

Continuing Professional Development Needs: Are Elementary School Teachers in Rural Areas Ready to Take the Online Training?

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Abstract. Continuous professional development (CPD) has a significant impact on the competency of elementary school teachers. This study aimed to investigate the readiness of elementary school teachers in rural areas to attend online training based on their professional development needs—quantitative research methods with a descriptive approach. The research sample was 94 elementary school teachers in a rural area of one of the districts in West Bandung Regency, West Java, which were taken using a purposive sampling technique. Data was collected through a questionnaire using the Guttman scale and focused group discussion (FGD). The questionnaire consists of 8 questions in 3 indicators to be studied. While the discussion was concentrated, five questions were asked of the respondents. The study results show that elementary school teachers in rural areas are ready to participate in continuous professional development through online training according to their level of need and mastery of the subject matter. It can be a reference for further research to develop online training that does not only involve teachers from urban areas and can also involve teachers from rural areas.

Keywords: Elementary School Teachers, Continuing Professional Development, Rural, Online Training.

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INTRODUCTION

Teachers face many challenges in the classroom because of the variety of backgrounds, socio-cultural environment, owned infrastructure, and so on (Al-Ansi et al., 2021; Mathrani et al., 2022). The quality of learning in the classroom certainly depends on the quality of a teacher in facilitating students, and that cannot be separated from the competence possessed by the teacher, both pedagogical and professional competence. It is hoped that the teacher is a lifelong learning professional so that he is better than in previous years and has the awareness to continue to develop competencies according to his expertise and the times (Smith, 2003; Swennen & Van Der Klink, 2009).

Competence itself needs to be continuously improved because technological, social, and cultural developments from time to time require teachers to learn new knowledge and are expected to be able to respond to all changes following existing developments (Amhag et al., 2019; Ghomi & Redecker, 2019; Kim et al., 2019). Students are accustomed to using digital devices such as gadgets to access online learning resources. The development of this technology also facilitates teachers, so they can use learning resources available on the internet to assist the teaching and learning activities in class. In addition, teachers and students, based on experience during the Covid pandemic, are also used to and ready to participate in online learning and training (Yanuar et al., 2021).

Efforts to increase teacher competence to maintain and improve competence must be consistent and sustainable within the framework of CPD activities through various methods and approaches (Casanova et al., 2023; Dahri et al., 2023; Holst, 2023). The CPD process involves a desire and commitment to continue learning to remain relevant and competitive. CPD refers to an essential process in sustainably improving individual abilities and skills. In a professional context, CPD refers to continuously developing and broadening one's knowledge, skills, and understanding in a particular field. This process includes various activities such as training, courses, mentoring, and practical experience to renew and enrich individual competencies. CPD based on their needs will be more influential and significantly impact classroom learning

compared to programs provided (Johnson, 2006; Mann, 2005; Pettis, 2002). Training is one of the CPD activities that elementary school teachers can follow. Of course, elementary school teachers can participate in many different training modes, such as face-to-face, online, and mixed modes (Atwa et al., 2022; Costado Dios & Piñero Charlo, 2021; Singh et al., 2021).

Online training is a mode of training that can be an alternative to distracting teachers from teaching. Teachers can still carry out their obligations as classroom instructors and also improve their competence by participating in online training. Online training utilizes information and communication technology to provide greater accessibility, flexibility, and interactivity in learning (Faisal & Kisman, 2020; Goh & Sigala, 2020). In the context of primary school teacher training, online training provides limitless opportunities for teachers to broaden their knowledge, develop new skills, and improve competence in various fields relevant to their profession.

One of the main advantages of online training is the possibility to access training materials from leading experts or practitioners in their fields without being limited by geography, anytime, and anywhere (Yuhanna et al., 2020). Teachers can learn from diverse experiences and knowledge and gain the latest insights into effective teaching and learning strategies. Online training can also present up-to-date content, following the latest developments in education, technology, or profession-related issues.

However, it is essential to recognize that online training also has challenges. Not all teachers have stable internet accessibility, adequate technology devices, or skills in using technology (Andarwulan et al., 2021; Cahyadi et al., 2022). Therefore, there is a need for proper support and facilitation to ensure that all teachers have equal opportunities to take part in online training. The active involvement of schools, government, or educational organizations in providing infrastructure, access, and technical assistance is essential in supporting the success of online training for elementary school teachers.

One of the areas where it has been challenging to be able to take part in online training is rural areas. Rural areas have many limitations in terms of facilities and infrastructure compared to urban areas. The problem of limited internet access and limitations of technological devices need to be addressed with creative and integrated solutions. One of the main advantages of online training is the interaction and collaboration between teachers from different regions. Teachers in rural areas can share experiences, expand professional networks, and learn from best practices implemented by their counterparts in other areas. Teachers can enrich perspectives and increase their understanding of challenges and solutions in the context of rural education.

In online training, elementary school teachers in rural areas have special needs regarding the subject matter relevant to their context. One critical subject matter is understanding the latest learning models, such as the RADEC learning model (Sopandi, 2017). Teachers need to acquire knowledge about learning models that are effective and applicable in the context of elementary schools in rural areas. So that it is expected to increase student involvement in learning, create an interactive learning atmosphere, and practice 21st-century skills.

As one of the 21st-century skills, creative thinking skills are becoming very important in the world of education that continues to grow. Skills enable students to develop imagination, exploration, and more in-depth problem-solving to generate new ideas in innovative ways and see situations from multiple points of view (Sukardi et al., 2021). Creative thinking skills are fundamental for teachers in presenting exciting and relevant learning materials for students. Teachers with this skill can design activities that spark student creativity, such as group discussions, role plays, or collaborative projects. They can also create a learning environment that encourages students to think out of the box, explore new ideas, and face challenges in innovative ways. Of course, training students' creative thinking skills through the subject matter being taught, such as science. The hope is that elementary school teachers in rural areas need a solid understanding of the science concepts they teach, including plant systems, animals, energy, and properties of matter. Finally, elementary school teachers in rural areas must have the knowledge and skills to develop practical learning tools. Teachers must understand the steps and components involved in compiling learning tools, including learning objectives, learning steps, assessments, and relevant learning resources. Through online training, elementary school teachers can understand methods and activities that can develop students' creative thinking skills

to encourage students' creative potential in a limited learning environment. In addition, teachers can convey subject matter more clearly and adequately to students, build a strong understanding of science, and motivate students to have a high interest in natural science exploration. Therefore, through online training, teachers can also design learning tools that suit the needs of students in rural areas, increase learning effectiveness, and achieve the desired learning goals.

Based on previous research, online training for elementary school teachers in rural areas shows that online training has a positive impact on increasing teacher competency in rural areas (Andarwulan et al., 2021; Wang et al., 2021). There has been an increase in knowledge, technological skills, and being able to apply more innovative learning approaches and strategies. In addition, research results also showed increased motivation and self-confidence for elementary school teachers in rural areas teaching so that student participation and involvement became more active in the learning process (Blanco et al., 2020; Hongsuchon et al., 2022). Online training also increases the accessibility of education in rural areas, such as accessing up-to-date learning materials, interactive learning modules, and other supporting resources that enable them to present learning that is more interesting and relevant to students (Bacher-Hicks et al., 2021; Febrianto et al., 2020). The hope is to help improve the overall quality of education in rural areas.

Nonetheless, there are also obstacles and challenges in implementing online training for elementary school teachers in rural areas. The condition of internet accessibility and technology infrastructure in rural areas can hinder teachers' active participation in online training and limit their ability to utilize technology in the learning process.

So, this study aims to determine the readiness of elementary school teachers in rural areas to take part in online training in the context of continuing professional development. The results of this study can become one of the references for further research to develop online training to meet the needs of school teachers in rural areas to participate in continuous professional development.

METHOD

This study used a quantitative research method with a descriptive approach, and the research sample was taken using a purposive sampling technique (Creswell & Creswell, 2014). The research sample was 94 elementary school teachers in a rural area of one of the districts in West Bandung Regency, West Java. Data was collected through a questionnaire using the Guttman scale and FGD. The questionnaire consists of 8 questions in 3 indicators to be studied. While the discussion was concentrated, five questions were asked of the respondents. This FGD was conducted to gain deeper insights and more contextual thoughts from elementary school teachers in rural areas regarding online training.

Data collected through questionnaires and FGDs will be processed and analyzed descriptively. In processing the questionnaire data, percentage calculations will be carried out for each category of answers given by respondents. This analysis will provide a clear picture of the perceived readiness and professional development needs of primary school teachers in rural areas related to online training. In addition, the data obtained from the clustered discussions will be analyzed using the content analysis method to identify the main themes and patterns that emerge from the discussions.

The results of the descriptive analysis will be presented in the form of tables for the overall results and diagrams based on gender and teaching class so that the data can be visualized clearly. These findings will provide a comprehensive understanding of the readiness and need for continuing professional development of elementary school teachers in rural areas related to online training.

RESULTS

Based on the questionnaire filled in by the teacher, given their readiness to take part in online training, subject matter needs, and mastery of the subject matter found on self-evaluation, the results are obtained, which can be seen in the following tables.

Table 1. Readiness of Elementary School Teachers to Participate in Online Training

Num	Indicators	Percentage (%)	
		Yes	No
1	Use of computers and general software	62,50	37,50
2	Use of Internet	80,85	19,15
3	Use of LMS and application	21,81	78,19
Average		55,05	44,95

Table 1 illustrates the readiness of elementary school teachers to take part in online training. Two indicators state that most teachers are proficient in using computers, software, and the Internet. The thing that needs attention is using LMS and applications because most teachers are not used to them. But overall, most elementary school teachers expressed their readiness to take online training. Meanwhile, the subject matter needs of elementary school teachers can be seen in Table 2 below.

Table 2. Elementary Teacher Subject Matter Needs

Num	Subject Matter	Percentage (%)	
		Yes	No
1	Latest learning model	100	0
2	Creative thinking skills	100	0
3	Science subjects	94,68	5,32
4	Compiling learning tools	100	0
Average		99,11	0,89

Table 2 is an overview of the subject matter needed to be learned by elementary school teachers. The data obtained from filling out the questionnaire found that they need subject matter on the latest learning models, creative thinking skills, compiling learning tools, and science subjects. Furthermore, the level of mastery of the subject matter based on the self-evaluation of elementary school teachers can be seen in Table 3 below.

Table 3. Subject Matter Mastery Based on Self-Evaluation of Elementary School Teachers

Num	Subject Matter	Percentage (%)	
		Yes	No
1	RADEC learning model	45,43	54,57
2	Creative thinking skills	56,06	43,94
3	Electrical circuit	53,51	46,49
4	Compiling RADEC learning tools	47,98	52,02
Average		50,74	49,26

Table 3 illustrates the mastery of the subject matter based on the self-evaluation of elementary school teachers. Self-evaluation is a follow-up of the subject matter they need to learn. The data obtained from filling out the questionnaire found that more than half of the teachers needed help understanding the RADEC learning model and compiling RADEC learning tools. For creative thinking skills and electrical circuits, only less than half of the teachers have not mastered them.

While the results of the FGDs, the teachers also provided input about their needs regarding online training. The teacher stated that he agreed if the training was carried out in-house-training, which involved all teachers from the school. Most teachers have attended online training using applications such as Zoom, Moodle, and Google Classroom. If there are difficulties with online training, teachers seek help from instructors or peers. Furthermore, the application of technology in the application of learning in the classroom is essential. So pedagogical and professional competencies need to be learned.

DISCUSSION

Based on the indicators of teacher readiness, it can be concluded that each indicator's level of teacher readiness to take part in online training varies. Regarding the use of computers and software, it shows that most teachers already have general knowledge and skills that can be used in learning. Strengthens previous studies, which stated that there were no significant barriers for teachers to use computers and available software and have used them in classroom learning, especially since the pandemic hit (Adlin, 2019; König et al., 2020; Lestari, 2018). Although the percentage is 62.50%, there is a relatively good level of readiness; efforts still need to be made to improve understanding and skills in operating computers and software, specifically for educational needs. So that teachers are expected to be able to integrate computers and general software effectively in learning activities in class. Also, improve the quality of learning and prepare students to face the growing demands of the digital world.

Furthermore, the use of the internet shows a higher level of readiness, which is equal to 80.85%. Most teachers have stable and reliable access to an internet network with sufficient speed, and these results support Baharuddin (2021). Teachers also understand how to use the internet to surf the web, find information, and utilize online resources in a learning context, and this supports previous research conducted. A high level of readiness in this aspect indicates a more substantial adoption of technology in teaching and learning approaches.

The exciting thing is that the use of LMS and applications shows a lower level of readiness, namely 21.81%. Most teachers may need more preparation to be fully prepared to use a Learning Management System (LMS) or applications that can be used and are relevant to their teaching. This lower level of preparedness may be due to a limited understanding of LMS use and applications and a lack of training or opportunities to develop skills.

Based on these three indicators, the average level of teacher readiness to take part in online training is 54.96% or 52 people out of 94 teachers, meaning most are ready to participate. Yanuar's research (2021) states that teachers are used to distancing learning where they understand the purpose of distance learning. So this makes it easy for teachers to take part in online training. Even though this level of readiness is not evenly distributed in each of the indicators measured, it still shows the potential for continuous professional development through online training. The availability of adequate internet access and a relatively high understanding of computer and internet use allows teachers to participate in online training and maximize online learning resources. However, it should be recognized that further efforts need to be made to increase the readiness level for using LMS and applications. Support in the form of training and technical assistance can help teachers develop skills in using the LMS and its application effectively in the teaching process later.

Furthermore, the subject matter needs of elementary school teachers can be identified by looking at the percentages, as shown in Table 2 above. In the overall analysis, the average percentage of teachers who needed the subject matter was 99.11% for the subject matter mentioned, while only 0.89% did not need it. There is a strong consensus among elementary school teachers regarding the need for those subject matters. All teachers agree that subject matter on the latest learning models, creative thinking skills, science subject matter, and compiling learning tools is very much needed. It is, therefore, necessary to make further efforts to provide appropriate training and professional development to meet these material requirements. It can involve providing periodic training, relevant learning resources, and support through teacher mentoring and collaboration. Meeting these subject matter needs is hoped that elementary school teachers can improve the quality of their teaching, facilitate more active and practical learning, and prepare students to face future challenges.

Then for the results of the analysis of mastery of the subject matter based on self-evaluation of elementary school teachers, it was found that the average percentage of teachers who felt they had mastered the material was 50.74%, while 49.26% still needed to improve their mastery in several aspects of the subject matter. There is an opportunity to increase teachers' understanding and skills in certain areas. The RADEC learning model subject matter indicates a need to improve teacher understanding and skills in applying this learning model. The data shows that 45.43% of elementary school teachers have mastered the RADEC learning model, while

54.57% still feel they have not fully mastered it. By deepening their understanding of the RADEC learning model, teachers can create more interactive, collaborative, and challenging learning experiences for students.

Meanwhile, 56.06% of elementary school teachers felt they had mastered creative thinking skills, while 43.94% still needed to improve their knowledge and skills. Creative thinking skills include thinking out of the box, generating innovative solutions, and seeing problems from multiple perspectives, like previous studies (Sukardi et al., 2021; Yanuar et al., 2022). By enhancing creative thinking skills, teachers can provide more engaging learning experiences, encourage creative problem-solving, and help students develop their creative potential.

Compiling RADEC learning tools is also part of self-evaluation. The results show that most elementary school teachers (47.98%) feel they have been able to construct learning tools well. However, some teachers (52.02%) still need to improve their skills. Improving the ability to develop learning tools is essential in designing learning experiences that are structured, meaningful, and according to students' needs.

Mastery of science subject matter was also evaluated in this analysis. Most elementary school teachers (53.51%) already understand science subject matter well. However, some teachers (46.49%) still need to improve their understanding. Good mastery of science is crucial in effectively conveying subject matter to students and helping them understand natural science concepts well.

The results of the FGDs indicated valuable input from teachers regarding readiness and needs to be related to online training. Most teachers agreed that the training would be in-house training involving all teachers from the school. It aligns with previous research from Apriyani (2022) and Fuchs (2022). Involving all teachers from the same school in training will create a more collaborative learning environment and allow them to learn from and support one another. In-house training is also considered more relevant to the context of the school and the environment in which they teach.

Furthermore, most teachers have attended online training before using various applications, such as Zoom, Moodle, and Google Classroom. Previous research findings also mention the same thing (Fitria, 2020; Saikat et al., 2021; Sarnou & Dallel, 2021). These apps allow teachers to connect virtually with facilitators and other participants, participate in discussions, and easily access training materials. Even so, some teachers still have difficulties and must improve their skills in operating applications and online platforms.

Teachers overcame these difficulties by seeking help from training facilitators or other teachers. They realize the importance of supporting each other and collaborating to overcome challenges. Social and technical support in consultations and peer-to-peer discussions was considered invaluable in overcoming difficulties that might arise during online training. In addition, the teachers also expressed their views regarding the application of technology in classroom learning. Aşık et al. (2020) and Scully et al. (2021) also found the same thing in their research. The teachers believe the application of technology in learning is essential to prepare students to face the digital era. In addition, the application of technology can improve the quality of learning by providing access to a broader range of resources, enriching student learning experiences, and helping teaching be more interactive and exciting. Therefore, teachers feel it is essential to develop pedagogical and professional competencies related to the use of technology in learning contexts.

Based on the conclusions from the results of this research and FGD, online training for elementary school teachers in rural areas needs to be organized, considering the teacher's readiness, needs, and mastery of the subject matter. Training should include skills development in operating computers and online platforms and an in-depth understanding of materials deemed necessary by teachers. In order to meet the preferences and needs of teachers, training can be held in-house, which involves all teachers from the school, or in a public format that sends one person per school. Thus, online training can positively impact teacher competency and the quality of learning in rural areas.

CONCLUSION

Based on the analysis that has been done, the conclusion that can be drawn is the need for continuous efforts to improve the understanding, skills, and mastery of the subject matter for elementary school teachers. So paying attention to the readiness, needs, and mastery of the teacher's subject matter is necessary. The training should provide a suitable approach to increase understanding and skills in using technology, meet teachers' needs regarding mastery of the subject matter, and provide a collaborative and mutually supportive learning environment. Thus, online training can significantly improve teacher competence and the quality of learning in rural areas.

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