Technology Literation of PAUD Educators Bengkulu City

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Abstract

The research aims to identify the technology literacy of PAUD teachers in Bengkulu City. The data analysis technique in this study used a quantitative descriptive analysis technique. The data collection technique used in this study was a needs questionnaire which was distributed directly to PAUD teachers. This research was conducted in Bengkulu City in April. The population of this study were PAUD teachers from several PAUD, namely PAUD Delima, PAUD Al-khanza, PAUD Lukman Nur Hakim and PAUD Abdan Sakura. In this study, direct observation techniques and questionnaires were used by teachers to determine the level of needs and abilities of PAUD teachers for learning media that utilize educational technology. Data analysis techniques in this study used quantitative data analysis techniques and concluded quantitatively. Quantitative analysis techniques, in this case a questionnaire on the needs and abilities of PAUD teachers, are based on the answers to a research questionnaire filled out by 18 PAUD teachers. Each question item used in the questionnaire was tested for validity and reliability to find out whether the instrument was feasible to use to obtain the data needed by the researcher. In this study, the results of a needs questionnaire were obtained by 89%, meaning that teachers needed digital-based learning media, namely the use of technology. The results of distributing the teacher's ability questionnaire by obtaining results of 86% were in the very agree category. Based on the results of data analysis, it can be concluded that teachers already have the ability to use technology, but still need various direct applications.

Keywords: Literacy, Technology, Training

A.   Introduction

Nowadays, as time goes by, technology is not a secondary need for humans. However, the ability to master technology has become a primary need which is needed by every group in the flow of life. It is undeniable, all lines in life are always related to technology. This is because technology is a provider of goods, tools needed by humans to carry out and achieve comfortable life. Information technology is the answer (supply) to these needs in the form of the creation of the latest hardware and software technology products.

Understanding and learning technology is also part of education. Looking at the world of education to date, the more sophisticated the technology used will further improve children's ability to learn. It is not uncommon for a world of world caliber to end up having to redefine the vision and mission of its educational programs, especially those working in the field of technology. The conveniences offered by sophisticated information technology devices have changed the mindset of the current management of education [1].

Education is access to learning, exploring self-abilities which are the rights of every human being and every student. In fact, until now there are still quite a lot of children who cannot get access to proper education. The manifestation of education is that there is a new generation that can continue and develop the educational process in the next regeneration. To realize the goals of education requires educators who have competence in the field being taught, especially competence for PAUD teachers [2].

In Early Childhood Education, a teacher who has competence in PAUD understands what is needed as a stimulation of the growth and development of the child as a whole [3]. Teacher competence in Indonesia has created problems among Early Childhood Education (PAUD) teachers [4]. Some teachers already have competence in line with the standards of the teacher's professional code of ethics, and some others experience problems in carrying out all their main tasks, functions and responsibilities as professional teachers [5], [6].

Education in the 4.0 era is not only upper education, but from an early age. Because a learning process is currently not only based on an indoor atmosphere, but has widely used the use of technology, online media, etc [7]. This is supported by the statement of Dewi Surani (2019, p. 458) The Challenges of Education in the era of the industrial revolution 4.0, which start from learning methods, mindsets, and ways of acting by students in developing creative innovations in various fields [8], [9].

In fact, there are not a few PAUD teachers who still stutter in terms of technological literacy skills [10]. Utilization of existing technology, in order to develop teaching and learning processes, needs to be instilled in every teacher, especially PAUD teachers. Teachers must increase their literacy in technology development in PAUD Education. The learning process which is still classic, is still fixated on the learning system that has been running so far, it is necessary to make changes in order to realize the goals of the growth and development of children from an early age, from their golden age.

If we look at technology, it is not only quality and capacity that must be improved. But it also requires an increase in the technology product itself. In fact, many educational actors are hampered by technological capabilities. This is due to a lack of adequate assets, tools, technology in the development process. Adequate technology certainly plays a very important role in education. Not only for teachers, but also to use it on students. Supporting technology will become teaching and learning facilities that are really needed not only in the world of education. The government's role in fulfilling learning assets greatly influences the results. One of the characteristics of humans apart from being homo sapiens and homo socius is as homo educandum, namely educated humans who always educate themselves. All human curiosity about and about everything is a representation of human efforts that are educating themselves [11]. Studying technology requires hands-on practice, not just sticking to theory. Children's intellectual abilities will function optimally when dealing directly with technology [12]. Jean Baudrillard (1983) in his book entitled In the Shadow of the Silent Majorities, once stated that "The masses absorb every social energy, but are unable to refract it. Humans absorb every sign, every meaning, but are unable to reflect it. They absorb every message and are only able to reproduce it".

When viewed from this statement, one of the benefits of being literate in technology is needed in designing a lesson that will be applied. Educational technology literacy ability is one of the answers to the challenges of the education system in the 4.0 era. at this time the learning system that had been carried out conventionally was far behind. Education in the 4.0 era is not only upper education, but from an early age. Because a learning process is currently not only based on an indoor atmosphere, but has widely used the use of technology, online media, etc [13].

The competencies that must be mastered by an educator are not only knowledge, but also the ability to use technology, especially in the world of education, in children's learning processes. This is supported by the statement that, the utilization of Information and Communication Technology as an important alternative in improving the quality of PAUD teachers [14].

Teacher competence in mastering technology really needs to be developed. In the era of Education 4.0, in this era children always use technology and are used to technology [15]. Children's environmental patterns affect children's learning patterns, so it is very necessary to carry out learning activities that involve more things related to technology. To carry out the learning process by involving matters related to technology, of course, it also requires teachers who already have qualified technological literacy capacities. This right is supported by the statement that PAUD teachers are also required to be familiar with information and communication technology literacy, because the current generation of children is very fast and familiar with this technology [16]. And the bottom opinion, Educators must have adequate digital literacy to meet the new needs of today's innovative educational models in the future.

Through technology literacy training, especially PAUD education, it can help increase the capacity, ability, competence of teachers who teach. With technology literacy training, it is certainly a great opportunity for educators to develop the learning process of children using technology, this is a profitable opportunity to use technology with this technology literacy training. This is in line with the opinion that education units must take advantage of the challenges and opportunities of the 4.0 era, start adapting to various changes, and be prepared to serve millennial students in terms of pedagogy, digital skills, basic literacy, technological literacy, humanistic literacy, strengthening character education and life skills.

B.   Research Method

The data analysis technique in this study used a quantitative descriptive analysis technique. The data

collection technique used in this study was a needs questionnaire which was distributed directly to early childhood teachers. This research was conducted in the city of Bengkulu in April. The population of this study were early childhood teachers from several early childhood schools, namely early childhood education delima, early childhood al-khanza, early childhood education, lukman nur Hakim and early childhood education of abdan sakura.

In this study using direct observation techniques and distributing questionnaires filled out by teachers to determine the level of needs and abilities of early childhood teachers for learning media that utilize educational technology. Data analysis techniques in this study used quantitative data analysis techniques and concluded quantitatively. Quantitative analysis techniques, in this case the early childhood teacher needs and abilities questionnaire, were based on the answers to the research questionnaire filled out by 18 early childhood teachers. Each question item used in the questionnaire was tested for validity and reliability to find out whether the instrument was feasible to use to obtain the data needed by the researcher.

The stages of conducting this research began with determining the research subject, namely teachers at preschool schools in the even semester of the 2022/2023 school year consisting of 18 students from 6 schools as the research sample. Then the researchers compiled instruments in the form of observation sheets and questionnaires for the needs of teachers and students. Test the validity and reliability of the instrument to find out whether the research instrument is good or not [17]. Researchers distributed questionnaires to respondents. The final step taken by the researcher was to analyze the data. Each questionnaire item is assessed using a Likert scale rating points 1 to 4 [18] as in Table 1.

Table 1. Rating Likert scale

Alternative Answers	Score weight
Very Agree	4
Agree	3
Don't agree	2
Strongly disagree	1

The next step is to analyze the percentage. The needs of teachers and students for learning media based onthe Apowerrec application are used in the percentage of assessments as shown in table 2.

Table 2. Value Criteria

Percentage	Interpretation
0%-25%	Strongly disagree
26%-50%	Don't agree
52%-75%	Agree
76%-100%	Strongly agree

C.   Result and Discussion

Table 3. Aspects observed student needs

Observed aspect	Score Percentage	Category
Teacer response	92%	Agree Agree
Learning experience	83 %	Strongly agree
Media Needs	88 %	Strongly agree
Average	84 %	Strongly agree

Then the following are also the results in Seluma by distributing a questionnaire on the needs and abilities of teachers with a maximum ideal score of 4 consisting of 18 teachers in the city of Bengkulu in the following aspects.

Table 4. Aspects observed teacher needs

Observed Aspects	Score Percentage	Category
Experience in learning	87%	Strongly agree
Average Media Needs	86 %	Strongly agree
Experience in learning	91 %	Strongly agree

The purpose of this study was to analyze the needs and abilities of teachers at Twi Early Childhood Schools, Abdan Sakura Early Childhood Schools, Alkhanza Early Childhood Education, Lukman Nur Hakim, Early Childhood Education and Delima Early Childhood Education, regarding the needs and abilities in using educational technology in Early Childhood Education in Bengkulu City. In this study the respondents consisted of 18 early childhood teachers. With details of 3 people from Paud Delima, 3 people from Paud Abdan Sakura, 3 people from Early Childhood Education, 3 people from Early Childhood Education, 3 people from Paud Lukman Nur Hakim, and 3 people from Paud Al Khanzah. The teacher needs analysis questionnaire consists of 3 assessment aspects, while the teacher ability questionnaire consists of 3 assessment aspects. Each question item consists of 4 answer choices.

Research conducted in 6 schools in the city of Bengkulu obtained the results of an average needs analysis of 88% of 18 teachers who were included in the strongly agree category according to table 3. This shows that teachers need to use educational technology in carrying out educational innovations, especially in form subject matter in early childhood, which will be utilized and explained by the teacher. In the teacher needs questionnaire with an average result of 92% of 18 early childhood teachers, it is in the strongly agree category, this shows that teachers also want learning media with the use of educational technology in the learning process in their respective schools.

Based on the processing of the teacher's needs questionnaire which consisted of 3 questions on the aspect of teacher response with a result of 87% including the agree category. In the aspect of the ability to use technology which consists of 10 questionnaire questions about student needs with a result of 86%, while media needs are 88% in the category of strongly agree, an average of 91% is in the category of strongly agree.

The results of the questionnaire analysis for the development of instructional media show that teachers in early childhood schools need to develop the use of instructional media that can make their students more effective and efficient in the teaching and learning process. The learning resources used by the teacher today focus on learning because they only use pictures and text. teachers expect the development of media that can be used in the learning process of their students. Based on research data, it is necessary to develop learning media

Using digital-based technology. This learning media was chosen because it can be used as a learning tool for students both at school or at home, and can be used as a medium that can assist teachers in explaining material.

Technological literacy is a person's ability to work independently or in collaboration with other people effectively, responsibly and appropriately by using technological instruments to obtain, manage, then integrate, evaluate, create and communicate information. (Winarsih E., & Furinawati Y., 2018. P. 24). Therefore, technological literacy in the world of education is needed, especially by educators or teachers. Creating a learning process that is effective and efficient, has a result which is an increase in children's abilities, of course, requires technology that can assist all processes. Of course educational technology literacy is something that educators must master first.

In Early Childhood Education, a teacher who has competence in PAUD understands what is needed as a stimulation of the growth and development of the child as a whole. Not only classical abilities, but innovation in developing the learning process must be mastered by teachers in the PAUD world. However, this competency is still a matter that requires special attention. Supported by the statement of Khairlah et al (2021), teacher competence in Indonesia has created problems among Early Childhood Education (PAUD) teachers. Some teachers already have competence in line with the standards of the teacher's professional code of ethics, and some others experience problems in carrying out all their main tasks, functions and responsibilities as professional teachers. (Khairlah et al 2021, p. 87).

Studying technology requires hands-on practice, not just sticking to theory. Children's intellectual abilities will function optimally when dealing directly with technology. Not only in the quality of human resources, and adequate technology assets. The role of HR, the placement of HR has also become a problem in the world of education to date. There are still many teaching staff who are not in accordance with their fields of teaching.

D. Conclusion

The results of research data analysis on the use of technology in learning tools, obtained the results of a needs questionnaire of 89% meaning that teachers need digital-based learning media, which is the use of technology. The results of distributing the teacher's ability questionnaire by obtaining results of 86% were in the very agree category. Based on the results of data analysis, it can be concluded that teachers already have the ability to use technology, but still need various direct applications.

E. Acknowledgment

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