International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Influence of PE Teachers' Professional Learning Community on Continuing Professional Development

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Abstract:
The study determined the predictive influence of PE Teachers' professional learning community participation (PLC) on their continuing professional development engagement. To measure the PLC participation of the respondents, the researcher used the core features of PLC in China: common vision, read-practice-share learning flow, continuous reflection, supportive and sharing leadership, and peer and organizational support. For the assessment of CPD status, the study used the following sub-variables: keeping one's self abreast, reflection and feedback, experimentation, collaboration for instruction improvement, and collaboration for school development. The assessments showed that the respondents participated in PLC well. Similarly, there is a high CPD engagement among the respondents. More importantly, the study showed that PLC participation significantly predicts CPD engagement.

Keywords: Professional learning community, continuing professional development, PE teachers

Introduction

Chinese students' declining physical fitness trend indicates that the "health first" themed curriculum reform in physical education (PE) is not achieving its goals. The data from national students' health surveys indicate that the new PE curriculum reform needs to meet the Chinese government's expectations of improved health among students [1]. Regarding physical fitness, students' scores on almost all health indicators generally declined from 2013 [2]. The problem is a teaching effectiveness issue that demands improvement in the capabilities of PE teachers.

One way of improving the PE teachers' instructional effectiveness is through continuing professional development. With China's increasing awareness of the importance of physical health and well-being, the need for effective continuing professional development for PE teachers becomes particularly crucial [3]. Continuing professional development equips teachers with the tools to improve their pedagogies, ultimately enhancing student learning [4]. Aside from enabling teachers to keep abreast with curriculum changes, technological advancement, and innovations in teaching, continuing professional development also contributes to heightened job satisfaction and retention among educators [5]. Continuing professional development compliments UNESCO's call for lifelong learning. According to Kempf [6], the director of UNESCO Lifelong Learning Institute, learning throughout life leads to individual fulfillment, social cohesion, and economic prosperity. Teachers engaged in continuing professional development are also into lifelong learning.

China has exerted a focused effort on professional development for PE teachers [5] through the implementation of the National Teacher Professional Development Plan and the National Continuing Education Program for Teachers to support ongoing development among educators [4]. Despite the government's initiatives, challenges persist in ensuring opportunities are accessible to PE teachers and sufficient resources are provided [7]. Another area for improvement is the mismatch between available professional development opportunities and the latest research-based practices [8]. According to Thompson [9]. accessible professional development responsive to current needs remains elusive. Chinese PE teachers resort to multiple strategies to address professional development challenges. They utilize workshops and seminars, mentorship programs, continuing education courses, action research projects, utilization of technology, peer observation and feedback, guest lectures, and professional learning communities [10].

A professional learning community is a group of teachers who engage in ongoing learning and improvement through an iterative process of planning, implementing, assessing, and reflecting [11]. The members of the PLC share and critically question their practice in a reflective, collaborative, learning-oriented, and growth-promoting way [12]. PLC and professional development have considerable mutual interaction and overlap [13] as both evolved to address career growth. Fullan and Hargreaves [14] argue that integrating PLC and professional development can be the core of the teaching profession.

After many years of PLC development in China, it is now considered a practical approach for promoting teacher professional growth [15]. The use of PLC as a strategy for continuing professional development is vast [16]. Evidence suggests that well-developed PLCs can significantly contribute to teacher learning and professional development, which ultimately promotes student learning [17], [18], [19], [20]. Furthermore, it develops a sense of community, enables power to be shared [21], [16], [22], and promotes constant collaboration between teachers [23].

With the increase in studies about PLCs, Parker et al. [24] think that it is timely to look into PLCs' role in promoting continuing professional development (CPD) in PE. They claim no review of the knowledge in the said area has been produced. Therefore, the proposed paper will address PLC's influence on PE teachers' CPD. The significance of the study lies in its potential to inform policy and practice in CPD and PLC. The study aims to shed light on the participation of PE teachers in PLC and CPD. According to Yang et al. [25], the five core features of optimal PLC in China are common vision, read-practice-share learning flow, continuous reflection, supportive and sharing leadership, and peer and organizational support. These core features will be the basis of measuring the PE teachers' participation in PLC. On the other hand, the assessment of CPD will be based on the scale developed by Evers et al. [26], composed of the following domains: keeping up to date, reflecting and asking for feedback, experimenting, and collaborating with colleagues. Aside from determining the predictive role of PLC participation on the PE teachers' CPD, the study is expected to highlight areas for improvement.

The study is anchored on the Adult Learning Theory and Social Learning Theory established by Malcolm Knowles in 1984. It emphasizes that adults are self-directed and internally motivated to learn things that are timely and relevant to their lives and work [27]. Thus, continuing professional development activities for teachers, such as keeping up to date, reflecting, asking for feedback, and collaborating, are self-initiated and have immediate application in their teaching. The Adult Learning Theory also explains why teachers participate in PLCs. They know that PLCs facilitate learning through self-directed initiatives like read-practice-share learning flow and continuous reflection.

Method

This quantitative study involved 190 PE teacher respondents from five selected higher education institutions in Guangxi, China. The respondents were randomly selected from a PE teacher population of 372. The researcher developed the survey questionnaire used in the study. It underwent expert validation and pilot testing. The instrument showed acceptable Cronbach alphas.

Multiple regression analysis was used to determine the predictive influence of PLC participation on the respondents' CPD. All the domains of PLC participation were considered independent variables, while the overall CPD status was the dependent variable. The researcher tested the at the .05 level of significance.

Results and Discussion

Table 1: Participation in Professional Learning Communities

Domains of PLC Participation	Mean	SD	Interpretation
Common Vision	3.21	0.34	High Participation
Read-Practice-Share Flow of Learning	3.26	0.36	High Participation
Continuous Reflection	3.23	0.35	High Participation
Peer Support	3.25	0.35	High Participation
Supportive and Shared Leadership	3.32	0.36	High Participation
Overall	3.26	0.29	High Participation

Table 1 shows the respondents' assessment of their PLC participation. It has an overall mean of 3.26 (SD=0.29), which implies a high level of involvement in PLCs. The most vital aspect of the respondents' participation is supportive and shared leadership, with the highest mean of 3.32. In general, the respondents are highly involved in enhancing the leadership of their PLC colleagues. They give their PLC leaders appreciation for their contributions. While the respondents praise their leaders for their good works, they also advocate for members' involvement in decision-making. They encourage the PLC peers to take the lead at work and in activities in PLC and praise them for doing the delegated tasks well. The respondents even appreciate peers who show commitment to the PLC vision. In the study of Dai [28], the distribution of power and promotion of shared leadership were identified as part of the requirements for building PLC in China.

The high participation of the respondents in the read-practice-flow of learning aligns with what Yang et al. [25] revealed in their study. They noted that the flow of read-practice-share is the primary process for professional learning in PLCs. The read-practice-share flow of learning is collaborative, which, according to Zhou and Fadri [29], is an attribute of PLC's learning capacity. Her study showed that PLC members are open to learning collaboratively. Zhang et al. [30] have the same observation. They claimed that Chinese teachers have enhanced their expertise through genuine and in-depth collaboration.

The respondents' peer support manifested in empowering, respecting, and trusting their PLC colleagues. The best way the respondents support their peers is by showing appreciation for their contribution and encouraging others as they work on activities in PLC. The respondents treat PLC members with dignity and respect and value their opinions. They show enthusiasm when interacting with their PLC peers and encourage them to speak. Peer support transpires in PLC, possibly because the respondents know the importance of good relationships with organizations. Yang et al. [25] believe peer relationships are the most critical bond in PLC. In the study of Hu et al. [15], peer support or mutual support was identified as one of the elements in PLCs' "emotional bonding" among Chinese primary school teachers. Mutual support and cooperation are indispensable in sustaining PLCs.

The respondents' continuous reflection involves contemplating what they bring and get from PLC. The respondents' best practice in this area is contemplating how PLC activities can be conducted better. The respondents also reflect on the teaching practices they observed and on the teaching experiences of their colleagues. Furthermore, the respondents also reflect on the ideas and experiences they share in the PLC. The finding is similar to what Yang et al. [25] found in their study. It showed that PLC members engage in individual and collective reflection. They categorized the PLC members' actions as reflection on reading, reflection on practice, reflection on oneself, and reflection on community activities.

The respondents' high participation in PLC in terms of common vision implies active participation among the respondents in enlisting others to pursue shared goals in PLC. The respondents' best practice in shared vision is explaining to members that PLC's ultimate goal is similar to theirs. They also explained to other teachers that PLC shared their goals for professional development and talked with others about how they could be better teachers through the PLC. The respondents generally share the PLC vision with their colleagues because they know it will heighten their fellow members' interest in the group. As He [31] mentioned, promoting a common vision emphasizes deep commitment among PLC members. Zhou and Fadri [29] showed that PLCs in China have a shared vision. The moral purpose of the PLC is well communicated to members, and the PLC leaders promote shared values.

Table 1: Continuing Professional Development Engagement

Domains of CPD Engagement	Mean	SD	Interpretation
Keeping One's Self Abreast	3.24	0.37	High Engagement
Experimentation	3.27	0.37	High Engagement
Reflection and Feedback	3.38	0.31	High Engagement
Collaboration for Improvement of Instruction	3.25	0.38	High Engagement
Collaboration for School Development	3.19	0.43	High Engagement
Overall	3.27	0.32	High Engagement

Table 2 shows the overall mean of 3.27 (SD =0.32) for the respondents' CPD engagement. This implies a high CPD engagement. In general, the PE teachers do activities geared toward their professional development. Their best CPD engagement is in reflection and feedback, where they got a mean of 3.38. The respondents make self-initiated actions to evaluate personal teaching experiences and solicit comments and suggestions from colleagues and students regarding their teaching. The respondents are most engaged in reflecting on their weak points as teachers and asking students for feedback about their teaching. They also reflect on their strong points. Moreover, they invite colleagues to critique their teaching and reflect on their peer's evaluation. The respondents' engagement in reflection and feedback mirrors what Qian [32] called reflective initiatives. Her study showed that Chinese teachers note daily classroom experiences in a diary and prepare portfolios to assess their improvement. They also discuss classroom experiences with colleagues and consult experts about their academic problems.

The respondents' high CPD engagement in experimentation is best shown when trying new teaching methods in their PE classes. They also try new motivational activities and apply new forms of assessments. Moreover, they try new technologies for physical fitness. The finding conforms with the study of Ambusaidi and Al-Maqbali [33], which revealed that teachers in Oman try out new teaching ideas. Chinese teachers also engage in experimentation. According to Hao and Fadri [34], Chinese teachers exert deliberate effort to undertake something new in their education.

The respondents' high collaboration for improving the instruction indicates active engagement in a collec-

tive effort geared towards enhancing their teaching. The respondents focus most on ICT skills in their collaborative efforts to improve instruction. The respondents also discuss new teaching ideas, practices, methods, and recent studies in PE. Qian [32] also showed the engagement of Chinese teachers in collaborative initiatives. Her study showed that Chinese E-commerce teachers are excellent at agreeing with colleagues about teaching strategies. They also read books to share knowledge with colleagues.

The respondents are also highly engaged in keeping one's self abreast. The respondents generally exert effort to acquire new knowledge and skills in physical education, such as attending seminars and reading literature. The respondents are most engaged in keeping themselves updated on health issues. The respondents also watched online materials about the latest trends in physical fitness and read articles on the latest developments in sports. The respondents have to keep themselves updated on health, sports, and physical fitness because these are the areas covered by the PE curriculum in China. The finding is similar to the results of the study conducted by Hao and Fadri [34]. It showed that Chinese teachers engage in keeping up-to-date practices. This is highlighted by reading educational and pedagogical literature and visiting educational sites online.

The respondents' high CPD engagement can also be seen in terms of collaboration with colleagues for school development. The respondents have concerted efforts to advance their institutions by sharing ideas about improvement with school management. They convey their ideas for school improvement to the administrators and voice out students' concerns in school. The respondents also collaborate in calling out the attention of the administrators on matters necessitating improvements. Dai [28] also noted that Chinese PLC teachers can collaborate with school administrators.

Table 3: Predictor Model

Independent Variables	R_2	Beta	Sig	Interpretation
Read-Practice-Share Flow of Learning	0.791	0.524	.000	High Participation
Peer Support		0.168	.001	High Participation
Supportive and Shared Leadership		0.327	.000	High Participation

Table 3 shows the predictor model derived from the multiple linear regression analysis. Of the five domains of PLC participation, only three were predictors of CPD engagement. These are read-practice-share flow of learning (B =0.524, Sig =.000), peer support (Beta =0.168, Sig =.000), and supportive and shared leadership (Beta =0.327, Sig =.000). The combination of these predictors explains 79.1 % (R^2=0.791) variance in the CPD engagement. The read-practice-share flow of learning has the strongest predictive influence on CPD engagement. For every unit change in the read-practice-share learning flow, there is a corresponding change of 0.524 in the CPD engagement. Next is supportive and shared leadership. For a unit change in supportive and shared leadership, a 0.327-factor change happens in the CPD engagement. The most minor predictive influence comes from peer support. There is a 0.168 change in the CPD engagement for every unit change in peer support. Given the multiple regression analysis results, the hypothesis is partly rejected. The findings suggest that PLCs can be an effective way for schools to develop their teachers professionally.

PLC participation predicts CPD engagement because, generally, PLCs in China lean toward professional development [35]. Yang et al. [25] noted that PLCs in China are more oriented toward the professional development of teachers rather than the direct improvement of student learning. Well-developed PLCs provide practical instruments for CPD through formal professional development opportunities [28].

Conclusion

The high participation of the respondents in PLC gives a positive outlook for PE. It is indicative of PLC sustainability in physical education. With a sustainable PLC, PE teachers can develop professionally and collaboratively. Ultimately, the students will benefit from the PLC through improved instruction. The finding also highlights directions for PLC improvement. As shown in the results, there is still much room for improvement in every area of PLC participation. The high CPD engagement of the respondents reveals a good level of favorability toward professional development. It underscores the desire of PE teachers to develop professionally. The finding also reveals that PE teachers have a collaborative culture. More importantly, the study confirmed the predictive influence of PLC participation on CPD engagement. It shows that a sustainable PLC is a significant factor in PE teachers' professional development.

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