A Case-research of Teacher-Driven PLC in a Hierarchical Organization: An Ecological Framework with Highlight in Adult Learning

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A Case-research of How to Promote Teacher-Driven PLC in a Hierarchical Organization: An Ecological Framework Highlighting Adult Learning

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Abstract

Inspired by the organizational learning philosophy, this study developed an ecological framework and applied it to examine the mechanism of a Chinese fee-paying school's teacher professional learning activities.

Keywords: Ecological PLC Framework, Organizational Learning, Professional Learning Community, Teacher Education

The professional learning community (PLC) is regarded by numerous scholars as an effective approach to advancing student learning and teacher professional development (PD) (Dogan & Adams, 2018). This concept fosters a self-regulating and self-sustaining learning environment in which individuals are encouraged to collaboratively identify and address challenges and perplexities within their professional practices, aiming to consistently enhance their performance, as well as that of their pupils and school (Dogan & Adams, 2018; Dufour et al., 2021). Its implementation has been widespread across different cultures and educational institutions (Antinluoma et al., 2021; Chen & Sargent, 2020). Nonetheless, while a substantial volume of global literature has provided indications and data supporting the notion, scholars have criticized its loose interpretation and adaptation, which fails to uphold its original value (Watson, 2014; Servage, 2008). This has led to reports of school leadership imposing PLC initiatives rather than nurturing bottom-up teacher-driven collaboration that harnesses the power of continuous professional learning to make classroom changes (e.g., Dufour et al., 2021; Hargreaves & O'Connor, 2017). Consequently, this has created ambiguity in how these initiatives are carried out.

Purpose of the Study and Research Questions

The research aims to address this problem by synthesizing PLC-related research in the current literature of the past thirty years to propose an ecological PLC framework while keeping adult learners' characteristics at its center. Then, the study uses the framework to analyze a teacher-driven PLC that aims for innovative pedagogy research, implementation, and promulgation in a fee-paying K12 school in China. With the endorsement of educational reform initiatives and central school

management, ten teachers representing diverse subject departments have come together to implement an interdisciplinary project-based learning (PBL) approach for elementary-level students. This teacher-led PLC challenges the conventional subject-based teaching and collaboration models, making it vulnerable to internal and external obstacles. Adopting the Biographic-Narrative Interpretive Method (BNIM) (Wengraf, 2001, 2022), the researchers aim to explore the intricacies of each educator's (i.e., teacher, leader, and administrator) professional trajectory within the case community and reveal the process of building an "active, reflective, collaborative, learning-oriented, and growth-promoting" learning culture (Stoll et al., 2006, p. 229).

The paper aims to answer the following research questions:
1. How does teachers' professional learning occur at individual and group levels?
2. How do the meso and macro environment affect teachers' professional learning?

Perspective and Relevant Literature

Since the inception of the professional learning community (PLC), it has proliferated in academia and garnered sustained global attention. Despite its manifold benefits, including enhancing teachers' PD, student performance (Dogan et al., 2016; Dogan & Adams, 2018), and school effectiveness (Sigurðardóttir, 2010), implementing PLC has encountered several difficulties. Upon further examination, the challenge of implementing a PLC is closely tied to the intricacies involved in comprehending this multidimensional concept (Dogan & Adams, 2018; Hargreaves & O'Connor, 2017; Servage, 2008). Theoretically, many agree that a PLC fosters a self-regulating and self-perpetuating learning system, as evidenced by scholars such as DuFour and Easker (1998), Dufour et al. (2021), Hord (1998, 2004), and Stoll and his colleagues (2006) who advocate for an ecological perspective that views schools as dynamic living systems rather than rigidly managed entities. However, this shift in perspective has resulted in a lack of uniformity in understanding and application, leading to equivocality in research and practice.

Tracing back to the origin of the concept of PLC, the sociological literature on organizational learning theory has provided a means of exploring the core idea, which suggests that adult learning occurs on multiple levels: individual, group, and organizational (Crossan et al., 1999; Senge, 1991). Taking a social constructivist approach, Mitchell and Sackney (2000, 2011) propose that a learning community is only established when individual, interpersonal, and organizational capacities synergize to facilitate continuous negotiation and development among educators. Understanding the three key domains is the starting point for making sense of and thus adopting the notion of PLC. By thoroughly examining and synthesizing global literature on PLC and its interchangeable terms (i.e., learning community, professional community), eight underlying dimensions are identified and explored to be adopted for the case study.

Individual Level

Individualized professional learning is crucial for developing the overall

capacity of a PLC. This level centers around an active and reflective process of constructing professional narratives (i.e., professional knowledge, practice, and beliefs) (Mitchell & Sackney, 2011; Senge, 1991). This involves critically reflecting on one's beliefs and practices and seeking diverse and innovative ideas to reconstruct knowledge.

The self-regulated and self-perpetuated nature of professional learning in a PLC requires adults' innate learning characteristics, as suggested by Knowles (1975), who calls for education to move adults from dependency to self-direction. The individual level also emphasizes self-directed learning and requires members to share the need and motivation to learn (Knowles et al., 2005). This pursuit empowers educators to broaden their prospective professional associations, acquire enriching resources, and thereby reinforce the nexus between teaching and learning.

Group Level

Three dimensions are of great importance for such purpose: a co-created shared vision, goals, values, and norms among members (e.g., Huffman et al., 2015), mutual trust and respect to facilitate professional learning in a group setting (e.g., Kruse & Louis, 1993), and a collaborative culture with a focus on learning (e.g., Dufour et al., 2021).

A PLC is built upon a collaborative culture based on mutual trust and respect and guided by a shared vision, goals, values, and normative behaviors developed internally (e.g., Hairon, 2020; Kruse & Louis, 1993). By de-privatizing personal practice through approaches like open classroom (Kruse & Louis, 1993), curriculum development (Lomos et al., 2011; Vangrieken et al., 2017), and joint problem-solving (Meeuwen et al., 2020), members in a PLC are permitted to reflective professional inquiry (RPI) to discuss openly, regularly and extensively ideas and perplexities relating to professional learning and student learning.

Organizational level

The foremost underlying dimension at this level is a supportive organizational structure that is flexible and inclusive to facilitate diverse exchanges of expertise (e.g., Hord, 1998; Huffman et al., 2015; Stoll et al., 2006). The second dimension in this milieu emphasizes formal and informal leaders who distribute power and establish expectations for educators to learn, cooperate, and take calculated risks to implement changes that improve student learning outcomes (e.g., Hord, 1997, 2004; Zhang & Sun, 2018). The significance of principals in establishing favorable conditions for PLCs has been stressed by scholars across various sociocultural contexts (e.g., Dufour et al., 2021; Soyadı & Song, 2017). Additionally, numerous scholars have proposed that informal leaders, particularly teacher leaders, play a crucial role in developing PLCs (e.g., Antinluoma et al., 2021; Hairon, 2020; Ho et al., 2019).

PLC in China

Empirical data reveals that PLCs in schools in China operate under a standardized, action-based learning process (Liang et al., 2016) and are created and managed by top-level administrators and leaders, intending to promote innovative ideas and test new methods subscribed by education reform agendas (Minister of Education, 2019; Sargent, 2015). However, Zeng & Day (2019) discovered that while

current reforms have increased school autonomy regarding teacher PD, policies' unceasing demands on both students' and teachers' instrumental performance have prompted schools to prioritize productivity over long-term growth. Teachers' collaboration repeats conventional and established versions of what is considered best practices and conforms to the perspectives of senior professionals (Wong, 2010; Zhang & Pang, 2016). The search for immediate solutions ultimately leads to a phony sense of community, losing authentic feelings of shared communal space in pursuing the "illusion of consensus" and quick fixes (Grossman et al., 2001, p. 20).

Theoretical Framework

The ecological framework adopts an organizational learning perspective that conceptualizes adult learning as a multilevel process over the individual, group, and organizational levels (Crossan et al., 1999). However, unlike a learning organization that aims for organizational gains, a PLC emphasizes shared goals and people growth, with student learning at the heart of all decision-making (Mitchell & Sackney, 2011; Stoll et al., 2006). As the three domains are inherently interconnected, attending to each underlying aspect simultaneously, directly, and continuously is necessary to achieve synergy for the sustainable development of a PLC (Mitchell & Sackney, 2011). In understanding interactions, eight dimensions are identified (i.e., knowledge construction, shared vision, goals, values, and norms; mutual trust and respect; collaborative culture; legitimate structural supports; supportive leadership; a focus on student learning).

With increasing global attention and implementation, research on PLC also highlights the role of environmental factors (i.e., meso and macro level) in enacting this strategic concept (e.g., Hairon 2020; Toole & Louis, 2002). When perceiving school as an ecological system, the operation of a PLC lands on creating conditions and boosting the capacity of multilevel learning that centrally empowers teachers to navigate their environment to achieve PD by themselves.

Research Design

The qualitative study applied the Biographic Narrative Interview Method (BNIM) (Wengraf, 2001) for data collection with six teachers, a headteacher, the school principal, and an administrator of the PLC (N=8) in a fee-paying K12 school in China (i.e., the case school). A headteacher initiated the PLC with the endorsement of the school principal five years ago, and it grew into a ten-teacher group consisting of teachers from diverse subjects. The epistemological premise of the BNIM enabled powerful gestalt about participants' experiences in the PLC by permitting the detection and the expression of implicit and suppressed perspectives and practices. The two-track case-interpretive procedure (i.e., the objective event lived-experience-living and the subjective account told-story-telling) of the BNIM analyzed and connected both the events and the interpretation of the events to reveal each participant's professional involvement in each of the ecological spheres.

Results

The key findings indicated a "three-step professional learning iteration" consisting of pedagogical knowledge learning (PKL) and action learning (AL) at individual and group levels and reflective professional inquiry (RPI) at the group

level. Of the three stages, PKL would often take place promptly after teachers joined the PLC. AL and RPI would follow without a specific sequential order. These two phases induced a subsequent professional learning cycle, whereby AL became the principal learning approach, and the other two complemented teachers' professional advancement. Moreover, the iteration continues with AL as the central theme. Through the three-step iterations, teachers' long-established professional repertoires were gradually disrupted. Shared knowledge, norms, and commitment toward implementing the new pedagogy and enhancing student learning were co-constructed. In this case, the self-driven nature of professional learning, as opposed to the formalized structure found in Chinese schools (Chen, 2020), emphasizes developing teachers' professional narratives to enhance classroom instruction. Nevertheless, the findings suggest that team-based AL was constrained mainly due to a lack of legitimated structural support, which, to some extent, restricts teachers from engaging in RPI and impairs their professional capabilities.

At the individual level, though teachers joined the PLC with different motives (i.e., self-centered vs. student-centered), those with student-centered motives were more proactive in deconstructing their orthodox professional knowledge, practice, and beliefs. The PLC strongly supported their professional renewal process, where they reconstructed new pedagogical understanding and redefined their teacher identities. Teachers with self-focused motives are driven by tangible extrinsic recognitions and awards for career promotion. Some withdrew from the PLC after short participation. In their professional learning progress, others showed slow progress and paradoxical performances (i.e., inconsistency between espoused theory and theory-in-practice).

Findings also showed that the collaborative model of the teacher-driven PLC demonstrated a significant level of interdependency in achieving institutional goals such as mandate projects and in the renewal of pedagogical knowledge and educational values. Continuous professional learning and PD opportunities have resulted in most members exhibiting coherence in collective normative behaviors, such as openness to RPI and shared decision-making centered on student welfare and growth. In contrast to negative attitudes prevalent in mainstream literature towards Chinese school teacher collaboration models, mainly concerning contrived and authoritarian collaboration forms and superficial conformity-seeking purposes (e.g., Qiao et al., 2018; Zhang & Zheng, 2020), this PLC showcases some genuine yet purposely arranged collaborative efforts (Hargreaves, 2013) within the same educational system. The teacher-driven bottom-up PLC gradually developed an interpersonal working climate at the group level by creating shared goals, norms, and values. The teacher-leader (i.e., the headteacher) deliberately arranged the collaborative model with a positive emotional atmosphere. As a result, teachers' professional learning moved away from the rhetoric of best teaching to inquiries of deeper appreciation; they started to search for meaning between robust professional practices and their underlining pedagogical values. The bottom-up PLC approach empowered the teachers to use joint problem-solving and RPI to stimulate reflective discussions that explore and embrace perplexing dilemmas in teaching and learning.

At the organizational level, informal leadership efforts are vital in regulating

and sustaining teacher-driven endeavors and diffusing paradigmatic change. The findings showed that the PLC encountered multifaceted barriers, including the lack of access to legitimate money and policy-sanctioned support, the enormous power distance in the school structure between teachers and leaders, and the coercive pressure from multiple external stakeholders (e.g., parents and local educational bureau). The school's administration executed informal support to promulgate the work of the PLC. For example, the research administrator deliberately created PD opportunities (e.g., innovative teaching competitions) in the case school for the teachers to show their professional learning outcomes to the local groups/communities. The principal actively sought PD opportunities and external funding from municipal educational research institutes. With support from the school leadership, teachers of the PLC began to knit together with solidarity and developed a firm ethos for shared decision-making. Consequently, the new educational values and practices with student-centered and interdisciplinary PBL elements expanded and became part of the school culture.

Conclusion

This case-study research presents a de-centralized bottom approach that aims to transform the traditional teacher-centered subject-based curriculum with interdisciplinary learning in a hierarchical organization of a centralized education system. The research advocates the practice of bottom-up teacher-driven PLC to oppose the quick-fix mentality of relying on imposed initiatives and top-down control (Hord, 1997). The study highlights the vital dimensions of individuals, groups, and the environment and their interactions in supporting the sustainable development of PLC. The three-step professional learning iteration could provide a basic framework for educators to design teachers' professional learning. The barriers to implementing such a PLC could inspire those currently looking for authentic and interdisciplinary collaboration approaches. It also emphasizes the power of informal leadership support in the centralized system to promote PD and student learning. It expands the current knowledge of how leaders can support teachers in a hierarchical organizational environment and build the capacity to empower adults' professional learning for transformational and sustainable changes.

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