

Continuous Professional Learning as an Innovation in Vocational Teacher Performance Improvement Management

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ABSTRACT

This study aims to analyze the indirect effect of Continuous Professional Learning (CPL) on the Performance of Vocational Teachers. The population of vocational high school accounting teachers in Central Java is 1323 people, with a sample of 308 people calculated using the Slovin formula. Data were collected through a questionnaire filled out by the teachers. Based on the results of the study, it was found that Continuous Professional Learning (CPL) has a direct effect on the performance of vocational teachers. Continuous Professional Learning (CPL) has a direct effect on the performance of vocational teachers. Accounting vocational teachers who have vocational capacity have better performance. In vocational accounting teachers in Central Java, the average performance value can be categorized as good; the highest average performance value is obtained by accounting teachers who have competency certificates and assessor certificates, followed by groups of teachers who have three certifications at once (professional certificate, competency certificate, and assessor certificate). Accounting vocational teachers who only have one type of certificate have a lower average performance than teachers who have two or three types of certificates. Based on these findings, it is recommended to improve teacher performance through continuous professional learning (Continuous Professional Learning), which is designed by considering the unique situation of vocational teachers, especially in developing digital literacy, pedagogical innovation, and industry knowledge to meet the qualifications required as vocational teachers at SMK, increasing industry experience and certification so that teachers are competent and up to date according to their vocational fields.

Keywords: continuous professional learning, innovation, management, professional learning, vocational teacher performance.

INTRODUCTION

Vocational education in Indonesia faces various challenges, including the low quality of graduates who do not meet the demands and competencies of the industry and the mismatch of skills. In addition, the quality of vocational teachers is one of the main challenges that affects the quality of vocational education graduates. Many vocational teachers do not meet the required qualifications, in addition to the lack of industry experience and certification that makes them incompetent in their teaching fields [1].

Quality vocational education is essential to enhance students' skills development. The landscape of vocational education teaching and learning is changing, as are the skills required by the labor market; the need to empower vocational teachers to keep up with new pedagogical and technological approaches in the classroom and keep up with the realities of the workplace is urgently needed [2]. The realities of industry needs include the increasing demand for digital and non-technical skills in the labor market, which means that VET teachers need to equip themselves with these skills and teach them to students [3].

Lifelong learning is needed for teachers to continue learning in their daily professional lives to update their knowledge, expand their practical skills/experiences, and keep up with technological advances. In response to the challenges mentioned above, vocational education institutions should provide special support for teachers' physical and institutional learning environments, provide more autonomy for teacher learning, and offer more opportunities for teachers' collaborative learning in the workplace [4].

Vocational teachers continually adapt their teaching to changes in work practices, technology, and student diversity. Teacher professional development is essential to address these changes [5]. Enhancing the professional competence of vocational teachers is essential to ensuring the quality of vocational education; participation in continuing professional development supports the development of vocational teacher competence [6]. Teacher professional learning is increasingly in demand as a way to support the increasingly complex skills that students need to succeed in the 21st century (Darling-Hammond et al., 2017).

Vocational teachers are defined as vocational theory teachers who teach theoretical subjects related to the vocational field in vocational education programs. Vocational practice teachers teach practical applications, such as mechatronics practice in school workshops in vocational education programs. General subject teachers are responsible for teaching academic subjects [8]. Vocational teachers who teach vocational fields in vocational schools are usually referred to as productive subject teachers.

Research on the performance of vocational school teachers is often juxtaposed with the leadership of the principal, commitment, motivation, and compensation [9], such as research conducted by Sadikin et al. (2023) and Devi Gusriana et al. (2022). However, some link it to professional development research that links professional development with the performance of vocational teachers, including research conducted by Kholifah et al. (2024), which explores teacher performance based on the role of family sociology, managerial support, and working conditions, as well as the involvement of teacher motivation and professional development among vocational teachers.

In relation to this, the author will discuss Continuous Professional Learning related to improving digital literacy skills and pedagogical innovation among vocational teachers, which impact their performance and promote developing vocational students' work skills in the global industry with the local cultural character of Indonesian society.

METHODS

This study is an ex post facto research using quantitative methods. This study aims to test the effect of each component of Continuous Professional Learning (CPL) on Vocational Teacher Performance measured using SmartPLS software [13]. The unit of analysis in this study is vocational high school accounting teachers in Central Java. The number of accounting teachers based on data from the Central Java Provincial Accounting MGMP is 1323, with a sample of 308 people.

RESULTS

Based on the vocational capacity possessed, respondents are divided into 8 categories, namely Accounting teachers who have competency assessor certificates, Accounting technical competency certificates, Accounting technical competency certificates, Assessor certificates, Educator professional certificates, Educator professional certificates, Assessor certificates, Educator professional certificates, Accounting technical competency certificates, Educator professional certificates, Accounting technical competency certificates, Assessor certificates, No certificates. The distribution of respondents based on their vocational capacity is as follows:

Table 1. Distribution of respondents based on vocational capacity

No	Vocational Capacity	Amount	Percentage
1.	Assessor Certificate (SA)	5	2%
2.	Accounting Technical Competency Certificate (SK)	11	4%
3.	Accounting Technical Competency Certificate, Assessor Certificate (SK, SA)	6	2%
4.	Teacher Professional Certificate (SP)	74	24%
5.	Teacher professional certificate, Assessor Certificate (SP, SA)	25	8%
6.	Professional Certificate of Educator, Accounting Technical Competency certificate (SP, SK)	20	6%
7.	Professional Certificate of Educator, Technical Accounting Competency Certificate, Assessor Certificate (SP, SK, SA)	130	42%

8.	No certificate (TS)	37	12%
AMOUNT		308	100%

The following table describes the average performance value of vocational teachers based on their vocational capacity.

Table 2. Teacher performance based on vocational capacity

	Certificate	Mean	Std. Error
Vocational Teacher Performance	SA	3,0040	0.00400
	SK	3.0445	0.23180
	SKSA	3,4117	0.18322
	SP	3,1123	0.04986
	SPSA	3,0808	0.14038
	SPSK	3,1175	0.15148
	SPSKSA	3,3621	0.04454
	TS	3,2095	0.06918

Based on processing using Smartpls, the following results were obtained

Influence of Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CPL -> KG	0.288	0.289	0.062	4,634	0,000

Continuous Professional Learning (CPL) has a significant influence on the performance of vocational teachers (KG) of (0.288) with a t statistic ($4.634 > 1.9679$) or p-value ($0.000 < 0.05$). Any changes in Continuous Professional Learning (CPL) will significantly improve the performance of vocational teachers (KG).

Table 3. 95% Path Coefficient Confidence Interval

Influence of Variables	Original sample (O)	Sample mean (M)	2.5%	97.5%
CPL -> KG	0.288	0.289	0.163	0.409

In the 95% confidence interval, the influence of Continuous Professional Learning (CPL) on the Performance of vocational teachers (KG) of 0.288 lies between 0.163 to 0.409. When Continuous Professional Learning (CPL) is increased with various activities, its influence on the Performance of vocational teachers (KG) will increase by 40.9%.

Table 4. R square

	R-square	R-square adjusted
Performance of vocational teachers (KG)	0.356	0.349

The magnitude of the influence of Continuous Professional Learning (CPL) on the performance of vocational teachers (KG) is 35%, which is included in the moderate influence category

DISCUSSION

The results of the study indicate that there is a direct influence of Continuous Professional Learning (CPL) on the performance of vocational teachers; every change in Continuous Professional Learning (CPL) will significantly improve the performance of vocational teachers when Continuous Professional Learning (CPL) is increased with various activities, its influence on the performance of vocational teachers will increase by up to 40.9%. This is in accordance with previous studies, which state that training and development have a significant influence on teacher performance, while development also has a significant influence on teacher performance [14]. Synthesis of various

studies consistently shows a positive relationship between professional development involvement and improved teacher performance [15].

In the context of vocational teachers, their performance can be measured from the aspect of individual teaching competence as one of the key components of performance [16]. According to Diao et al. (2024), vocational teacher competencies consist of six, namely curriculum improvement and development, facilitating learning and training, vocational knowledge and skills, vocational capacity, digital competence, research, and self-development.

Continuous Professional Learning (CPL) can foster a collaborative space where teachers can share experiences, provide feedback, and support each other's professional growth; by providing opportunities for teachers to succeed in Continuous Professional Learning (CPL) activities, teacher self-efficacy will be stronger.

Continuous Professional Learning (CPL) provides teachers with access to updated industry standards, new technologies, and evolving pedagogical approaches. This allows teachers to develop and align the curriculum with the industry so that it is more relevant, up-to-date, and interesting, in line with industry needs and standards, and the development of innovative learning materials and resources.

Continuous Professional Learning (CPL) equips teachers with a variety of teaching methodologies, assessment strategies, and classroom management. This can improve teachers' ability to create an inclusive and student-centered learning environment, which can impact student engagement and motivation, learning outcomes, and the development of more effective vocational skills.

Continuous Professional Learning (CPL) provides opportunities for vocational teachers to improve their skills. This can enable teachers to acquire new technical skills and refine their practical abilities, improving their credibility and expertise, providing authentic and relevant vocational teaching, and increasing the transfer of skills relevant to the industry to students.

Continuous Professional Learning (CPL) can be carried out through teacher training and internship activities in the industry, where teachers can directly observe how the application and use of the system in an industry is then continued by implementing curriculum synchronization with the industry. This is in accordance with the results of Zhao & Ko (2024) research on vocational teachers, showing that professional learning for vocational teachers carried out in the industrial world according to vocational subjects has an impact on increasing teachers' ability to design curricula by collaborating with industry experts.

In designing Continuous Professional Learning (CPL) materials, there are specificities for vocational teachers; until now, the vocational field continues to develop. Continuous Professional Learning (CPL) allows teachers to follow and adapt to industry trends, the latest technology, and updated practices. In terms of training in curriculum preparation, for example, vocational teachers must understand the curriculum and learning outcomes given by the government, vocational accounting teachers must be able to align it with the current Indonesian National Work Competency Standards (SKKNI) in accounting, the current Financial Accounting Standards (SAK) and the current Tax Laws and Regulations.

The implementation of quality Continuous Professional Learning (CPL) to improve vocational capacity in vocational high school accounting teachers has been carried out by several schools and MGMPs, namely competency-based training, which is then continued by implementing competency certification tests. Among them are training and competency tests for the financial report preparation cluster based on SAK ETAP, training and competency tests for the operation of accounting computer applications, training and competency tests for the preparation of Tax Returns, and training and competency tests for cash management and card preparation.

This training and competency certification test is carried out by teachers carrying out training first with speakers from the industry, practitioners, or accounting teachers who have been certified in the cluster they want to certify, then continue with competency certification activities in collaboration with the Competency Certification Institute (LSP), if at the time of the teacher certification test, it is recommended that they are competent. The teacher will receive a certificate according to the cluster being tested by the National Professional Certification Agency (BNSP). In addition to BNSP, several industries also carry out certification, including the accounting software provider Accurate, which provides two types of certification for teachers and students, namely Certified Accurate Data Entry

(CADE) and Certified Accurate Professional (CAP); this certification is intended for teachers in schools that carry out industry class cooperation with PT Ultima Tekno Solusindo. In addition, the Zahir Accounting provider also applies the same thing that before carrying out industry cooperation, teachers must first take part in Zahir Accounting training and trainer tests. The process is the same, namely that teachers carry out training first and then carry out competency certification tests.

The implementation of Continuous Professional Learning (CPL) in the form of training and certification tests is important for teachers to improve the capacity of vocational teachers. Accounting vocational teachers who have vocational capacity have better performance. In vocational accounting teachers of vocational high schools in Central Java, the average performance value can be categorized as good; the highest average performance value is obtained by accounting teachers who have competency certificates and assessor certificates, followed by groups of teachers who have three certifications at once (professional certificate, competency certificate, and assessor certificate). Accounting vocational teachers who only have one type of certificate have a lower average performance compared to teachers who have two and three types of certificates.

Teachers who do not have a certificate perform better than teachers who only have one certificate; this is possible because teachers who do not have a certificate are new teachers who have less than 5 years of work experience and are still fresh graduates. Even though they may not have participated in professional development, the knowledge possessed by young teachers is still relevant and up to date.

This is in accordance with the results of research on SMK Accounting teachers, which states that professional certification and competency certification have a positive impact on the performance of SMK accounting teachers; the performance of certified accounting teachers is in the good and high categories [19].

In terms of implementing Continuous Professional Learning (CPL) in collaboration with industry, it can also be implemented through teacher internship activities in Industry. For accounting teachers, teacher internships have been implemented through upskilling and reskilling activities organized by the Ministry of Education through the Center for Development and Development of Vocational Education Quality in Business and Tourism (BBPPMPV Bispar) in collaboration with learning centers in SMKs that meet the requirements with Industries around the SMK learning center. Activities are carried out through online sessions where teachers obtain material from industry speakers online, followed by internships in industry, which are carried out offline.

Continuous Professional Learning (CPL) provides training in using digital tools and technologies for teaching, learning, and assessment. This training serves to improve teachers' ability to create digital learning resources, facilitate online learning, and integrate technology into vocational teacher teaching practices that have an impact on increasing technology integration in vocational learning, increasing access to digital learning resources for students, and increasing students' digital literacy and readiness for the digital workforce. Continuous Professional Learning (CPL) provides teachers with access to conduct classroom action research and self-development so that culture and continuous innovation grow, increase professional growth and development, and increase the ability to contribute to the advancement of vocational education.

CONCLUSION

Continuous Professional Learning (CPL) has a direct effect on the performance of vocational teachers for developing vocational students' work skills in the global industry with the local cultural character of Indonesian society. Accounting vocational teachers who have vocational capacity have better performance. In vocational accounting teachers of vocational high schools in Central Java, the average performance value can be categorized as good; the highest average performance value is obtained by accounting teachers who have competency certificates and assessor certificates, followed by groups of teachers who have three certifications at once (professional certificate, competency certificate, and assessor certificate). Accounting vocational teachers who only have one type of certificate have a lower average performance compared to teachers who have two and three types of certificates. Continuous Professional Learning (CPL) enables teachers to improve and develop the curriculum by involving the world of work and industry, facilitating vocational learning and training, improving vocational knowledge and skills, improving vocational capacity consisting of communication and collaboration, vocational skills and engagement with industry, improving digital competence, and increasing research and self-development.

Vocational accounting teachers of vocational schools improve their performance by carrying out continuous professional learning activities (Continuous Professional Learning) to meet the qualifications required as vocational teachers of vocational schools, increasing industry experience and certification so that teachers are competent and up to date according to their vocational fields. Forms of activities that can be carried out include training and competency certification tests, teacher internships in industry, and other training that focuses on practical application practices according to the needs of vocational expertise. Continuous Professional Learning, digital literacy, and pedagogical innovation have a significant impact on the performance of vocational teachers, making teachers more confident, competent, and adaptable, able to effectively prepare students to face the demands of the modern world of work. The impact of these factors is influenced by other factors such as school culture, institutional support, and access to resources. A supportive school environment that encourages collaboration, innovation, and continuous learning is essential to maximize the benefits of Continuous Professional Learning, digital literacy, and pedagogical innovation. Continuous Continuous Professional Learning is the key to preparing vocational teachers to face the challenges and opportunities of the digital era because the nature of technology is constantly changing and the world of work that vocational students will enter is also always changing.

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