Professional Competence of Teachers on Thematic Learning in Elementary Education

[1]Aldi Nurdiansyah, [1]Vera Yuli Erviana*, [2]Nhelbourne Mohammad

Corresponding Author: * vera.erviana@pgsd.uad.ac.id

[1] Ahmad Dahlan University, Yogyakarta, Indonesia

[2] Cotabato State University, Mindanao, Philippines

ARTICLE INFO

ABSTRACT

Online thematic learning requires creative teachers to prepare practical learning experiences for students, choose basic competence from various learning subjects and arrange them so that learning becomes more meaningful, engaging, and fun. This study aims to analyze the professional competence of teachers in thematic learning at elementary schools. This research is a type of qualitative research with a descriptive approach. The validity of the data in this study uses triangulation techniques and sources. Data collection techniques use interviews, observation and documentation methods. The research subjects were the principal, lower, and upper-grade teachers. The data analysis techniques used are techniques by Miles and Huberman. The results showed that the professional competence of elementary school teachers in thematic learning is an indicator that is applied, namely the understanding of material, structure, concepts, and scientific mindsets. The subjects are online thematic implementation, mastering basic competency standards, developing learning materials creatively, creating professionalism on an ongoing basis, and mastering information and communication technology have been carried out well with evidence from research data. Thus, teachers already have professional competence in elementary school in thematic learning.

Introduction

According to Ref. [1], education is essential in building competitive human resources capable of competing with other countries. Therefore, education needs to prepare skilled, sensitive and critical human resources to face the challenges and changes that occur in future education. Preparing competitive teachers is a challenging job and can be done instantly. However, teaching in Indonesia is able to equip students with adequate knowledge and skills. In that case, teachers will have high self-confidence and motivation to develop themselves optimally, so as to be able to compete globally.

One crucial component in learning activities is the role of a teacher. With the active part of the teacher, of course, learning will be of better quality. Even though the government provides a policy of setting standards for the educational process to improve the quality of education, it is the teacher who determines and implements the quality of learning in the learning process, which affects the quality of education in Indonesia.

An active teacher certainly has several competencies. Competence is the main component of professional standards, in addition to the code of ethics as a regulation of professional behaviour stipulated in specific procedures and supervisory systems [2]. Competence is defined and interpreted as a set of effective behaviours related to exploration and investigation, analyzing and thinking, as well as giving attention and perceiving that directs a person to find ways to achieve specific goals effectively and efficiently. An excellent and polite personality with an intellectual balanced with a noble and strong character is the hope of the parents of this country to produce educators with professional texture. Of course, every teacher must master every competency that has been determined.

The teacher is a human element that significantly determines the success of education [3]. This happens because the teacher is the closest human element to students in the educational process. Without the role of a teacher, various components supporting student learning success will not be helpful in student learning achievement. The teacher is a professional educator with the main task of educating, teaching, guiding, directing, training, assessing and evaluating students in the formal education pathway [4]. The two opinions above show that the teacher has a vital task in the success of education, and education will only work effectively if the teacher has professionalism.

Behavioural orientation in his duties [5]. So, a professional teacher if it is in accordance with the profession obtained and teaches the competencies they have. Professionalism is also the commitment of members of a career to improve their professional abilities and continuously develop the strategies they use in carrying out work according to their profession [6]. Therefore, experienced teachers always strive to improve their quality and update their knowledge continuously. Various studies have shown that there is a significant influence

between teacher professionalism on learning success and student achievement [7]. Professionalism also positively affects students' learning motivation [8]. Meanwhile, research conducted by Ekawati shows that professional teachers contribute to learning effectiveness [9]. Various descriptions of the results of these studies show the importance of teacher professional competence. Therefore it should be that teacher competence gets special attention.

Teachers need to be able to master the subjects they teach, develop them, carry out reflective actions, and utilize information technology in learning. Teachers need to have four competencies in teaching to support the teacher personality to become a professional teacher. The competencies in question are pedagogic competencies related to learning management, personality competencies related to self-personality as educators, social competencies related to the relationship between educators and other individuals around them, including students, and professional competencies associated with the ability of educators to master their work.

Several aspects that can reflect professional teachers relate to completing teacher tasks, such as mastering educational foundations, applying various methodologies and learning strategies, and being able to conduct research and think scientifically to improve performance [10]. It also always supports and motivates teachers to have professional competence in carrying out their duties and continuously monitors and guides teachers in enhancing their professional competence [11].

Based on the results of observations and interviews with several teachers, it was found that there was various uniqueness of the teachers there. The teacher there carries out the learning process according to the learning implementation plan, and information technology is also applied optimally. This school is one of the Muhammadiyah schools, which has good quality, as evidenced by the school's accreditation which received an A grade. The relationship between school members is also very well established. It can be seen from the daily interaction of school members with high kinship. The relationship between school members is said to be like a family if all members' interactions are well established [11]. The principal's relationship with the teachers looks quite close. Principals often provide solutions to teachers who have problems with learning. The closeness of the teacher to the student's guardian can also be seen in the activities of the teacher, who often communicate students' learning outcomes through online media and face-to-face meetings. The close relationship between teachers and students can also be seen clearly in the daily lives of school members who continue to provide learning and question-and-answer situations even through online activities. Learning at school also looks quite good; this can be seen when the learning is carried out, the students follow the

teaching well and are not busy themselves. Education will be effective if the teacher can make students follow the lesson well and utilize all their senses to concentrate on learning [12].

Apart from all these positive things, this school has some common problems. The first problem encountered is that teachers still need to develop material creatively and optimally in learning activities. In addition, learning in the classroom already looks conducive and effective, but it can be seen that teachers rarely use various methods during the teaching and learning process in class. The varied techniques here mean that when teaching the teacher, the teacher uses a plan, but the method used is the same every time the teacher delivers material. Teachers who do not vary in learning and use the lecture method more often tend to make students feel bored and bored. Teachers are required to be able to create a learning atmosphere that is meaningful, fun, creative and dynamic, besides that teachers are also expected to have professional commitment and set an example to improve the quality of education. It can be arranged in integrative thematic learning. The next problem is that teachers still need to start using learning media to help students improve their ability to explore an issue. In learning activities, it also feels unpleasant, because the teacher is only guided by the textbooks obtained from the government.

Learning in elementary schools uses thematic learning. The thematic learning process also requires the active involvement of students. All activities in thematic learning make all learning activities meaningful and relevant, both formal and informal education, which includes active inquiry learning and passive absorption of knowledge and facts [13]. The teacher must make the learning atmosphere more dynamic, challenging and fun. Active students often bring together material that is abstract and outside students' daily lives. It makes learning hampered, and students need help understanding the material. Facing this problem, teachers often use media that can provide visualization to students so that they can make these two abstract things more real. The use of media will also make learning more fun and effective. Teacher professional competence, which includes mastery of the material, Basic Competence, learning, reflection on education and information technology, is closely related to thematic learning because teachers who have achieved good professional competence can make students more active. From the results of observations and interviews, the teacher is already able to manage the class well, but the lack of variety and lack of use of learning media makes learning feel monotonous. Teachers always carry out training that supports teacher professionalism in the learning process so that it is carried out optimally and adequately [14].

This research is essential because the teacher is the most critical factor in learning. Teachers are always associated with teaching; it is a habit that a teacher carries out in his duties as an educator. The learning process occurs when the interaction between teachers and

students or vice versa is successfully proven by changes in behaviour levels in the form of new knowledge, strengthening insights and experiences.

The purpose of this research is as an effort to carry out an analysis of educational standardization, especially the professional competence of teachers in thematic learning. The implications of this research are expected to become evaluation material for educators to develop their professional abilities continually and, as a school, goal to improve teacher professional competence to attract other schools. The research objective was to analyze the professional competence of teachers in thematic learning in elementary schools.

Methods

This research was included in the descriptive research with a qualitative approach. The use of descriptive in this study aims to describe the results of the analysis of teachers' professional competence in thematic learning. The research was conducted at Muhammadiyah Ambarketawang 3 Elementary School, Sleman, Indonesia. The subject of this research was the teacher with the object of teacher professional competence in thematic learning. 13 teachers were interviewed (A principal and two teachers from each grade level)

The techniques used to collect the above data include observation, interviews, and documentation. Table 1 shows the rubrics for collecting observation data. The data collection process was carried out to obtain data related to the teacher's professional abilities in thematic learning using three techniques: interviews, observation, and documentation.

Interview techniques were used to obtain data through question and answer from school principals and class teachers. The pandemic forced researchers to conduct interviews simultaneously because it was very difficult to get into the school environment during this time. The discussions for each group of teachers were done simultaneously so that the teachers provided complementary answers.

Observation techniques are used to obtain data based on observations. Observations were carried out in person and online. Online observations are carried out regularly by participating in online learning activities through Google Meet. Documentation techniques are used to observe documents related to teachers' professional competence. The documents studied were lesson plans, photos during online learning, and assessment sheets made by the teacher.

Table 1. Observation Guidelines Rubrics

NO	Aspect	Indicator	Sub-Indicators	Item Number	Total Item
1	Academic qualification	Mastering the material,	The teacher masters the learning material	1,2,3	3

NO	Aspect	Indicator	Sub-Indicators	Item Number	Total Item
	standards and teacher competence	structures, concepts, and scientific mindsets that support the subjects being taught	The teacher masters the learning structure	3,4,5	3
			Teachers master the concept of learning	5,6	2
			The teacher masters the learning mindset	6,7	2
		Mastering competency standards and basic competencies of the subjects taught.	Mastery of essential subject competencies by teachers	8,9	2
		Develop learning materials taught creatively	Teachers use a variety of learning methods	10,11	2
			Teachers use creative and varied learning media	12,13	2
		Sustainably develop professionalism by taking reflective action	The teacher gives feedback to students in learning	14,15,16	3
		Utilizing information and communication technology to develop yourself	Teachers are fluent in using IT during learning	17,18,19,20	4

Table 2 is the interview guidelines.

Table 2. Interview Guidelines Rubrics

NO	Aspect	Indicator	Sub-Indicators	Item Number	Total Item
1	Academic qualification standards and teacher competence	Mastering the material, structures, concepts, and scientific mindsets that support the subjects being taught	Mastery of learning material by the teacher	1,2	2
			Mastery of the learning structure by the teacher	3,4	2
			Mastery of the concept of learning by the teacher	5	1
			Mastery of the learning mindset by the teacher	6,7	2
		Mastering competency standards and essential competencies of the subjects taught.	Understanding of essential competencies by teachers	8	1
			Mastery of essential subject competencies by teachers	9,10	2
		Develop learning materials taught creatively	Understanding of learning methods	11	1
			Use of learning methods	12	3
		Sustainably develop professionalism by taking reflective action	Reviewing the material or activities of each lesson	13,14	1
			Feedback on students	16,17	2
		Utilizing information and communication technology to develop yourself	Understanding of the use of IT in learning	18	1
			Application of the use of IT in learning	19,20	2
			Mastery of the use of IT in learning	21,22	2

Table 3. is a documentation instrument rubrics.

Table 3. Documentation Guidelines Rubrics

No	Document	Viewed aspect
1	Lesson Plan	Mastery of material, structure, concepts, and scientific mindsets that support thematic subjects
		Mastery of competency standards and essential competencies of thematic subjects
		Development of learning materials that are taught creatively
		professional development by taking reflective action
		Utilization of information and communication technology for self-development
2	Photos during the lesson carried out.	Mastery of material, structure, concepts, and scientific mindsets that support thematic subjects
		Mastery of competency standards and essential competencies of thematic subjects
		Development of learning materials that are taught creatively
		professional development by taking reflective action
		Utilization of information and communication technology for self-development
3	Student attitude assessment sheets during the learning process.	Professional development by taking reflective action

Checking the validity of the data was carried out using source and technical triangulation techniques. The analysis uses the Miles and Huberman concept, carried out interactively and continuously until it was complete.

Results

Data sources for interviews in this study were the principal and 13 teachers. The interview technique used in this study was a structured interview. The effectiveness of time in searching for data became one of the obstacles in conducting interviews because the school carried out visits from parties outside the school, so the interviews were carried out for grades 1 to 3 and 4 to 5.

Mastering the learning material by the teacher was good because the teacher develops the material based on the Basic Competence to be achieved. The teacher has a good mastery of the material. Teachers always study extra to deepen their understanding of the material so that they will get better. It was conveyed by the informants as follows. The resource person for the principal is represented as follows.

> "We feel that the class teachers' mastery of the material is good, sir, because we also evaluate the quality of material development, lesson plans, media and concepts and mindsets adapted to students."

Then the Lower Grade Teacher resource person conveyed the following

> "We always check mastery of the material by the teachers per class, so for example, in classes 1A and 1B, we share what kind of material we will give to students so that the learning delivered

will run smoothly. We also conduct regular evaluations, and the current education is adjusted to the online learning lesson plans ".

While the Upper-grade Teacher resource person conveyed the following

"Upper-grade teachers must master the material given because students continually ask questions about material they have not got. We also continue to learn extra. Upper-grade learning is carried out virtually mas using Google Meet. Using Google Meet also helps us convey material in education, and we always pay attention to the learning steps, so they are carried out correctly.

Several observations and documentation findings also support the interview results. From the observation activities that have been carried out, the teacher has been fluent in carrying out teaching and learning activities, the suitability of the lesson plan with the Basic Competence provided, and the use of methods appropriate to the material provided.

Mastery of essential competencies by professional teachers is necessary to apply. It was conveyed by the informants as follows. The resource person for the principal was conveyed as follows.

"Teachers are always expected to read the Basic Competencies achieved so that the material given to students is appropriate. The teachers also work together if there are difficulties developing Basic Competences in cognitive, affective and psychomotor materials. We also equip teachers with theme books and companion books so that it is easier for teachers to understand the Basic Competencies they want to achieve."

Then the Lower and Upper-grade Teacher sources agreed that.

"Of course, we need to master the Basic Competencies because the activities and learning materials need to refer to these Basic Competencies. As long as online learning activities occur, we need to work with at least one class teacher so that the activities we provide can accommodate students' cognitive, affective, and psychomotor needs under the basic competencies that we have checked."

Several findings from observation and documentation also support the interview results above. From observation activities, learning activities are adjusted to the essential competencies to be achieved, and learning objectives are adapted to the material taught. It means that the teacher always tries to master the vital competencies given. Material development was creatively created to look varied from class to class. It was shown in the interviews with the informants as follows. The principal of the school was explained as follows.

"We develop material according to essential competencies, but we need to look at the abilities of our students, mas. Due to online learning, we need to find the proper method for children. The most difficult challenge is the selection of plans for grade 1 children because they only meet with teachers via Google meet, so there is an occasional visit model for us to help students directly, especially in the listing."

Meanwhile, the Lower Upper-Grade Teachers agreed.

"The delivery of high-class material uses more lecture methods and assignments, but we as teachers still need to provide creative material."

Several observations and documentation findings also support the results of the interviews. From the observation activities, the use of methods has varied. Not all learning uses educational aids, but some use attractive props under the material. Thematic learning activities are implemented online, and the teacher's creativity in developing material is extensively tested. Online learning activities have very many limitations compared to face-to-face learning.

Class teachers have teacher study groups to develop professionalism at work. Group functions as a forum for the exchange of ideas between teachers so that the development of online learning can be more creative and interesting for students, as stated by several sources. The resource person for the principal conveyed as follows

> "Group is one of the forums to discuss lessons that have been implemented or will be implemented. It is not only methods and materials but also problems encountered in learning so that they can find the right solution."

While the resource persons were Lower and Upper-Grade Teachers

> "Group is one of the leading forums for self-development creatively and professionally. In group, not only material and activities are discussed, but many issues are also discussed so that the teacher has an overview of online learning that seems varied and exciting."

Several observations and documentation findings also support the results of the above interviews. From the statements, it can be seen that the teacher always responds to students and the teacher carries out evaluations for further improvement. Through this group, class teachers can get input in learning, whether it has been implemented or not. Lower and upper-grade teachers also explained that the group was one of the leading forums for self-development creatively and professionally.

The utilization of information and communication technology is essential in learning to develop oneself. It was conveyed by several sources. The resource person from the principal explained as follows

> "Of course, we use IT in online learning. With the existence of sophisticated devices such as cellphones and laptops, it really helps us in carrying out learning"

Then the Lower and Upper-grade Teacher speakers conveyed the following

> "There are difficulties when using the computer, such as conveying the screen via the share screen; sometimes we need clarification because what is displayed is not the screen we want to display. An internet connection sometimes causes it, or we are having trouble, but some friends quickly help and explain how to fix or use this feature."

Several observations and documentation findings also support the interview results above. From the statements, teachers have used information technology smoothly and utilized it as a learning aid as the primary learning resource. With that, technology has been running smoothly, while there have been several obstacles, not paying attention to stopping the use of

IT. All of this, of course, has the support of other fellow teachers who help each other if there are problems in using information technology.

Discussion

A. Mastering the material, structures, concepts, and scientific mindsets that support the learning subjects

Mastery of material, structure, concepts, and scientific mindsets that support the subjects taught in this study, namely thematic, is one of the essential indicators for determining competency standards. Lower-grade teachers and upper-grade teachers have mastered the material well studied. The observations show that the teacher looks smooth when providing learning through Google Meet. The material developed was also adapted to thematic learning characteristics, providing students with meaningful and customized learning experiences. It is under the theory by Ref. [13], which states that the material and activities selected in implementing thematic learning are based on the interests and needs of students. The material made was also evaluated periodically through joint forums by teachers. Teachers help each other understand the material. Teachers who need help understanding the material can ask each other through the group forum. Collaborate in teams to evaluate each other so that understanding of the material was more even. It is the opinion that professional teachers must be responsible for their work; teamwork can help work get done correctly [4].

The structure and concepts of online thematic learning also need to be mastered by teachers. Teachers master the design and concept of learning well. It was expressed from the maximum preparation and implementation. The teacher prepares lesson plans that have been adapted to online activities. Learning indicators are also adapted from the documents to activities carried out online. It was under the opinion of Ref. [15] which states that professional improvement is an effort to maintain something that has become a standard, make improvements that are considered essential and bring up innovation (innovation). With learning conditions changing from face-to-face to online, teachers need to develop innovations so that learning remains as expected. The following is an example of interactive online learning activities through Google Meet.

The teacher does this systematically. The principal explained that as long as learning was carried out online, we urge all teachers to maintain things that can be held and change things that need to be changed so that online learning can be carried out correctly. This presentation shows that the teachers have tried to maintain professionalism in teaching thematic even though it was done offline. The mindset of teachers in online learning also needs to be adjusted to the circumstances. Teachers need to adapt activities to the ability of students to study independently. Upper-grade teachers explained that we need to change the mindset of teachers and adjust it to the current situation. Teachers need to start thinking that online learning needs

to make it easier for study companions at home to understand material children. This presentation shows that teachers need to provide material that was adapted to the conditions of online learning. It is appropriate that professional competence is a combination of abilities, knowledge, skills, attitudes, traits, understanding, apperception, and expectations that underlie a person's characteristics to perform in carrying out tasks or work in order to achieve quality standards in real work [14]. Online learning conditions make students learn with assistance from people at home. With this situation, teachers need to prepare to learn companions that are easy to use by companions at home, be it parents, siblings, or other family members.

This explanation shows that the teacher is good at mastering material, structure, concepts, and scientific mindsets that support thematic subjects online. Teachers can determine online learning activities that are tailored to the material provided. The system and concept of learning are also carried out by the teachers systematically so that the learning can run smoothly and the material is conveyed correctly. As long as learning was carried out using WhatsApp or Google Meet, teachers also need to change their scientific mindset so that learning techniques are in accordance with the concept of online learning. It is under the theory by Ref. [4], which states that professional teachers need to be able to develop their responsibilities and carry out their roles in learning as well as possible. Teachers who have mastered the material, structures, concepts, and scientific mindsets that support thematic subjects online can be achieved well.

B. Mastering basic competency standards.

Basic Competence is something that needs to be achieved in every learning carried out. The class teacher always re-reads the Basic Competence that will be completed before learning begins. The lesson plan previously made wa checked and evaluated by the curriculum section so that the material provided in online learning was under the Basic Competence that wass applied. Teachers also help each other make lesson plans, especially teachers who taught the same class the previous year. It can be seen from the explanation by the upper-class teacher; that is, to find out the Basic Competence, a teacher needs to re-read the teacher's and assistant's books. In addition, the preparation of lesson plans by teachers usually adjusts the lesson plans that were made in the previous year. The Lesson Plan is then checked again if there really needs to be changed or added so that achieving the Basic Competence can be more accessible. After the teacher knows the Basic Competence involved, they make indicators and determine activities to fulfil the Basic Competence's cognitive, psychomotor, and affective needs. The biggest challenge in online learning is meeting psychomotor and affective needs, but if the teacher has mastered the Basic Competence, it will make it easier to determine the activities to

be given. This presentation shows that teachers need to master the Basic Competence used to assess lesson plans containing what materials and activities can train students' cognitive skills and attitudes during online thematic learning activities. It is under opinion by Ref. [16] which states that the teacher's thematic learning implementation process also needs to develop a learning implementation plan that was adjusted to the Basic Competence that had been implemented in order to provide learning rights for students not only in the cognitive domain but also their psychomotor and affective. In online learning conditions, the teacher needs to adjust the lesson plan to the current learning implementation via WhatsApp or google meet. It can be seen from the presentation of the lower-grade teacher, who stated that the lesson plan applied in the development of Basic Competence needs to be adapted to the conditions of online learning. That way, the activities follow the teaching that will be carried out, for example, using WhatsApp. We adjust it by developing Basic Competence through the material provided, usually in PDF form. Learning materials are also always adapted to the needs of students. Upper-class teachers also explained that there were Basic Competence which quite difficult to achieve online learning, they will lower the achievement indicators to make it easier. Still, Basic Competence can be achieved with the minimum standards in schools. An example of Basic Competence being applied can also be seen in Figure 1. It is under the theory by Ref. [17], which states that a teacher needs to have the ability to apply essential competencies with innovative teaching methods and expand and increase knowledge for students according to their needs. These findings indicate that teachers have mastered the basic competency standards well. It can be seen from the teacher's mastery in applying indicators and materials so that the Basic Competence spread can be carried out correctly. Teachers need to be able to adjust learning without face-to-face meetings so that the Basic Competence that is applied can be achieved. Under the presentation by Ref. [4] that professional teachers need to be able to work to achieve the goals and essential competencies that are applied. The teacher succeeded in doing this by being able to adapt all online learning to the Basic Competence that was involved.

C. Develop learning materials taught creatively

Thematic learning materials carried out online certainly have differences from face-to-face learning. The most crucial difference is the delivery method because, during online learning, the material is only delivered in pdf form or explained using Google Meet through the share screen feature. Upper and lower-grade teachers stated the same thing: teachers need to be creative in developing material, they cannot just follow the material provided through books by the government. With the conditions of learning that are not face-to-face or online as it is today, we need to adjust the material so that it is easy to understand and can be studied independently. The material explained through Google Meets also needs to be changed, and often the teacher needs to make very explicit material to achieve only 1 Basic Competence. This

statement shows that teachers need to be creative in providing learning materials to complete the applied Basic Competence. The material needs to be developed according to the needs of students. Teachers need to be able to plan to teach, including developing material so that it supports the achievement of goals with conditions that adjust to the location and needs of students [15]. It is what is carried out in schools, the teachers do a Basic Competence analysis first to plan the development of the material that will be given to students. The observation and document analysis results also show that the lesson plans' material to be implemented is adapted to online learning. The material provided is also always adjusted to the needs.

This exposure shows that teachers always develop learning materials creatively. It is also supported by the principal's statement that teachers are always encouraged to create material differently from face-to-face learning conditions. The teacher responds to this by carrying out discussions in the teacher group so that the material developed can be used optimally during online learning. The thematic material produced for online learning is made more concise but still accommodates the needs of students. The material provided via WhatsApp in pdf format has complete content because it is used independently with the assistance of people from the household who may not necessarily come from educators. With this more comprehensive material, it is hoped that Basic Competence can be achieved more efficiently and effectively.

D. Sustainably develop professionalism by taking reflective action

Teachers always develop their professionalism well. The principal explained that the principal needed regular supervision for teachers to develop their abilities. However, schools always support teachers who want to take part in training inside and outside school. This explanation shows that teachers need to get supervision from the principal for professional development. However, teachers who wish to develop themselves through training will receive facilities from the school. The upper and lower grade teachers explained that the teacher regularly attends training if there is indeed training held. Online learning is different from face-to-face learning. Online learning development training is critical for teachers to overcome all the problems that arise when learning is carried out. This explanation shows that many new issues are found as long as thematic learning is carried out online. The upper-class teacher gave an example of one of the problems that often arise: the difficulty of providing skills material to students because the teacher needs to supervise directly. With these problems, of course, teachers need training from experts. It is the opinion Ref. [6], who explained that the development of teacher professionalism could be carried out in various ways, one of which is training because, through training, a teacher can gain new knowledge as a solution to problems that may be encountered. With regular training, teachers can not only overcome problems that occur but also develop professional skills. This study found that teachers have tried to develop

their professional abilities through various pieces of training. However, the principal does not provide internal supervision at the school. According to Ref. [18] that internal school coaching is carried out by school principals, and teachers who are given coaching authority can increase motivation and solve problems that exist within the school. With internal supervision, teachers can participate in out-of-school training tailored to the teacher's needs.

E. Utilizing Information and Communication Technology

Information and communication technology have become essential in thematic learning online. Teachers use technology as the primary tool in implementing online thematic learning. A professional teacher is always required to be able to use information technology in the implementation of learning. It follows the theory by Ref. [4], which states that professional teachers are teachers who can carry out their roles successfully, including using information technology as a support for their success in carrying out learning tasks. By mastering technology, learning activities will be more varied, and online learning will be easier to implement.

The use of technology in online learning certainly has obstacles. Several teachers stated that the main block in using technology such as Google Meet to share screens usually has its obstacles. However, teachers need help in implementing online learning using these technologies with cooperation and training from schools. It follows the theory of Ref. [6] which states that In-house Training, carried out internally in teacher work groups, schools and other training places designated as training locations, can be carried out to overcome problems experienced by teachers. With good training and cooperation, the quality of technology mastery by teachers is also getting better. According to upper and lower-grade teachers, it is easier to carry out learning after receiving teacher training. This finding explains that teachers have mastered information and communication technology well. It is evidenced by the smoothness of the teacher when using technology in online thematic learning when research observations are carried out. Teachers who experience difficulties also receive assistance from colleagues as well as training from the school. With good technology mastery, online thematic learning is also carried out smoothly.

Conclusion

Teachers have good professional competence. It can be seen from the results of interviews, observations, and documentation of the five standard competency indicators. The five indicators applied have been well achieved. The first indicator is that the teacher masters the material, structure, concepts, and scientific mindset that supports the subjects being taught, the issues in this research are thematic, which are carried out online. The second indicator is mastering basic competency standards. The third indicator is the ability of teachers to develop learning materials creatively. The fourth indicator is that teachers can sustainably build

professionalism. The fifth indicator is that teachers can master information and communication technology well. Teachers have learned all indicators well, so it can be concluded that teachers have good professional competence.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

[1] Suwartini, I., & Merawati, F. (2019, July). The Culture of Helping Indonesia in the Children's Story Book as Media for Character Education. In *ICLLE 2019: Proceedings of the 2nd International Conference on Language, Literature and Education, ICLLE 2019, 22-23 August, Padang, West Sumatra, Indonesia* (p. 299). European Alliance for Innovation.

[2] Setiawan, D., Saputra, H. D., Muslim, M., & Chandra, R. (2020). Penilaian Kinerja Guru Produktif Dalam Melaksanakan Standar Kompetensi Guru. *INVOTEK: Jurnal Inovasi Vokasional dan Teknologi*, *20*(1), 114-122.

[3] Koriati, E. D., Syam, A. R., & Ariyanto, A. (2021). Upaya Peningkatan Kompetensi Profesionalisme Guru Pendidikan Dasar Dalam Proses Pembelajaran. *AL-ASASIYYA: Journal Of Basic Education*, *5*(2), 85-95.

[4] Yulyani, Y., Kazumaretha, T., Arisanti, Y., Fitria, Y., & Desyandri, D. (2020). Implementasi Kompetensi Pedagogik Guru Dalam Pembelajaran Tematik Di Sekolah Dasar. *School Education Journal Pgsd Fip Unimed*, *10*(2), 184-188.

[5] Yayuk, E. (2014). Pemetaan Kompetensi Guru Bersertifikat Pendidik untuk Pemanfaatan Media TIK dalam Kegiatan Pembelajaran di Sekolah Dasar. *Jurnal Premiere Educandum*, *4*, 205–215.

[6] Ulandari, W., & Santaria, R. (2020). Strategi Pengembangan Profesionalitas Guru Melalui Pendidikan Dan Pelatihan. *Kelola: Journal of Islamic Education Management*, *5*(1), 57-68.

[7] Fransisca, A. Y. (2019). *Pengaruh Profesionalisme Guru Terhadap Prestasi Belajar (Survey Pada Siswa Kelas XI IPS Mata Pelajaran Ekonomi di SMA Swasta Se Kecamatan Cicendo Kota Bandung Tahun Ajaran 2018/2019)* (Doctoral dissertation, FKIP UNPAS).

[8] Duma, S., Limbong, M., & Kailola, L. G. (2021). Pengaruh Kompetensi Profesional Guru, Motivasi Belajar terhadap Hasil Belajar Siswa di Sekolah Menengah Kejuruan Kristen Bittuang-Tana Toraja. *Jurnal Pendidikan Tambusai*, *5*(1), 815-826.

[9] Qahfi, M., Rahmawati, N., & Ramadhani, R. (2019). Kompetensi Profesional Guru IPS diI SMP Negeri Se-Kota Sampit. *Jurnal Paedagogie Media Kependidikan, Keilmuan dan Keagamaan*, *7*(2), 96-101.

[10] Purba, S., Purba, P. B., Mawati, A. T., Imron, Z., Purba, S. R. F., Purba, B., ... & Chamidah, D. (2021). *Administrasi Supervisi Pendidikan*. Yayasan Kita Menulis.

[11] Maimunah, M. Analisis Kompetensi Profesional Guru Sekolah Dasar Negeri 001 Sungai Pinang. *Jurnal PAJAR (Pendidikan dan Pengajaran)*, *3*(6), 1239-1246.

[12] Yusuf, I. (2022). Lembar Kerja Peserta Didik Jawaban Alasan untuk Peningkatan Aktivitas dan Hasil Belajar. *Jurnal Praktik Baik Pembelajaran Sekolah dan Pesantren*, *1*(01), 15-27.

[13] Perwitasari, S., & Wahjoedi, W. (2018). Pengembangan Bahan Ajar Tematik Berbasis Kontekstual. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, *3*(3), 278-285.

[14] Muniroh, J., & Muhyadi, M. (2017). Manajemen pendidik dan tenaga kependidikan di Madrasah Aliyah Negeri Kota Yogyakarta. *Jurnal Akuntabilitas Manajemen Pendidikan*, *5*(2), 161-173.

[15] A'yunin, S. K. (2022). Citra Guru Profesional dalam Pandangan Masyarakat. *Transformasi: Jurnal Studi Agama Islam*, *15*(1), 92-102.

[16] Prastowo, A. (2019). *Analisis pembelajaran tematik terpadu*. Prenada Media.

[17] Hosaini, S. P. I. (2021). *Etika dan profesi keguruan*. CV Literasi Nusantara Abadi.

[18] Rostini, D., Syam, R. Z. A., & Achmad, W. (2022). The Significance of Principal Management on Teacher Performance and Quality of Learning. *Al-Ishlah: Jurnal Pendidikan*, *14*(2), 2513-2520.

Authors

Aldi Nurdiansyah is an alumnae of Ahmad Dahlan University. He got graduate on Elementary Education Teacher Program in of 2016. Currently, he has been pursuing Teacher Profession Program Yogyakarta State University (email: aldi18nur@gmail.com).

Vera Yuli Arviana is a lecturer at the Elementary School Teacher Education Study Program, Ahmad Dahlan University, Yogyakarta, Indonesia. Her research and community service activities are focused on the use of technology in elementary schools. She has many books and articles published in various reputable journals. (email: vera.erviana@pgsd.uad.ac.id).

Dr. Nhelbourne Mohammad is a lecturer at the Islamic Education Department, Cotabato State University, Philppines. His magister and doctoral degrees was from Universitas Muhammadiyah Malang, Indonesia. He is active as the founder of Muhammadiyah in Philippines.(email: nhelbournekm29@gmail.com).