

Principals' Perception on the Quality of Online Learning in MTs in Ciamis District in the Post Pandemic

Krisna Sujaya¹

Abstract

This study aims to describe the quality of online learning at MTs in Ciamis Regency during and after the pandemic. With this survey it can be mapped, the percentage of the best quality level, good, medium, lacking and very lacking, so that corrective steps and policies are found that must be taken by both internal and external stakeholders. The design of this research is survey research that looks at trends in field phenomena by exploring through questionnaires or research instruments filled out by the heads of Madrasah Tsanawiyah (MTs) of Ciamis Regency, both state and private. The research was conducted from January to November 2021 with a population of 152 heads of public and private MTs, vice principals for curriculum, finance, and student affairs. Primary data analysis using percentage descriptive analysis. Based on the survey results, it can be concluded that the quality of online learning at MTs Ciamis post-pandemic is very unsatisfactory. Online learning outcomes are lower than offline. The method that is mostly used by teachers is lecture and question and answer. low level of satisfaction, and far more non-technical constraints than technical constraints.

Keywords: *online, pandemic, principal, quality of learning, survey*

Introduction

The quality of online learning during a pandemic is indeed not encouraging (Abbasi et.al, 2020), because the level of students' absorption of subject matter is very low, low signal quality causes children to be unable to record the learning process properly, not all areas get a good signal, many students only study while lying on the bed or sofa (Akyüz & Samsa, 2009).

Judging from the teachers, many teachers stutter about information technology (Al-Rahmi, et.al, 2019; Evans-Amalu & Claravall, 2021; Subedi & Subedi, 2020), many teachers cannot provide shared learning media such as zoom, google meetings, and so on. Many teachers are unable to show subject matter (Andersson & Grönlund, 2009), so that zoom meetings only rely on lectures (Bovill, 2020). Teacher access to control the active involvement of students in the learning process is very weak. The data shows that only 15.3% of teachers who are literate in interactive teaching technology online, at the start of Pandemic, were only 15.3%. At the beginning of the following year, namely in 2020, the number of teachers who mastered information technology rose to 45.2, and in 2021, the number of teachers who were literate in information technology

¹Dr. Indonesian University of Education, Bandung Indonesia, Email: krisnasujaya@upi.edu

became 68.1%, the remaining 30.9% still did not master technology and information (Yu, et.al, 2020).

From the administrative side, many administrations have not been able to assist teachers (Yang, 2010) in providing teaching and learning media via zoom. They have not been able to become facilitators for teachers to prepare zoom media and others. Administration is not that big in facilitating teachers and students online. Administration that is literate in technology and capable of facilitating teachers and lecturers can be said to be less than optimal (Adu et al., 2022; Waychunas, 2020).

Data stated that only 24.5% of administrators were already literate in technology, the remaining 75.5% had not yet mastered technology and information. All education data, all of which are uploaded to the education data and reporting system by officials who have been specially appointed by the local government, assigned to each school. The competency requirements that must be possessed by them are mastering technology and information. Administrative staff, ultimately are very dependent on them in terms of uploading all school data (Mutongoza et al., 2021; Prabowo, 2022). This is what causes school administration to become lazy in learning technology and information in the field of school administration and teacher facilitation in carrying out teaching online.

Table 1

The level of student satisfaction during online learning

No	Satisfaction level	F	%
1	Very dissatisfied	23	46
2	Not satisfied	13	26
3	Currently	8	16
4	Satisfied	5	10
5	Very satisfied	1	2
Total		50	100

Source: 2022 pre-survey results

Table 1 shows that during the online learning process the majority of students (45%) answered that they were very dissatisfied with the online learning process. As many as 26% said they were not satisfied, 16% answered moderate, 10% answered satisfied, and only 2% answered very satisfied.

Table 2*Table of student absorption levels during online learning*

No	Absorption rate	f	%
1	Not very good	22	44
2	Not good	14	28
3	Currently	8	16
4	Well	5	10
5	Very good	1	2
Total		50	100

Source: 2022 Pre-survey data

Table 2 shows that, the number of students who stated that their absorption ability was very poor was 44%, 28% was not good, 16% was moderate, 10% good, and 2% was very good.

Table 3*The method used by teachers in teaching online*

No	Teaching Method	f	%
1	Lecture	18	36
2	FAQs	16	32
3	Discussion	7	14
4	Jigsaw	4	8
5	STADs	3	3
6	Problem solving	2	4
Total		50	100

Source: 2022 pre-survey data

Table 3 provides information that the majority of teachers in providing online learning use the lecture method 36%, question and answer method 32%, discussion 14%, jigsaw 8%, Student Team Achievement Divisions 6%, Problem Solving as much as 4%. Thus, in teaching online, the majority of teachers have not used cooperative and innovative learning methods.

Results of previous research (Murphy, 2020) showed that the quality of online learning during the pandemic was still very lacking at 48%, 34%, and the remaining 18% said it was good. Another study stated that the obstacles to online learning during the pandemic were 58% internet network constraints, 28% teacher IT skills, 8% quota constraints, and 4% other constraints. Other literatures (Murphy, 2020; Prabowo, 2022) also mention that, the cause of online learning failure is because not all children have cell phones 54%, there is no signal at the student's home location 34%, the level of seriousness of students is low 12%.

Novelty of this research looks at the post-pandemic online learning process at the high school level, where the majority of students are not yet mature, they are still childish so there is a chance that they will be very obedient when supervised by teachers and parents. Meanwhile, when they are not supervised, they feel there is no responsibility to study hard.

Research Questions

1. What is the perception of school principals about the quality of online learning at MTs in Ciamis Regency after the pandemic?
2. What are the results of online learning at MTS in Ciamis Regency after the Pandemic?
3. What are the learning methods that are most often used in online learning at MTS in Ciamis Regency after the pandemic?
4. What is the level of satisfaction of school principals during the online learning process at MTs in Ciamis Regency after the pandemic?
5. According to the perceptions of the MTS principal in Ciamis Regency, what are the obstacles faced after the pandemic?

Review of Literature

Theoretically, the success of the learning process is influenced by learning media, teaching methods, facilities and infrastructure, student motivation (Harandi, 2015), and various other aspects (Ngampornchai & Adams, 2016)). Other literature states that the success of the learning process is influenced by the level of children's learning interest, a fun learning environment, study partners, parental support, motivation from teachers, and others (Nawaz & Kundi, 2010).

Research states that the success of online learning is highly dependent on internet network infrastructure, teacher digital literacy, children's digital literacy, cooperative and innovative teaching methods, methods of delivering learning material to students (Munich, 2014). Other experts say that the success of the online learning process is heavily influenced by the availability of internet networks, quotas, services from teachers, parental support, and motivational aspects (Meyer & Barefield, 2010).

In other research it was stated that online learning will work well, when there is growing awareness of students during the learning process to actively participate in it (Noesgaard & Ørngreen, 2015), seriousness of students in following the learning process, minimal disruption to student learning, and teacher concern in applying the learning method. good teaching during online learning (Meyer & Barefield, 2009).

The results of studies conducted by previous researchers stated that the better the learning method used, the higher the level of student mastery of the learning material presented (Martínez-Argüelles & Batalla-Busquet, 2016). When the teacher is not able to choose a good learning method, students will become bored, not enthusiastic (sleepy), student absorption is low,

and the success rate of the learning process is low (Yew & Jambulingam, 2015). Teachers who are able to choose the right learning method, students will remain enthusiastic in participating in the learning process (Makokha & Mutisya, 2016).

Recent literature states that the requirements for the online learning process must be carried out optimally because teachers cannot control student activities in front of them because of their cellphones or laptops, so they need active, student-centered methods, and always invite students to be continuously involved in the learning process (Madani, 2019). The teacher periodically asks students to ask or answer questions both from the teacher and from other students (Liu & Lee, 2012).

Obstacle factors in the online learning process according to previous researchers (Lister, 2014). because the signal is not good, not all teachers are technology literate, not all students have data packages, student saturation, and other aspects (Shah & Cheng, 2019). In addition, online learning also faces technical obstacles such as signals that come and go, parental objections to the cost of procuring internet packages for students, and low student enthusiasm to take part in the online learning process (Little & Knihova, 2014).

The success rate of students during the online learning process is low because the teacher is unable to control student activities during the learning process. When the teacher is not involved in the learning process, many students only turn on the zoom meeting, but are left to do various other activities (Mahlomaholo & Mahlomaholo, 2022; Makura, 2022; Omodan, 2022).

The strategy to increase the success rate in the online learning process is to use a good two-way method. Questions and answers should always be done by the teacher. When teachers are able to use active and creative or innovative methods, students will always be passionate about participating in the learning process (Bada & Jita, 2022; Kintu, et.al., 2017).

Methods

Research Design

This research uses a quantitative approach, especially surveys (Henseler, et.al, 2016). The survey approach was taken because researchers wanted to describe in detail the quality of post-pandemic online learning both from student motivation, learning methods used by teachers, student success in mastering learning material, student motivation in learning, constraints in the online learning process, and so on. The research was conducted in Ciamis Regency, West Java,

from January to June 2021. The choice was for Ciamis district, because Ciamis district is in the southern coastal area of West Java bordering Central Java, which incidentally is not very good in terms of internet network.

Research subjects

The subjects of this study were the heads of Madrasah Tsanawiyah (MTs) and their representatives, both public and private, in Cianjur Regency with a total of 152 people. With details of heads and deputy heads of state Madrasah Tsanawiyah as many as 32 people, and private as many as 120 people. Total 152 people. They all filled out the research instrument and all fields were declared complete and fit to be used to answer the problem formulation.

Research Instruments

Surveying instruments developed based on the prepared grid based on the theory put forward by experts (See Table 4). The instrument consisted of 12 items, that has aspect, dimension and indicator. The aspect deals with the quality of online learning is the quality of the learning process using online media such as Zoom and Google meet. Dimensions comprise six items, they are: (1) IT Quality, (2) Learning methods, (3) student engagement, (4) Student's motivation to study, (5) obstacle, and (6) strategy to overcome obstacles. In addition, indicators are of 12 items, namely: Internet Network, Mobile/laptop quality, Innovation Method, Cooperative Method, Follow Zoom, Carry out a task, Motivation During the learning process via zoom, Motivation to repeat subject matter after online learning, Technical hurdles, Non-technical obstacles, Collaborate with friends, and Increase the spirit of learning.

Table 4

Research instrument grid

Aspect	Dimensions	Indicator	Item number
The quality of online learning is the quality of the learning process using online media such as Zoom and Google meet	IT Quality	Internet Network	Q1
		Mobile/laptop quality	Q2
	Learning methods	Innovation Method	Q3
		Cooperative Method	Q4
	student engagement	Follow Zoom	Q5
		Carry out a task	Q6
	Student's motivation to study	Motivation During the learning process via zoom	Q7
		Motivation to repeat subject matter after online learning	Q8
	Obstacle	Technical hurdles	Q9
		Non-technical obstacles	Q10
	Strategy to overcome obstacles	Collaborate with friends	Q11
		Increase the spirit of learning	Q12

Source: modification of various theories (Khamparia & Pandey, 2017)

Test the validity and reliability of research instruments

Based on the results of the analysis of the validity and reliability tests (Henseler, et.al, 2014) for 50 samples can be tabulated as follows.

Table 5

Instrument validity test

Instrument No	R	Sign	Conclusion
1	0.7540.000	0.000	All items are suitable for use in research and answering the problem formulation
2	0.786	0.000	
3	0.876	0.000	
4	0.856	0.000	
5	0.756	0.000	
6	0.754	0.000	
7	0.757	0.000	
8	0.821	0.000	
9	0.832	0.000	
10	0.814	0.000	
11	0.754	0.000	
12	0.741	0.000	

Source: 2022 instrument validity analysis results

Data above shows that all instruments are said to be feasible to use because all of them are valid having a product moment coefficient > 0.7 (Hair, et.al, 2017). All dimensions are represented by their indicators, it is proven that there are no indicators that fall. The instrument reliability can be seen in table 6.

Table 6

Instrument reliability test

Dimensions	Cronbach's Alpha	sign.	Conclusion
1	0.834	0.000	Reliable
2	0.872	0.000	Reliable
3	0.923	0.000	Reliable
4	0.853	0.000	Reliable
5	0.954	0.000	Reliable
6	0.851	0.000	Reliable

Source: instrument trial data analyzed 2022

All data according to Table 6 shows good reliability because it is above 0.7 (Hair, et.al, 2010)

Data analysis

Process data analysis used quantitative descriptive analysis, especially percentages (Henseler, et. Al., 2009). Percentage analysis is used because this type of research is a survey about the quality

of online learning. Therefore, data analysis is limited to efforts to describe the quality of online learning at Madrasah Tsanawiyah in Ciamis Regency. The analysis is adjusted to the research problem formulation, (Hair, et.al, 2017) so that all problem formulations can be answered through analysis of the data that has been obtained.

Results and Discussion

Principals' perceptions of the quality of online learning

Perception is a picture of a person's opinion based on information that enters his mind which is then processed by the mind so as to produce a conclusion on the perception of everything that is felt, experienced, seen, felt, and heard.

Table 7.

Principals' perceptions of the quality of online learning

No	Response	F	%
1	Very good	9	5,9
2	Well	18	11,8
3	Currently	51	33,6
4	Not enough	42	37,6
5	Very less	32	21,1
	Amount	152	100

Source: Results of 2022 data analysis

Table 7 provides an understanding that the perception of school principals regarding the quality of online learning at MTs is still very poor (21.1%), not good 3.6%, moderate 33.6%, good 11.8%, and very good 5.9%. According to the results of the interviews, information was obtained that the cause of the poor quality of the post-pandemic online learning process was because students were bored with the online learning process, students were only passive and not actively participating in the learning process, the learning method applied by the teacher had to be lecturing, and debriefing.

The results of this study are in line with the findings (Tomas, et.al, 2019) which says that, when students are bored, the process of internalizing knowledge cannot be carried out by the teacher. The transfer of knowledge cannot go both ways. A one-way process will not be able to increase the process of transfer of knowledge (Stone, 2020)

Online learning outcomes

Results online learning at MTs Ciamis Regency can be said to be still low. Table 8 provides evidence of that.

Table 8

Online learning outcomes

No	Learning outcomes	F	%
1	Very good	11	7,3
2	Well	30	19,7
3	Currently	58	38,2
4	Low	30	19,7
5	Very low	23	15,1
Amount		152	100

Source: Primary data analysis results for 2022

Table 8 assures that the results of online learning according to the perception of the head of the Ciamis District MTs are still very low 15.1%, low 19.7%, moderate 38.2%, good 19.7%, and very good 7.3%. Various causes of low online learning achievement according to some school principals are because, the majority of students do not follow the learning process properly, besides studying online they are also busy with various other activities.

Results this research is in line with the opinion (Yew & Jambulingam, 2015) which says that online learning achievement is much lower than offline because the level of student mastery in online learning is not as high as offline learning. The habit of students studying offline has caused these habits to have been formed and cannot be changed immediately when there is a covid. The post-pandemic online learning process also shows low achievement, because children's learning motivation is indeed low when they have to study online (Ngampornchai & Adams, 2016).

The learning method most often used in online learning

The easiest online teaching method according to the school principal is the lecture method combined with question and answer. The research results show that, as table 9.

Table 9

Perceptions of Utilizers Lecture Methods and learning questions during online learning

No	Perception	F	%
1	Very good	41	26,9
2	Well	53	34,9
3	Enough	27	17,8
4	Not enough	18	11,8
5	Very less	13	8,6
		152	100

Source: Primary data analysis results for 2022

Data on Table 9 can be understood that, the perception of school principals related to the use of the lecture and question and answer method can be assessed as very good by 41 school principals (26.9%), good as much as 34.8%, moderate as much as 17.7%, not good 11, 8%, and very poor 8.6%.

The results of this research confirm research which states that the lecture and question and answer method is the most popular online learning method and can even reach 85.6%. The remaining 14.4% use innovative, creative and fun methods (Kebritchi, & et.al., 2017). Methods that are practical, active, innovative, creative, effective, and fun are indeed difficult to apply to the learning process indirectly. This method is only suitable when done offline.

Results this research is in line with research (Hussain, et.al, 2018) which found that lecturers prefer to use the lecture method combined with question and answer, because when they want to use other methods, lecturers find it very difficult to do. Other research is in line with research which concludes that, to apply active and innovative methods when online learning is very difficult, because additional media is needed that can increase student activity. The student-centered learning process becomes difficult to do, so the learning process shifts to a teacher-centered learning process.

The level of satisfaction of school principals with online learning

Level principal satisfaction with the online learning process is very low, because students are more interested in participating in face-to-face learning, meeting directly with teachers, and being able to meet face-to-face with friends in the same class. The principal's level of satisfaction with practical lessons is also low, such as in Natural Sciences, because students cannot practice in the laboratory. Table 10 describes the principal's satisfaction with the online learning process.

Table 10

Principal's Level of Satisfaction with Online Learning

No	Response	F	%
1	Very good	13	8,6
2	Well	29	19,1
3	Enough	48	31,6
4	Not good	38	25,0
5	Not very good	24	15,7
Amount		152	100

Source: Primary data analysis results for 2022

Table 10 explains that, as many as 8.6% of school principals felt very satisfied, as many as 19.1% felt satisfied, as many as 31.6% felt that it was sufficient, as many as 25% felt dissatisfied, as many as 15.7% felt very dissatisfied.

Results of this research is in accordance with the findings (Hussain, et. al. 2018) which concludes that the level of satisfaction with the online learning process is still low because it is boring, more passive, monotonous, and unable to get various fun distractions. The results of this study are also in line with the findings (Prabowo, 2022) which concluded that, the level of student participation is very low in the online learning process, because students feel dissatisfied, and want to immediately complete the online learning process and be replaced with offline

Obstacles faced by teachers according to the perception of the principal

Schools, teachers and students face many obstacles during the online learning process. These constraints include technical and non-technical constraints. Technical constraints such as the absence of a network, weak internet network, no facilities for smartphones, gadgets, laptops, and lack of financial support to buy internet data packages.

Non-technical obstacles, such as many activities outside of learning, lots of distractions from playmates, lack of focus on the learning process, loss of motivation, depleting support from parents, and various other aspects that can hinder the implementation of the online learning process.

Table 11

Various obstacles faced by students according to the principal's perception

No	Constraint Type	F	%
1	Technical constraints	65	42.8
2	Non-technical constraints	83	54,6
3	Another obstacle	4	2,6
	Amount	152	100

Source: primary data processed in 2022

Table 11 provides information that non-technical constraints (54.6%) are far more numerous than technical constraints which are only 42.8%. Non-technical constraints in the implementation of online learning are suggested because students are not focused on participating in the learning process. This is certainly more difficult to fix than the obvious technical problems.

Results of this research is actually in accordance with previous research (Alrefaie, et.al, 2020) that, in the implementation of online learning, non-technical constraints such as students' activities outside of learning actually make students not focus on learning. Non-technical

obstacles are even more difficult to overcome than technical obstacles. Non-technical obstacles concern aspects related to students, therefore only the students themselves can overcome these obstacles (Choudhary, 2020).

The school principal in his capacity as school leader who is responsible for implementing online learning tries to overcome various obstacles faced, both technical and non-technical (Abbasi, et.al, 2020). Technical constraints related to school facilities and infrastructure that can support the implementation of online learning can be provided to the fullest, it's just that non-technical obstacles involving students are difficult to overcome immediately. Support is needed from various parties to overcome technical and non-technical obstacles in implementing online learning (Allo, 2020).

The results of online learning at MTs in Ciamis Regency after the pandemic are still low. The majority of school principals have the perception that online learning outcomes are low, because students cannot meet directly with teachers and friends, so they do not focus on participating in the entire learning process. Low learning outcomes were noted because teachers are only able to instill cognitive aspects, while affective and psychomotor aspects are difficult to convey to students.

Conclusion

Based on the results of the analysis and discussion, it can be concluded that the principal's perception of the quality of online learning at MTs in Ciamis Regency after the pandemic is still very low, this is because students' learning motivation to take part in the online learning process is very low. Teachers use more monotonous methods so that the level of student saturation is high.

The results of online learning at MTs in Ciamis Regency after the Pandemic are still low. The majority of school principals have the perception that online learning outcomes are low, because students cannot meet directly with teachers and friends, so they do not focus on participating in the entire learning process. Low learning outcomes because teachers are only able to instill cognitive aspects, while affective and psychomotor aspects are difficult to convey to students.

The learning method that is most often used in online learning at the post-pandemic MTs Ciamis Regency is the lecture and question and answer method. The teacher chose the two methods, because the two methods were the most practical. Teachers experience difficulties when they

have to use student-centered learning methods. Finally, the method that is mostly used by teachers is a teacher-centered learning method plus question and answer to increase student activity.

The level of satisfaction of school principals during the online learning process at MTs in Ciamis Regency after the pandemic can be said to be still low. The low level of satisfaction of principals is because teachers seem less enthusiastic about teaching online. Students are also more enthusiastic when participating in offline learning. According to the perception of the post-pandemic head of the MTs school in Ciamis Regency, the obstacles faced by teachers are that there are more non-technical obstacles. Technical obstacles such as facilities and infrastructure are actually easier to overcome than non-technical obstacles that come from students who study online.

This study reemphasizes its novelty in that good perception should be applied to see the learning process in the school management. However, this study has the drawback that its study sample is secondary school students in Islamic education system that to some extents Islamic schools are considered less advanced than government public schools. Therefore, future research is suggested to extend the research subject to university students or government public schools if it focuses on secondary school management.

References

- Abbasi, S., Ayoob, T., Malik, A., & Memon, SI (2020). Perceptions of students regarding E-learning during Covid-19 at a private medical college. *Pakistan Journal of Medical Sciences*, 36(COVID19-S4), 57–61. <https://doi.org/10.12669/pjms.36.covid19-s4.2766>
- Adu, K., Badaru, K., Duku, N., & Adu, E. (2022). Innovation and Technology: A Panacea to Teaching and Learning Challenges during the Covid-19 Lockdown in South Africa. *Research in Social Sciences and Technology*, 7(1), 69-89. <https://doi.org/10.46303/ressat.2022.5>
- Akyüz, H.I., & Samsa, S. (2009). The effects of blended learning environment on the critical thinking skills of students. *Procedia-Social and Behavioral Sciences*, 1744–1748. <https://doi.org/10.1016/j.sbspro.2009.01.308>
- Al-Rahmi, WM, Yahaya, N., Aldraiweesh, AA, Alamri, MM, Aljarboa, NA, Alturki, U., & Aljeraiwi, AA (2019). Integrating technology acceptance model with innovation diffusion theory: An empirical investigation on students' intention to use e-learning systems. *IEEE Access*, 1(1), 99. <https://doi.org/10.1109/AC-CESS.2019.2899368>

- Allo, M.D.G. (2020). Is online learning good in the midst of the Covid-19 pandemic? The case of EFL learn-ers. *Journal of Synesthesia*, 10(1), 1–10. <https://sinesthesia.pustaka.my.id/journal/article/view/24>
- Alrefaie, Z., Hassanien, M., & Al-Hayani, A. (2020). Monitoring online learning during the COVID-19 pandemic;Suggested online learning portfolio (COVID-19 OLP). *MedEdPublish*, 9(1). <https://doi.org/10.15694/mep.2020.000110.1>
- Andersson, A., & Grönlund, Å. (2009). A conceptual framework for e-learning in developing countries: A critical review of research challenges. *The Electronic Journal of Information Systems in Developing Countries*, 38(1), 1–16. <https://doi.org/10.1002/j.1681-4835.2009.tb00271.x>
- Bada, A., & Jita, L. (2022). Advancing Cooperative Learning Pedagogy in Science Classrooms: Challenges and Possible Solutions. *Journal of Culture and Values in Education*, 5(2), 1-15. <https://doi.org/10.46303/jcve.2022.1>
- Boville, C. (2020). Co-creation in learning and teaching: The case for a whole-class approach in higher education. *Higher Education*, 79(1), 1023–1037. <https://doi.org/10.1007/s10734-019-00453-w>
- Choudhary, R. (2020). COVID-19 Pandemic: Impact and strategies for education sector in India. ET Government. <https://government.economictimes.indiatimes.com/news/education/covid-19-pandemic-impact-and-strates-for-education-sector-in-india/75173099>
- Evans-Amalu, K., & Claravall, E. (2021). Inclusive Online Teaching and Digital Learning: Lessons Learned in the Time of Pandemic and Beyond. *Journal of Curriculum Studies Research*, 3(1), i-iii. <https://doi.org/10.46303/jcsr.2021.4>
- Hair, JF, Jr., Hollingsworth, CL, Randolph, AB, & Chong, AYL (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management and Data Systems*, 117(1), 442– 458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hair, JF, Jr., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis: A global perspective*. Pearson Education.
- Harandi, SR (2015). Effects of e-learning on students' motivation. 3rd International Conference on Leadership, *Technology and Innovations Management*, 423-430. <https://doi.org/10.1016/j.sbspro.2015.04.905>
- Henseler, J., Hubona, G., & Ray, PA (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, 116(1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Henseler, J., Ringle, CM, & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-basedstructuralequation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>

- Hussain, M., Zhu, W., Zhang, W., & Abidi, SMR (2018). Student engagement predictions in an e-learning system and their impact on student course assessment scores. *Computational Intelligence and Neuroscience*, 1, 21. <https://doi.org/10.1155/2018/6347186>
- Kebritchi, M., Lipschuetz, A., & Santiago, L. (2017). Issues and challenges for teaching successful online courses in higher education. *Journal of Educational Technology Systems*, 46(1), 4–29. <https://doi.org/10.1177/0047239516661713>
- Kintu, M.J., Zhu, C. & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*, 14(7),1–20. <https://doi.org/10.1186/s41239-017-0043-4>
- Lister, M. (2014). Trends in the design of e-learning and online learning. *Journal of Online Learning & Teaching*, 10(4), 671–680. https://jolt.merlot.org/vol10no4/Lister_1214.pdf
- Little, B. & Knihova, L. (2014). Modern trends in learning architecture. *Industrial and Commercial Training*, 46(1), 34–38. <https://doi.org/10.1108/ICQ-07-2013-0046>
- Liu, S.-H. & Lee, G.G. (2012). Knowledge sharing behavior in e-learning materials developing team. *International Education Technology Conference*, 681–690. <https://doi.org/10.1016/j.sbspro.2012.11.080>
- Madani, R.A. (2019). Analysis of educational quality, a goal of education for all policies. *Higher Education Studies*, 9(1),100–109.<https://doi.org/10.5539/hes.v9n1p100>
- Mahlomaholo, M., & Mahlomaholo, S. (2022). Assessment in Sustainable Remote Teaching and Learning Environments During Emergency Situations. *Journal of Culture and Values in Education*, 5(2), 16-31. <https://doi.org/10.46303/jcve.2022.17>
- Makokha, G.L. & Mutisya, D.N. (2016). Status of e-learning in public universities in Kenya. *International Reviews of Research in Open and Distance Learning*, 17(3), 341–359. <https://doi.org/10.19173/irrodl.v17i3.2235>
- Makura, A. (2022). South African Female Academics' Work from Home Experiences during the COVID-19 Pandemic: Challenges and Opportunities. *Journal of Culture and Values in Education*, 5(1), 13-22. <https://doi.org/10.46303/jcve.2022.3>
- Martínez-Argüelles, M.J. & Batalla-Busquet, J.M. (2016). Perceived service quality and student loyalty in an online university. *International Review of Research in Open and Distance Learning*, 17(4), 264–279. <https://doi.org/10.19173/irrodl.v17i4.2518>
- Meyer, J.D. & Barefield, A.C. (2009). *Developing and sustaining online education: An administrator's guide to developing an online teaching program*. LAP Academic Publishing.

- Meyer, J.D & Barefield, A.C. (2010). Infrastructure and administrative support for online programs. *On line Journal of Distance Learning Administration*, 13(3), 47–56. <https://eric.ed.gov/?id=EJ914144>
- Munich, K. (2014). Social support for online learning: Perspectives of nursing students. *International Journal of E-Learning & Distance Education*, 29(2), 1–12. <https://ijede.ca/index.php/jde/article/view/891/1565>
- Murphy, M.P.A. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy*, 41(3), 492–505. <https://doi.org/10.1080/13523260.2020.1761749>
- Mutongoza, B., Olawale, B., & Mzilikazi, B. (2021). Chronicling school principals' experiences on school management in the context of COVID-19 stringency. *Research in Social Sciences and Technology*, 6(3), 146-162. <https://doi.org/10.46303/ressat.2021.35>
- Nawaz, A. & Kundi, G.M. (2010). Sustained technical support: Issues and prospects for e-learning in HEIs. *Malaysian Journal of Distance Education*, 12(2), 61–77. http://mjde.usm.my/vol12_2_2010/mjde12_2_5.pdf
- Ngampornchai, A. & Adams, J. (2016). Students' acceptance and readiness for E-learning in Northeastern Thailand. *International Journal of Educational Technology in Higher Education*, 34, 1–13. <https://doi.org/10.1186/s41239-016-0034-x>
- Noesgaard, S.S. & Ørngreen, R. (2015). The effectiveness of e-learning: An explorative and integrative review of the definitions, methodologies and factors that promote e-Learning effectiveness. *The Electronic Journal of E-Learning*, 13(4), 278–290. <https://files.eric.ed.gov/fulltext/EJ1062121.pdf>
- Omodan, B. (2022). Virtual Management of Students' Unrest During the COVID-19 New Normal: The Need for an Innovative Approach. *Journal of Culture and Values in Education*, 5(1), 1-12. <https://doi.org/10.46303/jcve.2022.2>
- Prabowo, LS. (2022). The effect of ISO and leadership quality on the sustainable development of academic competence and student performance. *Journal of Social Studies Education Research (JSSER)*, 13(3), 31-55. <https://jsser.org/index.php/jsser/article/view/4232/575>
- Shah, M., & Cheng, M. (2019). Exploring factors impacting student engagement in open access courses. *Open Learning*, 34(2), 187–202. <https://doi.org/10.1080/02680513.2018.1508337>
- Stone, K. (2020). Zoom for educators: How to set up virtual classrooms for distance learning. <https://getvoip.com/blog/2020/04/08/zoom-for-educators/>

- Subedi, D., & Subedi, R. (2020). Practicing Self Learning of ICT for Resilience Amidst the COVID-19 Outbreak: Experiences from Kathmandu Valley. *Research in Educational Policy and Management*, 2(2), 78-96. <https://doi.org/10.46303/repam.2020.5>
- Tomas, L., Evans, N., Doyle, T., & Skamp, K. (2019). Are first year students ready for a flipped classroom? A case for a flipped learning continuum. *International Journal of Educational Technology in Higher Education*, 16(5), 1–22. <https://doi.org/10.1186/s41239-019-0135-4>
- Waychunas, W. (2020). Where Teachers Thrive: A Book Review. *Research in Educational Policy and Management*, 2(2), 129-132. <https://doi.org/10.46303/repam.2020.7>
- Yang, Y. (2010). Roles of administrators in ensuring the quality of online programs. *Knowledge Management and E-Learning*, 2(4), 363–369. <https://doi.org/10.34105/j.kmel.2010.02.026>
- Yew, O.F. & Jambulingam, M. (2015). Critical success factors of e-learning implementation at educational institutions. *Journal of Interdisciplinary Research in Education*, 5(1), 17–24. https://myjurnal.mohe.gov.my/filebank/published_article/43124/2.pdf
- Yu, J., Huang, C., Han, Z., He, T., & Li, M. (2020). Investigating the influence of interaction on learning persistence in online settings: Moderation or mediation of academic emotions? *International Journal of Environmental Research and Public Health*, 17(1), 1–21. <https://doi.org/10.3390/ijerph17072320>