

Vocational High School Teachers Continuous Professional Learning

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Abstract. The quality of vocational teachers is one of the main challenges affecting the quality of vocational education graduates. This paper discusses strategies that can be applied in continuing professional learning for vocational teachers at SMK, this qualitative research uses a phenomenological approach related to continuous professional learning carried out by SMK teachers, data obtained by conducting interviews followed by reviewing various literature. Strategies that can be implemented in continuous professional learning for vocational teachers can be carried out holistically including self-development activities, publications and innovative work in the form of training, in-house training, MOOC or vocational productive teacher competency certification tests carried out by teachers individually and collectively through MGMP. School; by facilitating teachers to participate in product-based training. System; by improving the content of teacher professionalism improvement activities at schools, education offices, universities, teachers' unions or professional associations. In addition, in the implementation of teacher professional learning strategies, it is necessary to pay attention to five dimensions, namely motivation, access, provision, content and quality. The implementation of this strategy is expected to have a positive impact on improving the quality of learning carried out by teachers besides that it can improve the quality of learning and improve teacher well-being.

Keywords: VET Teachers; Continuous Professional Learning

INTRODUCTION

Some of the challenges faced by vocational education in Indonesia include the low quality of TVET graduates and not meeting industry demands and competencies. This problem was exacerbated by the skill mismatch. As a result, the unemployment rate for SMK graduates remains high compared to other levels of education. In addition, the quality of vocational teachers is one of the main challenges affecting the quality of vocational education graduates. Many vocational teachers do not meet the required qualifications, in addition to their lack of industry experience and certification which makes them incompetent in their teaching field. (Voctech, 2020)

The 2023 Vocational School Educators and Education Personnel Capability Improvement Program was socialized by the Directorate of Vocational Schools on February 13, 2023, including Reskilling and Upskilling. Reskilling is training for new skills for SMK teachers, while Upskilling is a program to improve teacher abilities. The Reskilling and Upskilling Program is a program to fulfill Objectives and Key Results (OKR), vocational teachers with work experience (apprenticeship), competency training, or industry standard competency certificates. (Teknologi, 2023)

Upskilling and Reskilling activities are activities to increase the professional competence

of teachers who teach productive subjects at Vocational High Schools. There are two activities, namely industry apprenticeships and productive teacher competency certification using business and industry world standards. The Reskilling and Upskilling program has been implemented since 2020, these activities are carried out by BBPPMPV through Learning Center Vocational Schools, carried out for 1 month in the form of work apprenticeship activities industry partner of the school which is the center of learning. Upskilling and Reskilling participants for accounting teachers are only 120 people every year, if multiplied by three years, only 360 vocational accounting teachers throughout Indonesia carry out Upskilling and Reskilling which are funded by the government. This number is still very minimal when compared to the number of SMK accounting teachers. In Central Java, there are approximately 1,200 vocational accounting teachers from 35 urban districts in Central Java. The data was obtained from data collection on members of the SMK Accounting MGMP in November 2022.

The government has facilitated the improvement of teacher competence independently through various applications that can be accessed using thelearning.id account on the SIMPKB application or through the portal <https://gurubelajardanberbagi.kemdikbud.go.id/> to increase teacher pedagogic competence,

registration is carried out independently by the teacher and the teacher takes part in the training according to the schedule online with the format of accessing the application then doing the pretest, watching the video according to the training topic then doing the posttest, if you have finished doing the posttest with a minimum score of 80 a certificate will be issued. From interviews conducted with 6 productive teachers at SMKN 1 Sragi who attended training through the SIMPKB application, it was found that 4 teachers had the motivation to take part in training through the SIMPKB application to obtain a certificate, the certificate in the Teacher Continuing Professional Development activities was considered as a self-development activity. By obtaining credit points in the teacher's credit score assessment. Actually the purpose of participating in self-development activities is to increase competence, but there are some teachers who speed up the video and immediately take the post test, so that what is obtained is only a certificate while the meaning of carrying out self-development and increasing teacher competence is reduced.

Teachers are required to carry out Continuing Professional Development (PKB) activities for capacity building as teachers. PKB activities are carried out as a fulfillment of workload for 37.5 (thirty seven point five) effective working hours. PKB activities can be carried out at school or outside school in accordance with statutory provisions (Mendikbud, 2018). Continuing Professional Development is teacher professional learning which is carried out according to needs, in stages, and continuously to increase teacher professionalism. (Kemdikbud, 2019). Continuous Professional Development for Teachers In the development of the teacher profession is one of the elements required for promotion to the functional position of teachers, there are three elements of PKB, namely carrying out self-development, scientific publications and innovative works. Teacher self-development activities are carried out by participating in functional training and carrying out teacher collective activities.

Based on these problems, this paper will discuss strategies that can be applied in sustainable professional development for vocational teachers in SMK.

Literature Review

Vocational education institutions should provide special support for the physical and

institutional learning environment of teachers, provide more autonomy for teacher learning, and offer more opportunities for teacher collaborative learning in the workplace.(Liu et al., 2020). Vocational Education plays a central role in preparing young people for work, developing adult skills, and responding to the needs of the labor market economy. Vocational Education Teachers need pedagogical skills and work knowledge and experience, and are kept up to date to reflect changing skill requirements in the world of work and the evolving teaching and learning environment.(OECD, 2021). Quality Vocational Education is very important to improve the skills development of trainees. Technical and Vocational Education Training (TVET) Personnel and Technical and Vocational Education Training (TVET), especially TVET teachers are an important part of the TVET system worldwide and fundamental to the education and training of students and for the success of the TVET system as a whole.(Paryono et al., 2017)

Developing the competence of accounting teachers through technology-assisted education is a coaching process to understand technology integration. This ongoing development aims to improve teacher learning through in-service training (Mardi et al., 2021). The results of analysis of research data on the Massive Open Online Course (MOOC) for teacher professional development show that the majority of participants conceptualize this MOOC as an efficient environment to enhance their pedagogical knowledge and classroom practice and to support continuous professional development. (Koukis & Jimoyiannis, 2019)

The results of a study of 23 networked professional learning communities in the Netherlands show a fairly positive effect on teacher satisfaction; knowledge, skills, and attitudes developed; and their application to practice. Considering this early stage of developing a professional learning community, teacher participation in a networked professional learning community looks promising for enhancing their professional learning. (Prenger et al., 2019). In addition, to support teacher professional development, 14 Dutch secondary schools developed and implemented a range of interventions. The interventions belonging to professional learning groups working and collaborative learning were the most frequently mentioned including formal and informal teacher groups working and studying together. In general,

it can be concluded that the more embedded interventions are in the organization and culture of the school, the more sustainable they appear to be. (Admiraal et al., 2021)

Regarding teacher perceptions of continuing professional development (PKB) in vocational accounting teachers include factors that are considered to influence the continuing professional development of accounting teachers are described as follows: Representing personal characteristics of accounting teachers which include demand characteristics, sources power and strength. At the next level, teachers are influenced by the environment in which they interact with others. Microsystem factors in this study include interactions between teachers and students, colleagues, and school principals. The next level, the mesosystem, includes interactions that may influence teacher self-development. This can include interactions between students, colleagues, students and colleagues, colleagues and principals, or students and principals. At the next level, the exco system, factors include secondary subject teacher forums on Accounting (called the Accounting MGMP) and laws issued by the government. The fourth and outermost level, the macrosystem, includes social and cultural ideologies that impact teachers including accounting teachers, influenced by globalization,

and the Association of Southeast Asian Nations Economic Community agreements(Widayati et al., 2021)

The results of research on teacher interest in professional development using the professional identity framework to interpret heterogeneity among teacher perceptions of professional development indicate that an analysis of the three case studies of teacher identity and teacher learning reveals three distinct “learning interests” namely for what (content), who (facilitation), and then with whom (community). This learning affinity framework can better model teacher professional development experiences.(Noonan, 2019).

According to Luka Boeskens (2020), there are two areas studied regarding teacher professionalism, consisting of the preparation of initial teachers to become professional teachers and continuous professional learning for teachers (Continuing Professional Learning (CPL)). Effective teaching is the essence of a successful education system, and there is growing recognition that teacher professional learning (TPL) is essential to fostering such teaching, the Teacher Professional Learning (TPL) study framework considers three levels of analysis and five dimensions analysis which can be described as follows

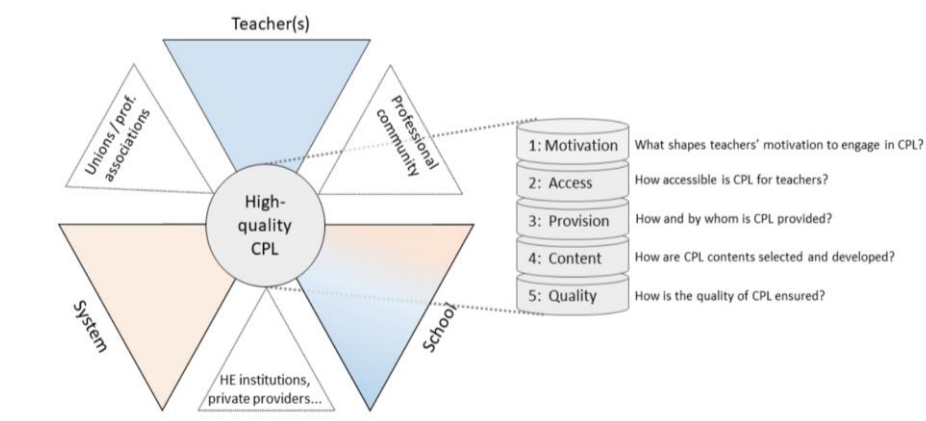


Figure 1. Analysis Level and Analysis Dimensions of Teacher Professional Learning (TPL) (Luka Boeskens et al., 2020)

The three levels of analysis in the Teacher Professional Learning (TPL) study framework are:

- a. teachers – both individually and collectively – who can be both recipients and providers of TPL, for example through peer coaching, professional learning communities (MGMP),

or teacher networks.

- b. school, including its leadership team.
- c. system, including the range of actors that shape teacher professional learning, such as various levels of school administration, higher education institutions, teachers' unions or professional associations, and private

training providers.

The five dimensions of analysis in the Teacher Professional Learning (TPL) study framework are:

1. Motivation: What motivates teachers to engage in Continuing Professional Learning (CPL)?
2. Access: How do teachers access Continuing Professional Learning (CPL)?

Many teachers and principals report barriers and barriers that prevent them from engaging in collaborative or independent CPL and from accessing learning opportunities provided by external actors. This dimension considers where these barriers and constraints arise, as well as the policies that can enable schools and teachers to overcome them.

3. Provision: How and by whom is Continuing Professional Learning (CPL) provided?

This dimension looks at the ways in which CPL is delivered in different systems, including the teacher's role in its delivery and their level of agency in designing and shaping CPL activities.

4. Content: How is Continuing Professional Learning (CPL) content selected to suit the needs?

This dimension addresses how CPL content is developed and selected, as well as the mechanisms used to adapt it to the learning needs of different actors. Specifically, this dimension examines the process by which teacher, school, and system-wide training and learning needs are identified or forecasted and translated into appropriate development activities.

5. Quality: How is the quality of Continuing Professional Learning (CPL) ensured?

This dimension relates to how education authorities, schools and teachers can assess and improve the quality of CPL. In order to use the available resources to the greatest possible effect, it is very important to ensure the quality of professional learning. However, this presents various challenges, given the diversity of purposes, settings,

providers, actors and formats of CPL. Given these difficulties, this dimension takes into account

- a. how the various providers and actors in the CPL system determine the goals and desired quality of professional learning activities,
- b. how they measure and evaluate the results of CPL activities, and
- c. how the policy approach and measures to improve the CPL system are developed on this basis.

METHODS

The research method applied in this study is a qualitative method with a phenomenological approach related to continuing professional development carried out by vocational teachers, data obtained by conducting limited interviews and then proceeding with reviewing various literature to find solutions and strategies that can be applied in continuing professional development for vocational teachers in SMK, especially on the element of self-development

RESULTS AND DISCUSSION

The results of the interviews show that the teacher's motivation for carrying out continuous development activities is to increase the teacher's credit rating in self-development activities, increase abilities and make friends, as stated by the informant who said that

"To be honest, the motivation for implementing CPL is to increase in rank. Apart from that, it is indeed to increase knowledge, skills and also to add comrades in arms, for example functional training" (AH)
"What motivated me to carry out the PKB was to improve my insights, skills, and work attitude so that I was motivated to carry out Classroom Action Research Report (PTK) preparation, and carry out self-development to try to get promoted."(RM)

Regarding access, teachers generally feel that they have easy access to various types of training for self-development because since the Covid-19 pandemic occurred, various types of training can be accessed online, as long as teachers are diligent in digging for information, information related to online training activities is easy to obtain. However, there are several

obstacles that arise in accessing the PKB implementation, including internet network problems when the implementation is online, besides that offline activities are very rare and the number of participants is limited so that they cannot be maximized. In addition, the schedule of activities that coincide with the teaching schedule has hampered access to various trainings.

Continuous professional development especially in teacher self-development activities is provided by various parties including the schools themselves through IHT, the government through various platforms and also other stakeholders such as universities through community service activities. Various PKB information, especially such as self-development, can be found on telegrams, WA, other social media, and notification letters from schools. The material for self-development activities is mostly related to pedagogic competence, while what is needed by vocational teachers is not only an increase in pedagogic competence but also an increase in professional competence that is up to date in accordance with the times. In line with the answer of one of the informants who said that

“The CPL content that is followed is still related to pedagogic content. while the professional content is not maximized because it is only carried out at certain moments and the number of participants is limited. The teacher must really update information related to the implementation of PKB, especially in the professional field” (EA)

The quality of self-development activities can be seen from how teachers have increased professional skills in carrying out teaching and learning activities, besides that it can also be seen from the products produced by teachers, not only in the form of self-development activity reports but also products in the form of learning videos when teachers carry out activities self-development by participating in training on making learning videos, besides that it can also be seen from increasing competence through competency certification tests.

Strategies that can be implemented in sustainable professional development for vocational teachers in this case productive vocational teachers can be carried out holistically including self-development activities, scientific publications and innovative works in the form of training, in-house training, MOOC or

competency certification tests for vocational productive teachers conducted by :

a. **Teachers** – both individually and collectively through the MGMP – Individually with self-awareness teachers take part in independent training, learn from more competent colleagues and teachers can also take part in training activities conducted by the MGMP. Increasing pedagogic competence through independent training using the SIMPKB platform. Meanwhile, to improve professional competence, attend training both conducted by the MGMP and by professional associations. After that, take a competency certification test at DUDI or a professional certification body licensed by BNSP. Apart from that, you can also carry out teacher apprenticeships at DUDI with industrial class DUDI who have collaborated with schools.

b. **The school, including its leadership team**

Related to the need for teachers to carry out continuous professional development, schools facilitate teachers to attend training in the form of product-based workshops or in-house training. For example, a school holds Classroom Action Research Training by bringing in competent resource persons, then there are three series of activities, namely participating in the training itself, then after attending the training the teacher must conduct classroom action research then make a class action research report, then carry out dissemination by holding a results seminar study. From this series of activities the teacher produces 3 products while simultaneously carrying out continuous professional development as a whole. The resulting product viz

- 1) Evidence of carrying out self-development activities in the form of a report participating in classroom action research training attached with a training certificate.
- 2) Evidence of conducting publications in the form of Classroom Action Research Results Reports that have been disseminated
- 3) Evidence of making innovative works in the form of learning videos or teaching media used when conducting classroom action research

One of these trainings besides being able to produce products can also improve teacher competence both pedagogically and professionally.

c. System

Improving the content and dissemination of teacher professionalism improvement activities on all lines including

1) Schools: Always update dapodik school data, especially those related to teachers, provide the necessary funding according to ability, carry out training needs analysis and continuous professional development for teachers

2) Education Office: Improving communication and increasing collaboration between BPTIK and MGMP in conducting training related to the use of learning technology and product-based teacher innovative work. Improving product-based Online Education and Training through meetings through Gmeet, Ms.Teams and with the MOOC format for product-based teacher professional development so that in addition to self-development teachers can also produce works in the form of Research Reports, Best Practices, Modules, Diklat, Teacher Handbooks, Textbooks, and others.

3) Universities establish partnerships with MGMP. At LPTK Higher Education Institutions community service activities can be carried out by providing training to improve teacher pedagogic competence in collaboration with the MGMP. Whereas for vocational tertiary institutions or non-LPTK community service activities can be carried out by providing professional competency training to productive vocational teachers in accordance with their majors to improve professional competence in collaboration with the MGMP. Universities provide materials and sources, MGMP provides venues, participants and consumption.

4) Teachers' Union or Professional Association

The Teachers' Union in the continuous professional development of teachers acts as a provider of training for self-development and improvement of teacher competence. For example, PGRI initiated training on the

implementation of the independent curriculum for teachers. Professional associations in the continuous professional development of teachers play a role as one of the training providers for self-development and improvement of teacher competence. An example of an accounting teacher taking part in tax brevet training organized by IAI.

In addition, in the implementation of teacher professional development strategies, five dimensions need to be considered, namely:

1. **Motivation:** What motivates teachers to do Continuing Professional Learning (CPL). Teacher motivation to carry out continuous professional improvement needs to be ensured so that teachers are enthusiastic about continuing professional improvement.
2. **Access:** How teachers access Continuing Professional Learning (CPL), the facilities used to access continuous professional development activities need to be ensured. If the activity is carried out online, make sure the internet connection is running, if using an LMS, make sure that NGOs can be accessed by all participants in continuous professional development activities. In addition, it is necessary to ascertain whether the reach of continuous professional development is sufficient for one school or at the district, provincial or national level.
3. **Provision:** How and by whom is Continuing Professional Learning (CPL) given, now is the era of collaborative work, so continuous professionalism improvement activities can be carried out in collaboration between teachers, schools, MGMPs with Universities or with other stakeholders.
4. **Content:** How the content of Continuing Professional Learning (CPL) is selected to suit the needs. The main thing that needs to be considered is to ensure that the content and materials are really in accordance with the needs, for productive vocational teachers there must be a link and match between what is learned and what is applied in the world of business and industry.
5. **Quality:** How is the quality of Continuing

Professional Learning (CPL) ensured, is it enough to just do a post test, based on the product produced or based on the level of passing in the competency certification test.

The implementation of this strategy is expected to have a positive impact on improving the quality of learning carried out by teachers besides that it can improve the quality of learning and improve teacher well-being.

- a. CPL has an impact on the learning process in the classroom. Classroom process here refers to all the teacher's classroom practices that can lead to maintaining or enhancing student learning.
- b. CPL has an impact on student well-being. Student well-being here refers collectively to the desired teaching outcomes for students – In accordance with The OECD Teachers well-being for Quality Teaching
- c. CPL has an impact on student achievement. Student achievement is affected by a variety of factors, many of which are beyond the teacher's control.
- d. CPL Impacts teacher well-being and retention In teaching, as in other professional domains, opportunities for training and learning are an important part of what makes a job fulfilling and satisfying.
- e. CPL has an impact on employee mobility and skills obsolescence. In the wider economy, training and learning opportunities for adults (both on and off the job) are critical to preventing skills obsolescence, increasing the professional upward mobility of employees, and reducing the risk of unemployment. (Luka Boeskens et al., 2020)

The impact of Continuing Professional Learning (CPL) can improve the quality of learning. Quality teaching here denotes a teacher's ability to be effective in the workplace and positively influence student learning and other desired non-cognitive outcomes (such as student well-being and motivation). The impact can be described as the following figure

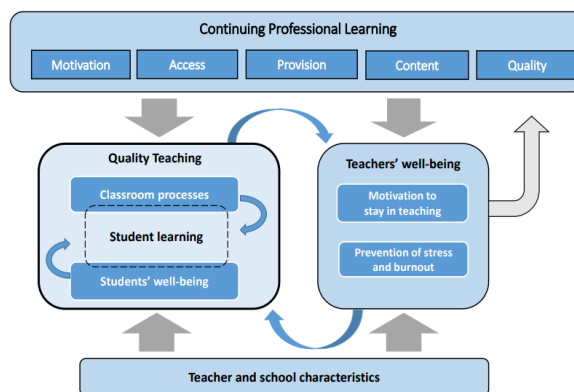


Figure 2. Continuing Professional Learning Impact (Luka Boeskens et al., 2020)

CONCLUSION

Based on the results of the research and discussion, it can be concluded that strategies that can be implemented in continuing professional learning for vocational teachers, in this case productive vocational teachers, can be carried out holistically, including self-development activities, scientific publications and innovative works in the form of training, in-house training, MOOC or tests. certification of vocational productive teacher competencies conducted by teachers; individually and collectively through the MGMP – attending independent training, learning from more competent colleagues and participating in training activities by the MGMP. Meanwhile, to improve the professional competence of teachers, they attend training by the MGMP and professional associations.

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