Strategy to Strengthen Teachers' Digital Competence

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ABSTRACT

This study explores the strategies implemented by SMA Yabakii II to improve teachers' digital competence. This study uses a qualitative approach with the type of case study. The research instrument is the researcher himself. Data collection techniques used were in-depth interviews, participatory observation, and documentation. The research subject is the principal, and the teacher is snowball. The key informant in this study was the principal. The steps and data analysis used the Creswell (2014) model. The validity of the data is carried out with the criteria of credibility, transferability, dependability, and confirmability. The results of the study found that increasing teacher digital competence included; (1) Holding laptop meetings, (2) Internal IT training, and (3) Awards. This strategy can be a reference for other schools to improve teacher digital competence so that digital skill strengthening can be comprehensive for teachers and the quality of students.

Keywords: Strategy, School Quality Improvement, Teachers' Digital Competence.

1. INTRODUCTION

Digitalization of various aspects of life supported by technology has increased along with industry 4.0 [1]. Digitalization in education also follows industry 4.0, leading to educational innovation changes [2]. Digitalization makes teachers need to update the teaching system and integrate technology into the learning process [3]. Teacher digital competence has become one of the core competencies [4], which is defined as the ability of teachers to integrate and use technology for educational purposes in a professional manner [5].

The opinion of Tusiime, Johannesen, & Gudmundsdottir stated that teachers' digital competencies could be applied and developed when teachers have understood and applied them to the student learning process and make it easier for students to understand learning [6]. Improving teacher digital competence and increasing professionalism through training, upgrading, seminars, FGD, and knowledge sharing. The training provided aims to create interactive learning media [7], exciting and memorable. In addition, teachers could increase teacher digital competence through training/workshops on digital platforms to develop teaching materials [8].

Yabakii II High School is also experiencing a period of adaptation in the digital era. The encouragement from the community who wants good quality education motivates to improve the quality of digital-based education. The quality of education has become a public concern due to its good reputation in teaching and the concept of learning that integrates general learning with Islamic nuances. However, there are several obstacles to the principal's attention to overcome. In Yabakii II high school, many teachers do not have laptops personally, which indirectly hinders teachers from honing their digital skills. In addition, the obstacle also lies in the ability of teachers who are not yet proficient in applying digital skills well, especially in learning. Therefore, this study aimed to describe the progress of improving the quality of education in era 4.0 and a description of the obstacles and strategies that can be applied as solutions so that it can be a reference for other schools to implement teacher digital competency improvement.

2. METHOD

This study uses qualitative methods to explore strategies to improve teachers' digital competence

utilizing a case study approach with data collection through interviews, observations, and documents[9]. The sampling technique used is snowball sampling, meaning that the number of respondents increases until redundancy is obtained [10]. The validity of the data is carried out with the criteria of (1) credibility, (2) transferability, (3) dependability, and (4) confirmability [9]. Data analysis in this study was carried out using the Creswell model [11]. Overall, this research was conducted for three months, from June – August. Images, tables, and graphs will be presented at the end of the study.

3. DISCUSSION & RESULT

3.1. Quality Of Education At Yabakii Ii High School

The achievement of educational goals is a top priority in formulating strategies and planning by empowering resources optimally. Good quality education is realized with full service by meeting customer needs [10]. The fulfillment of these eight standards and providing an overview of school quality can also increase the enthusiasm of new students and the community's enthusiasm in using the school's services [12]. The form of improving the quality of education that has been implemented is through student management. Improving the quality of education through student management can help schools plan, accept students, and coach [13]. In the last three years, Yabakii II High School has increased the number of students.

Improving the quality of education through teaching is realized by improving learning management and interaction with students. Thus, it can increase students' motivation and learning outcomes [14]. Meeting the needs of the community that demands the quality of students who are highly intellectual and religious following Islamic teachings, Yabakii II High School, in addition to providing three general majors for students, also offers Islamic spiritual lessons include; 1) PAI; 2) SKI; 3) Qur'an Hadith; 4) Fiqh, and; 5) Aqidah Akhlak.

Infrastructure is one of the crucial components in supporting quality education and a point that Yabakii II High School improves. Yabakii II High School has classrooms and laboratories to keep the learning process.

3.2. Digital Competence Of Teachers At Yabakii Ii High School

Improving the quality of teachers through digital competence, which is well supported, will produce more qualified graduates [15] who use IT and digital media to help work related to communication, information management, & collaboration [16]. Reisoğlu & Çebi view that digital competence requires cognitive, emotional, and sociological knowledge in using digital media effectively [17]. So that digital competence can support a job to be effective. Digital competence is also essential for future teachers in developing learning strategies and critical management of data information [18].

Improving teacher digital competence can be through integrated training with supporting modules that include a) information and data literacy, b) communication and collaboration, c) digital content, d) security management, e) problem solving [17]. Every school can apply points in the teacher digital competency improvement module to achieve the highest adoption, adaptation, appropriation, and innovation [4].

Efforts are being made to improve the competence of teachers at Yabakii II High School to empower superior human resources in providing educational services to students. Improvement of teacher competence continues to be pursued, one of which is by encouraging certified teachers. 11 out of 19 teachers have certification status and have gone through professional teacher education. In addition to increasing teacher human resources through certification, the principal of Yabakii High School also seeks to improve digital competence for teachers to maximize the quality of teaching.

During the Covid-19 pandemic, Yabakii II High School held an online learning transition. Some teachers experienced difficulties operating learning in the online system during this process. Only a few teachers have computers/laptops to support distance learning. In addition, in general, teachers' digital competence at Yabakii II High School is still at the "adaptation" level, so teachers are not fully independent in making learning media. Seeing this condition, the principal who acts as a leader takes steps by setting a focus on developing teacher competence in IT-based learning by seeking several things, namely; 1) Increase distance learning through the use of internet media; 2) Management of learning resources through digital media; 3) Mastery of learning software & applications; 4) Utilization of information technology in learning; 5) Mastery of social media in learning.

In improving teachers' digital competence at SMA Yabakii II, the principle applies strategies for online learning, such as limited use of devices at home, skills, and innovative learning media. In response to this, the principal implemented several strategies, namely; 1) Procurement of Teacher's Laptop Gathering, 2) Training on making learning media, and 3) Giving rewards.

3.2.1. Procurement of Teacher's Laptop Gathering

Starting from the obstacles in implementing online learning experienced by teachers, one of which is the availability of computer/laptop devices that support education. Only three teachers at Yabakii II High School have IT equipment, so the principal offers an internal non-formal program by procuring a laptop gathering. This program is managed independently by the teachers. so that the implementation can be comprehensive according to shared expectations

3.2.2. Procurement of Training on the Use of Learning Media

This training aims to improve teachers' digital competence at the adaptation level to improve the quality of the digital-based learning process. School principals implement training strategies for learning media through peer groups. This training is pursued by maximizing PLC (professional learning communities) to support each other in learning things that can support professionalism and encourage teaching innovation [19]. This strategy is carried out 2x in 1 month, held in schools directly with the assistance of education personnel who are experts in IT operations.

3.2.3. Rewards

Giving rewards is quite effective in increasing the enthusiasm of individuals and groups [22]. This strategy is considered to encourage the spirit of teachers to develop themselves through participation in training held by the school's internal parties. Giving rewards is the authority of the principal, which is carried out continuously and is felt to have increased the enthusiasm of the Yabakii II High School teachers in the self-development program.

4. CONCLUSION

The strategies implemented by the principal in addressing the barriers to digital competence of teachers at Yabakii II High School include; 1) Procurement of Teacher's Laptop Gathering, 2) Training on making learning media, and 3) Giving rewards. This step is to seek a solution in responding to the distance learning policy during the Covid-19 pandemic so that learning could continue to run optimally. Therefore, this study wants to describe the progress of improving the quality of education in the 4.0 era, obstacles, and strategies as solutions. So that it can be a reference for other schools to implement teacher digital competency improvement. Suggestions for strengthening teachers' digital competence, principals and teachers can be more cooperative and mutually motivating, and principals can

participate in learning digital competencies to assist teachers better. In the
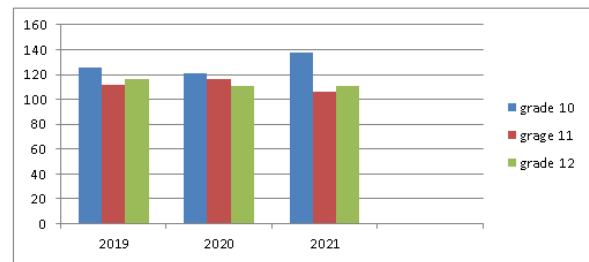
5. FIGURES AND TABLES

Figure1. Yabakii II Cilacap High School students

Table 1. Yabakii II Cilacap High School Facilities and infrastructure

Facilities and infrastructure	Amount
Classroom	13
Toilet	3
School managerial room	4
Library	1
School healt unit	1
Praying room	1
Laboratory	4
Computer/laptop	55

ACKNOWLEDGMENT

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