THE PROBLEMS AND NEEDS FOR CONTINUING PROFESSIONAL DEVELOPMENT OF VOCATIONAL SCHOOL TEACHERS

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ABSTRACT

Quality human resources can be realized by increasing teacher's competence through continuous professional development programs. Unfortunately, teachers still have problems on their professional development. This study aims to analyze the problems and needs of vocational school teachers in implementing the continuing professional development. This research is qualitative research. This study's sample was 120 vocational school teachers in Surakarta Residency, Indonesia. This study utilized questionnaire, interview, and documentation instruments. A triangulation technique was employed to validate research instruments, while interactive analysis was utilized to analyze research data with stages of data reduction, data presentation, and conclusion drawing. The results of the study show that the problems during the implementation of the continuing professional development program are: training activities have not been carried out based on teachers' expectations; materials are not suitable to the program; the trainers are inadequate; trainings are carried out on weekdays; teachers have great administrative burden; financial support is low; teachers' age becomes obstacles; and teachers are lack of interest and insight about scientific work. The teachers' needs in the CPD program include self-development (variations in training to improve teacher abilities), scientific publications (writing scientific papers to journal publications), and innovative work (book development, teaching aids, learning innovations, etc.).

Keywords: teachers, continuing professional development, professionalism

INTRODUCTION

Quality human resources are the 21st-century demands. Also, it facilitates to answer local, national, and international challenges to meet the needs of the business and the industrial world. Quality human resources can only be obtained from the competence of quality teachers and schools. As stated by Sahlberg (2007), the modern labor market requires skilled and highly knowledgeable workers. It is in line with the needs of a country, where the country's economy will be more developed if it has a qualified workforce. To realize this goal, teacher's intervention is needed as learners, researchers, and collaborators to improve the overall education quality

(Mohammadi & Moradi, 2017). Teachers have an essential role, as do vocational high school teachers who play a role in creating a quality workforce (Yulanto, et.al., 2018).

Teacher education's quality affects learning quality and student achievement (Commission, 2013; Zahro, 2019). Vocational education is an essential element to help develop student skills in the world of work to create independent businesses or enter existing job opportunities (Dymock & Tyler, 2018; Khurniawan, et.al, 2021). This view is supported by Pavlova (2008). She explained that vocational education aims to help students be ready to work and become facilitators of special reproductive training and teacher interaction based. The vocational education graduates' quality is not less competitive than those of senior secondary education. They have two essential roles: quality in the school environment (according to school standards) and quality based on community standards (Finch & McGough, 1982).

In Indonesia, vocational school teachers experience discrimination against the implementation of teacher development programs. The Continuing Professional Development Program (CPD) for vocational high school teachers is low. Besides, the CPD implementation for vocational school teachers in Indonesia has received less support from the government. As a result, teachers are less skilled at applying teaching techniques obtained from training (Bharati & Chalise, 2017). Most teachers still follow the old pattern. Teachers did not take advantage of the surrounding environment as a substitute for conventional teaching model (Zhukova, 2018). This problem occurrs not only in Indonesia but also in developed countries, such as Australia. The CPD program for vocational training and education in Australia was still developing below average with little provision, support from trainers, and limitations from government agencies (Teyler & Dymock, 2016). Meanwhile, in Norway, the national survey results in 2011 reported that 58% of teachers supported the CPD program, and 9% of school principals participated in these activities (Vibe, 2012). However, currently, CPD has undergone many complex changes (Fox & Bird, 2017). In the previous decades, the use of CPD has changed from professional treatment towards meeting their personal needs (teachers) to practice their profession. It is the risk of changing the CPD results for the activity itself.

Vocational education for the CPD program must still be considered as the Indonesian government needs to improve the education quality. To make this happen, the government can realize it through practical demonstrations and training in accordance with the principles of implementing CPD. In accordance with the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 16 of 2009, CPD is a way to develop teacher competence carried out continuously and gradually. The CPD program in Indonesia has three essential aspects: implementing self-development, implementing scientific publications, and implementing innovative works (Ministry of Education and Culture, 2009). The CPD program is conducted as an effort to improve teachers' skill quality and professional knowledge according to

standards. As contained in Law Number 14 of 2005 concerning Teachers and Lecturers, the teaching profession must be based on competency standards in the CPD program (Ministry of Education and Culture, 2005).

Based on the need for the CPD implementation for vocational school teachers in Indonesia, this study would review the basic problems that have not been resolved so far, especially for vocational school teachers. CPD problems need to be known in advance so that the government does not make the wrong decision or revise policies and provide appropriate solutions (Rudyshyn, et.al, 2020). Solutions can be drawn from several things needed by teachers during the CPD program implementation. Information about the basic needs of vocational teachers in the CPD program can be a bridge for trainers and the government to find solutions aligned between problems and needs. Both complement the creation of government policies and have implications for the CPD implementation in the future.

Research on continuing program development among professionals has been widely researched around the world. Research on this matter is interesting because every country tries to fix its problems through human resource development. Specifically, the study by Nyström et al. (Nyström, et.al., 2017) attempted to explore how to introduce the CPD program to health nurses and the solutions offered after simulations through the inter professional collaboration model. His findings reported on the existence of a teacher professional development model through inter professional collaboration. The model was carried out by employing teamwork-based training and simulations. In line with this research, Alemdag, Cevikbas, & Baran (2019) reported that implementing a professional development model would be better if it were integrated with technology. In accordance with the technological pedagogical content knowledge framework, the program affects teacher performance in teaching practice. This program must be balanced with the provision of information and ICT-based teaching design facilities. Therefore, it is necessary to design a professional development program in the future.

Seeing that some previous researchers have focused more on the models and approaches used in the CPD program, this study has the opportunity to examine more deeply the problems and needs that are priorities for the CPD program. The choice of an item model is undoubtedly an essential thing to review. However, in Indonesia, it is still at the identifying problem stage in implementing the CPD program. Indonesia also still needs information related to the CPD program's basic needs. It can be said that this program has not been running for long, and its implementation is still ineffective. If direct research is focused on a model or approach, then the possibility that what will happen is an implementation that is not as needed. Now, what is needed is more emphasized on the types of needs or real problems in the field so that a model that is genuinely relevant and in accordance with the problems and needs can be found or sought. Thus, it can be said that this research has not been widely studied in several countries. It is because each

country has a different level of difficulty. Studying the problems of the CPD program internally and externally is an urgent need in Indonesia, especially for vocational school teachers. As early prevention, it requires information about the teacher's needs as a solution to solve these problems. These two things go hand in hand and complement each other. Therefore, it is very interesting if these two things are known at once so that the implications can be applied directly by teachers, especially vocational teachers in Indonesia, and as evaluation material for the government.

This research's focus was the CPD problem, which had been implemented by vocational school teachers in the Field of Business and Management Expertise. This problem statement can be broken down into what are the problems faced by teachers in implementing CPD and what are the teachers' needs in carrying out CPD activities. This research was carried out to analyze the problems and describe the needs of the Vocational School of Business and Management Expertise teachers in implementing CPD activities.

METHOD

This research used a qualitative approach. Qualitative research aims to describe and analyze phenomena, events, social activities, attitudes, beliefs, perceptions, and thoughts of people, either individually or in group (Neuman, 2017). This research was conducted by collecting as much data as possible in an objective and relevant manner to describe it in a narrative form to provide a complete picture of the phenomena that occurred with the research's focus. This approach was chosen because the researcher wanted to examine more deeply the problems and teachers' needs in implementing continuing professional development programs at State Vocational High Schools throughout the Surakarta Residency.

More specifically, research subjects are the research's target or primary source; in this case, teachers and students were the primary sources. Meanwhile, informants are people who can provide additional information regarding the research background's situation and conditions. The subjects and informants in this study were teachers of State Vocational Schools in the Surakarta Residency. Teachers of State Vocational Schools were chosen because they were all directly involved in implementing the CPD program. Teachers were this research's primary source. This research was carried out at State Vocational High Schools throughout Surakarta Residency. The researcher chose Surakarta Residency because this area consists of several cities and districts in Central Java. These cities and districts are Surakarta City, Karanganyar Regency, Sragen Regency, Wonogiri Regency, Sukoharjo Regency, Klaten Regency, and Boyolali Regency. Each city or district usually only consists of 2 - 3 vocational high schools. This study had a large population so that the study's results could be generalized widely in the Residency and even in Central Java.

Data collection techniques are methods used to collect information or facts in the field. The data collection technique used was field research techniques; namely, the authors went directly to the field to obtain the necessary data (Cohen, et.al., 2018). The methods employed were interviews, documentation, and questionnaires. Interviews were conducted by asking various questions to informants to obtain information about problems and teachers' needs in implementing continuing professional development programs. Researchers also use a questionnaire to determine aspects of continuing professional development. The preparation of the questionnaire was carried out according to the Likert scale with statements of strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD). There are 25 items of questionnaire statements in accordance with the aspects of continuing professional development. To support the interview and questionnaire, the researchers utilized the recording feature on the cellphone to record the interview results. Besides, in this study, the researchers used the documentation method to quote and analyze documented data to obtain accurate data related to this research's theme. Researchers utilized mobile phones to take several pictures.

In this study, the researchers used triangulation to test the research data validity. Triangulation is a technique of checking data validity by utilizing something other than the data itself for checking purposes or comparing the data itself. This study used a triangulation method to test the validity of the data. Method triangulation is an attempt to double-check the data validity obtained from the study. Triangulation was done by comparing the interview results with a questionnaire; comparing the questionnaire results with documentation; comparing interview results with documentation directly.

After the data were collected, then they were analyzed. The analytical method used in this research was descriptive by analyzing through logical, thorough, and systematic thinking to produce the right conclusions. Miles & Huberman (1994) argued that the activities in qualitative data analysis were carried out interactively and continued to completion so that the data were saturated. In this research, the analysis used was interactive analysis with the stages of data reduction, data presentation, and drawing conclusions and verification.

RESULTS AND DISCUSSION

The CPD program has several aspects that need to be developed. As stated in the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 16 of 2009, CPD consists of three aspects: implementing self-development, scientific publications, and innovative works. In accordance with these regulations, the researchers distributed questionnaires to 120 vocational school teachers in Surakarta Residency. The results of the questionnaire distribution are presented in Table 1 below.

Table 1. Classification of self-development aspects in the CPD program

No.	Self-development aspect statement	SA	A	D	SD
1.	Teachers are required to attend competency improvement training	0	87	33	0
2.	Teachers attend training if assigned by an institution	47	34	17	22
3.	Teachers find it hard to continue their studies	66	23	6	25
4.	Teacher training does not have an impact on increasing competence	69	4	6	41
5.	Teacher actively participate in every teacher working group activity	47	64	7	2
6.	Teacher working group activities can improve teacher competence	0	68	47	5
7.	Teacher working group meetings do not increase teacher competence	82	14	5	19
8.	Teachers have attended curriculum framework workshops for the last three years	47	18	22	33

Table 1 provides different results in each statement. Statement 1, stating that training is teachers' obligation to increasing competence, was approved by 87 teachers. The remaining 33 teachers disagreed with this statement. It could be interpreted that teachers have already known the importance of attending training to support their competence. Overall, the teachers agreed to the statement points. A total of 68 teachers agreed that the training activities had less impact on their competence, while 41 teachers disagreed. One of the 69 teachers who agreed argued that training activities needed to be carried out, but for them (senior teachers), it was sufficient with the current conditions, so there was no need for any further updates. The training was more intended for young teachers who still had a long term to teach.

The low teacher interest in following the training is in line with the second item of the questionnaire statement, which is about their participation in training activities. From the research results, it was found that 21 teachers did not attend the training, 17 teachers rarely attended the training, 38 teachers participated in the training activities several times, and 44 teachers always attended the training activities. Therefore, it could be concluded that most teachers have participated in training activities carried out in schools and the education office.

Further, it concerned Teacher Working Group (TWG) activities commonly carried out by teachers at every education level. Many teachers did not actively participate in the TWG activities. Only 47 out of 120 teachers stated that they actively participated in the TWG activities. The rest stated that they were rare and did not participate in these activities. Even though they have already known these activities' benefits and agreed that these activities could increase their competence, they were not active in these activities. It was like there were facilities that could be used but left alone or unused. They argued that the TWG meetings were more directed towards regular teacher meeting activities, and the material discussed was sometimes not suitable for their needs in the field. It is because the figures' role, methods, and materials can attract teachers to participate in activities. If the invited speakers have the teaching competence and can change the meeting's atmosphere to be more flexible and productive, then there is no doubt that the teacher will be interested in participating in the series of activities.

The findings regarding the TWG meeting's ineffectiveness for teacher competence are in line with the statement of the eighth item in the questionnaire, where teachers admitted that they rarely attended curriculum workshops in the last three years. Only 16 teachers stated that they attended the workshop for more than three times. This condition is very worrying. The activity seemed to have no meaning for the teachers, so they dared to ignore it.

The CPD program examined not only teacher self-development but also scientific publication aspects. In fact, scientific publications are an integral part of teacher activities. However, the reality was contrary to what it should be. The results of the teacher approval level regarding scientific publications aspects can be seen in Table 2 below.

Table 2. Classification of scientific publication aspects in the CPD program

No.	Scientific Publication Aspect Statement	SA	A	D	SD
1.	Teachers have participated in scientific activities as a presenter for the last three years	79	12	13	16
2.	Teachers have been a participant in scientific activities for the last three years	17	33	27	43
3.	Teachers have been a speaker in scientific activities for the past three years	86	11	10	13
4.	Teachers have been a presenter in scientific activities for the last three years	9	29	31	51
5.	Teachers love research activities	0	18	78	24
6.	Teachers do research every year	0	27	72	21
7.	Teachers have published research results in national journals	13	28	53	26
8.	Teachers have published research results in the book	12	34	42	27
9.	Teachers love composing books	10	54	44	12
10.	Teachers have trouble making books	43	68	3	6
11.	Teachers made books on education in the last three years	79	23	7	11
12.	Teachers made learning modules in the last three years	45	32	19	24

In scientific publications, teachers were asked to conduct research, analyze results, and make a research draft. However, the most important thing is the draft published, and they participated in scientific meetings as a presenter or even as a speaker. From the research findings presented in Table 2, it could be recognized that teachers at least participated in several scientific activities. There were 75 teachers who have participated in more than three scientific activities as discussants and speakers in the last three years. However, there were still 16 teachers out of 120 teachers who have never participated in these two activities. Besides, teachers rarely participated in scientific activities as seminar participants. On average, teachers have only participated in

international and national seminars once in the last three years. In other words, it could be said that teacher interest in scientific meetings was still low. Although some teachers agreed that they liked research activities, the final results were inversely related. Therefore, it could be concluded that the teachers' intensity in scientific meetings was still low, and teachers did not conduct research every year.

Apart from scientific meetings, a teacher should also understand that the research's results could not be left as a saved draft but could be published and beneficial to every reader or other researcher. The study's results concluded that teachers rarely submitted research results into national journals or published them in the books. These findings were in line with their research's quantity each year. From the previous results, it was written that only a few teachers had conducted research two to three times in the last three years.

Another finding was that teachers did not like book composing activities. They found it difficult to make books. The teacher also said that they only made two books on education and learning modules in the last three years. It was not all teachers because only ten teachers have made three books in the last three years. The remaining 110 teachers have only been able to make one to two books. There were even 11 teachers who did not write books in the education field, and 24 teachers who did not create a learning module. The following is the table of classification for innovative work aspects in the CPD program.

Table 3. Classification of innovative work aspects in the CPD program

No.	Innovative Work Aspect Statement	SA	A	D	SD
1.	Teachers have a hard time finding the right technology to enhance learning.	36	29	17	38
2.	Teachers can make teaching media that have never existed before.	3	40	59	18
3.	Teachers can modify learning media.	10	45	58	7
4.	The teacher finds the promotion requirements very difficult	28	42	47	9
5.	Teachers are required to follow all applicable educational rules.	76	37	5	2

Referring to Table 3, teachers agreed that they had difficulty finding the right technology to improve learning. The teachers also agreed that they could not make breakthroughs or modify learning aids. For teachers, finding the right technology and art that suited learning was complicated. They have become accustomed to using old models and pre-existing technology. The use of old media was enough to facilitate students' learning and was quite effective in transferring material to students. The media or learning aids are increasingly varied, so that teachers sometimes found it difficult to distinguish each media name. That way, it was not surprising that teachers still adhered to conventional models and did not make breakthroughs regarding learning innovations in terms of models, media, or learning strategies. Apart from the increasingly diverse models and the teachers' limited ability to understand these things, teachers

also felt burdened by other things that ultimately stopped them from increasing their competence and rank. The standard or graduation qualifications for promotion are getting heavier, and many rules change quickly. Teachers must really follow the development of the applicable educational rules.

Based on the analysis of the data above, it can be concluded that the problems of teachers in implementing PKB activities include: (1) training or workshop activities have not been carried out regularly and have little impact on teacher competence; (2) the competence of the trainer is not in accordance with the field of expertise; (3) training is conducted on weekdays so that teachers cannot participate in activities; (4) teachers have some administrative burdens outside of teaching hours; (5) teachers do not get salaries according to standards; (6) unproductive teachers in professional development; (7) teachers receive training materials that do not meet their needs (deviant); (8) teachers are less interested in attending scientific meetings; and (9) teachers lack the insight to write scientific papers, develop teaching aids and books, or innovate learning.

Some information described above resulted from distributing questionnaires about the implementation of the CPD program by Vocational school teachers. To support these results, the researchers conducted interviews about the programs needed by teachers before and after implementing the CPD program. The interview results were divided into three aspects, according to the CPD indicators. First, on self-development indicators, the teacher stated several needs that should be met, namely the need for training on productive subjects from the 2013 Curriculum of Personnel Management Automation (OTKK), vocational school revitalization in the CPD program, protocol training, modern office technology, curriculum development, archiving, entrepreneurship, and vocational learning. Online business training through digital communication, preparation for skill competency tests, assessor training, and class management through the scientific approach are also needed by teachers. Besides, they said that teachers needed online learning training through modern and technology-based applications. Writing e-books and training for the preparation of teaching materials were also felt to be influential for the teachers' professionalism, so they needed this training. Second, the teacher explained his needs for scientific publication indicators. It is necessary to have a compilation program of classroom action research, specifically for vocational school teachers, writing sustainable scientific articles, upgrading scientific publications in national and international journals, and writing books. The third was the teacher's account of meeting needs in the field of innovative work. The programs needed by teachers included training in the creation and development of innovative work in the form of teaching media, teaching materials, test instruments, learning modules, teaching aids, and graphic design.

The study's results revealed that the conditions for the continuing professional development program implementation have been running quite well even though, in practice,

teachers still faced various problems, both problems that came from themselves and the environment. The problems experienced were not far from the usual ones, such as training that has not been carried out regularly, instructors who were not suitable for their fields, administrative burdens, low teacher salaries, and low teacher skills.

In fact, teachers understood enough about the self-development program's importance for them. It was evident that teachers have attended education and training as part of their self-development. The training was filled with material delivery in an educational context relevant to today's teacher needs, such as curricula, teaching strategies, and other educational innovations. Initial training was carried out for one week. The training process began with the preparation of lessons and study rooms. Next, the teacher listens to the trainer's explanation. The teacher takes notes on the material. The teacher asks new questions and learns new material during the training. The training stages carried out were in line with the implementation of training based on the previous research results, where training participants carried out a series of activities, starting with direct observation to practice (Lampert, et.al., 2013; Al-,Mawdieh, 2020). He explained that the sequence became an existing structure. As a result, teachers had a more coherent schedule. According to Kabadayi (2016), training activities are a necessity for teacher professionalism. According to him, policies and directions from the government are recommended to provide services and support for learning in schools to achieve effective, sustainable development.

Apart from training, teachers often attended scientific meetings as an effort to develop themselves. The meeting was different from the previous training agenda. Teachers were more focused on sharing activities and were usually carried out in one school. The place that facilitated this activity was called the TWG. It was where teachers could share information about learning programs in their respective schools. However, this program was not actually carried out by inviting speakers from school supervisors or teachers from other schools with skills in specific fields. In this activity, teachers were involved in collaboration and creating an open system oriented towards educational development. Teachers shared their experiences and discussed problems together and sought solutions. As a result, the network between teachers was getting stronger. As reported by Inasaridze, Lobzhanidze, & Ratiani (2015), the communication network between teachers is the basis for creating teacher professional associations in the future and affects the local community and teacher activity in schools and communities. It is also supported by Alexandrou (2020) in his research that collaboration and support of each teacher between schools would strengthen their relationships in schools and the education quality as a whole.

Unfortunately, from the three aspects of the CPD program, the findings only showed that teachers were focused on self-development (training activities and scientific meetings). They were indeed superior in both matters, but the other two aspects have not been realized as planned. For teachers, the biggest difficulty is scientific publications and innovative work. Scientific

publication required a writer's creativity in preparing the articles to attract journal editors' attention. In general, research articles are required to inform things that are challenging and bring significant changes (Coghlan & Brannick, 2014). In this process, a metacognitive way of thinking is needed (Ifenthaler & Gosper, 2014). The process is also not easy and requires planning, time, writer's flexibility, and skill. This need was contrary to the teachers' real conditions so far, so it was not surprising that teachers did not have experience in scientific publications.

So far, teachers have experienced difficulties in writing scientific papers. The main thing is that they could not determine their research topic independently. In fact, teachers could examine their teaching practices as reflective activities. It means that the teacher was less sensitive to the surrounding environment. The student learning environment is the closest place to the teacher and as a learning experience. Teachers could examine their learning process's weaknesses. These weaknesses could be their research's focus. Teachers must have emotions that are in line with existing reality through contemplation of actions to find research topics (Macdonald, 2013). According to Konstantinou-Katzi et al. (2013), research activities that focus on implementing the learning process are said to be classroom action research. This process has four structured processes, starting with planning, acting, observing, and reflecting. Basically, a teacher cannot be far from classroom action research. This research provides space for teachers to criticize their learning process and as a form of their professionalism. Zembylas (2013) claimed that classroom action research opens up spaces for critical dialogue beneficial to teacher work.

Unlike the low number of scientific publications, teachers did not have the experience to make innovative work. So far, teachers still relied on the media in schools. These media were still limited to traditional media only, and they were purchased at media manufacturing shops. Making innovative media was another difficulty faced by teachers. They had to conceptualize the media beforehand. The concept determination indeed required careful thought and understanding. Teachers were still not used to thinking about things that were not related to practical learning. The media needed today is technology-based media. Technology has become a systematic and organized part of improving education quality. According to Stosic (2015), technology-based media is a systematic way to conceptualize the implementation and evaluation of the teaching and learning process and help the application of teaching techniques in today's modern education era. Cost limitations were also a factor in the low experience of teachers in making innovative work. The government has indeed provided assistance to schools. This term is often referred to as school operational assistance. This assistance is allocated to several components, such as purchasing student and teacher books, providing facilities, and the like. Educational facilities such as school assistance are a vital area for continuing educational practices and programs (Alfaris, et.al., 2016). Continuity of assistance like this must be maintained so that schools can carry out learning in schools comfortably. Therefore, it is necessary to have an organized financing or funding

management. The previous research results indicated that school management (including school funding) affected the school's effectiveness and climate (Nagler, 2015). The implication is in planning school programs, implementing learning, and distributing school funds to complement school needs.

Unfortunately, the school operational funds provided by the government could not be used for teacher self-development costs. To simply pay the fee for honorary teachers each month, the principal must work his brain through cooperation with the school committee. In the end, the teacher's salary was obtained from student guardian contributions and donations from the school. Because of this condition, it was not surprising that teachers were still not moving to develop innovative media. If explored things that did not cost money, teachers still experienced obstacles, especially their IT skills. Today, innovative work does not just have a fixed, hold able form. In today's technological era, teachers must be aware of the changing technological developments. Teacher professionalism is not only limited to things that are visible but must pay close attention to what is part of education today. Previous findings concluded that teacher professionalism was determined by meeting standards regarding whether the teacher had a qualified professional background or not, both in the development of technology-based media as learning facilities (Wardoyo & Herdiani, 2017). In line with the previous statement, Funderburk et al. (2015) stated that the use of technology is a coaching tool to improve teacher professionalism. However, still, everything is not as easy to be realized. The teacher's complaints are often related to low computer skills. For example, creating a book and publishing it will inevitably go through the editing and publishing stages. Everything is done with the help of computers and publishing fees.

Financial support is important for the sustainability of schools and teachers. This kind of support is what teachers generally need. As in several other developed countries, teachers' salaries are almost the same and even exceed doctors' salaries or other jobs in general. The teacher is a job that is in great demand by intellectuals. In Finland, for someone to become a teacher, they must be part of the world's top university graduates. Their qualifications are rigorous. Knowledge, skills, and attitudes are the main things that teachers must have. Education in Finland has always been a central concern of many countries. Apart from its achievements from the results of the Program for International Students (PISA) or Trends in International Mathematics and Science Study (TIMSS), Finland also has a high education quality. As reviewed by Curcher & Teras (2013), teacher qualifications in Finland are very high and get the full trust of many countries. Teachers in Finland are very competitive. The education system in the country facilitates teachers to manage classes, curricula, and assessments freely. According to Niemi (2015), teachers in Finland can choose various teaching methods based on student needs and use various relevant assessment tools. Teachers in developed countries are very concerned about their welfare. It is completely inversely proportional to Indonesia. In some remote areas of 3T (left behind, farthest,

and outermost), teachers' welfare was far from proper. Never mind making innovative works, they rarely got assistance with facilities, such as teaching media and so on. Teacher self-development efforts through innovative work were still far from the real condition today. They need financial support, special training, and full welfare attention from the central government. Continuing professional development programs at every level of education will still be difficult to run if they are not balanced with facilities and infrastructure, financial support, and other aspects (Akinyemi & Nkonki, 2020).

Overall, this study's findings produced information that implementing the continuing professional development program primarily for vocational high school teachers in the Surakarta Residency has gone quite well. However, the teacher experienced problems. These problems included (1) training activities have not been carried out according to teacher expectations, especially regarding the material obtained and the trainer's expertise in delivering the material; (2) training was still carried out on weekdays; (3) the amount of administrative burden on teachers; (4) low financial support; (5) other internal factors, such as age; and (6) teachers' lack of interest and insight in learning scientific paper writing. Teachers have succeeded in achieving aspects of self-development through scientific meetings and training. However, teachers were still unable to reach the stage of scientific publication and creation of innovative works properly. During the program accomplishment, teachers experienced several obstacles, such as lack of financial support from the government, low teacher experience, unpreparedness in facing technological developments, and lack of criticism in responding to scientific developments among teachers.

Based on these two research findings, the function of finding teacher problems in implementing CPD can be used as evaluation material by school principals, supervisors, or the CPD organizing agency. The evaluation material needed is that the organizers must consider the problems experienced by teachers during their professional development. After knowing the problems experienced by teachers, CPD organizers can choose wisely the programs that must exist in the implementation of CPD. In addition, organizers must also consider aspects of teacher needs. The needs of teachers are not only about professional development, but also the needs inherent in learning and students.

If two things (identification of problems and teacher needs) regarding CPD have been evaluated regularly, then the principal or the organizer of the CPD program can decide on how to improve the CPD program in the future. Improvement of the CPD program will lead to improving the quality of human resources (teachers). In accordance with their role, teachers will be better able to maximize their competence in teaching or writing scientific manuscripts. Teachers as printers of the modern generation will be better prepared to face all the challenges of the development of technology and knowledge in the 4.0 era as it is today. Teachers will be able to

shape students into skilled and knowledgeable workers to meet the needs of the business world and the industrial world. In other words, these findings have long-term benefits after the improvement and evaluation of the CPD program.

CONCLUSION

Based on the results of the study, it can be concluded that teachers have implemented continuing professional development programs quite well. However, teachers still experience obstacles that affect the smooth running of the CPD program. These constraints come from internal and external factors. With the obstacles found in this study, teachers need to re-evaluate the CPD program. Teachers can make a detailed list of self-development needs so that the program can be realized in the CPD program. These needs are not far from the three aspects of the CPD program: self-development (various training that can improve teachers' ability), scientific publication aspects (writing scientific papers to journal publications), and innovative work aspects (book development, teaching aids, learning innovations, etc.). If these two things run continuously, the objectives of implementing the CPD program will be easier to achieve. Therefore, it requires problems' understanding and teachers' needs so far.

Considering the problems that have led to the ineffective implementation of the CPD program, researchers have advised schools, teachers, and the government to pay attention to teacher welfare better than before. The government can form a particular institution to handle the CPD program from planning, implementation, to evaluation. Schools can design a program that supports teacher self-development without spending much money. Schools can also collaborate with the city education office, educational personnel education institutions, professional organizations, or the education quality assurance institute in determining teacher needs during the CPD program. These needs include materials, instructors, facilities, methods, time, costs, and evaluation systems. Other researchers can also find out more deeply about the supporting factors of the implementation of the program so that the study of the CPD program is richer in the information.

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