



# Technology Competence and Motivation as Predictors of Teaching Performance amidst The Covid-19 Pandemic

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**Abstract.** The objective of this research was to assess how technology competence and teacher motivation impact teaching performance during the COVID-19 pandemic situation. A design for research using quantitative methods, specifically utilizing a descriptive correlation methodology. Utilizing purposive sampling, the teachers who met the inclusion criteria were chosen from the elementary schools of Semarang City of Indonesia as respondents of this study. Responses from the adapted research instruments on technology competence, teacher motivation, and teaching performance were used as primary sources of data. This study used mean, Pearson product-moment correlation, and regression to analyze the collected data. The results indicated that there was a high status of technology competence which means that the technology competence of teachers was oftentimes evident, while the teacher motivation was rated very high which means that teacher motivation was always manifested. Likewise, the level of teaching performance was also rated high, which means that the teaching performance was very good. Further, technology competence and teacher motivation have a significant relationship towards teaching performance. Finally, the combined influence of both independent variables, technology competence, and teacher motivation significantly influence on the teaching performance of the elementary school teachers during pandemic.

**Keywords:** Technology competence, motivation, teaching performance.

## 1 Introduction

Subsequent paragraphs, however, are indented. Teacher performance has been challenged in terms of their role as a learning administrator, a teacher, as well as a guide (Savitri & Sudarsyah, 2020) because of shifts in educators' instructional methods prompted by the COVID-19 pandemic, which transitioned from conventional in-person teaching to online or remote instruction (Men et al., 2020; Rajhans et al., 2020; König et al., 2020). A study in Ghana found that access to technology resources in schools was challenging, and e-learning was ineffective due to limited social interactions and poor communication (Adarkwah, 2020). Similarly, a study in North Indian schools showed that most schools implemented mandatory virtual learning, with teachers using platforms like Skype and Zoom to share lessons (Sangeeta & Tandon, 2020).

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The global outbreak of COVID-19 has had a noteworthy influence on education around the world, Indonesia included. The Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia promotes online learning and has developed a distance learning application namely Rumah Belajar (Abidah et al., 2020). However, research carried out by (Atmojo & Nugroho, 2020) suggests that the teachers in Indonesia should receive training and preparation to enhance their performance in online teaching. More so, Fauzi and Khusuma (2020) found that 73.9 percent of teachers in Banten and West Java Provinces considered online learning ineffective, while 80 percent expressed dissatisfaction. Mailizar et al. (2020) discovered that a lack of teachers' knowledge was the main barrier to e-learning in Aceh, and Nabilah (2020) highlighted a disadvantage of online learning in Semarang, Central Java Province, which is a lack of technology knowledge.

Mastura and Santaria (2020) found that technology was a major obstacle in online learning, particularly the teachers' lack of training as well as unfamiliarity with remote learning. Additional challenges included the need for extra time and difficulties related to facilities, technology competencies, teaching methods, and communication. Similarly, Fauzi and Khusuma (2020) highlighted problems with facilities, networks, planning, implementation, evaluation, and collaboration efforts while engaged in an online schooling activity during the pandemic. Teacher competencies, as outlined in Government Regulation No. 19 Year 2005, including pedagogic, personal, professional, and social competencies, are crucial for an effective teaching profession. It is also emphasized by Sikki et al. (2013) that professional competence involves mastering standards, developing learning materials, and utilizing technology, particularly communication and information technology (ICT). In the pandemic situation, teachers are compelled to use ICT as they are unable to deliver the lesson directly in person (Abkarin, 2020).

Furthermore, many researchers found that motivation has a significant and a positive impact on teaching performance (Riesminingsih, 2013; Ozguner & Ozguner, 2014). Increasing motivation and work discipline can enhance employee performance (Andayani, 2020). However, during the pandemic, work-from-home arrangements can lead to a loss of motivation due to costs and security concerns (Purwanto et al., 2020). Training as a motivational factor positively influences teaching performance (Rahmatullah, 2016; Maritasari et al., 2020), while the work environment as motivation is not significantly correlated with teacher performance (Kuncoro & Dardiri, 2017). Technological skills and the empowerment of teachers by leaders can also impact performance (Gibson et al., 2008; Andriani et al., 2018). The researcher aims to study technology competence, teachers' motivation, and teaching performance amidst the pandemic situation.

## 2 Method

This study employs a quantitative research strategy known as the descriptive correlation design. Quantitative research examines the relationship between variables by measuring them and analyzing numerical data using statistical methods. It focuses on identifying trends and patterns in individuals' responses to understand variations among people. More so, this study is a descriptive correlational research design, which examines the statistical relationship between variables without controlling extraneous factors. It uses correlation statistics to measure the degree of association between variables. Specifically, it employs an explanatory design to investigate how changes in one variable correspond to changes in another.

This study explores the correlation between technology competence and teaching performance, the correlation between teacher motivation and teaching performance, as well as examines the combined impact of technology competence and teacher motivation on the teaching performance. The design aligns well with these objectives. The study included 150 elementary school teachers who were teaching in Semarang City during the Academic Year of 2021-2022. A quantitative approach was employed, focusing on a target population that shares common defining characteristics. For data analysis, IBM SPSS version 21 was utilized. The statistical methods employed for the analysis included calculating the mean, standard deviation, Pearson's product moment correlation, and regression analysis.

## 3 Result and Discussion

Table 1 displays the technology proficiency level of teachers amid the COVID-19 pandemic situation. The comprehensive mean of technology competency score was 4.11, indicating a high level. It means that the technological competence of teachers is oftentimes evident. Furthermore, the total standard deviation is 0.65, which is less than one denoting that the respondents have ratings that are practically almost the same.

The outcome corroborates Prasojo et al.'s (2018) investigation, which found that teachers generally view technology competence as beneficial for enhancing instructional practices. Likewise, it aligns with Johannesen et al.'s (2014) findings, emphasizing the necessity for all teachers to possess technological proficiencies for effective integration of ICT across various subjects. Moreover, the data found is consistent with the viewpoints of Johannesen et al. (2014) and Abidah et al. (2020) that, prompted by curriculum demands, educators have improved their ICT skills to meet the requirements of online class, especially during the COVID-19 situation. However, the research outcome contradicts the studies by Obakhume (2010) as well as Badau and Sakiyo (2017), indicating that A substantial portion of teachers do not possess the required expertise and abilities to adeptly utilize ICT for enhancing the process of teaching and learning.

**Table 1.** Table Status of Technology Competence of the Teachers during the COVID-19 Pandemic

	Mean	SD	Description
Basic computer operation skills	4.62	.64	Very High
Setup, maintenance, and trouble equipment	4.14	.83	Very High
Word Processing	4.60	.61	Very High
Spreadsheets	4.10	.82	High
Databases	3.80	.88	High
Networking	4.06	.83	High
Telecommunications	3.92	.77	High
Media Communication	4.17	.66	High
Social, Legal, and Ethical Issues	3.57	.85	High
<b>Over-all Mean</b>	<b>4.11</b>	<b>.65</b>	<b>Very High</b>

Table 2 shows the level of teachers' motivation status. The overall mean of the motivation of the teachers was 4.24, very high. This implies that teacher motivation is always manifested. The overall standard deviation of .44 indicates a negligible variation in responses of teachers.

**Table 2.** Table Level of Motivation of Teachers during the COVID-19 Pandemic

	Mean	SD	Description
A love of children and sense of vocation	4.47	.45	Very High
Intellectual fulfillment and a desire to serve society	4.58	.43	Very High
Favorable working conditions	4.33	.50	Very High
The high status of teaching and a desire to be in authority	4.35	.54	Very High
The influence of others	4.02	.65	Very High
Aspects of teacher training and teaching as employment	3.69	.76	High
<b>Over-all Mean</b>	<b>4.24</b>	<b>.44</b>	<b>Very High</b>

The result aligns with Seniwoliba's (2013) research, which highlighted factors such as salary, work environment, incentives, medical benefits, security, acknowledgment, accomplishment, advancement, student behavior, school policies, and status. The finding also validates the argument that having a supportive environment like other students, other teachers, administrators, and principal are also crucial in maintaining their motivation to remain within the teaching profession. (Reese, 2010; Turabik & Baskan, 2015; Williams, 2018).

Furthermore, table 3 shows the level of teacher performance which recorded an overall mean of 4.12, which is characterized as being at a high level. It means that the teaching performance of teachers during the pandemic was very good. The standard deviation value of 0.48 indicates that the participants' ratings are very similar. Teachers demonstrated high levels of teaching performance through meticulous planning,

appropriate assessments, relevant learning materials, and effective use of technology. They created a conducive classroom environment, fostering positive interactions and promoting students' social-emotional skills. Clear instruction with relatable examples permitted students to utilize their knowledge in practical real-world scenarios.

**Table 3.** Table Level of Teaching Performance during the COVID-19 Pandemic

	<b>Mean</b>	<b>SD</b>	<b>Description</b>
Planning and Preparation for Learning	4.05	.55	High
Classroom Management	4.22	.52	Very High
Delivery of Instruction	4.17	.54	High
Monitoring, Assessment, and Follow-up	4.03	.53	High
Family and Community Outreach	4.09	.53	High
Professional Responsibilities	4.14	.52	High
<b>Over-all Mean</b>	<b>4.12</b>	<b>.48</b>	<b>High</b>

Additionally, teachers utilized diagnostic assessments and collaborated with colleagues to support students with specialized needs. They set high expectations, provided exemplary models of work, and maintained strong relationships with parents, the community, and volunteers to enhance the curriculum. Moreover, teachers exhibited professionalism by maintaining excellent attendance, engaging in collaborative discussions, and actively participating in teacher organizations. This finding is similar to the study of Warastuti and Usman (2013) which revealed that teacher performance in their research was high. This finding supports that the teachers were achieving the established job requirements and standards of competence (Maritasari et al., 2020). This finding is also congruent with the idea that teachers can do their duties and responsibility in managing teaching-learning process, improving technological integration, and comprehending the requirements of educational institutions that can elevate the standing of education (Rahmatullah, 2016; Muiyiman, 2018).

Meanwhile, table 4 shows the relationships between technology competence, teacher motivation, and teaching performance. This demonstrates that there is a notable and positive correlation between technological competence and teaching performance. The p-value of .000 which is below the significance level of .05 (two-tailed) confirms this strong relationship ( $r = .63$ ,  $p < .05$ ). This means, as the level of technology competence of the teachers increases their teaching performance also significantly increases. The finding can be a basis for information that since in the outbreak situation, teachers were able to conduct an online teaching activity with the assistance of technology, if the teachers have a high status of technology, their teaching performance tends to be high as well. Hence, if the teachers want to have a good performance in teaching, one of the ways is teachers could enhance their level of technology.

**Table 4.** Significance of Relationships of Technology Competence, Teacher Motivation, and Teaching Performance

	Teaching Performance		
	r	p-value	Remarks
<b>Technology Competence</b>	.63	.00	Significant
<b>Teacher Motivation</b>	.66	.00	Significant

Likewise, the findings reveal that there is a significant and a positive correlation between teacher motivation and their teaching performance, as indicated by a p-value of .00, which falls below the predetermined significance level of .05 ( $r = .66, p < .05$ ). This means, if the level of teacher motivation increases, the teaching performance of the teachers also significantly increases. According to the finding, motivated teachers tend to show good teaching performance. Hence, another alternative to elevate teaching performance is to make teachers have enough motivation in teaching both intrinsic and extrinsic.

The findings are in consonance with the study of Gibson et al. (2008), Novitasari et al. (2020), and Farida et al. (2020) that technological competence has a positive effect on teaching performance. Furthermore, teaching and learning activities process by using online systems like YouTube, Facebook, Twitter, WhatsApp, Google Classroom, Line, Zoom, and Kahoot make teachers are required to master such capabilities in operating various technology to support their teaching activities and independent learning of the pupils (Fadillah et al., 2020; Abidah et al., 2020). Moreover, the result supports the view of Andriani et al. (2018), Andayani (2020), and Farida et al. (2020) that teacher motivation has a significant effect on teaching performance. In addition, the finding aligns with the study of Andriani et al. (2018) found that having a motivating leader among teachers has a significant effect on the teacher performance.

Table 5 shows the multiple regression analysis. In singular capacity, the technology competence of teachers influences significantly towards teaching performance with a p-value that is less than .05 level of significance (2-tailed) ( $p < .05$ ) with a positive standardized beta value of .38. This indicates that with each unit increase in the technology competence level, there is an associated increase of 0.38 in teachers' teaching performance. Similarly, considering individual impact, teacher motivation distinctly affected teaching performance, with a p-value below the 0.05 significance level (two-tailed) ( $p < 0.05$ ), and a positive standardized beta value of 0.46. This implies that for each unit escalation in teacher motivation, there is a correlated rise of 0.46 in teaching performance among teachers.

Significantly, technology competence had a greater impact on teachers' teaching performance in comparison to impact of teacher motivation on teaching performance. Importantly, the combination of both independent variables, technology competence and teacher motivation, towards teaching performance of teachers in elementary schools is significant ( $F = 87.11, p < .05$ ). This finding suggests that enhancing teach-

ers' technological competence as alternative for the betterment of teaching performance. Furthermore, since technology competence influenced teaching performance more compared to teacher motivation, upgrading technology competence can be the early step in handling problems in teaching-learning activity amid pandemic that requires learning in distance.

**Table 5.** Significance of the Influence of Technology Competence, and Teacher Motivation towards Teaching Performance

		Teaching Performance			
		Standard- ized Coeffi- cients	t	p-value	Remarks
<b>Technology</b>	<b>Compe-</b>	.38	5.75	.00	Significant
<b>tence</b>					
<b>Teacher Motivation</b>		.46	6.91	.00	Significant
	R	.74			
	R <sup>2</sup>	.54			
	F	87.11			
	P	.00			

More so, the model shows 54 percent of the variance of the teaching performance based upon the independent variables as indicated by  $R^2 = .54$ . It means 46 percent of the variance of the teaching performance can be attributed to other factors aside from technology competence and teacher motivation. This is in consonance with the study of Rahmatullah (2016), Farida et al. (2020), and Maritasari et al. (2020) that teacher motivation significantly influences teacher performance. Finally, the findings support the theories anchored in this study which are the Constructivism Theory by John Dewey (1938) as cited by Williams (2017), the Hierarchy of Needs by Abraham Maslow (1943) as cited by Green (2000), and the proposition of Silber (1972). The Constructivism Theory by Dewey (1938) emphasized that learning must be done in an active way, in which both teachers and students participate in learning activities, applying a student-centered approach, and having social awareness as the main goal of education, and wherein teachers act as facilitators.

## 4 Conclusion

The study found that during the difficult situation of pandemic, teachers exhibited high levels of technology competence, motivation, and teaching performance. The technology competence mean score was 4.11, indicating a strong presence of technology skills among teachers. The score of teacher motivation was 4.24, indicating a very high level of motivation. The teaching performance mean score was 4.12, indicating excellent performance. More so, there was a significant relationship between technology competence and teaching performance ( $r = .63$ ,  $p < .05$ ). Similarly, between teacher motivation and teaching performance there was a significant positive relationship ( $r = .66$ ,  $p < .05$ ). Furthermore, technology competence had a significant

influence on teaching performance ( $p < .05$ ,  $\beta = .38$ ). Overall, the findings highlight the importance of technological competence and teacher motivation in enhancing teaching performance during the pandemic. As recommendations, in enhancing the teaching performance in elementary schools, school administrators should prioritize improving teachers' technology competence, sustaining high teacher motivation, providing essential resources, and implementing capacity-building activities. This includes enhancing teachers' skills in managing databases, telecommunications, and understanding social, legal, and ethical issues. Stronger support, upgraded facilities, and active participation from students, parents, colleagues, and the community are crucial for sustaining teacher motivation. Additionally, providing necessary resources such as comfortable classrooms, libraries, learning media, and sports facilities supports teaching performance. By prioritizing capacity-building activities and enhancing educational policies, the combined influence of technology competence and teacher motivation can positively impact teaching performance.

## References

1. Abidah, A., Hidaayatullaah, H. N., Simamora, R. M., Fehabutar, D., & Mutakinati, L. (2020). The impact of COVID-19 to Indonesian education and its relation to the philosophy of "Merdeka Belajar. *Studies in Philosophy of Science and Education (SiPoSE)*, 1(1), 38-49. <https://scie-journal.com/index.php/SiPoSE/article/view/9>
2. Abkarin, N. A. (2020). The analysis of teachers' professional competence in utilizing information and communication technology for teaching and learning process (Bachelor's Thesis, English Department Faculty Languages and Arts Universitas Negeri Semarang, Semarang, Indonesia). [http://lib.unnes.ac.id/42245/1/2201416079\\_Noven%20Aquila%20Abkarin\\_Pend.B.Ing.pdf](http://lib.unnes.ac.id/42245/1/2201416079_Noven%20Aquila%20Abkarin_Pend.B.Ing.pdf)
3. Adarkwah, M. A. (2020). "I'm not against online teaching, but what about us?": ICT in Ghana post COVID-19. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-020-10331-z>
4. Andayani, M. (2020). Analisis pengaruh kepuasan kerja, motivasi kerja dan disiplin kerja terhadap kinerja karyawan pada PT. Prima Indojaya Mandiri Kabupaten Lahat. *Motivasi: Jurnal Manajemen dan Bisnis*, 5(1), 796-804. <https://doi.org/10.32502/motivasi.v5i1.2476>
5. Andriani, S., Kesumawati, N., & Kristiawan, M. (2018). The influence of the transformational leadership and work motivation on teachers performance. *International Journal Of Scientific & Technology Research* 7(1), 19-29. [https://www.researchgate.net/publication/326646177\\_The\\_Influence\\_of\\_The\\_Transformational\\_Leadership\\_and\\_Work\\_Motivation\\_on\\_Teachers\\_Performance](https://www.researchgate.net/publication/326646177_The_Influence_of_The_Transformational_Leadership_and_Work_Motivation_on_Teachers_Performance)
6. Atmojo, A. E. P., & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during COVID-19 pandemic in Indonesia. *Register Journal*, 13(1), 49-76. <https://doi.org/10.18326/rgt.v13i1.49-76>
7. Fadillah, R., Surur, M., Elfrianto, Roziqin, A. K., Suhaili, A., Handayani, R. A., Mufid, A., Purwanto, A., Muhajir, & Fahmi, K. (2020). The influence of leadership style on innovation capabilities of islamic school teachers in organizational learning perspective during COVID-19 pandemic. *Systematic Reviews in Pharmacy*, 11(7), 589-599. <http://doi.org/10.31838/srp.2020.7.83>



8. Fauzi, I., & Khusuma, I. H. S. (2020). Teachers' elementary school in online learning of COVID-19 pandemic conditions. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 5(1), 58-70. <https://doi.org/10.25217/ji.v5i1.914>
9. Gibson, J. L., Ivancevich, J. M., Donnelly, J. H. Jr., & Konopaske, R. (2008). *Organizations: Behavior, structure, processes*. (4th ed.). McGraw-Hill.
10. Green, C. D. (2000). *Classics in the history of psychology*. York University. ISSN 1492-3713
11. Khatoony, S., & Nezhadmehr, M. (2020). EFL teachers' challenges in the integration of technology for online classrooms during Coronavirus (COVID-19) pandemic in Iran. *AJELP: The Asian Journal of English Language & Pedagogy*, 8(2), 89-104. <https://doi.org/10.37134/ajelp.vol8.2.7.2020>
12. König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 43(4), 608-622. <https://doi.org/10.1080/02619768.2020.1809650>
13. Kuncoro, T., & Dardiri, A. (2017). Teacher performance and work environment in the instructional process in vocational school. *AIP Conference Proceedings*, 1887(1), 1-9. <https://doi.org/10.1063/1.5003526>
14. Mailizar, Almanthari, A., Maulina, S., & Bruce, S. (2020). Secondary school mathematics teachers' views on e-learning implementation barriers during the COVID-19 pandemic: The case of Indonesia. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(7), 1-9. <https://doi.org/10.29333/ejmste/8240>
15. Maritasari, D. B., Setyosari, P., Kuswandi, D., & Praherdhiono, H. (2020). The effect of training and supervision on teacher performance through teacher competence as a mediating variable in primary schools. *Universal Journal of Educational Research*, 8(11C), 105-112. <http://doi.org/10.13189/ujer.2020.082312>
16. Mastura, & Santaria, R. 2020. The Impact of the Covid-19 Pandemic on the Teaching Process for Teachers and Students. *Journal of Teacher Studies and Learning*. 3(2). <https://ejournal.my.id/jsgp/article/view/293/293>
17. Men, J.L., Liub, Mei., Zhang, L. B., & Huang, S. Z. (2020). Discussion and application of goal problem oriented teaching under the epidemic situation. *Revista Argentina de Clínica Psicológica*, 29(5), 285-295. <https://doi.org/10.24205/03276716.2020.1030>
18. Muyiman, M. (2018). The strategy of Madrasa Ibtidaiya principal in human resource development for increasing teachers' professional and academic competency. *Mudarrisa: Jurnal Kajian Pendidikan Islam*, 10(1). <https://doi.org/10.18326/mdr.v10i1.127-147>
19. Nabilah, A. (2020). The teachers' implementations of distance learning during the COVID-19 Pandemic at SMP N 3 Bringin (Bachelor's thesis, State Institute for Islamic Studies (IAIN) of Salatiga, Semarang, Indonesia). <http://e-repository.perpus.iainsalatiga.ac.id/8622/>
20. Novitasari, D., Yuwono, T., Cahyono, Y., Asbari, M., & Sajudin, M. (2020). Effect of hard skills, soft skills, organizational learning and innovation capability on Indonesian teachers' performance during COVID 19 pandemic. *Solid State Technology Volume*, 63(6), 2927-2952
21. Ozguner, Z., Ozguner, M. (2014). A managerial point of view on the relationship between of Maslow's hierarchy of needs and Herzberg's dual factor theory. *International Journal of Business and Social Science*, 5(7), 207-215. [https://www.ijbssnet.com/journals/Vol\\_5\\_No\\_7\\_June\\_2014/26.pdf](https://www.ijbssnet.com/journals/Vol_5_No_7_June_2014/26.pdf)
22. Purwanto, A., Asbari, M., Fahlevi, M., Mufid, A., Agistiawati, E., Cahyono, Y., & Suryani, P. (2020). Impact of work from home (WFH) on Indonesian teachers performance

- during the COVID-19 pandemic: An exploratory study. *International Journal of Advanced Science and Technology*, 29(5), 6235-6244. <http://sersc.org/journals/index.php/IJAST/article/view/15627>
23. Rahmatullah, M. (2016). The relationship between learning effectiveness, teacher competence and teachers performance Madrasah Tsanawiyah at Serang, Banten, Indonesia. *Higher Education Studies*, 6(1), 169-181. <http://dx.doi.org/10.5539/hes.v6n1p169>
  24. Rajhans, V., Memon, U., Patil, V., & Goyal, A. (2020). Impact of COVID-19 on academic activities and way forward in Indian optometry. *Journal of Optometry* 13(4), 216-226. <https://doi.org/10.1016/j.optom.2020.06.002>
  25. Rasmitadila, Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A case study in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(2), 90-109. <http://dx.doi.org/10.29333/ejecs/388>
  26. Reese, L. (2010). *Beginning teacher motivations and orientations for teaching in one school division* (Doctoral Dissertation, Regent University, Virginia Beach).
  27. Riesminingsih, R. (2013). Pengaruh kompetensi dan motivasi terhadap kinerja guru SMA Yadika 3 Karang Tengah. *Jurnal MIX*, 3(3), 263–271. <https://mix.mercubuana.ac.id/media/156839-pengaruh-kompetensi-dan-motivasi-terhadap-40f4da45.pdf>
  28. Sangeeta, & Tandon U. (2020). Factors influencing adoption of online teaching by school teachers: A study during COVID-19 pandemic. *J Public Affairs*, 21:e2503. <https://doi.org/10.1002/pa.2503>
  29. Savitri, E., & Sudarsyah, A. (2020). Transformational Leadership for improving teacher's performance during the COVID-19 Pandemic. *Advances in Social Science, Education and Humanities Research*, 526. <https://download.atlantispress.com/article/125952666.pdf>
  30. Silber, K. H. (1972). *The learning system. A new approach to facilitating learning based on freedom, the future, and educational technology*. Presented at the USOE/EMC Seminar on Open Learning and Manpower Development and Training Programs, 1-8. <https://files.eric.ed.gov/fulltext/ED084842.pdf>
  31. Sikki, E. A. A., Rahman, A., Hamra, A., & Noni, N. (2013). The Competence of Primary School English Teachers in Indonesia. *Journal of Education and Practice*, 4(11), 139-145. <https://www.iiste.org/Journals/index.php/JEP/article/view/6461>
  32. Turabik, T. & Baskan, G. A. (2014). The importance of motivation theories in terms of education systems. *Procedia-Social and Behavioral Sciences*, 186, 1055–1063. <https://doi.org/10.1016/j.sbspro.2015.04.006>
  33. Warastuti, W. P., & Usman, H. (2013). Kinerja Guru SMK Program Keahlian Teknik Bangunan di Daerah Istimewa Yogyakarta. *Jurnal Pendidikan Vokasi*, 3(3), 373-390. <https://doi.org/10.21831/jpv.v3i3.1850>
  34. Wardoyo, C., Firmansyah, R., Sunaryanto, Nuris, D. M., & Wicaksono, M, G. S. (2020). Contribution of teacher competence (pedagogy and personality) in teaching practice during the COVID-19 pandemic and 4.0 era. *Technium Social Sciences Journal*, 14(1), 66–78. <https://techniumscience.com/index.php/socialsciences/article/view/1795>
  35. Williams, W. E. (2018). *Principal leadership style, teacher motivation, and teacher retention* (Doctoral Dissertation, College of Social and Behavioral Sciences, Walden University). <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=7427&context=dissertations>

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