Use Of Communication Information Technology On Primary School Teacher Performance In The Developed Areas Of The District North Moyo In 2022/2023

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Abstract

The role of teachers in the world of education is very important, because the requirement for learning is the presence of a teacher. As teachers who live or are in the current global era, we are required to be creative and master technology so as not to be left behind by the current times. The objectives of this research consist of, 1) the constraints and application of the use of information communication technology on the performance of elementary school teachers in the target area of North Moyo subdistrict. 2) analyzing the influence of the use of information communication technology on the performance of elementary school teachers in the target area of North Moyo subdistrict. The approach used in this research is a mixed method research design. Research methods that combine or combine quantitative methods with qualitative methods. Sampling used total sampling with a total sample of 24 teachers from 3 schools. Meanwhile, data collection uses observation sheets, questionnaires and structured interview guides which are then analyzed. The research results found that the ICT support facilities in the 3 school locations were basically adequate, however, the main obstacle was the internet signal which still could not reach all classrooms. Apart from that, because the school location also caused the internet signal to be less stable. This has an impact on the time efficiency of using ICT. Specific policies related to the integration of ICT in learning. Lack of knowledge and willingness of teachers to learn the use of ICT, lack of intensity of workshops/training related to ICT held by schools. The use of ICT should encourage users to be more creative and innovative so that they are not just satisfied with being consumers of ICT-based information. Performance comes from the definition of performance. Performance has a broader meaning, not just the results of work, but including how the work process takes place. So it is concluded that the use of information and communication technology on teacher performance has not been maximized in implementation in the target area of North Moyo sub-district.

Keywords: *Use of technology, teacher performance, ICT.*

INTRODUCTION

Humans really need education for their survival. As we know, education is an effort so that humans can develop their potential through the learning process. The 1945 Constitution of the Republic of Indonesia Article 31 paragraph (1) states that every citizen has the right to education, and paragraph (3) confirms that the government seeks and implements a national education system that increases faith and piety as well as noble morals in order to educate national life regulated by law. For this reason, all citizens have the right to obtain better education in order to make the nation's life more intelligent, which is one of the goals of the State of Indonesia.

The role of teachers in the world of education is very important, because the requirement for learning is the presence of a teacher. As teachers who live or are in the current global era, we are required to be creative and master technology so as not to be left behind by the current times. Chodzirin (2016), states that teachers are pioneers and become benchmarks in the world of education, the quality of a teacher becomes a reference for the quality of education itself. A teacher nowadays is required to be able

to be creative in developing learning methods in order to increase students' interest in learning.

In today's open world, a teacher must be able to take advantage of advances and sophistication in technology, especially information technology. A teacher must not only focus on books as the only source of learning, but a teacher must be able to search for other sources via the internet or through other information technology. It cannot be denied that the era of globalization requires us to be active, creative, and master technology. If we cannot keep up with the current developments in the modern era, then we will be left behind by others. Fathorrahman (2017), states that the competencies that teachers and lecturers must have include pedagogical competence, personality competence, social competence and professional competence. Therefore, it can be concluded that teacher knowledge about technology is included in the pedagogical competency in point 6, namely the use of learning technology.

In the current technological era, without the will to understand, use and access fields that are relevant to their knowledge, the function of teachers as facilitators of scientific development

can be reduced and over time will disappear, so that there are only teachers who are poor in information. Besides that, a teacher has an obligation to encourage and support students to be more creative. As regulated in law no. 20 of 2003 concerning the National Education System, article 40, where one paragraph reads: "Teachers and education personnel are obliged to create an educational atmosphere that is meaningful, fun, creative, dynamic and dialogical" and Government Regulation no. 32 of 2013 concerning National Education Standards, article 19 paragraph (1) states that "the learning process in educational units is carried out in an interactive, inspiring, fun, challenging manner, motivating students to participate actively, providing sufficient space for initiative, creativity and independence according to the talents, interests and physical and psychological development of students." Therefore, a teacher must be able to develop varied learning methods and be able to present or provide creative and varied learning materials which will automatically be able and successful in presenting an interesting and not boring learning atmosphere so as to make students feel comfortable during the learning process in in class.

Based on the results of initial observations carried out on November 20 2022 in the Target Area, it was found that there was a lack of teacher knowledge regarding the use of technology, especially during the learning process, there were teachers who only used books as a learning resource and did not utilize other learning resources such as the use of the internet. and other sources of information. The use of media is also rarely used in the learning process, such as using technology-based media which can make it easier for teachers to explain material to students.

Based on the background of this problem, the researcher is interested in conducting further research regarding the role of teachers in implementing information and communication technology, so the title that the researcher will adopt is "Utilization of Information Communication Technology Analysis on the Performance of Primary School Teachers in the Assisted Areas of North Moyo District in 2022/ 2023".

METHOD

The approach used in this research is mixed method. Mixed methods research design is a procedure for collecting, analyzing and "mixing" quantitative and qualitative methods in a study or series of studies to understand the problems in the research, Creswell & Plano Clark (2015).

This approach is carried out in combination with the aim of providing a better understanding of the problems and research questions than if carried out separately or individually. Furthermore, Sugiyono (2014), stated that mixed research methods are a research method that combines or combines quantitative methods with qualitative methods to be used together in a research, so that the data obtained is more comprehensive, valid, reliable, and objective.

The explanatory sequential design is a data collection method that begins with quantitative data collection and then continues with qualitative data collection to help analyze this research. The aim is to describe how teachers master the use of information and communication technology during the learning process in the Assisted Area Schools.

Data was collected through four data collection techniques, namely questionnaires, interviews with teachers and students, observation, and documentation. In this research, the subjects taken were 3 schools, namely Songkar State Elementary School, Sebewe, and Pungkit State Elementary School. The data that has been collected is then analyzed using qualitative and quantitative approaches.

RESULTS AND DISCUSSION

This research involved three elementary schools, namely SDN Pungkit, SDN Songkar and SDN Sebewe. These three schools are in the North Moyo area.

Pungkit NEGERI SD is located in Pungkit A Hamlet, Pungkit Village, North Moyo District. Pungkit State Elementary School implements two curricula. Namely the 2013 curriculum with the independent curriculum. Where the 2013 curriculum is used, namely grades 3 and 6. Meanwhile, the independent curriculum is applied, namely grades 1, 2, 4 and 5. The current number of students is 80 people. Meanwhile, the

number of teachers with PNS status is 6 people and there are 3 teachers with non-PNS status (SDN Pungkit Profile Data, 2023).

Table 1. List of SDN Pungkit ICT Equipment

List of ICT	Available		Adequate Amount	
	Yes	No	Yes	No
Computer/Laptop	✓		3	
Projector	✓		1	
Internet access	✓		1	
Access digital learning content	✓		1	
USB Storage/Flash Disk/Gdrive	✓		1	

The next school is SDN Songkar. This school is located on Jln. Education No. 1 Songkar Village, North Moyo district. This school has 119 students. The teaching staff at this school consists of 5 PNS teachers, 5 PPPK teachers and 3 GTT teachers.

Table 2. List of SDN Songkar ICT Equipment

List of ICT	Available		Adequate Amount	
	Yes	No	Yes	No
Computer/Laptop	✓		5	
Projector	✓		1	
Internet access	✓		1	
Access digital learning content	✓		1	
USB Storage/Flash Disk/Gdrive		✓		0

Finally, there is SDN Sebewe. This school is located in Sebewe Village. This school has 84 students. The teaching staff at this school consists of 6 PNS teachers, 3 PPPK teachers and 1 GTT teacher. The following is a list of SDN Sebewe ICT equipment.

Table 3. List of SDN Sebewe ICT Equipment

List of ICT	Available		Adequate Amount	
	Yes	No	Yes	No
Computer/Laptop	✓		5	
Projector	✓		2	
Internet access	✓		1	
Access digital learning content	✓		1	
USB Storage/Flash Disk/Gdrive	✓		3	

Obstacles to ICT Utilization

In finding obstacles to informants' use of ICT, a structured interview process was carried out with 19 informants (teachers) at the 3 schools that were the research locations. The results of the analysis of interviews with informants were carried out through cross interviews with key informants at each school. The key informants in this case are the school principals in each of these agencies. This is to triangulate sources.

a. Lack of access to internet facilities
b. There is no specific policy or program related to the integration of ICT use in learning
c. Constraints on Teacher Knowledge and Will
d. Lack of Training or Workshops.

Application ICT

One of the objectives of this research is to find out the process of implementing ICT for teachers at the research location. The group of respondents in this study was divided into 2 groups, namely the experimental group and the control group. The basis for group division is based on ownership of ICT facilities and a preliminary survey related to teachers' basic abilities in integrating ICT in learning. Thus, the experimental group in this study was SDN Songkar (7 teachers) and SDN Pungkit (8 teachers), while the control group was SDN Sebewe (8 teachers).

The experimental group was given treatment 2 times. The first treatment is providing material related to ICT Integration in Learning. Furthermore, at the second meeting, practical training material was provided related to the use of ICT in learning. The following are the results of the observation sheet for both groups both before giving the intervention and after the intervention,

Table 4.6. Normality Test Results Observation Sheet Results of ICT Application Before and After Treatment in the Experimental Group and Control Group

	Kelompok	Shapiro-Wilk		
		Statistic	df	Sig.
Pretest	Kelompok Intervensi	0,912	15	0,144

	Kelompok Kontrol	0,871	8 0,156
Posttest	Kelompok Intervensi	0,895	15 0,080
	Kelompok Kontrol	0,912	8 0,369

The normality test results used the Shapiro Wilk Test because the sample consisted of less than 50 respondents. The test results show that the significance value for all data shows > 0.05 so it can be concluded that the data is normally distributed. Thus, testing to find differences between the two groups can be continued using the Independent T Test.

Table 4.7. Independent T Test Results of Observation Sheet on ICT Application Before and After Treatment in the Experimental Group

Kelas Eksperimen	Rata-rata	F hitung	T hitung	T Tabel (df= 21)	Sig hitung	Signifikansi standar
Pre test Post Test	6,8 9,6	0,267	0,615	2,07	0,545	0,05

Table 4.7 shows the calculated F value (0.267) > 0.05, meaning the data has a homogeneous character. Comparison of calculated T values < T Table (0.615 < 2.07). Furthermore, the calculated significance value of 0.545 indicates a value > 0.05. This means that the test results show that statistically there is no difference in the average application of ICT in the Experimental group either before the intervention or after the intervention.

Table 4.8. Independent T Test Results of Observation Sheet on ICT Application Before and After Treatment in the Control Group

Kelas Kontrol	Rata-rata	F hitung	T hitung	T Tabel (df= 21)	Sig hitung	Signifikansi standar
Pre test Post Test	6,38 9,13	0,599	0,576	2,07	0,571	0,05

Table 4.8 shows the calculated F value (0.599) > 0.05, meaning the data has a homogeneous character. Comparison of calculated T values < T Table (0.576 < 2.07). Furthermore, the calculated significance value of 0.545 indicates a value > 0.05. This means that the test results show that statistically there is no difference in the average application of ICT in the control group either before the intervention or after the intervention.

Thus, this study shows that there is no difference in the mean between the control group and the intervention group, either before treatment or after treatment.

Effect of ICT Application

The final variable sought in this research is the influence of the application of ICT in learning for all groups of respondents. This variable was measured using a questionnaire instrument which was distributed after the observation process had been completed in both groups.

Table 4.11 shows that the significance value is <0.05, and the calculated t value is > than the t table value, so it can be concluded that there is an influence of the use of ICT on teacher performance. The use of ICT has an influence of 31.2% on teacher performance. Thus, the regression equation from the results of this statistical test is Y = -0.625 + 0.42.

The development and application of ICT is beneficial for education in relation to improving the quality of Indonesian national education. The problem that occurs is the unequal accessibility of knowledge and information (UNESCO, 2003). This could be due to the unavailability of adequate ICT facilities or a lack of optimization of existing facilities and infrastructure. On the other hand, teachers are required to be able to carry out learning effectively, innovatively, creatively and with quality through the use of available learning facilities and resources, both by design and by utilizations. The solution is to optimize the role of ICT to support learning and teaching activities (Hidayat et al., 2016).

Barriers to the use of ICT related to internet access are technical obstacles that hinder the smooth integration of ICT in learning. This is in line with the results of research by Hanannika & Sukartono (2022), in its implementation, special

training is needed before implementing the ICT integration program for the smoothness and comfort of students. Because often in the implementation of learning using computer technology, problems often occur related to signals, laptops, even because students do not master technology.

In the world of education in particular, teachers are expected to be able to master technology well. Because teachers are the front guard in education. As the front guard, teachers are required to be professional teachers in any case. However, due to various reasons, most teachers are unable to keep up with progress in the era of globalization, causing backwardness in elementary schools. On the other hand, the existence of learning media is an absolute thing, which must be prepared before the teacher starts learning activities (Hafid et al., 2021).

The second obstacle is related to specific policies related to the integration of ICT in learning. Teachers play a very important role in teaching and learning activities. In carrying out their duties, teachers must not differentiate between students based on ethnicity, race, culture or religion. Teachers must always be able to motivate students in terms of learning, so that during teaching and learning activities teachers must use an appropriate approach so that students have a great sense of curiosity (Hanannika & Sukartono, 2022). Sometimes, this is caused by the absence of school intervention related to school policies to package learning materials in an interesting way.

Lack of knowledge is not only based on the inability to develop teacher competence but sometimes also due to a lack of willingness to try. This is as stated by (Sawitri et al., 2019), the lack of teacher competence, what is meant here is the lack of teacher competence in integrating ICT into pedagogical practice, namely not being enthusiastic about change and integration with learning which is able to support success in classroom learning.

The final obstacle is the lack of intensity of workshops/training related to ICT held by schools. The results of the interview analysis showed that all schools that were research locations had received training, but the duration and intensity were still very limited. The limited workshop process is still unable to provide specific knowledge impacts for teachers. In every government policy to advance education, socialization and training activities are always followed. However, these various activities only increase the knowledge of teachers and are less able to change ways of thinking, let alone behavior at school (Adisel & Prananosa, 2020).

E-learning training gives teachers confidence to be able to use ICT in learning (Rahmi et al., 2020). Training is able to provide comprehensive and sustainable provisions for teachers in integrating ICT in learning. Thus, the intensity and duration of training for teachers at research locations must be included in the school program so that it can be carried out routinely and periodically to improve the quality of learning.

The use of ICT should encourage users to be more creative and innovative so that they are not just satisfied with being consumers of ICT-based information. Performance comes from the definition of performance. Performance has a broader meaning, not just the results of work, but including how the work process takes place (Toyo & Mardan, 2022).

Researchers believe that teachers at the research location are able to develop better performance by utilizing ICT in learning. Integrated and continuous efforts are needed to be able to have a positive impact on learning.

CONCLUSION

The obstacles to the use of information and communication technology on the performance of elementary school teachers in the target area of North Moyo sub-district are the absence of a specific policy for the integration of ICT in learning in each school, the constraints of teachers' lack of knowledge and willingness to learn ICT, and the intensity of workshops/training for teachers related to ICT is still inadequate.

Statistically there is no significant difference in the application of ICT use in the experimental group and the control group among elementary school teachers in the target area of North Moyo sub-district.

Statistically, there is an influence of the use of information and communication technology on the performance of elementary

school teachers in the Assisted Area of North Moyo subdistrict of 31.2%. Other factors that influence teacher performance were not examined in this research.

THANK YOU

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