



## **Management of digital literacy competence development in State Madrasah Aliyah Surakarta, Indonesia**

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**Abstract:** This study seeks to characterize digital literacy competency development management for educators and teaching staff at State Madrasah Aliyah in Surakarta. This study employs a qualitative descriptive methodology. Interviews, observations, and documentation studies were used to collect data. Data analysis techniques incorporated interactive analytical techniques, such as data collection, reduction, presentation, and conclusion. Method triangulation is implemented in data validity standards. According to the findings of this research project, there are three conclusions: First, the management of digital literacy competency development for educators and educational staff at Madrasah Aliyah Surakarta includes: (a) the implementation of planning with work meetings by formulating goals that are in line with the madrasah vision, mission, goals, and programs activity (b) organizing includes determining the madrasah digital literacy team's organizational structure, task distribution, and personnel. (c) the development of digital literacy competencies is implemented through informal programs and formal programs, such as workshops, training, seminars, and MGMP, which are designed to equip digital knowledge and skills, digital culture, digital ethics, and digital security. d) The Madrasah's head conducts internal evaluation and surveillance. Second, the supporting factors include assistance from the madrasah in the form of complete facilities, madrasah DIPA funds, and additional learning support in the form of scholarships that increase digital competence. Third, the nature of human resources (some educators are unaware of digital literacy, and participants are less enthusiastic about participating in development activities) hinders management development.

**Keywords:** competence; digital literacy; educators; education staff.

### **A. Introduction**

Literacy is the foundation of lifelong learning to improve the quality of life. Literacy encompasses not only the ability to read and write, but also the capacity to interpret a text

(UNESCO, 2005). Literacy is the ability to comprehend a message, communicate through text, both written and spoken (Wagner, 1995), and use it for social communication (OECD, 2015). Literacy is an ability related to the acquisition of skills and knowledge to read, interpret and compose certain types of texts or artefacts, and to acquire the intellectual tools and capacities so that they can participate fully in society and its culture. This means that through literacy, people can increase their dignity in society (Sifa & Ismail, 2020). Literacy skills help individuals to understand information carefully and carefully.

Given the importance of literacy in education, the Ministry of Education and Culture (Kemendikbud) launched the National Literacy Movement (*Gerakan Literasi Nasional*) program in schools in 2015 by issuing Minister of Education and Culture Regulation (Permendikbud) Number 23 of 2015 concerning the Growth of Character which also aims to foster literacy culture in schools. One of the activities is reading non-lesson books for 15 minutes before learning activities begin to train students to have good literacy skills and to absorb and process information carefully and wisely.

Literacy continues to develop with the times until finally in this era new literacy skills emerge, which are gaining popularity rapidly, namely digital literacy (Spires et al., 2018). Digital literacy is an ability that is needed at this time, students need to master new skills, namely digital literacy (Lynch, 2017). Digital literacy is an individual's ability to find, evaluate, utilize, share, and create content using information technology and the internet (Sen, 2017). Sharma (2017) explained that in the 4.0 era, students face a wide variety of challenges. The students of today are more demanding, competitive, inquisitive, and well-informed. In addition, Sharma explained that modern students are always "on" because their lives are inextricably linked to devices, applications, and social media. This is what distinguishes their mentality from that of primordial people. Consequently, they are referred to as digital natives.

Digital literacy is the ability to locate, evaluate, utilize, disseminate, and create content using information technology and the internet (Pilgrim & Martinez, 2013). The digital literacy movement is urgent and important, especially when learning conditions cannot be carried out face-to-face, such as during the 2019 Corona Virus Disease (Covid-19) pandemic. In this situation, digital literacy competencies play an important role in online learning (Rochadiani et al., 2020). Educators are required to have digital

competence, namely competence to master and utilize ICT in learning. Educators are said to have digital competence if they can understand, apply, and combine technology, pedagogy, and their knowledge in learning (Nordin et al., 2013; Chai et.al. 2013). Educators who have digital competence can search for sources of information online and use digital media as teaching aids. Educators can access, find, extract, evaluate, organize, and present digital information (Argentin et, al., 2014).

As a result of increased demand, educational theories such as heutagogy or self-determined learning are becoming more relevant. The heutagogical approach is closely related to online learning or distance learning in which learning that is usually carried out conventionally switches to online learning, both synchronously and asynchronously. The synchronous method is a learning method that is carried out live or in real-time, while the asynchronous method is a learning method that is carried out in a certain period indirectly.

This heutagogic approach is by the era of the industrial revolution 4.0 and Society 5.0. In the era of the industrial revolution, the order of life shifted or changed due to massive innovations. This innovation also requires the birth of a new literacy, namely digital literacy that can be utilized in living this new order of life. Digital literacy in the 4.0 era is important because it can make someone think critically, creatively, and innovatively and can solve problems, communicate more smoothly, and collaborate with more people (Kemendikbud, 2017). What's more, for society 5.0 where digitalization is the main tool in dealing with social challenges, digital literacy plays a very important role in connecting all the necessary information.

Human Resources (HR) competency development in the field of digital literacy is very important in the madrasah for the success and progress of the madrasah. Robbins & Coulter (2010) states that organizational success starts with HR, so it needs to be managed properly. That is why there is a need for HR competency development management (Marlina, 2015). Educators need to develop their digital literacy to keep up with current demands to become professional language teachers in the digital era (Kurniawati et al., 2018). Digital literacy is needed by educational staff to make all of their work easier and can be managed and utilized as best as possible (Ningsih et al., 2020).

Based on the results of an interview with one of the teachers at MAN 1 Surakarta, to create a digital madrasa it is necessary to be supported by human resources who have additional competencies, one of which is digital literacy competency. Based on the results of a perception questionnaire about educators' digital literacy competencies at MAN 2 Surakarta, data was obtained that teachers' digital literacy competencies were at a moderate level, namely 48.5. From 10 teacher respondents at MAN 2 Surakarta, the results obtained were 9 teachers with moderate perceptions of digital literacy and 1 teacher with low perceptions of digital literacy. The level of digital literacy competence is measured from three dimensions, namely: digital insight, digital skills, and digital behavior. Digital literacy competency indicators in the survey are based on the theory [Law et al. \(2018\)](#).

The declaration of digital literacy in madrasah still found several problems, including some teachers who were still reluctant to develop their digital literacy competencies and were not aware of or literate in digital literacy. This can be seen from how the methods and techniques used by the teacher in the learning process in class make students less enthusiastic and interested in learning material. Teachers are less able to present learning material interestingly. Some teachers have not taken advantage of currently developing information technology because they are not proficient in operating information technology.

Efforts are needed to develop digital literacy competencies for educators and education staff so that they can support professional tasks in learning management. The correct management system is needed, such as optimizing managerial functions in learning services. Managerial functions in developing HR competencies include planning, organizing, directing, and controlling (Hasibuan in [Kharismawan & Hidayati, 2016](#)). And according to [Kimani \(2011\)](#), planning is a rational and systematic way to determine the future steps of an organization. Meanwhile, organizing relates to making decisions regarding the tasks that must be carried out by each element of an organization. Directing itself is closely related to how to lead, motivate and coordinate an organization to achieve certain goals. The last managerial function is controlling, which is defined as a way of monitoring organizational activities so that they do not conflict with the initial goals.

Based on the description above, it is important to describe the implementation of the management function in the development of digital literacy competencies for educators

and education staff, especially at Madrasah Aliyah. This study is important to do considering that research on competency development management, especially among educators, has not been done much to increase digital literacy in schools/madrasahs. This is important for developing digital literacy competencies for educators and education staff by implementing good managerial functions.

Madrasahs need to prepare an HR development strategy program starting from planning, implementation, and monitoring which needs to be paid close attention to program management so that program implementation can be carried out efficiently. Furthermore, it is necessary to find the inhibiting and supporting factors for implementing the management function using the Baschke approach to self-determined learning (heutagogy). This digital literacy competency development management study is important so that educators and education staff and madrasah can certainly compete in global competition.

## **B. Method**

This research uses qualitative research methods, namely the study of a problem that is designed or designed without using statistical procedures. The research design uses a descriptive research design. Qualitative research is research where data is not in the form of numbers obtained from recordings, observations, interviews, or written language. Qualitative research endeavors to comprehend a specific problem or research topic from the viewpoint of the local participants. Qualitative research is highly effective at acquiring specific information about the culture, values, opinions, and social context of a given population (Mack et al., 2005). Researchers systematically examine what people think about and why they think that way. The data that has been collected is then analyzed, interpreted, and the final step is concluded (Moleong, 2013). The object under study is the application of management functions to develop digital literacy competencies for educators and education staff at Madrasah Aliyah in Surakarta.

The research was carried out from April 2022 to February 2023. The research was carried out at Madrasah Aliyah, namely MAN 1 Surakarta and MAN 2 Surakarta. The reason is that the two madrasahs are Islamic high school institutions that seek to respond

to future developments and challenges in science and technology, the information age, and very fast globalization.

Sources of data (participants) in this study were: the head of the madrasah, the deputy head of the madrasah for curriculum, the head of the administration (*tata usaha*/TU), activists of madrasah digital literacy, educators and education staff at MAN Surakarta. Selection of participants using purposive sampling. The criteria used are state Madrasah Aliyah implementing digital madrasah in e-learning, e-report, and all educators and students at MAN Surakarta. The criteria for selecting informants are "information wealth" owned by participants and participants who can provide important information about experiences and phenomena experienced related to digital literacy activities for educators and education staff in madrasahs.

Data collection techniques in this study include observation, in-depth interviews, and document review. Participatory observation is by being directly involved, researchers observe what people do, listen to what they say, and participate in their activities (Sugiyono, 2014). The technique for testing the validity of the data uses the triangulation method. Method triangulation techniques include checking the degree of trust in research findings using several data collection techniques and checking the degree of trust in several data sources using the same method (Moleong, 2013).

Data analysis techniques using qualitative analysis. The steps of qualitative data analysis according to Miles & Huberman (2012) are data collection, data reduction, data presentation, and conclusion. The process of the four components is a cycle in which the processes of data collection, data reduction, data presentation, and conclusion are a series of analytical activities sequentially and one after another.

## **C. Result and Discussion**

Digital implementation in MAN 1 and MAN 2 Surakarta is not only in the realm of learning but also in the realm of madrasa governance. Several digital-based programs are also found in madrasah, including Computer-Based National Examination (*Ujian Nasional Berbasis Komputer*/UNBK), National Standardized Madrasah Final Examination (*Ujian Akhir Madrasah Berstandar Nasional*/UAMBN), Madrasah Science Competency (*Kompetensi Sains Madrasah*/ KSM), National Standardized Madrasah Examination (*Ujian*

*Madrasah Berstandar Nasional/ USBN*), Educator Information System and Ministry of Education Staff Religion (*Sistem Informasi Pendidik dan Tenaga Kependidikan Kementerian Agama/SIMPATIKA*), Madrasah Curriculum Information System (*Sistem Informasi Kurikulum Madrasah/ SIKURMA*) for the Digital Report Card Application System. Whereas in the administrative aspect, MAN 1 and MAN 2 Surakarta have utilized the acceptance of new students (*Penerimaan Peserta Didik Baru/PPDB*) and online presence.

Based on the results of an interview with the teacher of MAN 1 Surakarta (Mrs. C) that the implementation of digital applications such as digital report cards has been implemented by the teacher, where the account is held directly by the homeroom teacher, and only the students concerned can access it. The CBT (Computer Based Test) online madrasah exam has been implemented at MAN 1 Surakarta since 2020 online, where the form of the exam is paperless, and students take their exams at school. In line with the results of interviews with teachers of MAN 2 Surakarta regarding the implementation of digital applications at MAN 2 Surakarta, the e-learning application is used as a free online application for madrasah products to facilitate the learning process in class, where teachers can deliver material online, access digital books, enrichment materials, online attendance, online discussion forums, integrated video conferences with students and stakeholders without time limits and free of charge, madrasah (administrators), subject teachers, guidance and counselling teachers, homeroom teachers, students, supervisors (head of madrasah and staff).

The development of digital applications is encouraging progress. However, this progress has not been fully matched by the readiness of human resources, especially educators and education staff to go digital madrasah. To support the vision of digital madrasah, madrasah has the task of providing education with four main characteristics, namely digital literacy, character education, lifelong learning, and thorough learning. Increasing the digital literacy of teachers and education staff is a necessity. Educators and educational staff are one of the components that play an important role in realizing digital madrasah as the digital madrasah concept was rolled out by the Ministry of Religion (Kemenag) in 2019.

Madrasah educators and education staff are encouraged to have knowledge of digital literacy and skills regarding the use of hardware and applications to complete

management and administrative tasks effectively and efficiently. Educators must complete a set of knowledge about digital skills, digital ethics, digital culture, and digital safety. Teachers are required not only to have digital skills, digital culture, and be safe in digital activities but no less important is that teachers and education staff have good manners and maintain good morals in cyberspace. The results of interviews with digital literacy activists at MAN 1 Surakarta show that according to Mr RM, in an increasingly advanced era like today, teachers are required to always improve their teaching abilities. A teacher can't maintain a way of teaching that is considered conventional. The keywords are innovative and creative, especially in the IT field. Teachers are required to have digital skills in creating content that is interesting and easy for students to understand so that learning objectives can be achieved properly, said Mr. R., author of the book *Mengajar Kreatif Bersama Guru Inovatif*.

To develop the digital literacy competencies of educators and education staff in the era of the industrial revolution 4.0, madrasah heads made various efforts to manage HR development, namely planning, organizing, implementing, and evaluating.

## **1. Management of digital literacy competency development**

### **a. Planning**

The first stage is planning which is directed at efforts to foster a culture of digital literacy among teachers and education staff. One of the planning objectives is to meet teacher employee performance standards (*Standar Kinerja Pegawai/SKP*) and for promotion material for teachers, especially civil servants. Planning for the development of digital literacy competencies for educators and education staff at MAN 1 Surakarta begins with a coordination meeting involving the head of the madrasah as a director, the deputy academic as the chairman, the deputy public relations as a deputy chairman, the head of the TU as the secretary and the person in charge of the program, namely madrasah digital literacy activists by establishing goals to be achieved, determine program objectives and design digital literacy development activity programs. The design of the digital literacy competency development program for educators is in the form of workshops, training, seminars, MGMP (*Musyawaharah Guru Mata Pelajaran*), and others.

#### **1) Planning form**



Setting goals, determining program objectives, designing activity programs, and developing digital literacy competency development funds (MAN 1). Planning begins with setting goals, human resources involved, program activities, costs required, infrastructure, and implementation time (MAN 2).

## 2) Procedure

As discussed at the meeting at the beginning of the semester, the results of the planning were in the form of goals, objectives, activity program plans, and activity funds (MAN 1). Holding a special meeting for the head of the madrasah and the madrasah IT Team madrasah (MAN 2).

The planning strategy for the development of educators and education staff carried out at MAN 1 Surakarta is to prepare development programs in the form of training, seminars, and competency development workshops for educators and education staff. Procurement of training activities as well as participating in educational webinars or through the development of academic qualifications, providing an understanding of digital literacy skills for educators and school members, supporting infrastructure, and the existence of school policies on digital literacy are the best solutions for developing and fostering excellent and professional human resources (Iqbal, 2020). To develop educators' digital literacy competencies, training can be carried out by understanding the competencies possessed by each student. Educators can provide a case study with different levels of difficulty to students so that they can solve the problem with their understanding (Wildgans-Lang et al., 2020).

## **b. Organizing**

The second stage is organizing digital literacy competencies for educators and education staff. Organizing was carried out by dividing the tasks of the literacy team at MAN 2 Surakarta:

- 1) Developing digital literacy competencies throughout the madrasah ecosystem, especially developing digital literacy competencies for educators and education staff.
- 2) Participate in the success of the National Literacy Movement (*Gerakan Literasi Nasional/GLN*) program in schools which was launched in 2015 and the National

Digital Literacy Movement (*Gerakan Literasi Digital/GLD*) from the Ministry of Communication and Information in 2021

- 3) To make the madrasah program successful, namely digital madrasah which was rolled out by the Ministry of Religion in 2019.

While the division of tasks for the MAN 1 Surakarta digital literacy team is:

- 1) Carry out jobs that support the success of building a culture of literacy among teachers and education staff
- 2) Coordinate and consult with related parties for the smooth implementation of the intended tasks
- 3) Report on the implementation of tasks as a team in charge of the digital literacy movement of educators and education staff to the head of the madrasah.

The selection of human resources who manage the madrasah digital literacy movement is dominated by young teachers, as flag bearers in the development of digital literacy competencies. The goal is to create educators who have digital literacy competencies so they can compete and survive in the global era. The next step after forming a literacy team, division of tasks, and staff structure, by collaborating with related parties to support digital literacy competency development programs at MAN 2 Surakarta, namely: Pro2 FM, UNS, and so on. Meanwhile, MAN 1 Surakarta is collaborating with Solopos and Nyalanesia (a platform that provides dozens of integrated literacy programs that facilitate Indonesian Academics), etc.

The madrasah digital literacy team consists of a director, namely the head of the madrasah, the chairman, namely the deputy head of academics, the vice chairman, namely the deputy head of public relations, the Secretary: head of administration, PJ (*Pegiat Literasi Digital Madrasah*), members. The tasks are: (1) form a madrasah digital literacy team according to the job description, (2) develop a staff structure that describes how working relationships between them should be built, (3) build networks (networking) with various related parties. At this stage, the two madrasahs have determined the madrasah digital literacy team, organizational structure, and job descriptions. In line with the organizing function, namely compiling the organization by designing the structure and relationships between the

tasks that must be carried out by educators and educational staff who are prepared between jobs, employees or workforce, and physical factors so that cooperation can be established with one another (Marnisah, 2020).

### **c. Implementing**

The third stage is the implementation of developing digital literacy competencies for educators and education staff. This implementation is carried out through two programs, namely an informal program where madrasahs socialize literacy competency development programs for educators and education staff by promoting several things: 1) being tabayyun when hearing information that is not yet clear, 2) being fastabiqul khairat, namely competing in goodness, 3) being polite, ethical, using manners, and having good morals when communicating, 4) optimizing madrasah culture that is thick with Islamic nuances to support the development of digital literacy competencies for educators and education staff and formal programs in the form of training, seminars, MGMP, and workshops.

The results of the implementation of training for teachers and education staff in developing literacy competencies were declared successful. Some of the activities that have been carried out in the context of developing digital literacy competencies for teachers and education staff at MAN 2 and MAN 1 Surakarta include:

- 1) Webinar with the title “Pendidikan Inovatif, Panutan di Era Pemulihan”, with one of the inspirational teachers from MAN 2 Surakarta, Mrs Diah, on Friday 20 May 2022
- 2) Workshop Pendampingan Penelitian Sosial dan Publikasi Ilmiah cooperation with RG Habitus Education of Sociology Anthropology Department with MAN 2 Surakarta on June 23, 2022, in Indrakila Room UNS
- 3) Discussion of literacy with titles “Bahagia Menulis, Menulis untuk Bahagia” is a form of developing the Digital Literacy Program, a form of collaboration with Pro 2 with a literacy activist from MAN 2 Surakarta, Mrs Diah
- 4) Training on the use of digital-based applications for education staff
- 5) Be tabbayun, have good morals, and be polite in interacting both online and offline. This is one of the applications of Islamic principles in developing digital literacy competencies of educators and education staff in madrasahs

- 6) Encouraging the publication of literary works (fiction), poetry anthology books written by teachers of MAN 2 Surakarta with the title *Pelangi Kala Pandemi*
- 7) Workshop write popular articles in collaboration with Solopos on MAN 1 Surakarta
- 8) Workshop Pembelajaran Sejarah Asyik Dengan Komik, which was held by the History MGMP at MAN 1 Surakarta
- 9) Encouraging the publication of scientific work in the form of an anthology book of teacher articles with the title *Merefleksikan Indonesia 2021*.
- 10) Give awards to outstanding teachers in digital literacy
- 11) Encouraging educators by massively disseminating information on scholarships for further study and digital competency improvement training for educators and education staff
- 12) Disseminate madrasah culture through social media so that educators and educational staff can internalize this culture in their lives.

Through this training, teachers learn how to use features in e-learning such as Google Classroom, Google Meet, Zoom, and others. These apps help with discussion, assignment/quiz creation, and grading. Through these applications, the learning process at MAN 2 Surakarta can be carried out optimally, effectively, and efficiently.

As [Nasrullah \(2021\)](#) argues, in providing digital literacy introduction training to educators, there are two approaches, namely the introduction to lectures and discussions about digital literacy and the training approach. This is following the opinion of [Ulrich \(1998\)](#), the build strategy is an investment made in employees to improve their quality for the better.

#### **d. Evaluating**

The fourth stage is to evaluate to find out to what extent the efforts made have achieved the goals, objectives, and development programs that have been prepared and determined at the beginning. Based on the results of interviews with digital literacy activists at MAN 1 Surakarta, data was obtained that after digital literacy competency development activities in the form of workshops, seminars, and training were carried out, the person in charge of the activity (madrasah digital literacy activist) reported the results of these activities to the head of the madrasah. The head

of the madrasa and the team carry out a joint evaluation regarding the implementation of activities. The evaluation results showed: 1) the objectives of the workshop were well achieved, judging from the workshop products in the form of scientific articles published in Solopos 2) due to limited Madrasah DIPA funds, teacher digital literacy competency development activities in the form of teacher article writing workshops, have not been able to reach all teachers. Follow-up activities in the form of holding digital literacy competency development activities for educators with a different theme next year, it is advisable to add more participants and can be opened in general with independent (paid) contributions.

Activities at the evaluation stage are: (1) controlling the program implemented by the designated digital madrasah literacy team; (2) stimulating a productive work climate with motivation and providing inputs to competency development programs. The madrasah head accommodates input from external parties such as the madrasah committee. The contribution of the madrasah committee in the framework of contributing to the success of the literacy program is in the form of outreach within their respective families and financial support that is routinely collected by the parents (Fitriah, 2018).

## **2. Factors supporting the management of digital literacy competency development for educators and education staff**

Several factors support the management of digital literacy competency development for educators and education staff, namely: support from top managers (madrasah heads) and stakeholders:

- a. Further study support by providing massive socialization of scholarships from the Indonesian Ministry of Religion
- b. Madrasahs provide supporting facilities for competency development programs in the form of adequate internet access
- c. Support in the form of madrasah DIPA funds
- d. There are rewards given to teachers who excel, especially in the field of digital literacy
- e. Providing opportunities for educators and education staff to participate in development activities

- f. Motivation from educators (young teachers) and education staff to carry out literacy competency development is quite good (implementation stage)
- g. Optimizing training, workshops, and seminars related to the development of digital literacy competencies for educators and education staff.

This is in line with the statement of [Iqbal \(2020\)](#) that the best solution is needed to improve teacher digital literacy, namely by providing training activities, seminars, workshops, and attending educational webinars and through developing academic qualifications, providing an understanding of digital literacy skills for educators and school members, supporting facilities and infrastructure, as well as school policies regarding digital literacy.

### **3. Factors that obstacle the development of educators and education staff digital literacy competence**

There are several inhibiting factors in the management of the development of digital literacy competencies for educators and education staff, namely: quality of human resources, many teachers are not aware/literate about digital literacy and have no desire to develop their digital literacy competencies, have not used much digital media in the learning process and also help in realizing professionalism as educators. There needs to be awareness in each madrasah of the importance of developing digital literacy competencies. Apart from self-awareness to developing skills, it also requires support from the surrounding environment ([Asari et al., 2019](#)). Regarding the enthusiasm of development workshop participants, especially "elder" teachers, they are usually less enthusiastic, considering their age and orientation, they are no longer too focused on career development (implementation stage). This is in line with the study of [Kurniawati, et al. \(2018\)](#), which states that the obstacle faced by teachers in implementing ICT is the age of the teacher, teachers who are older in terms of teaching experience, do not support the integration of ICT tools in the classroom. They are too old to understand new technology and their belief in the effectiveness of traditional teaching methods. This is in line with [Andiarini et al. \(2020\)](#) who explain that one of the factors hindering the management of digital literacy development is the low digital literacy competence of educators.

## **D. Conclusion**

The management of digital literacy competency development for educators and Madrasah Aliyah education staff in Surakarta includes: (a) planning is carried out in working meetings by formulating objectives that are following the vision and mission of the madrasah, goals, and program activities; (b) organizing includes determining the organizational structure, job descriptions, and staffs of the madrasah digital literacy team; (c) implementing digital literacy competency development through two programs, through informal programs and formal programs; (d) evaluating and supervision are carried out internally by the head of the madrasah. Supporting factors are support from the madrasah in the form of complete facilities, madrasah DIPA funds, and support for further studies with scholarships-increasing digital competence. Factors hindering development management are the character of human resources (some educators are not aware of digital literacy, and participants are less enthusiastic about participating in development activities).

Suggestions regarding the management of digital literacy competency development for educators and education staff in madrasahs include: madrasah heads are expected to be able to establish appropriate policies in the use of technology and information and pay more attention to the needs of educators and education staff in the digital era by providing training, workshops, seminars to develop digital literacy competencies of educators and education staff in madrasah. Educators and education staff are expected to always be self-motivated and develop their competence from time to time because teachers are at the forefront of improving the quality of education and the quality of student resources to create a golden Islamic generation in the future.

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