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Improving Teachers' Competence in Making Digital Literacy Teaching Modules at School Through Workshops

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Abstract

The objectives of this study are 1) To describe teachers' competence in making digital literacy teaching modules before the workshop at SMPN 24 Bengkulu Tengah. 2) Developing alternatives for making digital literacy teaching modules to improve teacher competence through workshops at SMPN 24 Bengkulu Tengah. 3) Proving that teachers' digital literacy teaching modules can be improved through workshops at SMPN 24 Central Bengkulu. This research used qualitative research procedures. The test was conducted in at least three cycles, which included planning activities (plan), implementation (act), observation (observe) and reflection (reflect). The subjects in this study were all teachers of SMPN 24 Central Bengkulu. The data analysis technique used qualitatively in this study was carried out by interpreting the data on the results of observations made during the coaching process, as well as the achievement of success indicators from the workshop results of each cycle. the conclusions of this study are as follows: 1) The description of the ability of teachers in making digital literacy teaching modules, the majority of teachers at SMPN 24 Bengkulu Tengah have a less than optimal level of ability. This shows the need for further efforts in training and mentoring teachers in improving their ability to make digital literacy teaching materials. 2) Efforts to improve teacher competence in making digital literacy teaching modules at SMPN 24 Bengkulu Tengah are carried out through workshops. 3) Making digital literacy teaching modules through workshops is successful in improving teacher competence in making teaching modules for teachers at SMPN 24 Bengkulu Tengah. This is indicated by the score of the observation of teachers which continues to increase from cycle 1 to cycle 3. In cycle 1 the score obtained was 178 points or 70.63%, then increased in cycle 2 to 212 points or 84.12%, and the maximum score achievement was 240 points or 95.23% which occurred in cycle 3.

Keywords**:** *Competency, Digital Literacy, Teaching Module, Workshop.*

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Introduction

The Industrial Revolution 5.0 requires students to have literacy and numeracy skills. Teachers need to have the competence to create an environment that fosters interest in literacy and implement learning processes that improve literacy skills. Reading for some people has become a culture. Even a small part of the community reads as a necessity. The types of reading vary from textbooks and fiction books such as novels and fairy tales. In today's digital age, people have been greatly facilitated by the sophistication of technology because they can read books through e-books provided by smartphones by downloading both free and paid ones.

Based on Perdirjen GTK No.2626/B/HK.04.01/2023 on the teacher competency model, teachers who have literacy skills in accordance with professional competencies are teachers who are able to master literacy strategies in designing learning in the context of the applicable curriculum and in line with the needs of students. Teachers are expected to be able to model reading and writing through reading and writing habits and reflecting to improve the quality of the learning process. Digital literacy is the ability to recognize, understand, interpret, create, compute and communicate using visual, auditory and digital symbols on cross-disciplinary and scientific topics (International Literacy Association, 2016). In the realm of learning, literacy is an important skill that every student must have to master various subjects. Digital literacy is closely related to the term literacy. As stated at the beginning, literacy is broadly interpreted as language skills that include listening, speaking, reading and writing skills, as well as thinking skills that are elements in it.

Digital literacy is the ability to recognize, understand, interpret, create, compute and communicate using visual, auditory and digital symbols on cross-disciplinary and scientific topics (International Literacy Association, 2016). Meanwhile, Wells suggests that literacy is the ability to associate with discourse as a representation of experiences, thoughts, feelings, and ideas appropriately in accordance with the purpose. Graff (2006) defines digital literacy as the ability to read and write.

Digital literacy is very important for teachers and students because literacy skills will affect the success of their learning and life. Good literacy skills will help students in understanding oral, written, and picture/visual texts, therefore the development of student literacy in learning is always carried out in an integrated manner between listening, speaking, reading and writing activities. This is because the four skills have a very close relationship,

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although each has certain characteristics. Because of this very close relationship, learning in one type of skill can improve other skills. For example, learning to read can also improve speaking, listening and writing skills.

One way to improve teachers' competence in making digital literacy teaching modules at school is through workshops. Workshop is a learning method that is based on direct experience and practice and encourages participants to play an active role. Workshops are commonly used as an adult learning method, where participants carry out the learning process incentively and centered on solving a problem. Workshops are intended to provide assistance that is generally in the form of advice and guidance to resolve technical problems/issues.

The competence of teachers at SMPN 24 Bengkulu Tengah in making digital literacy teaching modules is still low. Therefore, from the background explanation above, the researcher is interested in conducting a study entitled "Improving Teacher Competence in Making Digital Literacy Teaching Modules at School Through Workshops (School Action Research at SMPN 24 Central Bengkulu Regency)".

Research Method

In this study the authors used qualitative research/research procedures to obtain in-depth information, information that has meaning. This research was carried out using a school action research design. testing was carried out in a minimum of three cycles, which included planning activities (plan), implementation (act), observation (observe) and reflection (reflect).The subjects in this study were all teachers, both civil servants and non-civil servants, a total of 14 teachers of SMPN 24 Central Bengkulu. To collect data and information, various techniques were used. Among them are: (1) Principal observation of the competence of making digital literacy teaching modules for teachers at SMPN 24 Bengkulu Tengah (2) competency assessment instruments for making digital literacy teaching modules for teachers, and (3) documentation studies in the form of digital literacy media documents. Data analysis techniques used qualitatively in this study were carried out by interpreting data on the results of observations made during the coaching process, as well as the achievement of success indicators from the results of the workshop each cycle. The results will be analyzed descriptively to measure the success of the coaching process in accordance with the objectives of this school action research.

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Result and Discussion

Result

Description of teacher competence in making digital literacy teaching modules before the workshop at SMPN 24 Central Bengkulu

This research was carried out with the results of an initial reflection on the teachers of SMP 24 Bengkulu Tengah, to understand the general picture of the making of digital literacy teaching modules. The initial data that the researchers obtained was a reflection of a clear picture of the improvement of teachers' initial competence in making and applying digital literacy teaching modules in the learning process. The reflection clearly indicates that the majority of teachers are still at a low level of competence in the use of technology in their learning context.

This is caused by several factors including, first, the lack of time to prepare materials through learning media with digital literacy teaching modules. Teachers often have many tasks and responsibilities, and preparing learning materials using digital literacy teaching modules requires sufficient additional time to create the learning media.

Secondly the lack of digital materials and resources, as not all subjects or topics have appropriate digital materials and resources. Thirdly, the limited ability of teachers to use tools that support the implementation of learning with digital literacy media. Some teachers may not have sufficient technological skills to effectively utilize digital literacy-based learning media in teaching. Fourthly the lack of adequate training in the use of technology in education can also be a barrier. Teachers need to be provided with relevant and continuous training to improve their skills in utilizing digital literacy media-based learning media.

Meanwhile, when referring to the UNESCO Opinion (Humaira et al., 2024) digital literacy is a skill (life skills) that not only involves the ability to use technology, information and communication devices, but also involves the ability to learn to socialize, critical thinking attitudes, creative, and inspiring as digital competition.

To summarize, besides referring to the skills of using technology, information and communication devices, digital literacy also involves the process of reading, understanding, writing, and creating something as a new knowledge or content.

According to Hamdani (Hamdani, 2011) teaching materials are all forms of materials or materials arranged systematically which are used to assist teachers or instructors in carrying out the learning process so as to create an environment or atmosphere that allows students to learn.

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Teaching materials are made to overcome learning difficulties.

The description of a teacher's competence in making digital literacy teaching modules may vary depending on their educational background, experience and personal understanding. Here are some points that researchers can describe about the competence of a teacher before the workshop on making digital literacy teaching modules:

1. Understanding of digital literacy concepts: How well teachers understand digital literacy concepts, such as online safety, digital ethics and the skills of finding and evaluating information online.
2. Mastery of technology: Whether teachers have the skills and proficiency to use the software and hardware needed to create digital literacy teaching modules.
3. understanding of digital literacy materials: The extent to which teachers have in-depth knowledge of digital literacy topics, including issues of online safety, privacy protection and digital ethics.
4. creativity in instructional design: The ability of teachers to design teaching modules with interesting and creative approaches to attract learners' attention.
5. Communication skills: The extent to which teachers can convey digital literacy information clearly and effectively to learners.
6. Understanding learners' needs: The ability to analyze the digital literacy needs of their learners, so that the module can be tailored to their level of understanding and needs.
7. Use of digital resources: The extent to which teachers can utilize digital resources in learning and whether they can integrate them well into the teaching module.
8. Integration of digital literacy in the curriculum: Teachers' understanding of how to integrate digital literacy into the school curriculum and how it can support the achievement of curriculum objectives.
9. Willingness to learn: Whether teachers have an open attitude to new learning and change and a willingness to attend training and workshops.

Steps for Implementing the Making of Digital Literacy Teaching Modules to Improve Teacher Competence through Workshops at SMPN 24 Central Bengkulu

In the context of this study, the results of the research involving three cycles have proven a significant improvement in teachers' ability to create digital literacy teaching modules. The action research design applied in this study focuses on the implementation of iterative cycles,

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where each cycle consists of four important stages, namely planning, implementation, observation or observation, and reflection (Maliasih et al., 2017).

Through this process, it is evident that the actions taken repeatedly in several cycles have succeeded in improving teachers' ability to create digital literacy teaching modules. Results from observations and evaluations in each cycle showed consistent improvements in teachers' understanding and skills in the use of technology. This reflects the effectiveness of the action research approach applied in this project to improve teachers' competencies in integrating technology in their teaching.

The action testing in this study was conducted in a minimum of three cycles, which included activities of planning, implementation, observation, and reflection.

The following are the steps described by Sugiyono (2019) in implementing the action:

1. Planning

   In each action testing cycle, the first step taken is careful planning. This planning is based on reliable and rational theories. In this planning stage, the steps taken include, first, compiling workshop materials, compiling teacher observation sheets in making digital literacy teaching modules at school, determining areas that need to be improved, and identifying competencies that trainees want to improve. In addition, it guides the training planning process by detailing components such as training materials, teaching methods, required resources and implementation schedule.

   The importance of workshop preparation cannot be underestimated, after the first preparation is completed, the second is the need to prepare research instruments, including observation sheets for principals and supervised teachers, enabling accurate and relevant data to be collected. A good research instrument is the key to measuring variables in accordance with the research objectives. The third is to organize the materials for the digital literacy teaching module workshop. Structured and relevant materials will increase the effectiveness of the training and achieve the set objectives.

   Fourth, preparing the room and necessary equipment, such as LCDs, projectors, laptops, pointers and other equipment, provides essential technical support in delivering the training materials effectively. A comfortable room and well-functioning equipment increase the comfort of the trainees. Fifth, preparing an attendance list is an important measure to track participants' attendance and record their participation in the digital literacy teaching module development workshop at SMP 24 Bengkulu Tengah. The

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attendance list also has important value as documentation data in the context of training-related research. All in all, this meticulous preparation creates a solid foundation for running efficient and effective workshops and educational research, ultimately contributing to improved educational quality and sustainable development.

2. Implementation

Once careful planning has been developed, the next step is the implementation of the action, which involves close collaboration between the researcher and various stakeholders and teachers at SMP 24 Bengkulu Tengah as the research subject, requiring collaboration as the key in this action testing process.

The implementation of this action becomes the core of the action testing process, where the steps that have been designed in the planning will be implemented in a real situation at school. During the implementation, careful observations were made to monitor how the creation of digital literacy teaching modules was implemented by teachers through workshops. So that in this process, real changes in the practice of making digital literacy teaching modules can be measured and observed.

The results of this study will show the extent to which this action test is successful in improving teachers' competence in creating digital literacy teaching modules in their learning. By using this approach, it is expected that the use of digital media in the form of literacy by teachers will experience a significant increase in a certain period of time, and its positive contribution to student learning outcomes can be clearly measured.

The implementation of the action was carried out in three cycles, where each cycle had a score indicator that was used as a reference for progress at each workshop meeting. Furthermore, the principle of experience is also emphasized, where experiences, including mistakes, are used as the basis for understanding concepts in learning activities. This reflects an experiential learning approach that promotes deeper and more relevant understanding. The next principle is relevance and impact of learning, which indicates that adults tend to be more interested in learning subjects that have direct relevance to their work or personal lives. This shows the importance of providing content that can be connected to real-world situations.

3. Observation

The next activity in testing this action is to observe or observe the process of

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implementing the action. Observation has a very important role in research, especially in understanding the context, collecting data, and gaining deep insight into the phenomenon being studied. According to Abdurrahman in (Firdiansyah, 2015) Observation is a data collection technique carried out through an observation accompanied by notes on the state or behavior of the target object. In using observation techniques, the most important thing is to rely on observations and record all existing conditions to prove the truth of the information the researcher asks directly to the research subject. Data obtained from observation can support deeper analysis and stronger research results. Based on the results of observations that have been made and careful data analysis, valuable information has been found in this study.

a. Cycle 1

In cycle 1, the ability of workshop participants, namely teachers of SMP 24 Bengkulu Tengah, reached a score of 178 points. This was certainly still far below the expected score of 85% of the maximum score or 214 points. This result illustrates that the workshop participants were able to master the material presented by the resource person. This achievement is an indicator of the success of the workshop in making digital literacy teaching modules, although there are still many shortcomings in the participants, but these results illustrate that the workshop participants already have the ability to use media that can support more creative and efficient learning.

b. Cycle II

In cycle II, significant achievements were achieved, where all teachers succeeded in making digital literacy teaching modules with a score that experienced a significant increase of 212 points. Experienced an increase of 34 points compared to cycle I, besides that the increase in points was accompanied by an increase in the ability of workshop participants, in making and processing digital literacy teaching modules delivered by resource persons. There are still shortcomings in the training process in several indicators of research instruments that some participants still have difficulty in applying, but it does not really affect the results of the study.

c. Cycle III

Cycle III showed further improvement, with the average score of teachers' ability to make digital literacy teaching modules reaching a score of 240 points, an

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increase of 28 points compared to the previous research in cycle 2. Although the increase was not as large as cycle I to Cycle II, this achievement succeeded in showing very good progress in developing teacher competence in making digital literacy teaching modules.

d. Reflection

The last activity in action testing is reflection. Reflection in classroom action research includes analysis, synthesis, and assessment of the results of observations of the actions taken. If there are problems and the reflection process, a reassessment process is carried out through the next cycle which includes activities: re-planning, re-action, and re-observation so that the problems faced can be resolved (Nanda et al., 2021).

Reflection has a very important role in the implementation of research. It involves critical thinking, evaluation, and analysis of the steps taken, as well as a deeper understanding of the research process. Reflection allows researchers to revisit their research methods, research questions, and approaches.

The essential aspects of reflection activities include making improvements to success and achieving action goals. Another urgent aspect of reflection is the emergence of improvements in the professional competence of teachers. Therefore, teachers classified as professionals are teachers who have the ability to change and follow changes for learning steps and services carried out continuously (Nanda et al., 2021).

The results of the reflection in cycle 1 by obtaining a score of 178 or 70.63% of the workshop participants, namely teachers of SMP 24 Bengkulu Tengah, already have a basic in the use of digital technology, this is reflected in the number obtained from the observation, namely 178, far below the value set by the researcher, namely 214 or 85%.

While the reflection in cycle 2 received a score of 212 or 84.12%, which was already in the good category, when compared to cycle I. and there were still teachers who had difficulty in the practice of making digital literacy teaching modules.

In the reflection of cycle 3, it was concluded that the ability of SMP 24 Central Bengkulu teachers had developed very well. This is known from the score obtained from cycle III which is 240 or 95.23%, far above the expected score of 214

or 85%. Based on observation data, the action of workshop training can improve teacher competence in making digital literacy teaching modules at SMP 24 Bengkulu Tengah. This is evidenced by the increase in teacher achievement in using learning media from cycle I to cycle III.

Improving Teacher Competence in Making Digital Literacy Teaching Modules Through Workshops at SMPN 24 Central Bengkulu

This research highlights the significant results of the workshop on making digital lieteration teaching modules carried out at SMP 24 Bengkulu Tengah as training conducted to improve teacher competence in innovating in making more innovative and efficient learning media to be easily understood by students in the classroom. With the results on indicators 1 to 6 carried out through 3 cycles, the following results were obtained: The results of the 6 indicators in cycle I provide the following picture:

Indicator 1

The understanding of the importance of making digital literacy teaching modules in schools is very good and can be understood thoroughly, this can be seen from the results in the observation of indicator I, but there are 2 teachers who cannot understand well. Of the 14 workshop participants, there were respondents/teachers who scored perfectly. That is, 4 teachers scored 3 with a total score of 12. 8 teachers scored 2 with a total score of 12 and there were 2 teachers who scored 1 based on indicator 1. This does not affect the average teacher ability in indicator 1.

Indicator 2

Indicator II has the aim of making digital literacy teaching modules for 14 respondents / teachers. In the results of indicator II cycle 1, it was found that 7 teachers had received a score of 2 with a total of 14 scores, 7 other teachers received a perfect score of 3 with a total of 21. Indicator II shows the increasing ability of respondents.

Indicator 3

In indicator III the teacher must be able to understand the development of teaching module material. Of the 14 teachers or respondents, it shows that there are still respondents who cannot understand the development of material, this can be seen from indicator III in cycle I, 5 teachers got a score of 1 with a total score of 5, 5 other teachers got a score of 2 with a total of 10, and 4 teachers got a score of 3 with a total of 12. From the results of indicator III, it shows

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that the teacher's ability is still not even.

Indicator 4

Indicator 4 is that teachers understand the media used in making teaching modules. Respondents are quite able to understand the media used, this can be seen in indicator 4. Of the 14 respondents, only 1 respondent scored 1, the remaining 9 respondents each scored 2, 4 respondents scored 3.

Indicator 5

Indicator 5 is that teachers understand how to access and use a pc/laptop to make teaching modules. The results of indicator 5 show that there are no significant obstacles, only 1 respondent scored 1, 8 respondents scored 2, 5 respondents scored 3.

Indicator 6

Indicator 6 is that the teacher is able to digitize the results of making teaching modules. The results of indicator 6 are quite disappointing that many respondents cannot digitize the teaching module, this is shown in 14 respondents, 6 of whom get score 1, then 6 respondents get score 2, and only 2 respondents get score 3. This shows that the results are not optimal in cycle I.

Cycle II on 6 research indicators gave the following results:

Indicator 1

In indicator 1 in cycle II teachers understand the importance of making digital literacy teaching modules in schools has increased, namely in only 1 respondent who got the lowest score of 1, while those who got a score of 2 were 6 people better than cycle I, while 7 respondents got a perfect score. This shows good progress in cycle II on indicator 1.

Indicator 2

Indicator 2 teachers understand the material about making digital literacy teaching modules at school is quite good even though there has not been too much change compared to cycle I, out of 14 respondents, 5 respondents got a score of 2, and 9 respondents got a perfect score of 3, what distinguishes it from cycle I is that in cycle II in indicator 2 no one got a score of 1. It can be seen from the results of indicator 2 in cycle II that there have been many changes.

Indicator 3

Indicator 3 teachers can practice making digital literacy teaching modules has increased quite satisfactorily. Of the 14 respondents there was only 1 respondent who scored 1, the

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remaining 5 respondents scored 2, and 7 respondents had a score of 3. This shows very good progress in cycle II indicator 3.

Indicator 4

Indicator 4 is that teachers can understand how to create a storage account on Google Drive. In cycle II indicator 4 of the 14 respondents there was only 1 respondent who could not create a storage account on google drive while the remaining 6 respondents had a score of 2 and had no difficulty in creating a google drive account, while 7 respondents got a score of 3 this is because they could already without having to be accompanied. In cycle II indicator 4 has shown improved results compared to cycle I on Indicator 4.

Indicator 5

Indicator 5 is that the teacher understands how to access and use a PC/laptop for making teaching modules. In this indicator 4 of cycle II, the results are quite satisfactory because of the 14 respondents, none of them got a score of 1. There were 6 respondents who got a score of 2, and 8 respondents got a score of 3. In cycle II, indicator 5 has shown significant results in respondents compared to cycle I indicator 5.

Indicator 6

In indicator 6 teachers are able to digitize the results of making teaching modules that have been made. The results of indicator 6 in cycle II show very good results. Of the 14 respondents, there was only 1 respondent who scored 1. This is better than cycle I indicator 6, namely there were 6 respondents who scored 1. Cycle II indicator 6 also provides an overview of the increasing ability of respondents, there are 7 who get score 2 and 7 who get score 3. Cycle III on 6 research indicators gave the following results:

Indicator 1

In indicator 1, teachers must understand the importance of making digital literacy teaching modules at school. The results of the research conducted with 14 respondents showed very good results compared to cycle I or cycle II on indicator 1. The results obtained were that no respondent had a score of 1, while there were 3 respondents who got a score of 2, the remaining 13 respondents got a score of 3.

Indicator 2

In indicator 2, teachers understand the strategy for making digital literacy teaching modules at school. Of the 14 respondents, 11 respondents scored 3 and 3 respondents scored 2. From the results in cycle III, indicator 2 shows that respondents have been able to understand

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the strategy for making digital literacy teaching modules.

Indicator 3

The important point of indicator 3 is that teachers understand the process of making digital literacy teaching modules which will show the increasing competence that exists in them. The results obtained from 14 respondents showed very satisfying results. Of the 14 respondents, 3 respondents received a score of 2, and 11 respondents received a score of 3. From these results the respondents understood the process of making digital literacy teaching modules well.

Indicator 4

In indicator 4, namely the teacher can explain the results of the workshop that was attended appropriately. And obtained satisfactory results, out of 14 respondents there were 3 respondents getting a score of 2 and 11 respondents getting a score of 3. This shows significant results in cycle III indicator 4 without any respondents getting a score of 1.

Indicator 5

Indicator 5 is that the teacher understands how to access and use a pc/laptop for making teaching modules. In the results of indicator 5 cycle III showed very satisfying results, this happened because of the 14 respondents all got a score of 3 with a total score of 42. This shows that respondents are very able to use a PC or laptop in making teaching modules.

Indicator 6

Indicator 6 is that the teacher is able to digitize the results of making teaching modules that have been made on google drive. In cycle III indicator 6 shows very satisfying results, the respondents were able to digitize the results of making teaching modules that had previously been made on google drive. With 14 respondents and all of them getting a score of 3 with a total score of 42, it shows that the respondents' competency skills are very good.

These results clearly indicate that the workshop had a significant positive impact on improving teacher competence in utilizing information and communication technology in the learning process at SMP 24 Bengkulu Tengah.

In this study, it was found that through the workshop on making digital literacy teaching modules, teachers experienced a real improvement in understanding and utilizing learning media in the form of digital literacy. Observation and evaluation results from each cycle showed that teachers were able to integrate digital media and learning materials more effectively in their learning activities. They can design, develop and implement digital media-based learning materials that are more interactive and relevant to students.

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In line with the results of research conducted by Amrizal (2021) entitled Improving Teachers' Digital Literacy Competencies Through the Implementation of School-Level Workshops at SDN 12 Kampung Batu Dalam, Solok Regency. The results show that the use of action research methods can improve teacher competence in making learning methods more effective and innovative (Amrizal, 2021).

This can be seen when one or more participants are slow in carrying out the stages of preparing digital books, they help each other. Competitive character also emerged when one of the educators found a new, more interesting idea, so that other educators were encouraged to think and eventually get new ideas as well. This led to mutual inspiration. The character of curiosity arises when educators create page after page of their digital books by looking for additional interesting templates, through finding out or surfing in other media. Creativity also emerges when educators get new ideas in choosing themes or topics related to teaching modules, as well as in making digital books. Creativity can be defined as the "process" of producing something new from existing elements by rearranging the elements (Nuraeni & Nurhayati, 2023).

Being digitally literate for teachers in supporting digital teaching is essential because digital tools fundamentally change the nature of knowledge in the sense that they enable more creative, active, collective, and personal ways of constructing and communicating knowledge through digital media.

Meanwhile, according to Olsson and Edman-Stalbrant (2008) in (Kusumawati et al., 2021) stated that a teacher trainer must have the ability to: 1) decide what types of digital tools are appropriate for their course content and be able to present their courses online, 2) determine what types of digital tools and working methods support, develop or improve the quality of their courses, 3) realize costs with different digital examinations so that they can choose the best form of examination according to objectives and guidelines, and 4) clarify and highlight teaching and learning issues, for students, according to the digital tools and methods chosen. In the digital age, teachers are required to keep up with technology, therefore, in addition to general teaching skills, a few more skills are required to be instilled in a teacher to effectively play his/her role as a learning facilitator.

While the end result expected by parents, society and the nation from the upbringing of competent educators in this new age society, students are required to have the ability and expertise in science 6 basic level literacy according to the Ministry of Education's Directorate of

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Primary Schools. The sections consist of:

1. Reading and writing skills are the disciplines and abilities to understand, read, write, find, and process what information value can be analyzed, respond, and use texts to advance experience and skills.
2. Numeracy is the field that investigates numerical abilities and skills. utilizing quantitative data for possible purposes processing and understanding variations between types of data and symbols taught in mathematics.
3. Science and excellence (Science literacy) is part of researching science. to be able to analyze various problems, find new information, and find what is related to science and whatever things build as a whole.
4. Information technology literacy (digital) means that students have the ability and excellence from understanding the world of technology, how to make Knowing sophisticated modern tools also makes information dance. have the ability to make full use of it and follow up on all the current rules according to what is going on.
5. Financial literacy. Literacy about the ability to apply an understanding of the concepts of risk, skills, and motivation in a financial context.
6. Cultural and Civic Literacy. Literacy about the ability to understand and behave towards Indonesian culture as a national identity and understand the rights and obligations as a citizen.

Bawden (2001) in (Irhandayaningsih, 2020) offers a new understanding of digital literacy which is rooted in computer literacy and information literacy. Computer literacy developed in the 1980s, when microcomputers were increasingly widely used, not only in the business environment, but also in society. However, information literacy only became widespread in the 1990s when information became easier to organize, access and disseminate through networked information technology. Thus, referring to Bawden's opinion, digital literacy is more associated with the technical skills of accessing, assembling, understanding and disseminating information.

Based on the results of research conducted at SMP 24 Bengkulu Tengah, the production of digital literacy teaching modules for teachers through workshops can significantly improve competence in the learning process. The following are some of the benefits that can be expected:

1. Improved understanding of digital literacy concepts: Workshops can help teachers better

understand digital literacy concepts, including aspects such as online safety, digital ethics and effective use of technology.

2. Mastery of digital content creation tools: Teachers can gain the technical skills needed to create digital literacy teaching modules, including the use of graphic design and text processing software.
3. Integration of digital literacy in learning: The workshop can provide practical guidance on how to integrate digital literacy into the curriculum and daily learning.
4. Enhanced creativity in learning: Teachers can develop creativity and innovation skills in designing interesting and relevant teaching modules for learners.
5. Improved communication skills: Through the workshop, teachers can improve their ability to convey digital literacy information clearly and understandably to learners.
6. Increased learner engagement: With good teaching modules, teachers can increase learner engagement in digital literacy learning, making it more interesting and relevant.
7. Increased learner awareness of digital literacy: Teachers who are competent in digital literacy can help raise learners' awareness of the importance of digital literacy and teach the skills needed to face digital challenges.
8. Empowering learners: Teachers skilled in digital literacy can empower learners to use technology wisely, make informed decisions online and manage digital information well.
9. Improved learning efficiency and effectiveness: Teachers who are well trained in digital literacy can improve learning efficiency and effectiveness by optimally utilizing technology to achieve learning objectives.
10. Increased digital responsibility: Teachers can guide learners in developing digitally responsible attitudes and behaviors, including in terms of online safety, privacy and ethics.
11. It is important to ensure that the workshop not only provides information, but also provides opportunities for teachers to practice and apply digital literacy concepts in real contexts. Thus, learning will become more impactful and sustainable.

Conclusions

Based on the description above, it can be generally concluded that:

1. The description of teachers' abilities in making digital literacy teaching modules, the majority of teachers have a less than optimal level of ability. This shows the need for

further efforts in training and mentoring teachers in improving their ability to make digital literacy teaching materials.

2. Efforts to improve teacher competence in making digital literacy teaching modules can be done through workshop activities. Workshop is one of the learning methods based on direct experience and practice and encourages participants to play an active role.
3. Making digital literacy teaching modules through workshops is successful in improving teacher competence in making teaching modules. This is indicated by the score of observation of teachers which continues to increase from cycle 1 to cycle 3. In cycle 1 the score obtained was 178 points or 70.63%, then increased in cycle 2 to 212 points or 84.12%, and the maximum score achievement was 240 points or 95.23% which occurred in cycle 3.

Suggestion

1. For school principals, further action is needed in the form of training and mentoring teachers to improve teachers' ability to make digital literacy teaching modules at school. Among the actions that can be taken by each head of the education unit is to hold workshops. For teachers, this research can examine in depth the effectiveness of this workshop as a tool for developing teacher professionalism.
2. In the implementation of this workshop, it is hoped that each head of the education unit will pay careful attention to the steps in making digital literacy teaching modules to get maximum results which in turn can effectively improve the ability of teachers to utilize digital media.
3. Schools can implement the creation of digital literacy teaching modules as a tool to improve the education and learning system. This research can serve as a guide for effective development in various other schools. With the success achieved, the workshop can be a feasible model to be adopted by other schools or educational institutions in an effort to improve teacher competence in making digital literacy teaching modules.

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