



Professional Learning Community and Teacher Professionalism: A Pilot Study

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ABSTRACT

This study aims to test the reliability of the questionnaire on Professional Learning Community and Teacher Professionalism. This study's design is a quantitative study which uses SPSS to test the instrument's reliability using Cronbach Alpha. 100 teachers in Batu, Kuala Lumpur, were randomly selected for this pilot study. This questionnaire has 114 items and uses the Likert scale. The four points and six points Likert scale uses because researchers want respondents to stick to either positive or negative scales and avoid neutral ones. Overall, Cronbach Alpha value for the eight-dimensional Professional Learning Community instrument is between 0.82 and 0.93 and Alpha Cronbach Value for the four-dimensional Teacher Professionalism instrument is between 0.81 and 0.89.

Keywords: Professional Learning Community, Teacher Professionalism, Validity, Reliability, Instrument, Questionnaire.

1. Introduction

The Professional Learning Community (PLC) began with the theory of Learning Organization by Senge (1990). It adapts by Kruse, Louis and Bryk (1994) and developed by Hord and eventually formed the PLC model to transform schools (Hord, 2009). The PLC has long been implemented in western countries and some Asian countries to improve the quality of their teachers. Consistent and planned implementation should apply so that the PLC can have the most impact on the culture of the PLC. It is because the PLC can develop a high level of learning culture among teachers through the inclusion of a learning culture within each member of the school community (Hord, 1997). The PLC introduced as early as 2006, and in 2013, the Ministry of Education Malaysia (MOE) has made it one of the ways to enhance teacher professionalism in the Malaysian Education Development Plan (MEDP) 2013-2025 (KPM, 2013). School cultivation at the school is an ongoing initiative that enables teachers to enhance teacher professionalism effectively and consistently within knowledge sharing within the school community (Harris, 2003).

Globally, each country adopts a different strategy for training teachers as professional workers. Today, almost every country needs an excellent teacher of qualified teachers. Malaysia requires all teachers to have at least a bachelor's degree or a college diploma for non-educational undergraduates. Most countries choose candidates who are excellent in teaching and who have good teachers (UNESCO, 2014). Develop countries like Singapore make the college a prestigious profession and choose only the top three candidates in high school. Finland only picks 10 per cent who can compete in the college program (OECD, 2011). Teachers are encouraged to engage with current issues through professional development, work ethic and to show commitment and responsibility to the community around them (Sockett, 1993; Tichenor & Tichenor, 2005).

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2. Problem Statement

The Ministry of Education Malaysia (MOE) has suggested the PLC as one of the ways to enhance the professionalism of teachers such as their skills and understanding. PLC implementation has begun in Malaysian education, and the school administration has been obliged to implement the PLC. Schools that have implemented PLCs have shown positive results in their willingness to run PLCs (Zuraidah, 2009). Teachers were proposed with different approaches to improve professionalism in teaching, including three dimensions of professionalism, knowledge and skills. When individuals exercise their duty with commitment, selflessness or a willingness to select a task, professionalism is to be of high importance. The professionalism of teachers closely linked to the standard of education in many ways, such as, for example, the teacher's attitude and principles in teaching will affect the students' desires, beliefs and values. Likewise, the approach used often influences the behavior, acceptance and comprehension of learning among students. Firm trust has become an essential part of teacher professionalism, along with conviction and a noble spirit (Hargreaves, 2003). This study, therefore, aims to test the level of reliability of the PLC's and Teacher Professionalism instrument to be used in actual research

3. Research objectives

The purpose of this study is to examine the level of reliability of the eight-dimensional professional learning community (PLC) and four-dimensions teacher professionalism.

4. Research questions

The research questions are as follows:

1. What the level of reliability value of eight-dimensions of the PLC?
2. What the level of reliability value of four-dimensions of the teacher professionalism?

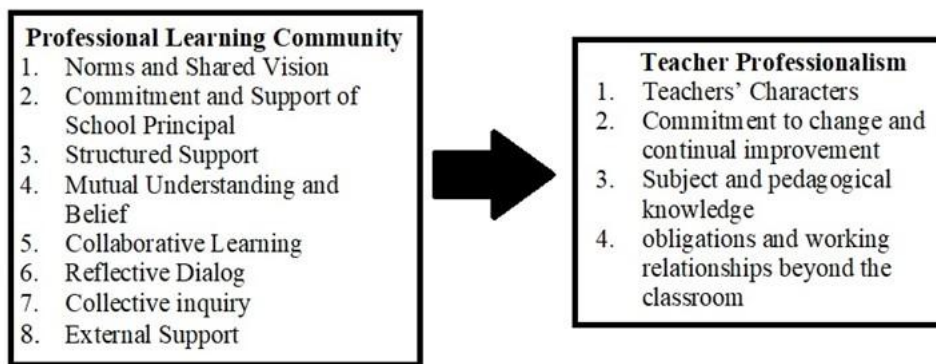


Figure 1. Conceptual Framework

5. Literature review

5.1 Professional learning community

Developing a PLC will accommodate teachers with strategies to create capacity, enhance competency and capability in teaching and learning, and have an overall positive impact on school culture (DuFour & Marzano, 2011). The PLC seeks to ensure that research is done in the classroom (Botha, 2012; DuFour, 2014). PLC teacher discussions cause the emphasis to be on learning instead of teaching. This puts all stakeholders responsible and isn't much smaller. Administrators should engage in the learning process and ensure a smooth running of the cooperation. The PLC decides what students can learn, how teachers believe they have learned, and whether troops will support combatants (Eaton, 2015; Graham & Ferriter, 2010; Lippy & Zamora, 2012). Tam (2014) study shows that a skilled learning group (PLC) for high school Chinese language teachers in Hong Kong will improve the teachers' trust and practice. The findings indicate that PLC's contribute to integrated school growth, shared culture, and practical learning. It helps the teacher to overcome the initial challenge and encourages a change in their motivation. This indicates that the successful implementation of PLCs is essential for teacher development. Teacher community has a significant role in teacher professional development (Vangrieken, Meredith, Packer & Kyndt, 2017)

Also, the PLC was designed to strengthen the structured approach of the school by standardizing content, and tests are commonly presented to the students. The fundamental concepts outlined in the PLC apply to the method of making sure students learn, which reflects the incremental improvements in unnecessary teaching and studying with a deep understanding of those subjects (Garmston & Wellman, 1999). Flexible, collaborative societies have recognized as essential building elements, as represented in PLC's and learning communities. This includes teachers in a team to establish a suitable social and disciplinary environment, reflecting the extensive change in the school environment (Wald & Castleberry, 2000). The decision emphasis was created as a fundamental feature of society, emphasizing the current level of student achievement and identifying concrete targets for potential change. As a result of the focus on substantial cooperation, the mutual capacity to help others learn should increase (Popp & Goldman, 2016).

5.2 Teacher Professionalism

Professionalism refers to a professional's competence, skill level, and obligation (Parr, 2004). Robiah (2002) states in the field of teaching that professionalism is synonymous with qualitative, spiritual, and ethical work practices. Good work practice requires professional practices such as dedication and adherence to ethical standards, reflection on teaching assignments and a desire to continuously learn and improve. It also involves active and constructive participation in fostering professionalism among teachers, such as participating in education reform or improvement, recognition of teachers, qualification, management and professional management, such as determining terms or requirements for working in the teaching or teaching profession. A lot of research has been carried out on professional teacher learning (O'Brien, 2016). The values can be more straightforward for most teachers and may be found in the school project priorities and statements (O'Sullivan & West-Burnham, 2011).

Malaysia's area of teaching has its code of ethics, as illustrated in the Malaysian Code of Teaching Professionals (KPM, 2016). The ethics code of education describes the roles and duties of teachers towards their students, parents, community, and country, their colleagues, and their careers in teaching. Teachers do need to be accountable for their actions, skills, competencies, students, parents, education, and country (Amir Hasan, 2009). The practice of professional values in the teaching profession of the Malaysian teaching profession as a whole aim to create an informed, responsible and competent citizen who recognizes the importance of searching for truth and attaining high aspirations. Teachers will believe in the "Rukun Negara" values, the values of democracy and individual liberty. Recognizing the importance of teaching young people how to make the change, teachers need to embrace a teacher's ethics as a guide to allow them to reach high standards of achievement in the profession (KPM, 2016).

6. Validity and Reliability

Validity and reliability are crucial for the preservation of the instrument's credibility against errors (Ghazali & Sufean, 2018). The researcher will perform the validity before the pilot test is completed. Validity can be active is validity face and validity construct. Face validity is an indicator that indicates the validity of respondents to survey, and who are less exposed to test. This validity is to assure item clarity, questions asked, sufficient response time, and most importantly, the item measures what should be measured (DeVellis, 2003). The validity of the construct is to see how well an instrument tests what should be accurately calculated before the test is considered legitimate. Build validity is the most complex provided that it is tested using both statistics and functional procedures (Creswell, 2012). Purpose of the pilot study to check research benchmark against all variables based on characteristics comparable to the actual sample to a selected collection of samples. The pilot study was also to assess the suitability of the item to sample condition and to fix or drop things which are inaccurate, mistaken or deceptive (Chua, 2012).

7. Research methodology

The pilot study was performed using the questionnaire. In this pilot project, a total of 100 teachers were chosen at random in Batu, Kuala Lumpur. Those teachers are primary school teachers. Survey method through the questionnaire is prevalent in various fields of study, especially in the social sciences (Chua, 2012). This study's nature is quantitative to check the PLC and Teacher Professionalism questionnaire for reliability. Researchers use quantitative methods in this study's analysis. Hence researchers are using Alfa Cronbach to check the index of reliability. The Cronbach alpha coefficient index of 1.00 reveals that the instrument is exceptionally reliable and consistent.

8. Population and respondent

The population for this pilot study is the primary school teachers who teach in Peninsular Malaysia. The total number of teachers teaching in Peninsular Malaysia as of April 30, 2018, was 178,498 teachers. Before the actual study is conducted, the researcher will conduct a pilot study to ensure the reliability and validity of the questionnaire used. According to Creswell (2014), a pilot study was undertaken to avoid confusion with respondents and to detect weaknesses in the items used. Therefore, the researcher chose to conduct a pilot study of 100 randomly selected respondents. According to Chua (2012), a pilot study can be performed on no more than 100 respondents or between 10 and 30 respondents. The researcher used random sampling to answer the questionnaire because according to Creswell and Clark (2011), respondents had different angles and areas.

9. Research instruments

Tai, Omar, and Ghouri (2018) developed the PLC questionnaire tailored for Malaysian context and be adapted in this research. In this questionnaire, there were 63 items where each dimension had items between seven and eight. The Teacher Professionalism questionnaire was adapted from Tichenor and Tichenor (2009) and Hasan (2015) and tailored for Malaysian teachers. The selection of this questionnaire fits with the theory of teacher professionalism by Sockett (1993). In this questionnaire, there were 51 items where each dimension had items between 11 and 15 that allowed respondents to give in their perspective their expectations about teacher professionalism. The Likert scale uses these four points and six points with even numbers because researchers want respondents to stick to either positive or negative scales and avoid neutral ones. The Likert scale was applied to the education and social sciences as one of the most basic and widely used psychometric methods (Joshi, Kale, Chandel & Pal, 2015).

10. Research procedures

The questionnaire sent to selected teachers at Batu, Kuala Lumpur as respondents. The respondent is a teacher with at least one year of teaching experience. Upon completion, the questionnaire will be retrieved and will be analyzed using Cronbach alpha to determine the level of reliability. Teachers who are respondents for this pilot study should not engage in real research to reduce emissions (Chua, 2006).

11. Data analysis

The data were analyses using internal consistency method using SPSS by measuring the research instrument's alpha Cronbach coefficient. Reliability is a term about an instrument's accuracy and reliability (Creswell, 2014). However, the research instrument's reliability uses Cronbach alpha coefficients, where alpha values of 0.65 to 0.95 are adequate and acceptable (Chua, 2006).

12. Research findings

The findings of this analysis have been checked using Cronbach's Alpha reliability value. The results will be used to ensure that the instruments are reliable and can be enhanced to allow accurate measurement of each build to be tested. The easiest way to assess results is through a pilot study. A pilot study is the ideal way to assess the work that has been conducted well, because it helps solve the question before the final survey (Leedy and Omrod 2011). Table 1 shows the reliability analysis of PLC's instruments and the dimension that showed the highest Cronbach's alpha value was the "Commitment and Support of School Principal" at 0.93. Whereas the dimensions that show the lowest Cronbach's alpha values are "Structured Support" and "External Support" at 0.82. However, all dimensions show a Cronbach's alpha value higher than 0.60, so all dimensions are appropriate for use in the actual study.

Table 1. Reliability analysis of PLC dimension

Dimension	Item	Number of items	Cronbach Alpha (α) Value
Norms and Shared Vision	B1 - B8	8	0.88
Commitment and Support of School Principal	B9 - B16	8	0.93
Structured Support	B17 - B24	8	0.82
Mutual Understanding and Belief	B25 - B32	8	0.91
Collaborative Learning	B33 - B40	8	0.92
Reflective Dialog	B41 - B48	8	0.93
Collective inquiry	B49 - B55	7	0.86
External Support	B56 - B63	8	0.82

Table 2. PLC's statistics

Item	Mean Value	Standard Deviation	Cronbach's Alpha if Item Deleted
B1	5.48	0.64	0.87
B2	5.40	0.66	0.88
B3	5.55	0.61	0.86
B4	5.45	0.75	0.86
B5	5.49	0.64	0.86

B6	5.02	0.92	0.86
B7	4.96	1.00	0.86
B8	5.39	0.69	0.86
B9	5.40	0.68	0.92
B10	5.32	0.68	0.92
B11	5.10	0.86	0.92
B12	5.13	0.85	0.93
B13	5.31	0.65	0.92
B14	5.25	0.68	0.92
B15	5.36	0.65	0.92
B16	5.37	0.66	0.92
B17	5.76	0.48	0.81
B18	5.61	0.70	0.81
B19	5.57	0.64	0.79
B20	5.42	0.65	0.79
B21	5.46	0.68	0.79
B22	5.29	1.06	0.80
B23	5.17	0.82	0.79
B24	5.00	1.11	0.82
B25	5.44	0.66	0.90
B26	5.38	0.79	0.90
B27	5.36	0.75	0.90
B28	5.33	0.70	0.89
B29	5.28	0.69	0.90
B30	5.34	0.69	0.90
B31	4.82	0.94	0.93
B32	5.22	0.70	0.90
B33	5.35	0.63	0.92
B34	5.32	0.72	0.92
B35	5.09	0.86	0.91
B36	5.13	0.85	0.90
B37	5.11	0.78	0.90
B38	5.13	0.73	0.90
B39	4.91	0.91	0.92
B40	5.20	0.76	0.90
B41	5.46	0.69	0.92
B42	5.39	0.84	0.93
B43	5.35	0.68	0.91
B44	5.36	0.76	0.91
B45	5.21	0.75	0.91
B46	5.33	0.71	0.91
B47	5.25	0.73	0.91
B48	5.22	0.73	0.92
B49	5.03	0.88	0.84
B50	5.11	0.85	0.84
B51	5.35	0.71	0.86
B52	5.33	0.71	0.85
B53	4.91	0.94	0.83
B54	4.78	1.06	0.84
B55	5.10	1.07	0.85
B56	4.95	1.10	0.80
B57	5.07	1.06	0.80
B58	5.28	0.73	0.78
B59	5.12	0.91	0.78
B60	5.26	0.79	0.79
B61	5.00	1.11	0.83
B62	5.44	0.66	0.79
B63	5.38	0.79	0.81

Table 3 shows the reliability analysis of Teacher Professionalism's instruments and the dimension that showed the highest Cronbach's alpha value was the "Teachers' Characters" at 0.89. Whereas the dimensions that show the lowest Cronbach's alpha values are "Commitment To Change And Continual Improvement" at 0.81. However, all dimensions show a Cronbach's alpha value higher than 0.60, so all dimensions are appropriate for use in the actual study.

Table 3. Reliability analysis of teacher professionalism dimension

Dimension	Item	Number of items	Cronbach Alpha (α) Value
Teachers' Characters	C1 - C15	15	0.89
Commitment To Change And Continual Improvement	C16 - C26	11	0.81
Subject and Pedagogical Knowledge	C27 - C39	13	0.88
Obligations And Working Relationships Beyond The Classroom	C40 - C51	12	0.86

Table 4. Teacher professionalism statistics

Item	Mean Value	Standard Deviation	Cronbach's Alpha if Item Deleted
C1	3.71	0.52	0.88
C2	3.57	0.62	0.88
C3	3.75	0.52	0.89
C4	3.72	0.55	0.88
C5	3.78	0.42	0.89
C6	3.62	0.63	0.88
C7	3.49	0.72	0.88
C8	3.77	0.53	0.88
C9	3.70	0.50	0.88
C10	3.60	0.60	0.88
C11	3.81	0.39	0.89
C12	3.82	0.44	0.89
C13	3.85	0.39	0.89
C14	3.80	0.43	0.89
C15	3.83	0.38	0.89
C16	3.81	0.42	0.79
C17	3.53	0.77	0.79
C18	3.79	0.41	0.79
C19	3.66	0.59	0.79
C20	3.80	0.43	0.81
C21	3.82	0.41	0.80
C22	3.82	0.41	0.80
C23	3.86	0.35	0.80
C24	3.79	0.41	0.79
C25	3.79	0.43	0.79
C26	3.78	0.52	0.80
C27	3.76	0.51	0.87
C28	3.88	0.33	0.87
C29	3.78	0.42	0.86
C30	3.72	0.49	0.87
C31	3.56	0.70	0.86
C32	3.69	0.51	0.86
C33	3.90	0.30	0.87
C34	3.70	0.52	0.86
C35	3.66	0.59	0.87
C36	3.78	0.48	0.86
C37	3.71	0.57	0.86
C38	3.87	0.37	0.87
C39	3.86	0.40	0.88
C40	3.77	0.47	0.85
C41	3.75	0.52	0.85

C42	3.66	0.65	0.85
C43	3.63	0.63	0.85
C44	3.00	0.96	0.84
C45	3.33	0.83	0.84
C46	3.48	0.63	0.85
C47	3.72	0.49	0.85
C48	3.80	0.45	0.86
C49	3.82	0.39	0.86
C50	3.71	0.52	0.85
C51	3.69	0.49	0.85

13. Discussion and implication

The aim of this study was to test the PLC and Teacher Professionalism questionnaire reliability level. Internal stability and continuity are also referred to as reliability (Creswell 2002, 2005, 2010). The Cronbach Alpha value was also added to when evaluating a construct's internal consistency (Cronbach 1946). The Cronbach Alpha value exceeding 0.60 which is also used as an instrument's reliability index (Pallant, 2001).

For Bond and Fox (2015), items with a reliability value of below 0.60 need to repair and under 0.50 should be dropped. While alpha values between 0.60 to 0.80 are acceptable and 0.90 to 1.00 is very good and useful with high consistency. The researcher used the Cronbach Alpha value to assess the questionnaire's reliability, based on the above description. That shows the questionnaire for the eight-dimensional PLC (Tai et al., 2018) and four-dimensional teachers' professionalism model (Tichenor & Tichenor, 2009) is suitable for use in research conducted by researchers. This questionnaire will be used in a research study in peninsular Malaysia, involving primary school teachers. In conclusion, the results suggest that both questionnaire instrument's reliability index is high. This importance means the instrument is at an appropriate level and is well within its reliability level.

14. Conclusion

Ultimately, this research focused on quantitative methods for evaluating the value of reliability of the PLC's instrument by Tai, Omar and Ghouri (2018) and Teacher Professionalism instrument by Tichenor and Tichenor (2009) and Hasan (2015). The instrument for a PLC and Teacher Professionalism was evaluated and established at the pilot study level. Thus, this research can be continued to the actual study.

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