

Preservice Teachers' Professional Learning Values (PLVs) in West Kalimantan Province¹

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Abstract

This study emphasizes the importance of teachers' understanding and implementation of professional learning (PL). PL requires teachers to continuously learn in order to increase their professional capacity, and such capacity improvement has been correlated with pupils' enhanced learning quality. The present study explores the preservice teachers' level of Professional Learning Values (PLVs) in West Kalimantan. This study adopted a quantitative approach employing a self-evaluation questionnaire for preservice teachers. The data were analysed through factor analysis, descriptive statistics, and correlation. The results showed that two factors underlie West Kalimantan preservice teachers' PLVs: Research and Evaluation Orientation (REO) and Collaborative and Social Capital Development Orientation (CSCD). Additionally, descriptive statistics results found that preservice teachers consider the REO factor highly. However, a contradictory result came from the same data analysis, in which the preservice teachers did not consider PL practices in CSCD to be important. The data analysis found no correlation between preservice teachers' gender, academic competence, semester, and status of their place of origin (developed and underdeveloped) and their PLVs. Further research is needed to find out what variables have influenced preservice teachers' PLVs. These findings, patterns, and levels of preservice teachers' Professional Learning Values (PLVs) in West Kalimantan can be used as reflection materials and stimuli to enhance the professional learning of preservice teachers and in-service teachers. Moreover, these findings can be the groundwork for developing strategic steps to enhance preservice teachers' professional learning quality in West Kalimantan. The findings of this research describe which practice of PL which is less valued by teachers. In light of such findings, the future research could develop PLV improvement, by prioritising each aspect which teachers less valued.

Resumen

Este estudio enfatiza la importancia de que los maestros comprendan e implementen el aprendizaje profesional (AP). El AP requiere que los maestros aprendan continuamente para aumentar su capacidad profesional, y dicha mejora se ha correlacionado con una mejora en la calidad del aprendizaje de los alumnos. El presente estudio explora el nivel de valores de aprendizaje profesional (VAP) de los profesores en formación en Kalimantan Occidental. Este estudio adoptó un enfoque cuantitativo empleando un cuestionario de autoevaluación para futuros profesores. Los datos se analizaron mediante análisis factorial, estadística descriptiva y correlación. Los resultados mostraron que dos factores subyacen a los VAP de los futuros profesores de Kalimantan Occidental; Orientación a la investigación y evaluación (OIE) y Orientación al desarrollo colaborativo y del capital social (DCCS). Además, los resultados de las estadísticas descriptivas encontraron que los profesores en formación valoran altamente el factor OIE. Sin embargo, un resultado contradictorio provino del mismo análisis de datos, en el que los profesores en formación no consideraron que las prácticas de AP en DCCS fueran importantes. El análisis de datos no encontró correlación entre el género, la competencia académica, el semestre y el estado de su lugar de origen (desarrollado y subdesarrollado) de los profesores en formación y sus VAP. Se necesita más investigación para descubrir qué variables han influido en los VAP de los futuros profesores. Estos hallazgos, patrones y niveles de los valores de aprendizaje profesional de los profesores en formación en Kalimantan Occidental pueden utilizarse como materiales de reflexión y estímulo para mejorar el aprendizaje profesional de los profesores en formación o en servicio. Además, estos hallazgos pueden ser la base para desarrollar pasos estratégicos para mejorar la calidad del aprendizaje profesional de los futuros maestros en Kalimantan Occidental. Los hallazgos de esta investigación describen qué práctica de AP es menos valorada por los profesores. A la luz de tales hallazgos, la investigación futura podría desarrollar la mejora de VAP, priorizando cada aspecto que los profesores menos valoran.

Introduction

The belief which underpinned this research is that teachers play a significant role in improving the quality of pupils' learning in the classroom. Teachers with distinguished characteristics tend to be able to help pupils accomplish distinguished achievements. School Effectiveness Research (SER), which tends to attest that school has a significant effect on pupils' learning growth (see MacBeath & Mortimore, 2001; Mortimore et al., 1988; Reynolds et al., 1996; Rutter et al., 1979; and Scheerens, 2015), places teachers as one of the pivotal roles in school development. Several scholars such as MacBeath and Mortimore (2001), Marks (2010), and Sammons and Bakkum (2011) found that teachers have significant effects on pupils' learning growth.

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Notwithstanding the aforementioned studies, other studies found that not all teachers do so—only teachers with certain characteristics affect student growth. Cirocki and Farrel, (2019), Liou and Canrinus (2020), MacBeath (1999), MacGilchrist et al. (2004), and Pedder et al. (2005) propose continuous learning and self-development as characteristics of teachers that are capable of improving their pupils' learning. Cirocki and Farrel (2019) define this self-development process as Professional Learning (PL). Teachers who apply the PL concept tend to perform better in problem-solving and creating new learning innovations that could significantly change the quality of pupils' learning.

Indeed, implementation of PL so that teachers increase their professional capacity through continuous learning is easier said than done. Thus, teachers will have to build learning habits that are consistent and focused on their self-development. Building habits is not a quick process. Thus, the concept needs to be introduced as early as the preservice stage, when the preservice teachers are still in the process of learning to be professionals (Drozdikova-Zaripova et al., 2019). Introduction of PL concepts to preservice teachers will give them more time to understand and implement the concept properly, such that it is not just an introduction, but rather it helps them analyse the extent of their practice.

With sufficient preservice training, professional teachers could be expected to commit to lifelong learning and continuously increase their professional capacity. This study aims to explore the level and patterns of the preservice teachers' Professional Learning Values (PLVs) through their perception of the PL activities' importance. It is necessary for both the preservice teachers and the teacher training and education institute (Lembaga Pendidik dan Tenaga Kependidikan – LPTK – where the preservice teachers prepared and trained to be professional teachers) to understand the preservice teachers' perception of PL activities and values. For preservice teachers, the information about the value they placed on PL practices will stimulate them to think critically about their PL practice—which activity they need to elevate and prioritise (see Vongkulluksn, et al., 2018). Understanding their practice will help them revise their professional learning process to be more effective and precise. In addition, this information can help to define learning priorities, since activities that are considered important are most likely done, and the least important one will be mostly neglected (Pedder & Opfer, 2013). As for the LPTK administration, this study enables them to run a needs analysis on the preservice teachers' learning needs related to their PL practices. Therefore, this study's results will be the groundwork to develop a precise strategic policy package that supports and prepares preservice teachers in implementing professional learning concepts.

Literature Review

School effectiveness research (SER) and school improvement research

SER focuses on the investigation of a school's independent role in improving pupils' learning quality. Meanwhile, School Improvement Research (SIR) focuses more on developing strategies to improve school quality. This part will discuss the nature of each research focus. It aims to illustrate how the school has a significant role in improving pupils' learning quality and how teachers have a significant effect in determining the quality and effectiveness of the learning process in the classroom.

Scheerens (2015) defines SER as a scientific approach to determine school influences on pupils. Sammons and Bakkum (2011) describe the essence of SER in a question "how can we try to measure the influence of schools, and by implication, of teachers, on their pupils?" (p. 10). They explain that SER investigates the complex bond between pupils' initial capacity and socioeconomic status and the experiences they have at school, trying to identify the independent influence of each factor.

Generally, studies in SER have found that schools have a significant influence on improving pupils' learning quality. Sammons et al. (1997) explain that an effective school has a better chance of producing higher than expected results from its alumni. In the same way, Teddlie and Reynolds (2000) explain that SER can be used to describe factors that may influence pupils' learning quality observed at school.

MacBeath and Mortimore (2001) found that schools influence pupils' development in a range of 5-15%. Similar results also came from different previous studies. Day et al. (2007) concluded that school has significant influences on pupils' academic achievement. Rutter et al. (1979) suggested that school significantly affects the pupils' learning through their studies of twelve schools in London. In their study they reported a considerable variation in pupils' achievement related to the effect of schools. Further in the past, Reynolds and Creemers (1990) found that school has significant influences on pupils' development.

From the literature review of correlational studies of school effectiveness above, we can conclude that the quality development of pupils' learning in school is significantly influenced by school effectiveness. An effective school has a higher chance of improving pupils' capacity compared to a less effective school. The school itself has several factors that led them to be considered effective or not. Studies found that among the factors that directly contribute to pupils' learning quality development, the teacher is one of them. The following part will discuss the teacher's role in pupils' learning quality development in school.

Improving pupils' classroom learning quality: Effects of enhanced teacher professional capacity

Teachers' significant roles in improving pupils' learning quality has been shown by a number of studies. Among the studies on teacher's influences on pupils' learning quality, Scheerens (2015) concludes that teachers are crucial factors that cannot be left out in school effectiveness. Scheerens believed that the teachers' role, professional capacity, and everything in the teachers' self—related to their role as an educator—could influence their effect on the teaching and learning process in the classroom. Gidot et al., (2014) investigated the relationship between teachers' professional competence and their pupils' learning. They found that teachers influence pupils' preference for learning, leading to learning quality improvement. Nuchiyah (2007), in another study, found that teachers' performance had an effect of 53% on pupils' learning quality. In addition, MacBeath and Mortimore (2001) found three factors that are most influential towards pupils learning at school; among them is teacher's capacity. They suggest that every improvement in a teacher's capacity positively affects their pupils' learning capacity. Similarly, Marks' (2010) study in Australia concludes that teachers are one of the school factors that influence the improvement of pupils learning quality in school.

Behind the evidence in each of these studies that teachers can be a distinguishing factor in classroom learning practices, there are debates and disagreements about various aspects, one of which is the most effective teachers' characteristics for improving pupils' abilities. From various debates and findings related to effective teachers' characteristics, studies tend to agree that a teacher who is willing, able, and supported in continuous-learning to increasing their capacity has a greater chance of significantly improving their pupils' learning quality. The following sections discuss the effects of teacher's continuous-learning on improving their pupils' classroom learning.

Professional learning practice: Efforts in enhancing pupils' learning capacity

As discussed above, not all teachers have a significant effect on their pupils' learning quality development. Liou and Canrinus (2020), for instance, state that school development goes hand in hand with teacher capacity enhancement. This continuous learning is also called the Professional Learning concept (Cirocki & Farrel, 2019). Pedder et al. (2005) explained that the PL concept allows teachers and pupils to continuously learn to improve their capacity. MacGilchrist et al. (2004) believe that the PL concept is "an essential 'ingredient' in the culture of the intelligent school" (p. 94).

Considering the importance of PL practice, a number of studies investigated the most effective PL characteristics for teachers. Pedder and Opfer (2013), for example, found four PL factors: (1) internal orientation, in which teachers themselves manipulate changes in their learning patterns; (2) external orientation, emphasising professional capacity enhancement by exploiting an external source of learning such as websites and other schools; (3) research orientation, improving one's capacity through publishing research reports; and (4) collaborative orientation, emphasising learning through sharing with peer teachers.

Furthermore, Pedder and Opfer (2013) reviewed several studies done by other researchers; among them are Bolam et al. (2005); Collinson and Cook, (2001); Day and Leitch (2007); Horn and Little (2010); Hoyle (1972); Hoyle and John (1995); Huberman et al. (1993); Lucas (1991); Stenhouse (1975); and Stigler and Hiebert (1999). They conclude that effective PL is one that tends to (1) engage teachers to learn together in the context of classroom teaching practice; (2) do research-based studies that focus on practice, enquiry-based learning, and practice-based experimentation; (3) take place continuously and intensively; (4) focus on teaching material (content learning); (5) and invoke direct practice (active learning), and explicit integration to daily life at school in classroom priority (coherent learning); and (6) invoke external programmes and relations.

It can be concluded that the PL concept, with the dimensions and character listed above, needs to be employed in schools to improve school effectiveness which in turn improves the pupils' learning quality. However, it is not easy to immediately turn into a learner-teacher. It takes understanding, consistency, and

effective and targeted support. One of the supports that need to be given to the learner-teacher is stimuli that increase their awareness of the importance of making these PL activities an integral part of their professional learning culture (Vongkulluksn et al., 2018). As mentioned above, something that is considered important tends to be prioritized and implemented (Pedder and Opfer, 2013). In the following section, we discuss how information related to values and practices can be the beginning of the preservice teachers' professional learning process.

Values and practice of preservice teachers: Beginning of teacher self-evaluation

The foundation of self-evaluation is the high trust, professionalism, and comfort in the self-evaluators themselves (MacBeath, 2006). Comfort here refers to the self-evaluators' attitude as they evaluate themselves voluntarily. MacBeath (2006) explains that certain conditions give preservice teachers more freedom and comfort to produce an objective self-evaluation. In this context, studies indicate that information related to the values, practice, and gap between values and practice can be stimuli to both teachers' and preservice teachers' self-evaluation process (Hargreaves, 2014; Swaffield and MacBeath, 2005; Pedder et al., 2005; Pedder and MacBeath, 2008; Pedder and Opfer, 2013; Meuret and Morlaix, 2003). Swaffield and MacBeath (2005), for instance, argue that self-evaluation according to this information leads teachers and preservice teachers to think critically about their PL practice— identifying problems and ways to address them. In this case, potential problems in their PL practice will be apparent through information on the gap between value and practice.

Research Method

Research design

This study employed a quantitative study in the form of a preservice teacher self-evaluation survey. To enhance the data quality collected through the survey, we divided preservice teachers based on a number of criteria, namely gender, place of origin (developed/under-developed), semester, and academic competence. The survey results for each variable were then compared with other variables, to ensure the consistency of the respondents' answers as a whole. The survey is used to fit this study's character and function, which is believed to be suitable to reach the research purpose (Cohen et al. 2005; Creswell, 2012; Creswell, 2014; Fitzgerald et al., 2004; Fraenkel and Wallen, 2009). As the study involves many respondents, the result can be potentially generalised, though this was not our objective. This study aims to describe the PLVs of preservice teachers in West Kalimantan, representing the various options of background, gender, place of origin (developed/under-developed), semester, and academic competence, of the teachers who were involved in this research.

Participants

The subjects of this study were the preservice teachers enrolled in the first to tenth semester who were studying in Teacher Education campuses in Pontianak at the time the data collection process was undertaken. Study duration of students (semesters 1-10) was used as a variable in this study to determine the effect of students' prior knowledge on their values in professional learning practices. The data processing stage gathered 284 valid responses out of 293 collected ones. This number of responses is considered enough to run a factor analysis (Hair et al., 2010; Tabachnick and Fidell, 2001). According to Tabachnick and Fidell (2001), the sample size is optimal if there are ten cases per parameter involved. In this study, 23 variables are involved, if then multiplied by 10, it requires 230 cases for the study. The sample in this study was selected through multistage random sampling, considering the representation of preservice teachers' characteristics and background (Santoso, 2004; Puspitasari et al, 2011) in order to describe PLVs of preservice teachers in West Kalimantan. The valid respondents considered in this study are illustrated in Table 1. below.

		Preservice Teachers' Characteristics			
		Gender	Semester	GPA	Place of origin
N	Valid	277	276	266	271
	Missing	6	7	17	12
Mode		2	4	4	13
Std. Deviation		0.30	1.65	1.76	4.05

Table 1: Respondents based on the preservice teachers' characteristics

Data collection

The data collection technique adopted in this study is the preservice teacher self-evaluation survey (Reyna et al., 2019). Respondents were asked to indicate the importance of a PL activity in every statement using a Likert scale from strongly unimportant (point 1) to strongly important (point 4). The questionnaire used in this study was adapted from studies conducted by Pedder and Opfer (2013) and Irwan (2020). Irwan found five dimensions or factors that underlie the respondents' PLVs. The survey was distributed using a Google form.

Data analysis

The collected survey data in this study were stored and quantified with a value of 1 to 4. The data were then processed through the procedures shown in Figure 1 below.

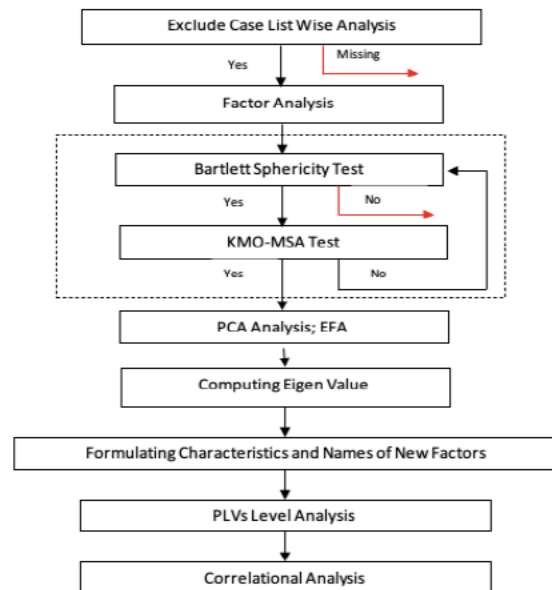


Figure 1: The data analysis procedure of the study

Findings

Factors that underlie the preservice teachers' values of professional learning practice in schools

The study used factor analysis for 283 valid data points. An assumption test was done before factor analysis, which includes a correlation between independent variables test, a sample feasibility test, and a partial correlation test. The factorial test requires a strong correlation between independent variables. For that reason, this study set the correlation coefficient at 0.5 (Tabachnik and Fidell, 2007). The test of all correlation matrices between independent variables was conducted through Bartlett Test of Sphericity and Kaiser-Meyer-Olkin (KMO) - Measure Sampling Adequacy (MSA). The test requires a strong correlation, at least between few variables. The result of KMO-MSA showed an almost perfect value of 1 (Reyna et al., 2019; Hasanbegović, et al., 2012), at 0.946, which is greater than 0.5. Detailed results can be seen in Table

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.946
Bartlett's Test of Sphericity	Approx. Chi-Square	4343.429
	df	231
	Sig.	.0000

Table 2: Correlation test result 2 below.

It can be concluded that the sample is adequate to be processed in the next analysis steps. The result of Bartlett's Test of Sphericity, as shown in Table 2 above, shows the Determinant of Correlation Matrix at .0000, which indicates that all the variables are interrelated (Santoso, 2004). Therefore, these data are eligible for factor analysis. Next is partial correlation analysis for all variables. In this regard the Anti-Image Correlation table shows that all variables scored higher than 0.9 on Measure Sampling Adequacy (MSA),

which is higher than 0.5 and close to 1 ($0.9 > 0.5$); therefore, all variables are eligible for the next analysis. Factor analysis can be done, as all assumptions are achieved. The analysis employed the Exploratory Factor Analysis (EFA) method. A commonalities analysis produced by the factorial test displayed an extraction score of every analysed variable. In this study, preservice teachers were analysed through 23 variables, as stated in the preservice teacher self-evaluation questionnaire. In this commonalities analysis, every variable must achieve the extraction score of 0.5. Therefore, if any score is below 0.5, it would be considered invalid and withdrawn from the analysis. The analysis will have to be rerun omitting the invalid variable.

This part of the analysis, as shown in Table 3 below, found three variables that have extraction value of < 0.5 , namely PL activities at questionnaire item number thirteen (.492), seventeen (.494), and twenty (.480). Item number thirteen refers to PL activity where teachers are involved in a discussion reflecting on their teaching with one or more colleagues. Item seventeen refers to PL activity where teachers, if faced with a problem in their teaching, seek help to peer teachers. Lastly, item twenty refers to PL activities where teachers and peer teachers agree on trying new teaching ideas.

PL Variables	Initial	Extraction
PLP1	1	0.59
PLP2	1	0.606
PLP3	1	0.609
PLP4	1	0.706
PLP5	1	0.542
PLP6	1	0.693
PLP7	1	0.631
PLP8	1	0.619
PLP10	1	0.626
PLP11	1	0.609
PLP12	1	0.704
PLP13	1	0.49
PLP14	1	0.588
PLP15	1	0.676
PLP16	1	0.637
PLP17	1	0.494
PLP18	1	0.664
PLP19	1	0.549
PLP20	1	0.48
PLP21	1	0.664
PLP22	1	0.724
PLP23	1	0.611

Table 3: Extraction commonalities value

Because the three PL activities' extraction value is less than 0.5, those variables did not meet the commonalities requirement and were therefore omitted from the analysis. Consequently, there are 20 valid variables left. This analysis was repeated without the three invalid variables. The result now indicates that all the 20 variables reached extraction value of more than .5. Thus, all 20 variables can proceed to the next analysis. To find factors that shape preservice teachers PLVs, there is a need to compute the eigenvalues (Malhotra, 1993). The analysis forms two new factors, as they have eigenvalues of greater than 1, as shown on Scree Plot below.

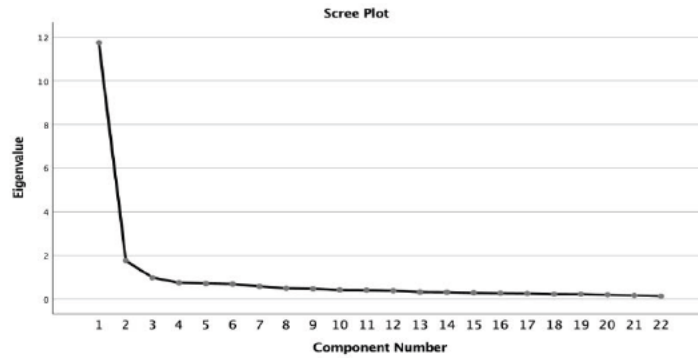


Figure 2: Scree Plot

Two factors achieved eigenvalues higher than 1. The first factor achieved eigenvalues of 10.93, meanwhile the second factor 1.70. These factors explain 54.69% and 8.50% of the variation, respectively. In total, both variables explain 62.50% of the variation of preservice teachers’ Professional Learning Values (PLVs); the rest is explained by other factors that were not analysed in this study.

The next step is to see which variables are incorporated in each factor. Thus, the factor loading value is used as a reference. Factor loading is the correlation coefficient between the factor formed and the variables. The factor loading values define which factor each variable belongs to. As seen in the rotated compound matrix table below, the loading factor of each variable Table 3. Extraction commonalities value is represented in both new factors. Through the highest factor loading values, we can find which factor a variable belongs to. If the factor loading value is higher in factor 1, then the variable belongs to variable 1, and the same rule is applied to factor 2.

	Component	
	1	2
PLP1	.711	.311
PLP2	.713	.332
PLP3	.714	.312
PLP4	.803	.220
PLP5	.683	.302
PLP6	.790	.251
PLP7	.756	.284
PLP8	.718	.295
PLP9	.484	.547
PLP10	.625	.492
PLP11	.346	.696
PLP12	.409	.728
PLP14	.395	.657
PLP15	.306	.762
PLP16	.195	.784
PLP18	.216	.786
PLP19	.642	.364
PLP21	.450	.677
PLP22	.273	.817
PLP23	.342	.714

Table 4. Preservice teacher PLVs factor loading

As illustrated in Table 4 above, every factor contains ten variables or PL activities. The characteristics of each factor are designed based on the characteristics of the activities in each factor. Additionally, each factor is named after its characteristics. The first factor, Research and Evaluation Orientation (REO), describes teachers' PL activities that focus more on evaluation, both self-evaluation and pupils' feedback. Additionally, it involves external collaboration, utilising various learning sources, including research results, in improving their capacity. Meanwhile, the second factor, Social Capital Development Orientation (CSCD), focuses more on the learning process that emphasizes teachers' collaboration which mutually supports and strengthens them as and aids them in increasing their capacity.

Levels of preservice teachers' PLVs

Using the basis factors above, we analyse the levels of preservice teachers' PLVs related to the second research question. To do so, we adopted descriptive statistics that include total score, mean and standard deviation among 283 valid responses to see the central tendencies of these responses. The results show the mean of preservice teachers' PLVs in REO as 3.08 and CSCD as 2.97. This result is interpreted to show preservice teachers' greater concern for REO and lesser focus on CSCD.

Variations in preservice teachers' PLVs

Correlation analysis was done to seek any relation between preservice teachers' PLVs and their varied characteristics and background. Four variables were analysed, namely gender (male/female), semester (1-10), academic competence (grades in the LPTK, as reflected in the ranges of their Grade Point Averages), and development status of their place of origin in the last three years (developed/underdeveloped). The result indicates that there are no characteristics and backgrounds that correlated to the preservice teachers' PLVs. The p-value in every characteristic in correlation analysis was higher than the alpha of .05 (pValue > alpha).

Discussion

Factors underlining preservice teachers' PLVs

The results of factor analysis found two factors that underlie the preservice teachers' PLVs: REO and CSCD. This is fewer than the four factors found by Pedder and Opfer (2013). In this case, the factors found by Pedder and Opfer (2013) are (1) internal orientation, (2) external orientation, (3) research orientation, and (4) collaborative orientation. This study reported that the factors mentioned above merged into two major factors, which cover ten variables. The first factor, REO, covers more internal and research orientation, whereas the second factor, CSCD, includes variables from collaborative, external orientation, and building social capital factors.

The first factor focuses more on evaluative professional learning and openness for feedback and various learning sources; hence preservice teachers focus their learning activities on self-evaluation—including pupils' feedback, and utilising various learning sources, including published research reports. It is considered reasonable as these activities are similar to their routine as a pupil in teacher college. Collaborative environment and social capital building appear to be seen as less vibrant in supporting professional learning at school, given the fact that the preservice teachers have yet experienced interaction between teachers in school. Regardless, the silver lining is that these activities have become habitual to the extent of determining their learning culture. It seems likely that these habits will become the foundation of these teachers' professional learning development in school, once they become in-service teachers.

The second variable, CSCD brings together the collaborative orientation and external orientation factors proposed by Pedder and Opfer (2013) and Irwan (2020). This factor describes PL activities that are concerned with both internal and external school collaboration. These PL activities are the quintessence of sustainable learning formed by the Organisational Learning (OL) concept. The concept requires professional learning to be continuously maintained so that school may improve significantly. For that reason, it is necessary to collaborate and to build social capital within a school. These activities are the core of PL activities in the second factor.

Levels of preservice teachers' PLVs.

The two factors formed through factor analysis in this study are then used as the basis of PLVs pattern analysis of the preservice teachers in West Kalimantan. On the one hand, the results show a promising future, but on the other, the results are ironic. The promising results are that preservice teachers consider PL activities in the first factor (REO) important. It is a piece of good news as the factor covers activities that

focus on learning practices that enhance teacher competence as suggested by experts. It is certainly reason for optimism, given that the preservice teachers consider these activities highly, and if they continue these activities until they become in-service teachers later, their professional learning process in school is likely to show a promising result. These activities will significantly affect their PL development in school later.

On the other hand, descriptive analysis reveals that preservice teachers' PLVs on the second factor reach an average of 2.97. This means that preservice teachers consider the PL activities associated with the second factor less important to their professional learning. As explained above, the second factor focuses on collaborative activities between teachers in school. Collaborative activity is considered necessary to sustain PL activities in school (Davies, 2007; Fullan, 2005; Hargreaves & Fink, 2006; Lambert, 2011). Considering the importance of the PL activities associated with this factor, the finding that preservice teachers did not consider these activities important is concerning, since Pedder and Opfer (2013) believe that activities that are not considered important are less likely to be implemented.

Variation of preservice teachers' PLVs.

As reported above, a correlation analysis between preservice teachers' characteristics and backgrounds and their PLVs revealed no correlation. It was revealed that the preservice teachers' PLVs were statistically uniform despite differences in gender, academic competence, semester, and place of origin. This is a promising result in raising preservice teachers' awareness and understanding of PL activities' importance, since this lack of significant variation implies that some common threads can be used to design and develop strategic programmes to improve awareness and understanding. If the variation had turned out more comprehensive, deciding policies and designing a strategic programme that would cover the diverse preservice teachers would be much more challenging.

Recommendation for Future Research

The insights we drew from the results of data analysis and all the strategic decisions we made in conducting this research led us to provide at least three suggestions for future researchers in the field of professional learning values (PLVs). First, the findings of this study are not yet conclusive in terms of involving adequate representation of preservice teachers in West Kalimantan Province, therefore, it is recommended that future research be conducted which involves more representative participants. Second, more empirical research is needed in different locations and with different participants in order to examine the variables influencing preservice teachers' Professional Learning Values (PLVs). Third, future researchers could conduct follow up studies by developing strategic steps to enhance preservice teachers' professional learning values (PLVs) by considering PLVs pattern found in this research.

Conclusion and Implication

This study was conducted to answer three practical questions, namely the factors or dimensions that underlie preservice teachers' PLVs in school, the patterns in PLVs, and the relationship of PLVs variation with different characteristics and backgrounds. This study found two dimensions that founded preservice teachers' PLVs, namely, REO and CSCD. The REO dimension is a learning process that focuses on self-evaluation, feedback from various parties, including pupils, external collaboration, and numerous learning sources. Meanwhile, the CSCD dimension focuses on collaborative professional learning and peer teachers' support to improve their capacity. Essentially, if both dimensions were implemented simultaneously, they would be the school's foundation to develop continuous learning. REO requires reflective learning and openness to updated knowledge through numerous learning sources to develop teachers' PL. Meanwhile, CSCD proposes collaborative learning with peer teachers in improving their learning quality. A learning process that involves all organisational components is believed to enable teachers' professional learning to run continuously (Bolam et al., 2005; DuFour et al., cited in Carpenter, 2015; Feger & Arruda, 2008).

In regard to preservice teachers' PLVs, this analysis proves that they consider PL activities in REO factor as important, and activities in CSCD less important. Obviously, it is hoped that preservice teachers incorporate every activity in both factors. PL activities in both factors will complete each other and build a continuous learning system in school. Furthermore, related to preservice teachers' PLVs pattern, this study found no correlation between preservice teachers' characteristics and backgrounds to their PLVs.

Lastly, based on the findings reported in this study, we conclude with several recommendations to the preservice teachers and LPTK, where they prepare these preservice teachers to be in-service teachers. For LPTK, the findings found an ironic result in which the preservice teachers did not consider activities in CSCD important. To address this issue, LPTK needs to design strategic steps to increase their awareness and

understanding of its importance (see Prasertsin, 2015). This is a necessary step, especially in developing collaboration that involves all school components to reshape teachers' learning culture in school (Ilisko et al., 2014). To achieve this reshaping requires a number of factors (Lambert, 2011), and we believe that the CSCD factor is one of them. For the preservice teachers, this study is an initiator for rethinking their perception of PL practices. There is plenty of time for them to understand and seek references on the importance of every PL activity, especially in continuously improving their competence before becoming a real professional teacher.

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Appendix 1

Professional Learning (PL) Values of Preservice Teachers in (Location)

Preservice Teachers Questionnaire

This questionnaire is being conducted in order to collect data needed to answer research question entitled in Professional Learning (PL) Values of Preservice Teachers in (Location)

This questionnaire focuses on the activities that you undertake to improve your professional learning. The questionnaire includes 2 parts; Professional Learning Values and Teachers' Background

Please allow about 15 minutes to complete the questionnaire. Your answers will be kept strictly confidential. Results will be reported in summary or statistical form so that neither individuals nor their schools can be identified.

Thank you for contributing your time and thoughtful responses to this important questionnaire. Your participation in this research helps bring educators' views to the fore. We also hope that reflecting on your Continuing Professional Development values through this questionnaire may support your own professional learning.

Please use a ballpoint pen to complete the questionnaire. Do not use fountain or felt pens, as the ink may be visible on the other side of the page. Please cross the appropriate box that best represent your responses, keeping within the boundary of the box.

For example:

Do not spend too long on each item. If you make a mistake and cross the wrong box, please block out your answer and then cross the correct box.

For example:

Should you have any queries about this questionnaire, **please feel free to contact me at XXXXXXXXXX**

Section A: Professional Learning Values

Section A has 23 statements. Each statement relates to an aspect of **your values about professional learning**. Please cross ONE BOX ONLY in EACH COLUMN for each statement

<i>For example:</i>	ABOUT YOUR VALUES <i>How important are these practices for creating opportunities for pupils to learn?</i>			
	Not at all important	Of limited importance	Important	Crucial
Teachers participate actively in collaboration networks with colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This respondent thinks that such participation is important for creating opportunities for students to learn.

Please now complete Section A.

A Professional Learning Values

	ABOUT YOUR VALUES <i>How important are these practices for creating opportunities for pupils to learn?</i>			
	Not at all important	Of limited importance	Important	Crucial
1. Teachers use the web as one source of useful ideas for improving their practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Teachers read research reports as one source of useful ideas for improving their practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Teachers draw on good teaching practice from other schools as a means to further their own professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Teachers consult pupils about how they learn most effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Teachers relate what works in their own teaching practice to research findings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Teachers reflect on their teaching practice as a way of identifying professional learning needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Teachers experiment with their teaching practice as a conscious strategy for improving classroom teaching and learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Teachers modify their teaching practice in the light of feedback from their students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Teachers modify their teaching practice in the light of published research evidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Teachers modify their teaching practice in the light of evidence from self-evaluations of their classroom practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Teachers modify their teaching practice in the light of evidence from evaluations of their classroom practice by school leaders or other colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Teachers carry out joint research/evaluation with one or more colleagues as a way of improving their teaching practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Teachers engage in reflective discussions of teaching practices with one or more colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Teachers engage in team teaching as a way of improving teaching practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Teachers engage in regular collaboration with colleagues to plan teaching practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Teachers regularly observe their colleagues in the classroom and give each other feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. If teachers have problem with their teaching, they usually turn to colleagues for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Teachers suggest ideas or approaches for colleagues to try in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Teachers discuss openly with colleagues what and how we are learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Teachers and their colleagues make collective agreements to test out new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Teachers and their colleagues offer one another reassurance and support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Teachers and their colleagues frequently use informal opportunities to discuss how pupils learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Teachers are able to see how practices that work in one context might be adapted to other contexts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section B: Preservice Teachers’ Background

In this last section, we need to find out some of your demographic information for purposes of analysis. Please be assured, your information will not be individually reported and will only appear in aggregated, statistical form.

C Teachers’ background (Please write your answer)

1.	What semester are you currently in?	
2.	What is your current GPA range?	
3.	Which district/city is your high school from?	
4.	Which district/city do you come from?	
6	What is your gender?	Male
		Female
		<input type="radio"/>
		<input type="radio"/>

Thank you very much for taking the time to complete this questionnaire

Note: The data you provide will be used for research and quality improvement purposes and the raw data will be seen and processed only by us as the researchers.

Please Return the completed questionnaire to XXXX.