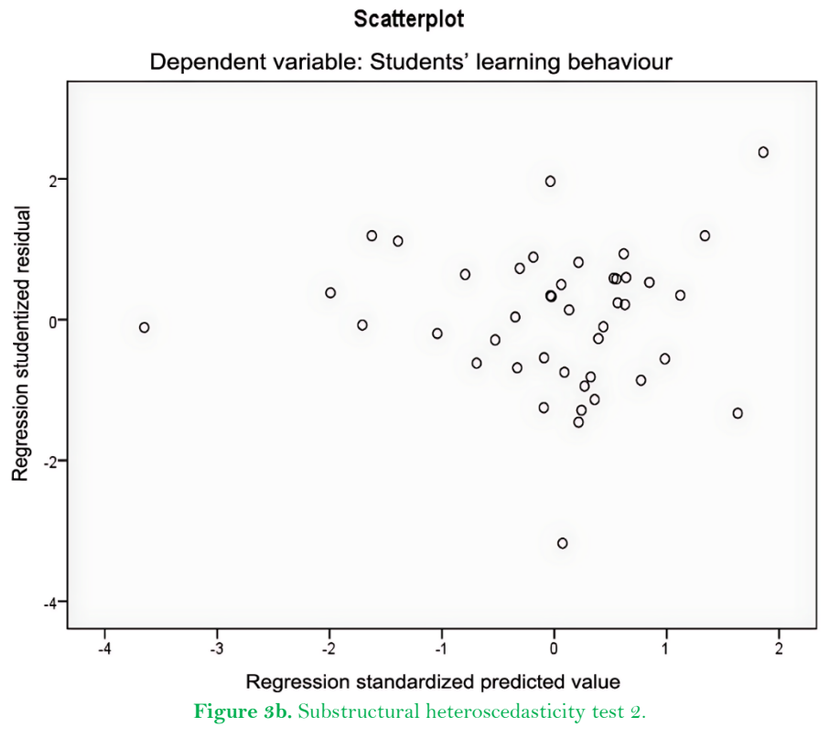

Figure 3b. Substructural heteroscedasticity test 2.

© 2025 by the authors; licensee Asian Online Journal Publishing Group

4.1.2. Hypothesis Test 1

The descriptive statistical data from this study indicates that the mean score for learning leadership (X1) is 46.3953 with a standard deviation of 6.25696. The mean score for capacity building (X2) is 57.186 with a standard deviation of 8.52798. Additionally, the mean score for teachers' performance (Z) is 42.256 with a standard deviation of 5.005 (see Table 3 for the detailed results of the descriptive statistics).

Table 3. Descriptive statistic.

Variables	Mean	Std. deviation	N
Teachers' performance (Z)	42.256	5.005	43
Learning leadership (X1)	46.395	6.257	43
Capacity building (X2)	57.186	8.528	43

We will examine the relationship between the influence of variables X1 and X2 on the variable Z to test the first hypothesis. The structural equation for this regression is expressed as follows: Z = ρ ZX1 + ρ ZX2 + Є1.

Table 4. Coefficient of determination test (R square).

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.724[a]	0.524	0.501	3.537

Note: a. Predictors: (Constant), capacity building and learning leadership.

The analysis using the SPSS program as shown in Table 4 indicates that the combined influence of learning leadership and capacity-building practices on teachers' performance is 52.4%. This means that the remaining 47.6% of teaching performance is affected by other factors. Furthermore, the ANOVA section (f-test) in Table 5 reveals that, when considered together, the independent variables significantly impact teachers' performance (Z). This is evidenced by a significance value of 0.000 which is less than the 5% alpha level. Therefore, we reject the null hypothesis and accept the alternative hypothesis confirming that the F statistical test is significant.

Table 5. F test.

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	551.729	2	275.865	22.049	0.000[b]
	Residual	500.457	40	12.511		
	Total	1052.186	42			

Note: b. Predictors: (Constant), capacity building and learning leadership.

Table 6. Partial t-test.

Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. error	Beta		
1	(Constant)	15.579	4.269		3.649	0.001
	Learning leadership	0.160	0.119	0.201	1.353	0.184
	Capacity building	0.336	0.087	0.573	3.864	0.000

In the coefficients section, the t/partial test results in Table 6 indicate that the variable "capacity building" (X2) has a statistically significant influence on teachers' performance (Z) as evidenced by a significance (Sig) value of 0.000, which is less than the 5% alpha level. In contrast, the variable "learning leadership " (X1) does not have a statistically significant effect on teachers' performance (Z), as indicated by a Sig value of 0.184, which is greater than the 5% alpha level. As a result, variable X1 is removed from the model. Thus, the structural equation is expressed as follows:

$$Z = 0.573X2 + Є1.$$

Table 7. Coefficient of determination test (R square).

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.709[a]	0.503	0.490	3.573

Note: a. Predictors: (Constant), capacity building.

Table 8. Partial t-test.

Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. error	Beta		
1	(Constant)	18.461	3.737		4.940	0.000
	Capacity Building	0.416	0.065	0.709	6.437	0.000

After the learning leadership variable (X1) is eliminated, the R square and coefficients t of the capacity building variable (X2) were retested without involving the X1 variable. After retesting, the analysis showed that the R square capacity building value was 0.503 (see Table 7). This value explains that the capacity building (X2) variable affects teachers' performance (Z) by 50.3% while other factors influence the other 49.7%. Meanwhile, in coefficients, the partial t-test (see Table 8) shows that the capacity building (X2) variable significantly affects teachers' performance (Z) by 0.709. Therefore, the structural equation after X1 is eliminated is as follows: Z = 0.709 (X2) + 0.705 (Є1) (see Figure 4).

© 2025 by the authors; licensee Asian Online Journal Publishing Group

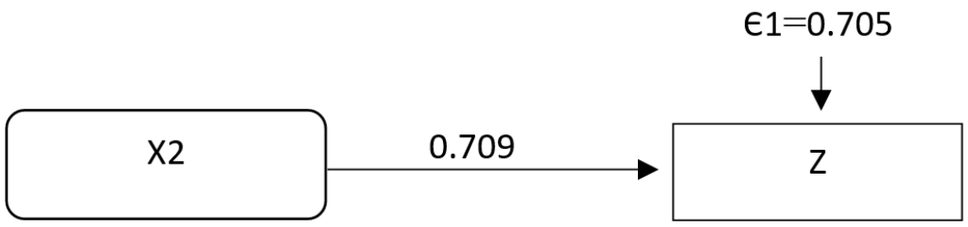

Figure 4. Relationship path of capacity building and teachers' performance.

The positive sign (+) of the coefficient value for variable X2 indicates that it positively influences variable Z. Specifically, for every 1 unit increase in capacity building (X2), teachers' performance (Z) is expected to increase by 0.709 units, assuming that the other independent variables remain constant.

4.1.3. Hypothesis Test 2

The influence of X1, X2, and Z on the Y variable is sought to test the second hypothesis. The corresponding structural equation for the regression analysis is as follows:

$$Y = \rho YX1 + \rho YX2 + \rho YZ + Є2$$

According to the results from the SPSS analysis as detailed in Table 9, the combined effects of learning leadership, capacity building, and teachers' performance account for 3.1% of the factors shaping students' distance learning behaviours. In contrast, 96.9% of the influence is attributed to other factors.

Table 9. Determination coefficient test results (R square).

Type	R	R square	Adjusted R square	Std. error of the estimate
1	0.177a	0.031	-0.043	5.819

Note: a. Predictors: (Constant), teachers' performance (Z), learning leadership (X1) and capacity building (X2).

Table 10. F test results.

Type		Sum of squares	Df	Mean square	F	Sig.
1	Regression	42.502	3	14.167	0.418	0.741b
	Residual	1320.661	39	33.863		
	Total	1363.163	42			

Note: b. Predictors: (Constant), teachers' performance (Z), learning leadership (X1) and capacity building (X2).

In the ANOVA section (f-test) as presented in Table 10, it indicates that the independent variables do not significantly influence the students' distance learning behaviour (Y). This conclusion is supported by the significance value of 0.741 which is greater than the 5% alpha level. Therefore, we accept the null hypothesis and reject the alternative hypothesis indicating that the F statistical test is insignificant.

Table 11. Partial t-test results.

Type		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	45.676	8.109		5.633	0.000
	Learning leadership (X1)	0.195	0.200	0.214	0.975	0.336
	Capacity building (X2)	-0.025	0.168	-0.038	-0.152	0.880
	Teachers' performance (Z)	-0.192	0.260	-0.169	-0.738	0.465

Note: a. Dependent variable: Learning behaviour (Y).

In the coefficients of the t/partial test, it was found that the variables of learning leadership (X1), capacity building (X2), and teachers' performance (Z) did not significantly influence students' distance learning behavior (Y). This is indicated by the significance values of 0.336 for X1, 0.880 for X2, and 0.465 for Z, all of which are greater than the alpha level of 5%. As shown in Table 11 of the SPSS analysis results, the structural regression equation cannot be continued based on these findings. Therefore, we accept the null hypothesis and reject the alternative hypothesis.

4.1.4. Hypothesis Test 3

The influence of learning leadership, capacity building, and teachers' performance on students' distance learning behavior is illustrated in Figure 5. This model is based on the previous analyses and the calculated coefficients.

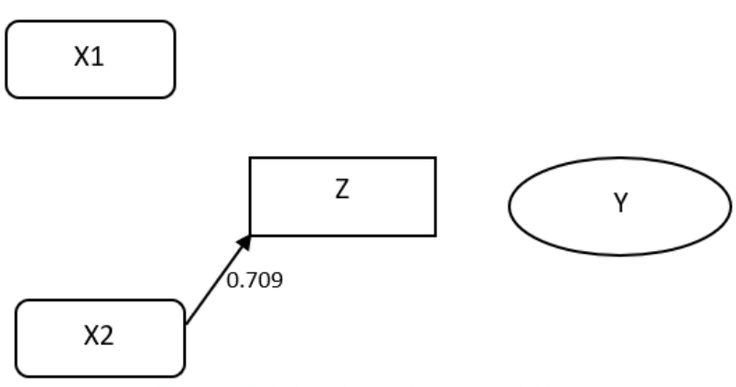

Figure 5. Relationship path between variables.

© 2025 by the authors; licensee Asian Online Journal Publishing Group

Figure 5 illustrates that learning leadership (X1), capacity building (X2), and teachers' performance (Z) do not have a direct impact on students' learning behaviour nor do they influence students' distance learning behaviour (Y) indirectly through the variable of teachers' performance (Z). Additionally, Figure 5 indicates that only the capacity building variable (X2) has an effect on teachers' performance (Z). However, teachers' performance (Z) does not influence students' distance learning behavior (Y). Therefore, we can conclude that the null hypothesis is accepted while the alternative hypothesis is rejected.

4.2. Discussion

4.2.1. The Effect of Learning Leadership and Capacity Building Practices on Teachers' Performance

The results of this study indicate that learning leadership and capacity building variables have a combined influence of 52.4% on teachers' performance at Madrasah Tsanawiyah (MTs) in Semarang City. This means that the remaining 48% of teaching performance is influenced by other factors. Based on this analysis, we reject the null hypothesis and accept the alternative hypothesis.

Learning leadership enhances teachers' performance by emphasizing collaboration between principals and teachers to improve both teaching and learning outcomes (Owen et al., 2020). On the other hand, teacher capacity building contributes to improve the teacher's knowledge, skills, attitudes, and behaviours so that the main tasks and functions can be adequately completed (Heineke et al., 2022). This finding is also reinforced by King's research in Cambodia which also shows that several types of teacher capacity-building activities have succeeded in improving teachers' performance in schools (King, 2018).

The findings of this study show that learning leadership and capacity building affect teachers' performance, which is in line with the study's findings (Nur Eni & Yasir Arafat, 2020) which also shows the same relationship pattern. However, when analyzed using a partial t-test, only the capacity-building variable affected teachers' teaching performance at Madrasah Tsanawiyah in Semarang. Meanwhile, the variable of learning leadership practice did not significantly affect teachers' teaching performance. The results of t-test analysis differ from Nur Eni's research which shows that the principal's leadership partially affects teachers' performance. According to Rahmawati and Permana (2020) and Basalamah, As'ad, and Kamidin (2022), the capacity-building factor partially affecting teachers' performance aligns with Nur Eni S's research results.

The shock of learning culture is one factor that prevents learning leadership practices from affecting the teaching performance of Madrasah Tsanawiyah teachers in Semarang. The shift in learning patterns from offline to online requires the readiness of various parties in education, including the superintendent, school principals, and teachers. Common problems teachers face in distance learning include a lack of skills in online instruction, insufficient technological competence, and time management challenges (Bokayev, Torebekova, Davletbayeva, & Zhakypova, 2021). Therefore, it takes strong leadership and quickly promotes strategic and cultural alignment in the face of rapid change (Lerman & Jameson, 2018) including the change to distance learning. Education leaders must be able to facilitate the needs of teachers related to pedagogical and technological training (Kromydas, 2017). Distance learning leaders require an action plan, strong motivational skills, proficiency in various technologies, and the ability to navigate and adapt to online learning environments (Jandigulov, Abdallah, Tikhonova, & Gorozhanina, 2023). As a learning leader, the principal must communicate effectively by providing teachers with guidance, advice, assistance, support, and encouragement (Awang et al., 2020).

Learning leadership and capacity building are an inseparable unit. The principal's leadership highly determines teacher capacity building (Owen et al., 2020; van den Boom-Muilenburg, de Vries, van Veen, Poortman, & Schildkamp, 2022). Only school principals who are oriented towards improving the quality of learning allocate funds and time and carry out capacity-building activities inside and outside the school. According to Bush and Glover (2014) learning leadership focuses on key components related to education, such as curriculum design, teaching and learning processes, assessment, teacher development, quality service in education, and the development of learning communities within schools. The principal must possess instructional skills which include collaborating with teachers to set goals, providing learning resources, overseeing lesson plans and teaching activities, and evaluating both the curriculum and its implementation (Adegbemile, 2011).

4.2.2. The Direct Influence of Learning Leadership Practices, Capacity Building, and Teachers' Performance on Students' Learning Behaviour

The results of the second hypothesis test indicate that learning leadership practices, capacity building, and teachers' performance do not influence students' distance learning behaviour. Several factors cause independent variables not to affect students' distance learning behaviour. Students' readiness to learn independently during the pandemic also affects the relationship between variables in addition to the readiness factor of school leaders and teachers to face the sudden shift in learning patterns to online. For example, around 45% of students do not join in the learning process by doing other activities besides lessons. In addition, 35.3% of students did not record the teacher's explanation during online learning. The descriptive analysis results also showed that 44.7% of students lacked or did not ask and comment on the subject matter during online learning. This tendency causes learning leadership, capacity development and teacher performance in this study not to affect students' learning behaviour. Online learning requires students to be able to learn independently. However, many students are not ready to enter the online era of learning and leave the old learning pattern (offline). The unpreparedness of schools to conduct online learning also impacts students' unpreparedness to abandon old learning patterns.

Distance learning causes several learning problems. Although the existence of information technology helps enable the distance learning process, the success of this approach is significantly influenced by environmental factors and the characteristics of the students involved. The success of this approach is significantly influenced by environmental factors and the characteristics of the students involved. According to Nakayama, Mutsuura, & Yamamoto (2021) research on e-learning indicates that not all students are successful in online learning. This success largely depends on the learning environment and the individual traits of the students. In addition, the obstacle to adopting machine technology is the mismatch between teaching practices and technological demands. Another obstacle is changing old beliefs and patterns of work practices (Muirhead, 2000). In the context of this

© 2025 by the authors; licensee Asian Online Journal Publishing Group

study, the situation is worsened by students who do not engage in independent studying or reading. This is evidenced by several indicators of their learning behaviour, including a lack of focus during lessons, an absence of reading habits, and a failure to utilize the family library.

According to Muirhead's (2000) opinion above, the limited impact of school principals' leadership practices, capacity building, and teachers' performance on students' distance learning behaviour is primarily due to the unpreparedness of school leaders, teachers, and students for the online learning environment. After classroom instruction, leadership plays a crucial role in shaping students' learning behaviour. Most school leaders influence student learning indirectly, either through their impact on others or by shaping the characteristics of their organization (Leithwood, Louis, Anderson, & Wahlstrom, 2004). This finding also aligns with another research finding, which shows that learning leadership affects student learning achievement through capacity building and teachers' performance (Suryana, 2013). Education and training affect teachers' competence and achievement. In addition, leadership also affects teacher achievement through improving teacher competence (Basalamah et al., 2022). According to the research findings of Fernández Espinosa and López González (2023) meaningful and directed learning occurs at times when teachers teach beyond the syllabus, helping students to respond to their problems. In distance learning, teachers must provide themselves to serve students in online learning. The principal must prepare and condition the ability to serve online learning.

This study's results indicate that the connection between learning leadership and capacity-building variables, as well as their impact on teachers' performance and students' distance learning behaviours does not align with previous research. Earlier studies suggested that learning leadership, capacity-building, and teachers' performance are interconnected and significantly influence student learning behaviours. For example, the results of the research by Fernández Espinosa and López González (2023); Tokan and Imakulata (2019); Selvi (2010) and Gopal et al. (2021) explained that online classes affect student learning achievement. In the context of offline classes, Suryana (2013) also found that teachers' teaching performance affects student learning achievement. The studies indicate that the primary factor influencing learning behaviour is the teaching process implemented by teachers.

Thus, the findings of this study provide an overview that distance learning requires preparations in terms of leadership and management so that it will positively impact teachers' online teaching performance which will also positively impact students' online learning behaviour. The unpreparedness to face distance learning by various parties will only repeat the weaknesses and shortcomings experienced in the past.

4.2.3. The Indirect Influence of Learning Leadership and Capacity Building Practices on Students' Distance Learning Behaviour through Teachers' Performance

The results of the third hypothesis test indicate that learning leadership and capacity building do not impact students' distance learning behaviour, even when mediated by teachers' performance. This finding is attributed to the weak influence of leadership and capacity-building factors on the online teaching performance of Madrasah Tsanawiyah teachers in Semarang City as previously discussed. Consequently, this condition led to a disconnection between teachers' teaching performance and students' online learning behavior.

Learning behaviour is an activity performed repeatedly by individuals until it becomes automatic or occurs spontaneously (Suwardjono, 1991). The teaching performance of Madrasah Tsanawiyah teachers in Semarang City is considered insignificant to affect learning behaviour due to two factors, namely intrinsic factors in the form of students' unpreparedness in meeting online learning requirements and extrinsic factors in the form of unpreparedness of schools and teachers in acting as instructors in online learning. The teacher is essential for successful learning due to his knowledge and teaching skills (Leithwood et al., 2004).

There is a distinct difference between the role of a teacher in traditional learning and that of a teacher as a guide or mediator in an online environment. In online learning, teachers must take into account the diverse needs of their students. These needs include the social desire for face-to-face interaction, personal and emotional requirements, cognitive demands arising from learning assignments, and the technological resources necessary for distance learning (Nir-Gal, 2002). Teachers have four roles in online learning: pedagogical, social, managerial, and technical (Rose, Ishak, Hamidun, Khalid, & Othman, 2023). In this context, a teacher must be able to carry out these four roles in online learning. If these roles do not run well, it will result in weak students' distance learning behaviour in online learning.

Capacity building is the key to the challenges of teachers in online learning. Most of the problems experienced by teachers in online learning are their weak mastery of online learning, information technology, and other online resources (Bokayev et al., 2021; Lerman & Jameson, 2018). Based on these problems, capacity building must be prioritized for mastery of online learning and technology with a global and international perspective (Trube et al., 2012). Education leaders make policies related to distance learning-oriented capacity building. Learning leadership oriented to distance learning can come from various sources, not only superintendents and principals but also all parties with authority in the school system (Leithwood et al., 2004).

5. Conclusion

The findings of this study indicate that the emergence of unexpected behaviors in distance learning is influenced not only by internal factors related to students and their families but also by the preparedness of teachers. Specifically, the lack of teachers' readiness to conduct distance learning plays a significant role in this unexpected behaviour. Additional factors, such as the leadership provided by school principals and insufficient capacity-building opportunities for teachers in distance learning also impact teachers' ability to manage student learning behaviour effectively. The literature review and discussion in this study highlight that educational leadership and capacity-building efforts do not have a direct effect on students' distance learning behaviour. The performance of the teacher is the primary influence on this behaviour.

6. Suggestion and Implication

This study shows that school principals must be equipped to make critical decisions that enhance student learning behavior. Effective learning leadership can improve teacher performance and support distance learning

© 2025 by the authors; licensee Asian Online Journal Publishing Group

training programs for educators. Positive student learning behavior is influenced by various factors related to teacher performance. The "Free to Learn" concept provides opportunities for implementing distance learning. The experience gained during the pandemic has highlighted the challenges that need to be addressed in distance education. Both the government and schools must be dedicated and prepared to meet all the requirements for effective distance learning.

References

Adegbemile, O. (2011). Principals' competency needs for effective schools' administration in Nigeria. *Journal of Education and Practice*, *2*(4), 15-23.

Adejumobi, F. T., & Kola Ojikutu, R. (2013). School climate and teacher job performance in Lagos state Nigeria. *Discourse Journal of Educational Research*, *1*(2), 26–36.

Alotebi, H., Alharbi, O., & Masmali, A. (2018). Effective leadership in virtual learning environments. *International Journal of Information and Education Technology*, *8*(2), 156-160. https://doi.org/10.18178/ijiet.2018.8.2.1026

Awang, H., Yusof, M., Faiz, M., Mohd Yaakob, M. F., Nawi, A., & Jafar, M. F. (2020). *The virtual instructional leadership behaviors among Malaysian school principals during the movement control order (MCO): Out with the old, in with the new*. Paper presented at the Seminar Darulaman 2020 Peringkat Kebangsaan.

Basalamah, M. S. A., As'ad, A., & Kamidin, M. (2022). The influence of leadership and training on teacher competence and performance. *Tadib: Jurnal Pendidikan Islam*, *26*(2), 125-139. https://doi.org/10.19109/td.v26i2.11839

Bokayev, B., Torebekova, Z., Davletbayeva, Z., & Zhakypova, F. (2021). Distance learning in Kazakhstan: Estimating parents' satisfaction of educational quality during the coronavirus. *Technology, Pedagogy and Education*, *30*(1), 27-39. https://doi.org/10.1080/1475939X.2020.1865192

Bush, T., & Glover, D. (2014). School leadership models: What do we know? *School Leadership & Management*, *34*(5), 553-571. https://doi.org/10.1080/13632434.2014.928680

Bustanuddin, & Aziza Bustanil, D. (2022). Systematic review: Challenges of E-learning during the Covid-19 pandemic in science subjects for grade VII in junior high schools. *Journal of Pedagogy and Online Learning*, *1*(3), 9-14. https://doi.org/10.24036/jpol.v1i3.26

Carraway, J. H., & Young, T. (2015). Implementation of a districtwide policy to improve principals' instructional leadership: Principals' sensemaking of the skillful observation and coaching laboratory. *Educational Policy*, *29*(1), 230-256. https://doi.org/10.1177/0895904814564216

Colquitt, J. A., Wesson, M. J., & LePine, J. A. (2018). *Organizational behavior: Improving performance and commitment in the workplace*: McGraw-Hill Education. https://books.google.co.id/books?id=6SrJswEACAAJ.

Fernández Espinosa, V., & López González, J. (2023). The effect of teacher leadership on students' purposeful learning. *Cogent Social Sciences*, *9*(1), 2197282. https://doi.org/10.1080/23311886.2023.2197282

Geitz, G., Joosten-ten Brinke, D., & Kirschner, P. A. (2016). Changing learning behaviour: Self-efficacy and goal orientation in PBL groups in higher education. *International Journal of Educational Research*, *75*, 146-158. https://doi.org/10.1016/j.ijer.2015.11.001

Gie, T. L. (1988). *Efficient way to study*. Jakarta: Studi Press.

Gopal, R., Singh, V., & Aggarwal, A. (2021). Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID 19. *Education and Information Technologies*, *26*, 6923-6947. https://doi.org/10.1007/s10639-021-10523-1

Harrison, J. (2019). Building advocacy capacity in a teacher training program. In H. A. and J. W. Linville (Ed.), Advocacy in English Language Teaching and Learning. In (pp. 44). New York: Routledge.

Heineke, A. J., Vera, E. M., Hill, M., Israel, M. S., Goldberger, N., Anderson, B., . . . Hook, K. (2022). From preparation to practice. *Teacher Education Quarterly*, *49*(2), 8–32. https://www.jstor.org/stable/27185754

Hidayah, S. (2022). Online learning during the pandemic in Indonesia: A case study on digital divide and sociality among students. *Humaniora*, *34*(2), 149-158. https://doi.org/10.22146/jh.72605

Jandigulov, A., Abdallah, A. K., Tikhonova, Y., & Gorozhanina, E. (2023). Management and leadership in online learning. *Education and Information Technologies*, *28*(10), 13423-13437. https://doi.org/10.1007/s10639-023-11699-4

Kertih, I. W., Widiana, I. W., & Antara, I. G. W. S. (2023). The phenomena of learning loss experienced by elementary school students during the Covid-19 post pandemic. *Emerging Science Journal*, *7*(2), 201-213. https://doi.org/10.28991/ESJ-2023-SPER-014

King, E. F. (2018). Developing teacher capacity in Cambodia: An expanded model. *Asian Education and Development Studies*, *7*(1), 2-14. https://doi.org/10.1108/AEDS-06-2017-0053

Kromydas, T. (2017). Rethinking higher education and its relationship with social inequalities: Past knowledge, present state and future potential. *Palgrave communications*, *3*(1), 1-12. https://doi.org/10.1057/s41599-017-0001-8

Ladyanna, S., & Aslinda. (2021). *Problems and challenges of online lectures in Indonesia during the pandemic COVID-19*. Paper presented at the Proceedings of the 3rd International Conference on Educational Development and Quality Assurance (ICED-QA 2020), 506, 78–82. https://doi.org/10.2991/assehr.k.210202.016.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). How leadership influences student learning. Review of research. *Wallace Foundation, The*.

Lerman, C., & Jameson, J. L. (2018). Leadership development in medicine. *New England Journal of Medicine*, *378*(20), 1862-1863. https://doi.org/10.1056/nejmp1801610

Li, X., Wang, Z., & Xie, J. (2024). The mediating role of intention of learning behaviour in learning behaviour. *Frontiers in Psychology*, *15*(February), 1–8. https://doi.org/10.3389/fpsyg.2024.1228783

Mahardika, T. (2003). *Effective learning methods in higher education*. Solo: Pondok e-dukasi.

Milen, A. (2004). *Basic handbook of capacity development*. Yogyakarta: Pondok Pustaka Jogja.

Muirhead, W. D. (2000). Online education in schools. *International Journal of Educational Management*, *14*(7), 315–324. https://doi.org/10.1108/09513540010378969

Nakayama, M., Mutsuura, K., & Yamamoto, H. (2021). Impact of learner's characteristics and learning behaviour on learning performance during a fully online course BT - note taking activities in e-learning environments (M. Nakayama (ed.). In (pp. 15–36): Springer Singapore. https://doi.org/10.1007/978-981-16-6104-4_2.

Nir-Gal, O. (2002). Distance learning: The role of the teacher in a virtual learning environment. *Ma'of u-Ma'aseh*, *8*, 23–50.

Nur Eni, S., & Yasir Arafat, M. (2020). The effect of capacity building and school principal's leadership towards teacher's performance. *International Journal of Educational Review*, *2*(2), 130–142.

Owen, S. M., Toaiauea, T., Timee, T., Harding, T., & Taoaba, T. (2020). School leadership capacity-building: developing country successful case studies. *International Journal of Educational Management*, *34*(10), 1615-1636. https://doi.org/10.1108/IJEM-10-2019-0379

Pambudi, B. A., & Gunawan, I. (2020). The effect of learning leadership, academic supervision, and teacher skills on teacher performance effectiveness. *Advances in Social Science, Education and Humanities Research*, *501*(Icet), 1–5. https://doi.org/10.2991/assehr.k.201214.202

Rahmawati, I., & Permana, J. (2020). Improving teachers teaching performances through development of capacity buildings and innovative work behaviors. *Advances in Social Science, Education and Humanities Research*, *400*(Icream 2019), 90–93. https://doi.org/10.2991/assehr.k.200130.146

Redjeki, D. S. S., Hermino, A., & Arifin, I. (2021). Online learning challenges in schools during the pandemic COVID-19 in Indonesia. *Editorial Board*, *17*(10), 53. https://doi.org/10.5539/ass.v17n10p53

Rose, N. N., Ishak, A. S., Hamidun, N., Khalid, F. K., & Othman, N. F. (2023). The role of the instructor in the online classroom. *Balance and Boundaries in Creating Meaningful Relationships in Online Higher Education, December*, 350–369. https://doi.org/10.4018/978-1-6684-8908-6.ch018

Selvi, K. (2010). Motivating factors in online courses. *Procedia - Social and Behavioral Sciences*, *2*(2), 819-824. https://doi.org/10.1016/j.sbspro.2010.03.110

© 2025 by the authors; licensee Asian Online Journal Publishing Group

Sugiyono, A. (2010). *Alternative energy development in the special region of Yogyakarta: Long-term prospects*. Paper presented at the In Proceeding Call for Paper Seminar Nasional VI Universitas Teknologi Yogyakarta. pp. 1-13.
Sujiono, Y. N. (2010). *Teaching with portfolios*. Jakarta: Indeks.
Sunaryo, Y. S. (2020). Academic supervision of school principals and teacher performance: A literature review. *International Journal Pedagogy of Social Studies*, *5*(2), 17-34.
Suryana, D. (2013). Scanned by CamScanner. *A psicanalise dos contos de fadas. Tradução Arlene Caetano*, *466*.
Suwardjono. (1991). Learning behavior in college. *Jurnal Akuntansi & Manajemen*, *Maret*, 1–10.
Tokan, M. K., & Imakulata, M. M. (2019). The effect of motivation and learning behaviour on student achievement. *South African Journal of Education*, *39*(1). https://doi.org/10.15700/saje.v39n1a1510
Trube, M. B., Prince, B. L., & Middleton, R. A. (2012). Collaborative partnerships for capacity building through professional development. *Advances in Educational Administration*, *16*(January 2012), 81–105. https://doi.org/10.1108/S1479-3660(2012)0000016008
van den Boom-Muilenburg, S. N., de Vries, S., van Veen, K., Poortman, C., & Schildkamp, K. (2022). Leadership practices and sustained lesson study. *Educational research*, *64*(3), 295-316. https://doi.org/10.1080/00131881.2022.2090982
Waang, M., Matin, & Ahmad, M. (2019). The influence of principal managerial effectiveness and work ethic on elementary school teacher performance in Teluk Mutiara District, Alor regency. *Jurnal Ilmiah Wahana Pendidika*, *5*(1), 98–105. https://doi.org/10.25130/sc.24.1.6
Wahyudi, A., Narimo, S., & Wafroturohmah, W. W. (2020). Principal's instructional leadership in improving student learning outcomes. *Jurnal VARIDIKA*, *31*(2), 47–55. https://doi.org/10.23917/varidika.v31i2.10218
Yuliyanto, R., & Yamin, R. D. (2022). The impact of learning loss during a pandemic among students. *Jassp*, *2*(2), 70–80.
Yuzulia, I. (2021). The challenges of online learning during pandemic: Students' voice. *Wanastra: Jurnal Bahasa Dan Sastra*, *13*(1), 8–12. https://doi.org/10.31294/w.v12i1

Asian Online Journal Publishing Group *is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.*

© 2025 by the authors; licensee Asian Online Journal Publishing Group