

Digital Extension of Digital Literacy Competence for Islamic Religious Education Teachers in the Era of Digital Learning

Reksiana^{✉1}, Abuddin Nata², Dede Rosyada³, Maila Dinia Husni Rahiem⁴, Abdulbosit R. Rafikjon Ugli⁵

¹Institut Ilmu Al-Qur'an (IIQ) Jakarta, Banten, Indonesia

^{2,3,4}Universitas Islam Negeri Syarif Hidayatullah, Jakarta, Indonesia

⁹Andijan Region Khonobod City High School, Uzbekistan

ABSTRACT

Purpose – This study aims to analyze the digital literacy competence of Islamic Education teachers at Al-Fath Cirendeu Junior High School, South Tangerang City State Junior High School 3, South Tangerang State Junior High School 6, and Darussalam Ciputat Junior High School.

Design/methods/approach – This study used the phenomenological qualitative research method. Research data was obtained through interviews, observations, and documentation studies. The participants in the study were eight Islamic Education teachers and four principals at Al-Fath Cirendeu Middle School, South Tangerang State Middle School 3, Darussalam Ciputat Middle School, and South Tangerang State Middle School 6. The data analysis used in this study was Saldana's Thematic Analysis.

Findings – The finding of this dissertation is that the digital literacy competence of PAI teachers in four schools is still at the level of simple learning media users. The data in this study shows that the application of the digital literacy competence of PAI teachers is limited to ICT media users such as YouTube, PPT, Quizizz, Google Classroom, and Google Form which are used as learning media for preparation, delivering material, and learning assessment. Meanwhile, the creation of digital teaching materials has not been able to be done.

Research implications/limitations – Practically, the results of the dissertation can provide input to Islamic Education teachers in four schools and Islamic Education teachers, practitioners and education policy makers (government) regarding the implementation of digital literacy competencies in learning and in developing a digital literacy competency model in learning that leads to sustainable curriculum development.

 OPEN ACCESS

ARTICLE HISTORY

Received: 23-09-2024

Revised: 20-11-2024

Accepted: 30-12-2024

KEYWORDS

Digital Learning;
Digital Literacy;
Teacher Competency;
Islamic Education

CONTACT: ✉reksiana@iiq.ac.id

© 2024 The Author(s). Published by Islamic Education Department, State Islamic University Sunan Kalijaga Yogyakarta, ID
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

Introduction

The world of education is now facing various major changes, one of which is industry 4.0 which further enhances the role of artificial intelligence that will replace the role of human labor, and computer automation systems (Nuvolari, 2019).

This change is also known as the era of disruption (Dai, 2022). The impact of the progress of the Industrial Revolution 4.0 (IR 4.0) has changed the landscape in all lines of human life, including in the world of education which is currently leading to a digital learning system where technology and digital media are utilized by teachers for teaching activities and conveying material in order to achieve learning objectives (Abuddin Nata, 2020). The era of digital learning has now become an opportunity and challenge for teachers in the world of education (Kristiani et al., 2021).

Even though the role of a teacher will not be replaced by any sophisticated machine, this is where the teacher's big task lies, where the big responsibility is to be able to produce superior, highly competitive resources and become a whole person. (Rosyada, 2017). Nowadays, the existence of teachers does not only depend on the ability to understand material to students, but more than that, the ability required for teachers in the era of digital learning is the ability to use technology and digital media in every learning (Nessipbayeva, 2019). Also, according to (Ardiansyah et al., 2022). Currently, online learning in Indonesia must apply the principles and strategies of digital innovation learning with the use of various learning media and applications.

In Indonesia, various problems in the world of education have not yet been resolved, including crucial problems in the field of teacher competence. (Notanubun, 2019). This can be seen from the results of the national teacher competency test which shows that it is still below the target of 58.5 out of the desired standard of 60. The current problems faced by teachers are due to the fact that the curriculum in Indonesia has changed dozens of times, which has resulted in teachers who are still struggling to adapt to change. For this reason, he believes that there is a need to revitalize teacher training colleges and improve the standards related to teacher competence (Sirait et al, 2023).

This problem can also be seen in UNESCO data in the 2016 *Global Education Monitoring (GEM) Report*, which shows that education in Indonesia only ranks 10th out of 14 developing countries. Meanwhile, an important component in education is teachers, who rank 14th out of 14 developing countries in the world. This data reveals the fact about the low quality of education in Indonesia, which also indicates the low quality and competence of teachers in Indonesia. (UNESCO, 2018). The problem of teacher competence is still evident from the prevalence of teachers who still apply a “top-down” teaching and learning process. Teachers seem to be “above” and students are “below”, teachers act as subjects and students as objects of learning. (Yunus, 2019)

A study by Kusuma et al. shows that teachers still lack 21st century skills with the optimization of Information and Communication Technology (ICT) media in learning. The problem faced by teachers is the difficulty of developing relevant learning tools and implementing learning models that have not integrated digital media. (Adevia Indah Kusuma, 2021). Findings (Rindyasari, 2008) show that teachers' digital literacy is still lacking

in ICT mastery, which is part of their professionalism. (Basar, 2021) also mentions that teachers in Indonesia still experience gaps in using digital media, especially PAI teachers, due to the changing factors in today's era of digitalization in the world of education. (Muliastri, 2020) explains that in order to answer the challenges of the Industrial Revolution 4.0 era, educational institutions, both primary and secondary, must be literate in data literacy, technology literacy, and human literacy. Meanwhile, (Tavdgiridze, 2016) reveals that teachers must have writing and reading skills with the latest methods and digital literacy skills.

Unfortunately, according to (Genlott & Grönlund, 2013), not everyone has sufficient literacy competence. The causative factor is the lack of time that teachers have in the learning process. The findings (Nuzli et al., 2022) also highlight the challenge of the performance of PAI teachers in using technological facilities in learning has not been maximized. This happens to PAI teachers who are still monotonous in teaching activities due to the lack of utilization of technological facilities in learning, which causes students to lack understanding of the material and to be less actively involved in learning.

In (Usman Sutisna, 2020) it is explained that nowadays teachers must be able to utilize technology to develop themselves and communicate as part of exercising their professional competence. According to them, most PAI teachers still have difficulty utilizing technology in the learning process. This is because PAI teachers still feel comfortable with the manual system or are not accustomed to using computerized technology. In addition, according to them, the cause is the age factor of the teacher, which makes their ICT skills low.

In the study (Mulyani, 2015) shows that teacher competence is still seen from the four teacher competency standards in Law No. 14 of 2005. According to him, these four competencies do not need to be adjusted to current changes because they are still very relevant. This is in line with the findings (Fitriani and Murniati AR, 2017) which state that the four competencies are still very relevant even though we have now entered the era of digital learning. This statement is also reinforced by Feralys Novauli. M's study, according to which the four teacher competencies in the law do not need to be adjusted, where each of the competencies contained is still in line and must be implemented by teachers in each lesson. (Novauli. M, 2015). In (Suraji, 2012) emphasizes that these four teacher competencies are still in line with the four aspects of learning abroad such as (*learning to know*), (*learning to do*), (*learning to be*), and (*learning to live together*) which are applied in the lives of teachers and their students. This is supported by the findings of (Dahlia & Firman, 2019) who also stated that in the current era of digital learning, the four teacher competencies in the law do not need to be changed. However, what needs to be reconstructed is the ability of teachers to implement these four competencies. (Lestari, 2015).

Even though the four teacher competencies currently need to be extended due to changes in the world of education towards digitalization. (Sudrajat, 2020) recently stated in his findings that in addition to the four competencies required in the Law, he believes that there should be an adjustment so that teachers have digital literacy competencies in

learning in the Covid pandemic era, where offline learning must be converted to online learning. In addition, Allah SWT wants religious teachers to have competencies that are not only limited to religious knowledge, but also literacy and science, so that they can respond to current developments and be literate in technology in order to maximize learning, especially Islamic education learning such as in fiqh material. (Layyina & Radino, 2022).

Meanwhile, the implementation of digital literacy in schools has long been emphasized by the government through several policies such as Permendikbud Number 23 of 2015 concerning Character Building which aims for students to have a culture of reading and writing so as to create lifelong learning. (<https://simpuh.kemenag.go.id>). The government has also made efforts to synergize with the vision and mission of the Ministry of Education and Culture regarding the Project to Strengthen the Pancasila Student Profile, the National Literacy Movement program, the assessment and validation of literacy reading books, and the transfer of printed reading books to digital form as stated in the Regulation of the Minister of Education and Culture Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024. (<https://peraturan.bpk.go.id>)

In the realm of education, the application of digital literacy positions schools as the spearhead, where teachers must respond to this through skills in utilizing digital devices and communication tools or networks to find, evaluate, use, manage, and create information wisely and creatively in learning. (Ningsih et al., 2021) This is what is being pursued by several schools such as Al-Fath Cirendeu Junior High School, SMPN 3 South Tangerang City, Darussalam Ciputat Junior High School, and SMPN 6 South Tangerang. Al-Fath Cirendeu Junior High School is a junior high school that has advantages in the curriculum such as moving classes, featured domestic and foreign programs, and the facilities and infrastructure that the school has. The implementation of digital literacy at Al-Fath Cirendeu Junior High School, as presented by the principal and several PAI teachers, is done by integrating various media and applications in learning. In addition, in the current era of digitalization, Fath Junior High School has added programs in website/blog design, animation, video editing, and coding. Some of these programs are integrated into intracurricular activities to improve students' literacy and digital skills. In addition, in art classes, Al-Fath junior high school students can choose the art major they are interested in: visual art or performing art and so on. (A.U., 2021).

Meanwhile, at SMPN 3 South Tangerang City, which is one of the pilot project schools for the 2013 curriculum and the Merdeka Curriculum, this school also has a bilingual learning system that uses Indonesian and English in learning activities (S.F, & R.M., 2021).

The Vice Principal for Curriculum of the junior high school said that the school's efforts to respond to the National Literacy Movement or digital literacy were for teachers to utilize ICT as a whole, both administratively and in classroom learning. However, they believe that this policy must be balanced with adequate facilities, such as a stable internet connection. (S.F, & R.M., 2021).

The same goes for SMPN 6 South Tangerang as a school that has an advantage in terms of national student achievement. Various national achievements have been achieved

by SMPN 6, such as poetry, taekwondo, mathematics and science competitions. According to the principal and PAI teacher at SMP 6 South Tangerang, digital literacy is implemented by teachers using various ICT media and applications in learning activities. In addition, according to both of them, digital literacy must be supported by complete facilities at school. (J.B.S. & A., 2021)

Furthermore, Darussalam Ciputat Middle School, which is a private school with a strong religious focus and has excellent achievements in sports and arts, also responded to the implementation of the digital literacy program. The implementation of digital literacy, according to the principal and PAI teachers at Darussalam Ciputat Middle School, is for teachers to use ICT media such as computers and several ICT media in learning. In addition, according to both of them, in implementing digital literacy, teachers must master various applications and should be supported by adequate internet access. Besides that, schools need to innovate in various programs that support the digital literacy movement policy. (D.M., 2021)

From the discussion of the problems of education and teacher competence, there needs to be an adjustment to the aspect of teacher competence. Teacher competence and the education sector are the most effective tools for social mobility. In the field of education, the demand for qualified graduates and workers has become a top priority in the long term. In addition, the development of technical disciplines is also the basis of the 4.0 education concept, which focuses on changes in an education system that is responsive to rapid technological developments and changing demands for practices related to digitization and the production and distribution of information in every realm of education. (Janíková & Kowaliková, 2018) For this reason, it is important to study and research the Extension of Digital Literacy Competence of Islamic Religious Education Teachers in the Digital Learning Era.

Methods

The method used in this study is a qualitative approach with phenomenological research. Webb and Welsh say that phenomenological qualitative research is a research method that describes things as they are, in the way the participants experience them. (Welsh, 2019).

The data sources in this study were taken from two sources, namely primary sources and supporting (secondary) data. The primary data in this study came from PAI teachers at A-accredited public and private junior high schools in South Tangerang. The sample selection in this study used purposive sampling technique. The informants in this study must meet the requirements determined by the researcher, namely 8 PAI teachers and 4 principals at A-accredited schools in South Tangerang who have met the academic qualifications required in the teacher and lecturer law No. 14 of 2005, as well as 2 expert informants. Other sources are school curriculum books: such as the Ministry of Education and Culture, Research and Technology and Ministry of Religious Affairs learning curriculum guidelines, policies for the operational development of Islamic education and digital literacy learning, and learning tools: applications and learning media used by Islamic education teachers.

In this study, the researcher collected data using the methods of interviews, observations, and document collection related to the research title. This study used the qualitative data analysis model of *thematic analysis* (Johnny Saldana, 2017) with the following steps:

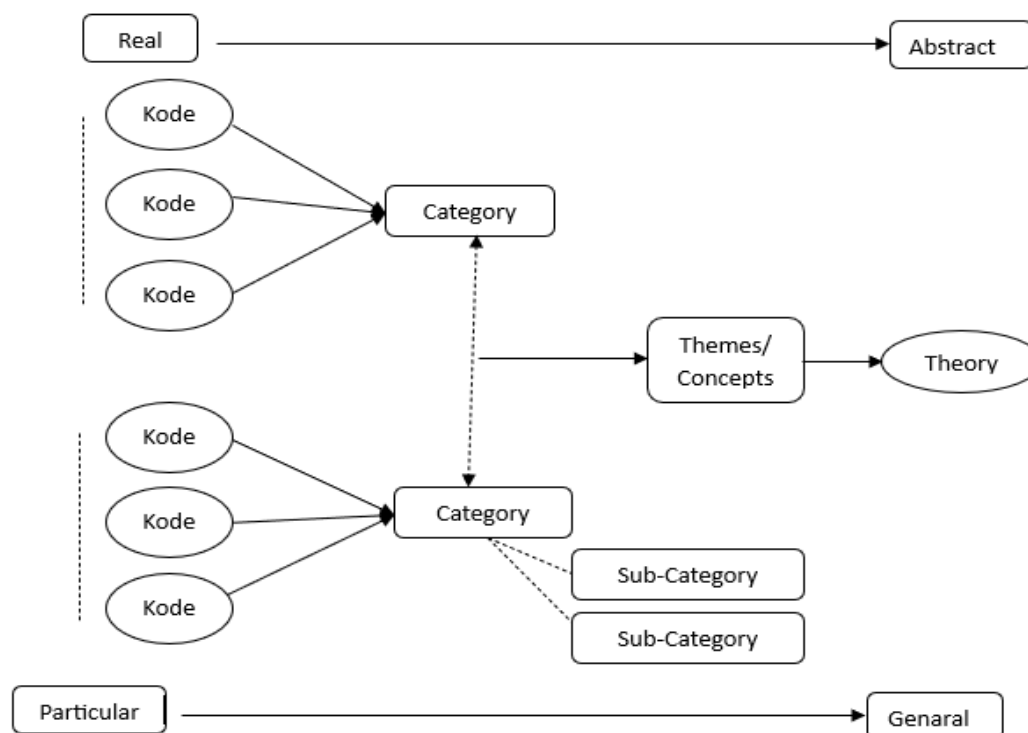


Figure 1. Coding Model Path to Theory Development for Qualitative Inquiry Processes (Saldana, 2009)

The technique for testing the validity of the data in this study was to refer to Creswell's opinion, namely that the researcher summarizes the data in writing, then the respondents are asked to read, check and correct the writing and perceptions of the researcher that are incorrect (*member check*). This is intended to avoid bias and errors in recording data from research subjects. As a guarantee of the validity and credibility of the research, the researcher also uses *triangulation* of data sources. The researcher examines each source of information and evidence of findings to support a theme. This ensures that the research will be accurate because the information obtained comes from multiple sources of information, individuals, or processes.

Result and Discussion

The data in this study shows that the digital literacy competence of PAI teachers at Al-Fath Cirendeu Middle School, South Tangerang City State Middle School, Darussalam Ciputat Middle School, and South Tangerang State Middle School 6 is limited to simple ICT media users utilized in PAI learning. The results of this study in answering the first problem formulation are shown in the diagram below:

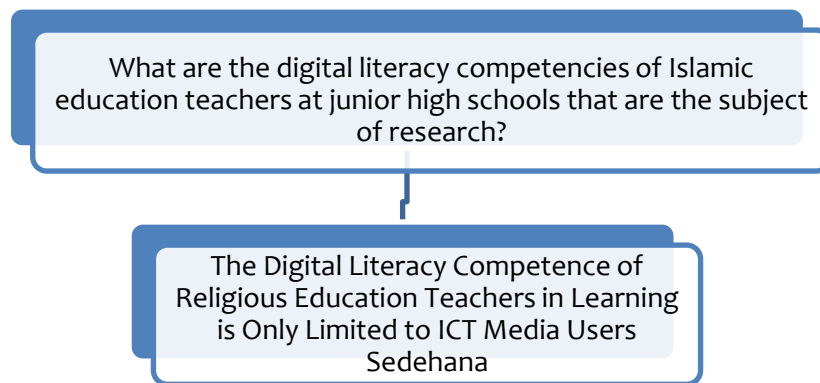


Figure 2. Research scheme to answer the problem formulation

1. Islamic Education Teachers' Digital Literacy Competence in Learning is Only Limited to Simple ICT Media Users

The digital literacy competence of PAI teachers in Al-Fath Cirendeu Junior High School, SMPN 3 South Tangerang City, Darusaalam Ciputat Junior High School and SMPN 6 South Tangerang leads to the use of simple media such as YouTube, PPT, Google Classroom, Google Form, Quizizz and Canva. Digital literacy competencies applied by PAI teachers in the four schools through several aspects, namely first, PAI teachers apply digital literacy competencies by using Information and Communication Technology (ICT) media such as YouTube, PPT, Google Classroom, Quizizz and Canva to deliver PAI materials. Second, the digital literacy competence of PAI teachers by utilizing Information and Communication Technology (ICT) media to interact directly with students in the classroom. With PAI teachers using ICT media, materials and information can be consistent, quality, and can be repeated according to teaching and learning needs. Third, the use of ICT media and applications to present information and teaching materials in a more varied (not only text) and interesting form so that students become easier to understand the lesson. (M.U., Z.M, 2022).

Furthermore, in implementing digital literacy competencies in the aspect of digital-based teaching resources, PAI teachers at Al-Fath Cirendeu Junior High School, SMPN 3 South Tangerang City, Darusaalam Ciputat Junior High School and SMPN 6 South Tangerang in reality are limited to downloading videos and making PPT materials that are presented simply by displaying the material through media such as infocus. While digital teaching materials in the form of interactive videos or digital-based learning resources made independently have not been able to be done by PAI teachers in four schools. PAI teachers mostly practice digital literacy competencies to provide PAI learning through material delivery, but have not yet led to the ability to create digital teaching materials variably. (Mukaromah, 2020) The application of digital literacy in PAI learning in four schools can be shown in the diagram below:

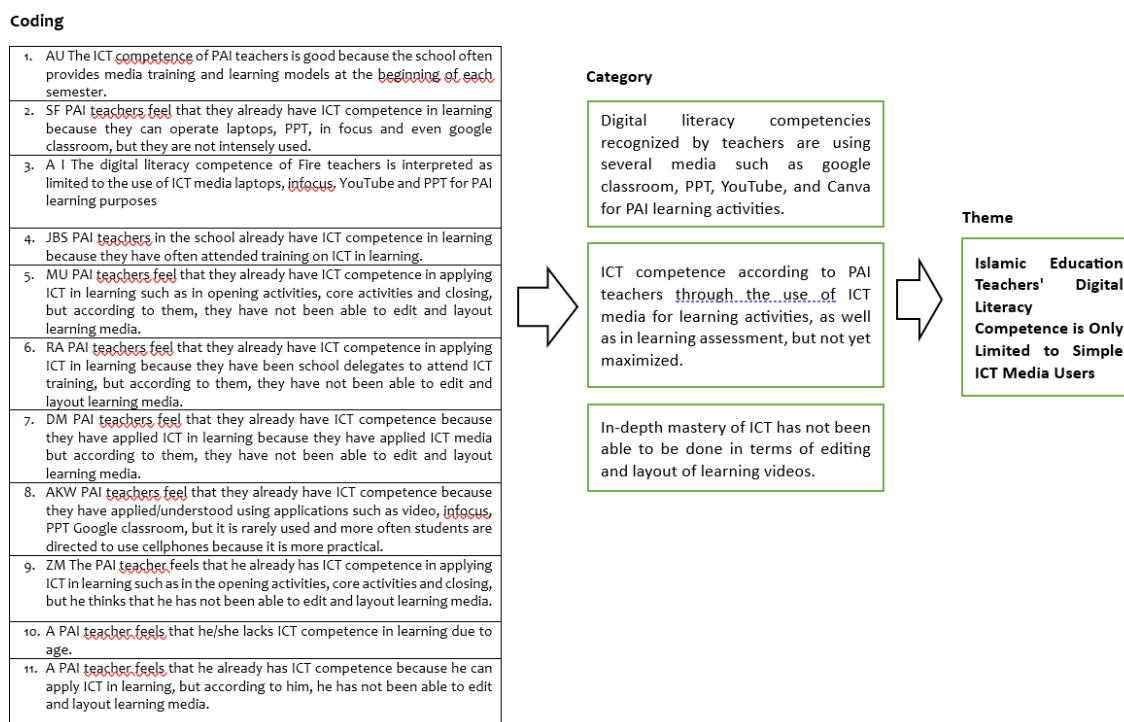


Figure 3. Digital Literacy Competence of Islamic Education Teachers

Interviewees A.U. and M.U., Z.M. and A. revealed that digital literacy competence has been implemented by integrating ICT in PAI learning. Some media are integrated in the implementation of the learning and teaching activities process such as Canva media, Google Classroom, YouTube, LMS and so on into PAI learning.

“Here we have used the LMS ma'am, but sometimes it is not optimal, and currently we are using E-Learning Al-Fath learning” (M.U., 2022). I use a lot of ICT, PPT, Canva, YouTube too, so Canva is also often used to make PPT.” (Z.M., 2022). "It should be used in every lesson for UTS, UAS and so on. Teachers who use ICT in learning are very good ma'am, but for myself, I don't use it that often, because I have to prepare a lot of PPTs, videos and others. Sometimes I also want to use it ma'am, it's a bit difficult too." (A.,2022)

Meanwhile, according to S.F., PAI teachers in the school have used ICT but have not been able to create digital teaching materials. The media that are often used in PAI learning are PPT media and YouTube.

"If here the teacher has made the learning materials, ma'am, such as PPT, you can already do it, if the teaching materials such as making videos themselves have not yet ma'am. But the point is that here we use ICT in learning, if we don't use ICT, it is also a violation, because our current curriculum is required to use ICT." (S.F., 2022).

According to Cruzado, applying the literacy competencies needed in the digitalization era is an ability to use information and communication technology (ICT) to obtain information and sort it out, even making information into a new format. (Sánchez-Cruzado et al., 2021)

In the digital literacy competency that is demanded of teachers in addition to being able to use the tools available, teachers are also required to be able to develop skills to create learning media that they will use if the media is not yet available. For this reason, teachers must have sufficient knowledge and understanding of learning media. ICT is a very effective medium in learning PAI in the technological era. (Darimi, 2017).

Marundur and Wirdati revealed that the lack of digital literacy competence of PAI teachers was due to several difficulties experienced by PAI teachers such as difficulties in using ICT-based learning media, difficulties in developing material in lesson plans, difficulties in applying a scientific approach to learning implementation, and difficulties in compiling Higher Order Thinking Skills (HOTS) questions in learning evaluations. (Marunduri & Wirdati, 2021).

According to A.K.W and D.M. J.B.S and A. in learning PAI, teachers have used ICT-based media and applications but have not been able to maximize them due to factors of the ability and ability of teachers at the school.

"Only what is already running is used here. What I said earlier, such as infocus, videos and so on, we here depend on the ability and ability of each of us teachers." (A.K.W., 2022). "Well, for the use itself, it is often on the cellphone, PPT depends because the focus is alternating" "Here it depends on the teacher." (D.M., 2022). "ICT is used in PAI, yes a lot, but in this school there are limitations too." (A., 2022).

According to informants R.A. and A., the use of ICT in PAI learning is only at certain moments. In addition, he also said that the teaching materials made were only limited to PPT.

"It should continue to be used, but here it is only used at certain moments. Rendra Almunbarok, South Tangerang City, November 02, 2022.

"Yes, it is used for material from PPT, but now that it is in the classroom, using paper or manual, sometimes there are also teachers who use it." (A., 2022)

In the view of (Jesus Suarez Rodriguez et al, 2018) the key element in digital literacy competence for teachers is how teachers' ability to integrate ICT into the education system. Therefore, according to him, teachers must have confidence in using ICT, and must consider technological and pedagogical components because these two are important factors for teachers to have. According to Indra and Muhammad, the burden of PAI teachers is not only having the ability to use various learning media, but the heavy burden that must be carried by an PAI teacher is moral responsibility. PAI teachers must be wise in utilizing digital media so that they can sort and select information from the internet or digital media. (Syahputra, 2021).

There is also information from PAI teachers who stated that the optimal use of ICT depends on the readiness of each teacher. The statement seems to indicate that the teacher's ability to use ICT must certainly be accompanied by the teacher's skills in using and processing various media in PAI learning.

"Some religion teachers use according to the KBM or material. Yes, here the teachers have indeed used ICT such as computers, laptops, we also have in focus, we also used to have E-Learning, you know, related to the use of ICT, it also depends

on the teacher, some often use it, some occasionally use ICT. If I myself often used to use it, but now it is rare, well sometimes I use ICT. (J.B.S, 2022).

According to (Rena Sulistiyowati et al, 2021) the application of digital literacy in PAI learning in schools is indicated in PAI teachers who have the ability to access, understand and use and utilize digital media, communication tools and other digital-based networks. The application of digital literacy in PAI learning is not only on the utilization of media such as mobile phones, but is oriented towards the use of digital media and can create content containing PAI learning materials.

In (Balai Penelitian dan Pengembangan Agama Jakarta, 2014), it is explained that the necessity of using ICT in learning is stipulated in Permendiknas number 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies which requires teachers to be able to utilize ICT for communication and self-development as part of the teacher's professional competence. (Duffy, 2007) explains the existence of YouTube as a website with popular video sharing where users can upload, view and share video clips. In addition, according to him, YouTube media has several characteristics or advantages that can be maximized by teachers such as: having a wide variety of video content including movies and TV clips and music videos, as well as vlog content and short videos.

Some of these opinions indicate that YouTube applications are very effective as learning media. This is in line with Snelson's view. According to him, the changes in the current digitalization era require teachers to be more creative in carrying out the teaching and learning process to respond to these changes. Teachers can utilize videos from YouTube, because the advantage of learning with videos is to present an image and sound representation of an event to students in the classroom. (Snelson, 2011). This is in line with the Ministry of Education and Culture's recommendation that teachers should become digital literates. Digital literacy means being able to process various information, understand messages and communicate effectively with others in various forms. (Nasrullah et al., 2017)

Meanwhile (Belshaw, 2011) directs teachers to be able to use and utilize various media and applications in learning not only on the use of YouTube. Because according to him this is part of current digital literacy. Meanwhile, in the Regulation of the Minister of Education, Culture, Research and Technology No. 16 of 2022 concerning Process Standards in Early Childhood Education, Primary Education and Secondary Education also mandates teachers, including PAI teachers to be able to integrate ICT media in every line of learning including in PAI subjects. (Permendikbudristek, 2022). The context of ICT media integration in learning can be contained in learning strategies designed by teachers by creating current learning content and discussing with colleagues while critically reflecting on themselves. (Haryani and Sholeh, 2019).

Abuddin Nata mentioned that the use of ICT media must be carried out by PAI teachers in learning because it is part of the duties and responsibilities of teachers in carrying out teacher competencies. According to him, in every subject including PAI, various facilities and technologies are needed in the form of sophisticated ICT-based media and tools and religious books, and others in digital form. (Abuddin Nata, 2020). In addition,

Kholid's findings describe the media often used by PAI teachers such as WA Group (WAG) media, YouTube, Zoom Meeting, and Google Meet or Google Classroom or other online learning media applications that make it easier for teachers and students to interact during the learning process. However, according to him, the use of these media is limited to simple utilization, but teachers must be able to master various media and applications in PAI learning. (Kholid, 2020)

Much earlier related to the use of ICT media, (United Nations Educational, 2011) in 2011 has appealed that the community, in this case teachers, must have digital literacy skills that include skills (life skills) that not only involve the ability to use technology, information, and communication devices, but also the ability to socialize, the ability to learn, and have an attitude, think critically, creatively, and inspiring as digital competence. According to Bawden, this digital literacy requirement must be implemented in classroom learning such as: first, principals, teachers and education personnel must attend digital literacy training. Second, the intensity of the application and utilization of digital literacy in learning activities. Third, the level of understanding of principals, teachers, education personnel and students in using digital media and the internet at school. (Bawden, 2001)

From this information it can be clarified that teachers must have the ability to be able to improve digital literacy competencies in learning. Another thing that must be considered by teachers according to Kemdikbud to improve digital literacy competencies in learning is that digital competencies can be carried out in the realm of schools, students, teachers, education personnel, and principals are expected to have the ability to access, understand, and use digital media, communication tools, and networks. (Ministry of Education and Culture of the Republic of Indonesia, 2016). In addition to being able to master the basics of computers, the internet, productive programs, and the security and confidentiality of an application, teachers and students are also expected to have a digital lifestyle so that all of one's daily activities are inseparable from the mindset and behavior of a digital society that is all effective and efficient. (Nuryani & Handayani, 2020).

2. Digital Literacy Competencies Needed by Islamic Education Teachers

Digital literacy is an indispensable skill for learners to master as the next generation of leaders. Therefore, education has a big role, including teacher performance in supporting students' mastery of digital literacy skills. (Steiner & Mendelovitch, 2017). Digital literacy is a life skill that not only involves skills to use technology and information devices but also individual skills to socialize and have a critical thinking attitude as one of the digital competencies. (Noviah Dwi Putranti, n.d.)

When looking at literacy competencies in the version of the Center for Educational and Cultural Policy Research, Balitbang, Kemdikbud, it is stated that if someone is said to have competence, they must fulfill the elements of mastery which include: knowledge, skills and attitudes that are displayed through the performance of a teacher. (Kemdikbud, 2017). This interpretation is in line with the opinion of . (According to (Skantz-åberg et al., 2022) the implementation of digital literacy competencies of PAI teachers involves several aspects such as: knowledge, skills, and attitudes needed to support learning by using

various digital devices. This is in line with the views of (McLoughlin, 2006) who stated that in the 21st century, talk of digital literacy emerged related to a tool that can download music, record videos, and edit media to build the meaning of the world socially that teachers use for learning purposes. According to him, teachers must be literate in information and various kinds of ICT skills that make it possible to access, use, create and share digital resources. Not only that, the digital competence of teachers is extended to the realm of professional use of ICT. (Sudar Kajin, 2018).

According to (Aryani et al., 2024) teachers not only need mastery of the ability to operate digital devices and software, but also require complex skills such as production skills, photo-visual skills, hypertextuality skills. From this explanation, it can be understood that the biggest challenge in the current digital era is that a teacher must be literate with digital literacy, because considering that at this time many teachers have not been able to instill critical thinking in students. In fact, teachers must think of appropriate efforts in dealing with changes in student behavior in this digital era because students are currently emphasized to critically assess material and will reduce their vulnerability to extremist beliefs in PAI learning. Clearly, Anusca Ferrari's concept of digital competence is aligned with the five areas of 21st century digital competence that can be seen in the scheme below:



Figure 4. About the Five 21st Century Digital Competencies

Source: Five fields of digital competency and 21 digital competencies/skill. (Ilomäki et al., 2011)

In the scheme, there is a connection between one area and another that focuses on technical aspects, operational skills and techniques, and has significance in learning activities. In other words, areas 1 to 3 focus on skills that can be adapted to specific activities and uses. While the other two areas refer to activities developed through the three main aspects. In each digital competency area, a series of skills have been incorporated that tend to connect with each other. The first skills in each area are those that make up the

technological aspects. In this specific case, competencies, expertise, skills, and attitudes include operational processes as the main components that teachers must master. (Sánchez-cruzado et al., 2021)

Digital literacy competence has such a high urgency in the digital learning era. Therefore, PAI teachers have the responsibility not only for moral education, but also for preparing students to have the ability and competence of digital literacy and 21st century skills. Currently, the application of digital technology in learning is mandatory for teachers. PAI teachers must have more contact with digital technology because today's students are more interested and pay attention to actual things. (Syahroni et al., 2020). In addition, the digital literacy competence of PAI teachers is able to bridge students to easily understand various issues of Islamic religious education so that they are not trapped in various religious concepts that they themselves do not understand. (Mansir et al., 2020)

Digital literacy competence is one of the teacher's life skills with skills that are not only able to use ICT devices, but also the ability to socialize, utilize for the learning process and have an attitude that is able to think critically and creatively, and inspire so as to make learning more interactive and fun. (Sulistyarini & Fatonah, 2022).

Digital and technological literacy competencies can certainly be one approach in creating an environment that encourages and stimulates learners to have the current digital skills needed in the world of education entering the era of disruption that is currently being experienced. (Sudar Kaji, 2018) Various types of digital media-based learning media can be used by teachers to support learning more effectively and efficiently. The utilization of digital technology in learning by PAI teachers will make students experience real learning experiences and can interact with other individuals without the need to meet face to face. The emergence of digital technology as a new technology will radically change the learning paradigm of teachers, and what students learn, how they learn, and where they learn. The digital learning paradigm is not only oriented to the education sector but also to social, cultural, and economic factors in shaping the transformation of education in the digital era. (Hidayat & Khotimah, 2019)

Conclusion

This study concludes that the digital literacy competence of PAI teachers in four schools is still lacking. This conclusion is evidenced from the results of interviews and observations of PAI teachers in four schools who apply digital literacy competencies only to the extent of using Information and Communication Technology (ICT) media such as YouTube, PPT, Quizizz, Google Classroom, and Google Form which are only used as learning media for preparation, delivering material and learning assessment. While the preparation of learning resources in the form of digital teaching material content has not been able to be done. In addition, the application of digital literacy competencies that have been carried out by PAI teachers at Al-Fath Cirendeu Junior High School, SMPN 3 South Tangerang City, Darussalam Ciputat Junior High School, and SMPN 6 South Tangerang has implications for the ease of PAI teachers in delivering material, and making it easier for students to understand it. This study also proves that digital literacy competence is part of the

pedagogical and professional competence of PAI teachers which includes knowledge, skills, and attitudes in the field of digital literacy developed in PAI learning.

Declarations

Praise and gratitude to the author for the presence of Allah SWT. The Almighty, because thanks to his mercy and grace this dissertation can be completed writing with the required provisions. Salutations and greetings are conveyed to the great prophet Muhammad, peace be upon him and his family and friends.

Thank you to the lecturers and examiners at the Postgraduate School of UIN Syarif Hidayatullah Jakarta and to the big family of the Jakarta Institute of Qur'anic Sciences (IIQ) where the author works. The Chancellor, vice-chancellors, deans, and their staff, friends of the study program, and the entire academic community of IIQ Jakarta who have given permission, motivation and support both morally and materially to the author in completing his doctoral studies. Thanks also go to the principal, vice principal for curriculum, PAI teachers and academic community at Al-Fath Cirendeu Junior High School, SMPN 3 South Tangerang City, SMP Darussalam Ciputat and SMPN 6 South Tangerang who have provided permission, data, and assistance until the completion of this dissertation.

My deepest gratitude goes to my beloved parents, husband, and family who always provide endless support and motivation to the author. To all parties who cannot be named one by one, have helped or been involved in writing this dissertation, the author expresses his deepest gratitude.

References

- Abuddin Nata. (2020). *Pendidikan Islam di Era Milenial*. Prenadamedia Group.
- Adevia Indah Kusuma, et al. (2021). Peningkatan Kompetensi Guru dan Tenaga Kependidikan Melalui Pelatihan Teacherpreneur Berbasis Digital Profile Builder. *JMM (Jurnal Masyarakat Mandiri)*, 5(5), 2476–2487. <https://journal.ummat.ac.id/index.php/jmm/article/view/5279>
- Ahmad Muradi. (2016). Pengembangan Kompetensi Guru Bahasa Arab Melalui Imla Sebagai Organisasi Profesi. *Arabi: Journal of Arabic Studies*, 2(1). <https://doi.org/10.24865/ajas.v1i2.2>.
- Ardiansyah, A., Al-Anshori, T., Zakaria, Z., & Cahyanto, B. (2022). Principles of Online Learning Assessment: A Literature Review Between Western Education Theory and Islamic Education Theory. *Jurnal Pendidikan Agama Islam*, 19(1), 13–28. <https://doi.org/10.14421/jpai.2022.191-02>
- Aryani, S. A., Wiranto, E. B., & Asroni, A. (2024). *Exploring Student-Centered Learning as a Tool to Prevent Radicalization in Islamic Junior Schools : A Case Study of Indonesia and Bangladesh*. 20(2). <https://ejournal.uin-suka.ac.id/tarbiyah/jpai/article/view/v21i2.10492/3876>
- Balai Penelitian dan Pengembangan Agama Jakarta. (2014). *Kendala dalam Memanfaatkan TIK*. https://simlitbangdiklat.kemenag.go.id/simlitbang/spdata/upload/dokumen-penelitian/1554360182Polbrief_TIK.pdf
- Basar, A. M. (2021). Problematika Pembelajaran Jarak Jauh Pada Masa Pandemi Covid-19. *Edunesia : Jurnal Ilmiah Pendidikan*, 2(1), 208–218. <https://doi.org/10.51276/edu.v2i1.112>

- Belshaw, D. (2011). What is digital literacy? A Pragmatic investigation. *EdD Thesis, Durham: University of Durham, ...*, 274. <http://neverendingthesis.com/doug-belshaw-edd-thesis-final.doc>
- Charisma Layyina and Radino. (2022). *The Role of Fiqh Teachers to Improve Students' Learning Motivation and Discipline of Worship through Online Learning During the Covid-19 Pandemic*. 19(1), 1–12. <https://ejournal.uin-suka.ac.id/tarbiyah/jpai/article/view/2022.191-01/2384>
- Cut Fitriani, Murniati AR, N. U. (2017). Kompetensi Profesional Guru dalam Pengelolaan Pembelajaran di MTs Muhammadiyah Banda Aceh. *Jurnal Administrasi Pendidikan: Program Pascasarjana Unsyiah*, 5(2), 88–95. <http://jurnal.unsyiah.ac.id/JAP/article/view/8246>
- Dahlia, D., & Firman. (2019). Kemampuan Guru Zaman Now. *ResearchGate, January*, 1–6. https://www.researchgate.net/publication/330158949_KEMAMPUAN_GURU_ZAMAN_NOW
- Dai, Y. (2022). Research on the Value and Path of Cultivating College Students' Digital Literacy in the Digital Age. In *ACM International Conference Proceeding Series* (hal. 92–97). <https://doi.org/10.1145/3535756.3535771>
- Darimi, I. (2017). Teknologi Informasi Dan Komunikasi Sebagai Media. *Pendidikan Teknologi Informasi*, 1(2), 111–121. <https://media.neliti.com/media/publications/410326-information-and-communication-technology-8fa6a807.pdf>
- David Bawden. (2001). Information and Digital Literacies: a Review of Concepts. *Journal of Documentation*, 57(2), 218–259. <https://doi.org/10.1108/EUM0000000007083>
- Duffy, P. (2007). Engaging the YouTube Google-eyed generation: Strategies for using web 2.0 in teaching and learning. *ECEL 2007: 6th European Conference on e-Learning*, 6(2), 173–182. <https://eric.ed.gov/?id=EJ1098687>
- Genlott, A. A., & Grönlund, Å. (2013). Improving literacy skills through learning reading by writing: The iWTR method presented and tested. *Computers and Education*, 67, 98–104. <https://doi.org/10.1016/j.compedu.2013.03.007>
- Haryani, L. D., & Sholeh, M. A. (2019). Efektivitas Metode Talaqqi Dalam Meningkatkan Hafalan Al-Qur'an Peserta Didik Di Sdit Ulul Al-Bab Weleri. *TA'DIBUNA: Jurnal Pendidikan Agama Islam*, 2(2), 47. <https://doi.org/10.30659/jpai.2.2.47-52>
- Hibana dan Susilo Surhman. (2018). Kompetensi Digital Guru dalam Upaya Meningkatkan Capaian Pendidikan Anak Usia Dini. *Asian Ethnology*, 77(1–2), 3–31. <https://ejournal.my.id/jsgp/article/view/1392/1220>
- Hidayat, N., & Khotimah, H. (2019). Pemanfaatan Teknologi Digital Dalam Kegiatan Pembelajaran. *JPPGuseda | Jurnal Pendidikan & Pengajaran Guru Sekolah Dasar*, 2(1), 10–15. <https://doi.org/10.33751/jppguseda.v2i1.988>
- Ilomäki, L., Kantosalo, A., & Lakkala, M. (2011). What is Digital Competence? Digital Competence is an Evolving Concept. *Brussels: European Schoolnet*, 2008, 1–11. <http://www.eun.org/404.html>
- Janíková, M., & Kowaliková, P. (2018). Technical Education in the Context of the Fourth

- Industrial Revolution. *Tap chí Nghiên cứu dân tộc*, 23, 65–73. <https://doi.org/10.25073/0866-773x/88>
- Jesus Suarez Rodriguez et al. (2018). A Basic Model of Integration of ICT by Teachers: Competence and Use. *Education Tech Research Development*, 66(April). <https://doi.org/10.1007/s11423-018-9591-0>
- Johnny Saldana. (2017). The Coding Manual for Qualitative Researchers (3rd edition). In *Qualitative Research in Organizations and Management: An International Journal* (This secon, Vol. 12, Nomor 2). SAGE Publications Ltd. <https://doi.org/10.1108/qrom-08-2016-1408>
- Kementerian Pendidikan dan Kebudayaan RI. (2016). *Peraturan Menteri Pendidikan dan Kebudayaan Nomor 21 Tahun 2016 Tentang Standar Isi Pendidikan Dasar dan Menengah*. https://repositori.kemdikbud.go.id/4791/2/Permendikbud_Tahun2016_Nomor021_Lampiran.pdf
- Kholid. (2020). Pentingnya Literasi Digital bagi Guru Pada Lembaga Pendidikan Tingkat Dasar dan Implikasinya Terhadap Penyelenggaraan Kegiatan Belajar Mengajar. *Jurnal Horizon Pedagogia*, 1(1), 22–27. <https://jurnal.untirta.ac.id/index.php/jhp/article/view/10422/6784>
- Kristiani, H., Susanti, E. I., Purnamasari, N., Purba, M., Saad, M. Y., & Anggaeni. (2021). *Model Pengembangan Pembelajaran Berdiferensiasi*.
- Lestari, S. (2015). Faktor-Faktor yang Mempengaruhi Pemanfaatan TIK Oleh Guru. *Jurnal Kwangsan*, 3(2), 121. <https://doi.org/10.31800/jurnalkwangsan.v3i2.29>
- Mansir, F., Jamaluddin, S., & Zahra, A. (2020). *Penggunaan Literasi Digital dalam Pembelajaran Agama Islam Pada Asrama Mahasiswa Panrannuangku Takalar Yogyakarta*. 448–458. <https://prosiding.umsy.ac.id/semnasppm/index.php/psppm/article/view/152>
- Marunduri, A. W., & Wirdati, W. (2021). Problematika Guru Pendidikan Agama Islam dalam Menerapkan Kurikulum 2013. *An-Nuha*, 1(4), 500–509. <https://doi.org/10.24036/annuha.v1i4.129>
- Mcloughlin, C. (2006). *What ICT-related skills and capabilities should be considered central to the definition of digital literacy?* 471–475. <https://www.learntechlib.org/primary/p/37908/>
- Mukaromah, E. (2020). Pemanfaatan Teknologi Informasi dan Komunikasi dalam Meningkatkan Gairah Belajar Siswa. *Indonesian Journal of Education Management and Administration Review*, 4(1), 180–185. <https://jurnal.unigal.ac.id/index.php/ijemar/article/view/4381/3450>
- Mulyani, F. (2015). Konsep Kompetensi Guru dalam Undang-undang Nomor14 Tahun 2005 Tentang Guru dan Dosen (Kajian Ilmu Pendidikan Islam). *Jurna Pendidikan Universitas Garut*, 03(01), 1–8. <https://journal.uniga.ac.id/index.php/JP/article/view/16>
- Nasrullah, R., Aditya, W., Satya, T. I., Nento, M. N., Hanifah, N., Miftahussururi, & Akbari, Q. S. (2017). Materi Pendukung Literasi Digital: Gerakan Literasi Nasional. *Kementerian Pendidikan dan Kebudayaan*, 33. <https://gln.kemdikbud.go.id/glnsite/wp-content/uploads/2017/10/cover-materi-pendukung-literasi-finansial-gabung.pdf>

- Nessipbayeva, O. (2019). The Competencies of the Modern Teacher. *Pre-Service and In-Service Teacher Training*, 148–154. <https://files.eric.ed.gov/fulltext/ED567059.pdf>
- Ni Ketut Erna Muliastri. (2020). *Penguatan Literasi Baru (Literasi Data, Teknologi, dan Sdm/Humanisme) Pada Guru - Guru Sekolah Dasar dalam Menjawab Tantangan Era Revolusi Industri 4.0*. <https://core.ac.uk/download/pdf/235174064.pdf>
- Ningsih, I. W., Widodo, A., & Asrin, A. (2021). Urgensi kompetensi literasi digital dalam pembelajaran pada masa pandemi Covid-19. *Jurnal Inovasi Teknologi Pendidikan*, 8(2), 132–139. <https://doi.org/10.21831/jitp.v8i1.35912>
- Notanubun, Z. (2019). Pengembangan Kompetensi Profesionalisme Guru di Era Digital (Abad 21). *Jurnal Bimbingan dan Konseling Terapan*, 3(2), 54. <https://doi.org/10.30598/jbkt.v3i2.1058>
- Novauli, M, F. (2015). Kompetensi Guru Dalam Peningkatan Prestasi Belajar Pada Smp Negeri Dalam Kota Banda Aceh. *Jurnal Administrasi Pendidikan : Program Pascasarjana Unsyiah*, 3(1), 45–67. <http://jurnal.unsyiah.ac.id/JAP/article/view/2524>
- Noviah Dwi Putranti. (n.d.). *Gerakan Literasi Digital*. <https://ayoguruberbagi.kemdikbud.go.id/artikel/gerakan-literasi-digital/>
- Nuryani, D., & Handayani, I. (2020). Kompetensi Guru Di Era 4.0 Dalam Meningkatkan Mutu Pendidikan. *Prosiding seminar nasional pendidikan program pascasarjana universitas pgri palembang 10 januari 2020*, 224–237. <http://download.garuda.kemdikbud.go.id/article.php?article=1628323&val=12987&title=KOMPETENSI GURU DI ERA 40 DALAM MENINGKATKAN MUTU PENDIDIKAN>
- Nuvolari, A. C. and A. (2019). Industry 4.0: Revolution or Hype? Reassessing recent technological trends and their impact on labour. *Journal of Industrial and Business Economics*, 46(1), 391–402. <https://link.springer.com/article/10.1007/s40812-019-00132-y>
- Nuzli, M., Ismiah, P., & Wahyuni, S. (2022). Upaya Pemanfaatan Fasilitas Teknologi Pendidikan dalam Meningkatkan Kinerja Guru Pendidikan Agama Islam. *Jurnal Pendidikan dan Teknologi Indonesia*, 2(3), 101–108. <https://doi.org/10.52436/1.jpti.140>
- Pendidikan, K., Kebudayaan, D. A. N., Penelitian, B., Pengembangan, D. A. N., Penelitian, P., Pendidikan, K., & Kebudayaan, D. A. N. (2017). *Penyiapan Calon Guru dan Tenaga kependidikan: Penyiapan calon Guru Melalui Pendidikan Profesi*. https://pskp.kemdikbud.go.id/assets_front/images/produk/1-gtk/buku/Penyiapan_Calon_Guru_dan_Tenaga_Kependidikan_Penyiapan_Calon_Guru_Melalui_Pendidikan_Profesi-1.pdf
- Permendikbudristek. (2022). Peraturan Menteri Pendidikan Kebudayaan Riset dan Teknologi. *Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 16 Tahun 2022 Tentang Standar Proses Pendidikan Dasar Dan Menengah*, 5–24. <https://peraturan.bpk.go.id/Details/224238/permendikbudriset-no-16-tahun-2022>
- Rena Sulistiyowati et al. (2021). Penerapan Literasi Digital dalam Pembelajaran Pendidikan Agama Islam di SMP Negeri 13 di Kota Malang. *VICRATINA: Jurnal Pendidikan Islam*, 6(4). <https://jim.unisma.ac.id/index.php/fai/article/view/22293/16632>
- Rindiyasari. (2008). *Literasi Informasi Guru : Studi Kasus SMA Perguruan Islam Al-Izhar Pondok*

- Labu. [http://lib.ui.ac.id/file?file=digital/20160366-RB13R194I-Literasi informasi.pdf](http://lib.ui.ac.id/file?file=digital/20160366-RB13R194I-Literasi%20informasi.pdf)
- Robby Alexander Sirait et al. (2023). Melihat Kualitas Guru Di Tengah Learning Loss Akibat Meninjau Pagu Indikatif Badan Nasional Pencarian Dan Pertolongan (Basarnas) Meninjau Upaya Pemerintah Dalam Penghapusan Kemiskinan Ekstrem Nol Persen Tahun 2024 Dewan Redaksi Melihat Kualitas Guru Di. *Buletin APBN*, VIII(11). <https://berkas.dpr.go.id/pa3kn/buletin-apbn/public-file/buletin-apbn-public-180.pdf>
- Sánchez-cruzado, C., Campión, R. S., & Sánchez-compaña, M. T. (2021). Teacher Digital Literacy : The Indisputable Challenge after COVID-19 Teacher Digital Literacy : The Indisputable Challenge after COVID-19. *Sustainability*, February. <https://doi.org/10.3390/su13041858>
- Sánchez-Cruzado, C., Santiago Campión, R., & Sánchez-Compañía, M. T. (2021). Teacher digital literacy: The indisputable challenge after covid-19. *Sustainability (Switzerland)*, 13(4), 1–29. <https://doi.org/10.3390/su13041858>
- Skantz-åberg, E., Lantz-andersson, A., Lundin, M., Williams, P., Skantz-åberg, E., Lantz-andersson, A., Lundin, M., & Williams, P. (2022). Teachers ’ professional digital competence : an overview of conceptualisations in the literature Teachers ’ professional digital competence : an overview of conceptualisations in the literature. *Cogent Education*, 9(1). <https://doi.org/10.1080/2331186X.2022.2063224>
- Snelson, C. (2011). YouTube across the Disciplines : A Review of the Literature. *Journal of Online Learning and Teaching*, 7(1), 159–169. http://scholarworks.boisestate.edu/cgi/viewcontent.cgi?article=1010&context=edtech_h_facpubs
- Steiner, D., & Mendelovitch, M. (2017). “I’m the same teacher”: The attitudes of science and computer literacy teachers regarding integrating ICT in instruction to advance meaningful learning. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(5), 1259–1282. <https://doi.org/10.12973/eurasia.2017.00670a>
- Sudar Kaji. (2018). Pengaruh Pembelajaran Berbasis Literasi Digital Terhadap Motivasi dan Hasil Belajar Kognitif di MTs N Mojosari dan MTs N Sooko Mojokerto Sudar Kaji. *PROGRESSA Journal of Islamic Religious Instruction*, 2(1), 133–142. <https://jurnal.stitradenwijaya.ac.id/index.php/pgr/article/download/119/101/181>
- Sudrajat, J. (2020). Kompetensi Guru Di Masa Pandemi Covid-19. *Jurnal Riset Ekonomi dan Bisnis*, 13(1), 100–110. <http://journals.usm.ac.id/index.php/jreb>
- Sulistyarini, W., & Fatonah, S. (2022). Pengaruh Pemahaman Literasi Digital Dan Pemanfaatan Media Pembelajaran Terhadap Kompetensi Pedagogik Guru Era Digital Learning. *Journal of Educational Learning and Innovation (ELI)*, 2(1), 42–72. <https://doi.org/10.46229/elia.v2i1.383>
- Suraji, I. (2012). Urgensi kompetensi guru. *Forum Tarbiyah*, 10(2), 236–251. <http://ejournal.iainpekalongan.ac.id/index.php/forumtarbiyah/article/view/382>
- Syahputra, M. I. S. dan M. C. (2021). Penanaman Paham Literasi Digital dalam Pembelajaran Pendidikan Agama Islam. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 12(2), 360–365. <http://ejournal.radenintan.ac.id/index.php/tadzkiyyah/article/view/11269>
- Syahroni, M., Dianastiti, F. E., & Firmadani, F. (2020). Pelatihan Media Pembelajaran

- Berbasis Teknologi Informasi untuk Meningkatkan Keterampilan Guru dalam Pembelajaran Jarak Jauh. *International Journal of Community Service Learning*, 4, 170–178. <https://ejournal.undiksha.ac.id/index.php/IJCSL/article/view/28847/16778>
- Syarifudin Yunus. (2019). Mengkritisi Kompetensi Guru. *detik.com*. <https://news.detik.com/kolom/d-3741162/mengkritisi-kompetensi-guru>
- Tavdgiridze, L. (2016). Literacy Competence Formation of the Modern School. *Journal of Education and Practice*, 7(26), 107–110. <http://proxy.libraries.smu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1115864&site=ehost-live&scope=site>
- UNESCO. (2018). A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2. *Information Paper n°51*, 51, 146. <http://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf>. Consultado em 05fev2023, 17:45
- United Nations Educational, S. and C. O. (2011). Digital literacy in education. *Policy brief*, May, 1–12. https://iite.unesco.org/files/policy_briefs/pdf/en/digital_literacy.pdf
- Usman Sutisna, et al. (2020). Pengembangan kompetensi profesional guru PAI melalui pemanfaatan teknologi informasi. *ABSYARA: Jurnal Pengabdian Pada Masyarakat*, 1(2), 9–14. <https://doi.org/10.29408/ab.v1i2.2629>
- Welsh, A. S. W. and A. J. (2019). Phenomenology as a Methodology for Scholarship of Teaching and Learning Research. *Teaching and Learning Inquiry*, 7(1), 168–181. <https://doi.org/10.20343/teachlearninqu.7.1.11>