Information and Communication Technology Competence of Islamic Education Teachers

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Abstract: Information and Communication Technology has played its role in the educational process. It can be seen from the progress of the globalization era, teachers, especially Islamic Education teachers that must adapt and have ICT competencies that were in accordance with the needs of students in the learning process. Therefore, Islamic Education teachers must be able to develop their ICT competencies in the learning process, so that the learning process can run as expected in this era of globalization. This study used a qualitative method using a questionnaire interview instrument. The informants used were five Islamic Education teachers in the subjects of fiqh, moral aqidah, Qur'an hadith, SKI and Arabic. Then, the object used was the Islamic educational institution at MI Riyadlul Qori'in Ajung Jember. The results of this study were Islamic Education teachers at MI Riyadlul Qori'in that showed good ICT competencies from the four categories of ICT competencies.
Keywords: competency; ICT; islamic education teacher

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Introduction

In this era, the educational process cannot be separated from the role of technology. Technology has become an important part of the educational process. Formal and non-formal education also tries to provide facilities that are closely related to the role of technology. With these demands, educational institutions must be able to develop scientific insights and skills in the educational process (Budiyono, 2019).

Information and communication technology is an important area that must be mastered by teachers at this time. It is because the development of science and technology has a rapid impact on the world of education, so that computer-based learning media needs to be applied by educational institutions in supporting the teaching process in schools. Therefore, increasing the effectiveness of the learning process needs to be improved again as a motivation for understanding the teaching process from teachers to students (Abadi, 2015).

Islamic Education as a curriculum in Indonesian education has become an important learning tool that must be mastered by students in Islamic-based schools. In addition, teachers as facilitators in the Islamic Education learning process must be able to transform knowledge to students. This skill is one of the techniques in managing the learning components (Wahidin, 2018). In this pandemic era, the ICT competence of Islamic Education Teachers is one of the determining components in Islamic education. Therefore, quality education must be able to have conformity with the times, because this is one of the demands accompanying every development (Budiman, 2017).

In previous relevant study, Zulfikar (Butho, 2016) explained the professional competence development of Islamic Education teachers in Aceh. The study showed that the development of teacher professionalism is still experiencing obstacles, such as: stagnant teacher training, lack of funds for teacher improvement, and low mastery of information and technology. Furthermore, Welia (Welia, 2016) explained the competence of Islamic education teachers at MAN 2 Bengkulu City. The study showed that Islamic Education teachers at the school had fulfilled pedagogical competencies, such as making learning tools, making questions, evaluating, and others. MI Riyadlul Qori'in

is one of the Islamic-based educational institutions in the rural area category. This is an important problem that must be considered by teachers in transforming knowledge. Teachers, especially Islamic Education teachers, must be able to solve problems that often occur and directly related to technology, such as network problems, technology gaps, inadequate technological facilities, infrastructure, and others.

The study of teacher competence has been widely studied by previous researchers. This study discussed the ICT competence of Islamic Education Teachers which has not been widely studied by previous studies. This study aimed to analyze the ICT competence of Islamic Education Teachers at MI Riyadlul Qori'in. This study used the theme of the ICT competence of Islamic Education Teachers in improving the teaching process in educational institutions. The object of this study was MI Riyadlul Qori'in Ajung Jember. This study emphasized the ICT competence of Islamic Education Teachers at MI Riyadlul Qori'in Ajung Jember.

Literature Review

The urgency of increasing teacher competence related to the use of TIK is an urgent need to become a professional teacher in the 21st century (Herliani, 2018). This is something that is natural and mandatory. Given the more advanced technology in this era. However, activities that support teacher competence such as certification are not necessarily a requirement for a teacher to have qualified competence by regulations. It is related to this reality that systematic, synergistic and continuous efforts are indispensable to ensure that teachers remain professional (Khodijah, 2013).

Teachers as educational actors cannot remain of technological advances faster (Caswita, 2020). Learning by using technology is the learning innovation to improve the ability of students in the learning process. But in reality, teachers still have difficulties in the learning process by technology (Khayroiyah & Nasution, 2018). In fact, the use of information technology in educational institutions greatly influences the process that goes through learning systems, school management, policy administration and planning systems (Wiyana, 2015). This is because its existence is very useful in facilitating human work. Through information and technology, work can be completed effectively and efficiently (Jannah & Arifin, 2015).

Huda explains in his study, the use of TIK is urgent in the learning process, so that learning can run effectively, efficiently and attract students (Huda, 2020). Meanwhile, Febrialismanto in his study also explained that an educator who is proficient in technology is more helpful than an educator who has not mastered technology in the learning process (Febrialismanto, 2021).

Based on the urgency of TIK competence by the teacher, which has been explained, an educator should have established the mastery of information technology in the learning process, so that learning in the educational process can run optimally and meet the needs of the current.

Research Method

This study used mixed methods. A mixed method is a method whose research is directed at data collection and analysis techniques using qualitative and quantitative approaches (Samsu, 2017). This study was included in field research by directly exploring social life (Nugrahani, 2014). Furthermore, this study conducted interviews through questionnaires, observations, and documentation. Meanwhile, the informants were Islamic Education teachers at MI Riyadlul Qori'in on the subjects of aqidah morality, fiqh, history of Islamic culture, qur'an hadith, Arabic, and BTQ.

Based on the explanation above, the questionnaire still requires several indicators in interview preparation. The basic ICT competencies include operating computers, application software, internet, and website pages (Batubara, 2017; Rusydiyah, Purwati, 2020). The data were analyzed using descriptive analysis of the Miles and Huberman model. Data analysis must be carried out in an interactive way and continue until it is complete. Meanwhile, the steps in Miles and Huberman data analysis are as follows: data reduction, data presentation, and conclusion drawing (Sugiyono, 2013).

Findings

Based on the results of data analysis, the ICT competence of Islamic Education Teachers was quite good in an educational institution. The following explains four categories of ICT competence for Islamic Education Teachers at MI Riyadlul Qori'in:

Operating Computer

Operating computers is the first category of ICT competence for Islamic Education Teachers. In this case, operating computers does not only depend on computers, it can even be a laptop as generally used in the learning process. The following is a diagram of the ICT competence in operating computers at MI Riyadlul Qori'in:

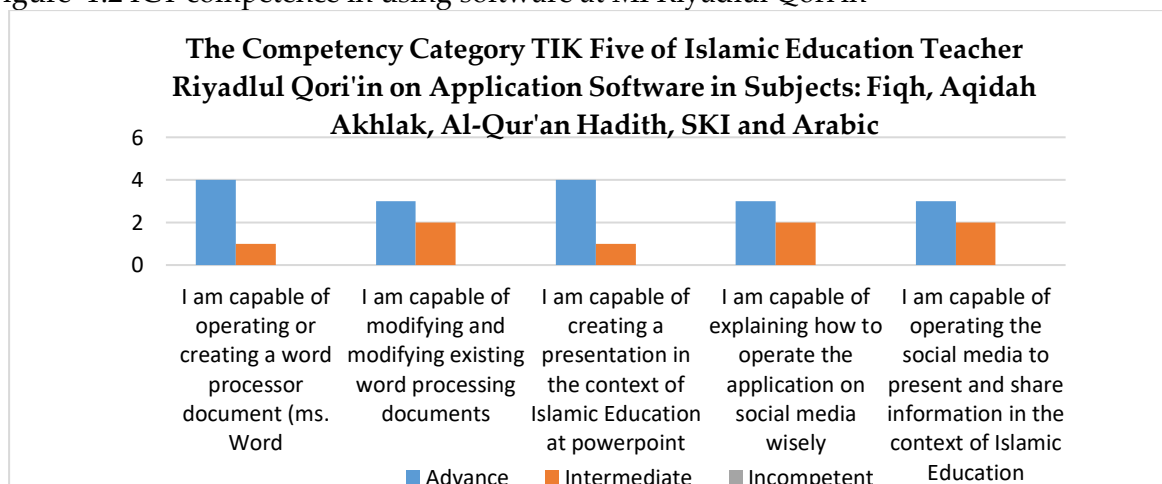Figure 1.1 ICT competence in operating computers at MI Riyadlul Qori'in.
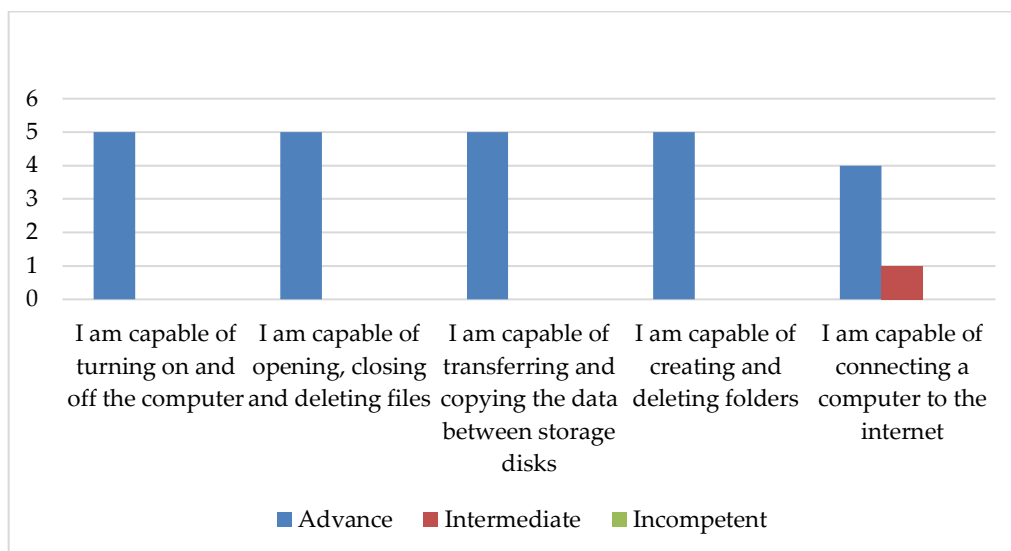
In operating computers, Islamic Education teachers at MI Riyadlul Qori'in had good scores on each indicator. The five Islamic Education teachers at the institution, they have been able to operate computers very well. Although one teacher had "medium" skill in one indicator, the teacher is already able to operate computers very well. The ability in operating computers has become an absolute requirement for every people of education in this modern era (Sulistyanto, 2017). Massively, the development of ICT has also affected all sectors of life, especially in the education sector (Jamun, 2014). Therefore, a teacher who has been able to operate computers in the current era has shown the right commitment in advancing education by always improving ICT skills in operating computers.

Software

Using software is the second category of ICT competence of Islamic Education Teachers. Islamic Education teachers are expected to be able to create materials on software, such as Microsoft Word, Microsoft PowerPoint, and other applications. The following is a diagram of ICT competence in using software at MI Riyadlul Qori'in:

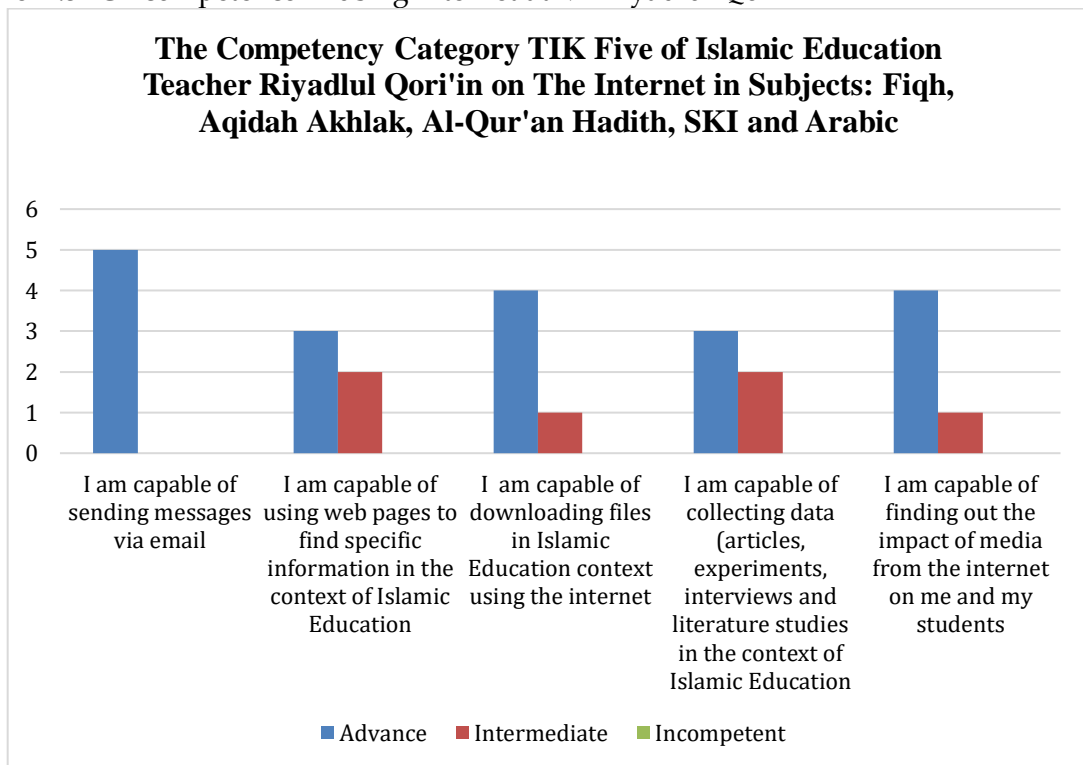Figure 1.2 ICT competence in using software at MI Riyadlul Qori'in

Using software, Islamic Education teachers at MI Riyadlul Qori'in had good scores on each indicator. Of the five Islamic Education teachers at the institution, they have been able to use software very well. Although the five teachers did not show the full skill of each indicator, some of them were able to use the software well. The software has provided problem-solving solutions in the learning process in educational institutions (Ulfah, Irtawaty, Hadiyanto, Abrar, 2017). The use of software on a computer will also make it easier for teachers to convey subject matter to be visualized through text and Figures in presenting or explaining to students in the class (Kariadinata, 2003). Therefore, an Islamic Education teacher will be greatly helped by software, so that the learning process with students will be interactive in this digital era.

Internet

Using the internet is the third category of ICT competence for Islamic Education Teachers. The internet makes it easier for Islamic Education teachers to provide material. This can be seen by the diagram table showing the ability to use the internet for Islamic Education teachers at MI Riyadlul Qori'in. The following is a diagram of ICT competence in using internet at MI Riyadlul Qori'in:

Figure 1.3 ICT competence in using internet at MI Riyadlul Qori'in

In using internet, Islamic Education teachers at MI Riyadlul Qori'in had good scores on each indicator. Of the five Islamic Education teachers at the institution, they have been able to use the internet very well. Although the five teachers did not show the full skill of each indicator, some of them were able to use the internet well. The use of the internet in education has also been able to cover and complement weaknesses in the learning process (Tiharita, 2018). The educational process is expected to improve the quality of education. Therefore, the ICT competence in using the internet is very

useful for every education actor, so that the ongoing educational process can provide great benefits to the quality of education, especially in the field of Islamic Education.

Web Page

Using the web page is the fourth category of ICT competence for Islamic Education Teachers. With the website page, Islamic Education teachers can access information related to Islamic Education. This can be shown by the table diagram showing the ability of Islamic Education teachers to use the website page at MI Riyadlul Qori'in. The following is a diagram of ICT competence in using web page at MI Riyadlul Qori'in:

Figure 1.4 ICT competence in using web page at MI Riyadlul Qori'in
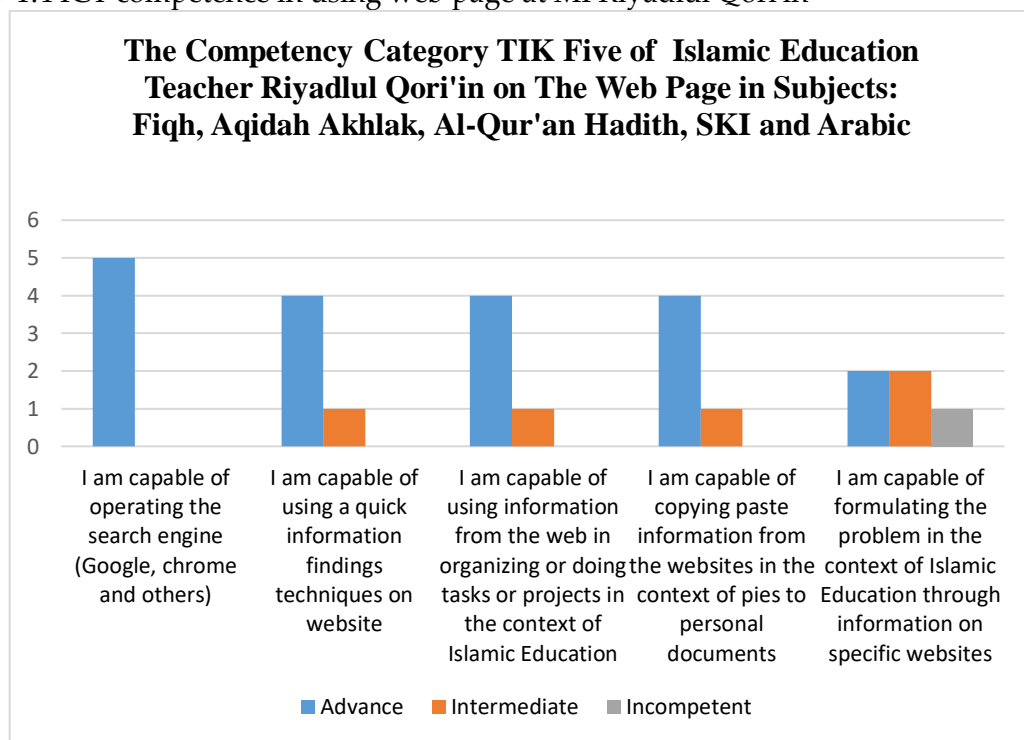
In using webpage, Islamic Education teachers at MI Riyadlul Qori'in had good scores on each indicator. Of the five Islamic Education teachers at the institution, they have been able to use the webpage very well. Although one teacher had "medium" skill in one indicator, the teacher is already able to use web page very well. With these results, the website has succeeded in playing a major role as an agent of communication, interaction, and education in the community in the world of education (Hussin et al., 2013). This is because learning through web pages can facilitate the process of scientific transformation regardless of the time and place where the learning process is carried out (Zemudin, 2017). Therefore, ICT competence on the website page can provide a great convenience for teachers, especially Islamic Education, so that Islamic Education learning in educational institutions can be felt dynamic and conducive in every process of its implementation.

Discussion

Teachers are determinants of success in educational process. Therefore, educational institutions need ideal teachers

in teaching students. a teacher must have competence regarding teacher training as a transformer in this modern era. As teachers, Information and Communication Technology (ICT) competencies should be used as an answer in this modern era. Competence is a combination of knowledge, valuable skills, and attitudes reflected in thinking and acting in carrying out their duties as a teacher (Butho, 2016).

Regarding the ICT competence of teachers in a previouhs study (Myori et al., 2019), Android-based ICT has provided great and profound benefits for both teachers and students. Rivalina (Rivalina, 2014) explained that efforts to improve the ICT competence of teachers really need a lot of support and many factors. Susilo (Susilo, 2018) explained that the increase in ICT competence of teachers will have an impact on learning innovation in this digital era. Yusuf et al (Fajar, 2017) explained that the low ICT competence of teachers in West Java Province can be proven by as many as 62.15% of teachers rarely use ICT and 34.95% do not master ICT. Furthermore, Yusrizal et al (Yusrizal, 2017) explained that SD Negeri 16 Banda Aceh teachers still need some guidance to access media to the internet, where age and environmental factors are barriers for teachers to use ICT.

By knowing the results of previous studies, this study has a common topic. However, this study emphasized Islamic Education teachers at MI Riyadlul Qori'in Ajung Jember. ICT competencies are operating computers, using software, using the internet, and web pages. These competencies can also be a habit of thinking and acting continuously until competent. Competencies that must be possessed by teachers can include several things, including:

a. IICT skills
b. ICT as school infrastructure, learning media can be seen and studied, and can be accessed anytime and anywhere
c. ICT as a center for teaching materials, so that students can find books and resources according to their learning needs
d. ICT as learning support, that students are able to explore learning needs as a source of knowledge freely and independently
e. ICT as a supporter of learning management, teachers are also able to create an inter-organizational learning atmosphere for students.
f. ICT as a decision-making system, students in the knowledge of ICT systems that have been known can help in choosing something that becomes their individual decision (Rusydiyah, 2019)

Through an explanation of these competencies, teachers must always improve competencies in the required fields. This is because a teacher must be able to provide relevant knowledge effectively and efficiently. Regarding teacher competence which has also been investigated by previous studies, Rahmawati in (Nartani, 2012) explained the social competence of teachers in communicating through the learning process with students. Arif (Arif, 2019) explained that teacher communication competence still needs to be improved, especially on gender. Sum (Alviani, 2020) explained that the pedagogic competence of PAUD teachers still has several weaknesses so that the learning process is still perceived as less interactive. Huda (Huda, 2017) explained the personality competence of teachers to VII-grade SMPN VII Kediri students. The study showed that the personality of Islamic Education teachers was in a good category. Dudung (Dudung, 2018) explained the professional competence

of teachers. The study showed no significant difference between the pedagogical competence of science teachers at SMPN Kota Ternate and teachers at SMPN Loa Subdistrict, Kutai Kertanegara Regency.

According to the Ministerial Regulation of Education, Number 16 of 2007, competencies that must be possessed by a teacher are pedagogic, personality, social, and professional competencies obtained through professional education (Rivalina, 2014). In previous studies, the results of teacher competence according to applicable laws have been explained. Meanwhile, ICT competence is part of the professional competence that must be possessed by a teacher. This is because professional competence is the ability of teachers to carry out their duties as teachers with mastery reflected in the performance of their duties in the educational environment. Therefore, ICT competence has become an important part of the competency demands that a teacher must have in this technological era.

Information and Communication Technology (ICT)

Information and Communication Technology (ICT) is the scope of technical equipment as a medium of delivery in processing and receiving Islamic Education information (Budiman, 2017). The categories that have been applied to MI Riyadlul Qori'in are part of the ICT itself. Meanwhile, ICT is also part of the role of technology in education. According to Yusuf Hadimiarsa quoted by Budiyono (Budiyono, 2019) technology is a system used to manage results as added value. Meanwhile, education is a learning experience that takes place in all environments and is carried out in schools as educational institutions (Bakar, 2015) This, ICT is part of educational technology to learn how to design various

teaching and learning processes based on the principles of learning and communication using human resources aimed at streamlining the teaching process (Nurdin, 2016), so that the role of teachers in using ICT in learning in schools can be implemented well and achieve Islamic Education learning objectives.

Information and Communication Technology (ICT) seen from the above understanding has two aspects, namely

1. Information Technology, including information management, receiving information, processes and manipulations that are used as tools or instruments in the teaching and learning process
2. Communication Technology, including tools or instruments in processing data from one data to another, such as: systems, hardware, software and other devices (Rusydiyah, 2019)

Based on the two aspects above, ICT as a means of information systems and communication technology must be applied as a means of support, so that activities in the educational process achieve success whose results will be able to compete with the needs of global or international markets.

ICT Competency Goals

As already explained, ICT competence plays an important role for teachers in applying their pedagogical abilities in educational institutions. The ICT competence of teachers, especially in Islamic Education teachers, has a great influence on educational activities by integrating ICT in the teaching and learning process (Rusydiyah, 2019). Moreover, the ICT competence of Islamic Education Teachers owned by MI Riyadlul Qori'in has shown good results in each category. In addition, the competence of ICT in Islamic Education

teachers as part of the realm of educational technology has become a solution to solving human learning problems throughout their lives and in any way (Budiman, 2017). ere is the role of technology in education as a problem-solving effort:

a. Integrating various approaches in various fields, such as economics, management, psychology, and others
b. Solving problems in human learning thoroughly and simultaneously by considering many things that have been studied previously.
c. Using technology as a product and process in problem-solving learning.
d. Synergizing problem solving simultaneously on separate learning problems (Budiyono, 2019).

With this goal, teachers are expected to study further ICT competencies in the teaching process. learning really needs modern developments that can be followed by all groups and can be accessed by students (Kodrat, 2020).

The Role of Islamic Education Teacher ICT Competence as a Teaching Process

As an educator, the teacher must have the knowledge to be conveyed. Teachers must also have good qualities to be used as role models by students in the learning process (Anam, 2016). Therefore, ICT competence is also an important knowledge in the educational process. However, these things are still not enough for a teacher. In this technological era, a teacher must also have sufficient ICT competence in the teaching process in educational institutions. The categories of ICT competencies described previously are an indication that the competence of Islamic Education teachers at MI Riyadlul Qori'in is also concerned with ICT competencies in the implementation of learning in Islamic

Education. Skilled and professional teachers in ICT competencies are also important in making it easier to achieve school learning goals (Qoshwa, Rusydyah, 2020). Teachers must also be able to apply teaching processes and learning methods that are suitable for students. With learning methods in accordance with individual and group ways that are also adapted to ICT, students are expected to be able to understand and utilize lesson materials better and conditioned (Ma'rifataini, 2018).

Islamic Education is part of the curriculum in Islamic educational institutions. Islamic Education is a systematic effort in preparing students to become students who are able to practice Islamic teachings through the learning process. Islamic Education in schools aims to improve and practice Islamic teachings so that students can become Muslims who are devoted to Allah SWT and have a noble character in personal, community, nation, and state life (Abadi, 2015). With the ICT competence possessed by Islamic Education teachers at MI Riyadlul Qori'in, it is expected to facilitate the integration process in Islamic Education learning with current technology. Thus, Islamic Education can also play a role in preparing the next generation of Muslims to be useful and technologically literate.

Along with the times, technology is also growing faster. Technology is not only in educational institutions, but technology is also a community need. Therefore, educational institutions must use Information and Communication Technology (ICT) as a basis for learning that is more practical, easy, and modern (Rusydiyah, 2019). MI Riyadlul Qori'in as an educational institution has provided a forum for Islamic Education teachers to implement ICT competencies in Islamic Education learning. With this, teachers, especially Islamic Education teachers, must utilize ICT competencies as an effort to improve the

quality of education in the current era. With the current pandemic conditions, teachers must also develop ICT competencies in integrating ICT with learning and teaching processes (Rusydiyah, 2019). This is because changes in these demands will make the world of education really need innovation and creativity in the teaching and learning process.

Conclusion

ICT competence becomes important role for teachers in applying their pedagogical abilities in educational institutions. With the ICT competence of teachers especially in Islamic Education teachers that has great influence on educational activities by integrating ICT in the teaching and learning process. MI Riyadlul Qori'in as an educational institution has provided a forum for Islamic Education teachers to implement their ICT competencies in Islamic Education learning. With this, teachers, especially Islamic Education teachers must utilize ICT competencies as an effort to improve the quality of education in the current era. With the current pandemic conditions, teachers must also develop ICT competencies in integrating ICT with learning and teaching processes.

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