

Original Paper

Enhancing Teacher Development through Professional Learning Communities: A Mixed-Methods Study in Chinese Universities

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Abstract

This study investigated the implementation and impact of Professional Learning Communities (PLCs) on English language teacher development in selected Chinese universities. Employing a mixed-method approach with a convergent parallel design, the research examined the extent of PLC implementation across various dimensions and its influence on teachers' professional growth. Quantitative data from 136 EFL teachers and qualitative insights from 14 participants (7 PLC leaders and 7 members) were collected and analyzed. Results revealed high levels of teacher involvement in key PLC components, including shared vision and goals, collaborative learning, reflective practice, data-driven decision-making, leadership, and structured programs. The study found that PLCs significantly enhanced teachers' content knowledge, instructional practices, personal growth, and collegial relationships. Qualitative findings corroborated these results, highlighting improved collaboration, instructional strategies, and support for English learners. The integration of quantitative and qualitative data provided a comprehensive understanding of PLC effectiveness in the Chinese higher education context. However, challenges were identified in areas such as advocating for PLC work beyond immediate communities and translating data insights into concrete learning objectives. The study contributes to the growing body of research on PLCs in diverse cultural contexts and offers valuable insights for implementing and sustaining effective professional development models in Chinese universities. Recommendations include enhancing institutional support, developing teacher leadership skills, and fostering a culture of open feedback and data literacy. These findings have implications for educational policy and practice in China and globally, particularly in adapting PLCs to different cultural and institutional settings.

Keywords

Professional Learning Communities, English Language Teaching, Teacher Development, Chinese Higher Education, Collaborative Learning, Data-Driven Decision-Making, Mixed-Method Research

Introduction

In the ever-evolving landscape of education, the quest for effective strategies to enhance teacher professional development, improve school performance, and boost student success has led to the emergence of Professional Learning Communities (PLCs) as a transformative approach. Over the past three decades, PLCs have gained significant traction globally, reshaping the way educators collaborate, learn, and implement best practices in their classrooms (Bolam et al., 2018; DuFour & Marzano, 2020; Harris et al., 2020). This introduction aims to provide a comprehensive overview of the evolution, implementation, and impact of PLCs, with a particular focus on their application in English language teaching within Chinese universities.

The concept of PLCs has undergone substantial development since its inception in the 1990s. Sergiovanni (1994) first introduced the term "community in education," laying the groundwork for a paradigm shift in how educators' approach professional development and collaboration. Building on this foundation, researchers such as Kruse et al. (1995) and Louis and Kruse (1995) further explored the notion of "professional community" within school settings, emphasizing the importance of shared values, teacher mentorship, and collective efforts to improve learning outcomes.

A significant milestone in the evolution of PLCs came with Hord's (1997) coining of the term "professional learning community," which highlighted the critical role of teacher collaboration in driving school improvement. This concept was further popularized and refined by DuFour and Eaker (1998), whose work on school reform and professional development brought PLCs to the forefront of educational discourse. Their seminal publication, "Revisiting Professional Learning Communities at Work" (DuFour et al., 2008), solidified PLCs as a prominent educational framework, characterized by shared values, collective learning, and a relentless focus on student achievement.

As the PLC model gained traction, its implementation began to vary across different regions, reflecting diverse educational contexts and priorities. In the United States, PLCs have fostered a culture of collaborative learning and professional development among teachers. Williams (2019) noted that schools with robust PLCs have witnessed rapid gains in both student achievement and teacher satisfaction. The collaborative environment created by PLCs has helped to break down the isolation often experienced by teachers, enabling them to share innovative instructional practices and engage in ongoing professional growth (Smith, 2018).

In contrast, European countries have adopted a more systematic approach to PLCs, integrating them into national educational strategies and policies. Vangrieken et al. (2017) observed that several European nations, including those in Scandinavia, have incorporated PLCs into their national frameworks for school reform, ensuring sustained support and professional development for teachers. This more formalized approach has resulted in durable and long-term enhancements of instructional quality and student outcomes (Hargreaves & O'Connor, 2018). Sahlberg (2015) argued that the emphasis on teamwork in PLCs across Europe fosters a culture of continuous improvement and within-system reflection.

Australia has leveraged PLCs as a tool for addressing educational inequities and promoting inclusivity. Stoll and Louis (2017) reported that Australian schools implementing PLC models have seen improvements in both teacher efficacy and student outcomes, particularly among low-income populations. The articulation of a common purpose within Australian PLCs serves to reinforce a collective vision for improvement, ensuring that all students have access to high-quality teaching (Timperley, 2015). Moreover, the collaborative learning space within PLCs promotes resource and best practice sharing among teachers, enhancing collective instructional capacity (Jensen et al., 2016).

The adoption of PLCs in Asia has also yielded promising results across various countries. In Japan, Saito et al. (2019) noted that PLCs have led to substantial changes in school-based pedagogy, shifting from isolated practices to interwoven collaboration among teachers. This transformation has been associated with improved student performance, as teachers exchange best practices and collaborate to address challenges within their specific teaching contexts.

South Korea has incorporated PLCs as part of its educational reform efforts, with Hong (2020) reporting that Korean educators view PLCs as a means to create a culture of continuous development among teachers. This approach has led to improved instructional practices and a deeper understanding of diverse student needs. The professional development components of these programs ensure that educators stay abreast of current practices and cutting-edge research in education.

Singapore has embraced the PLC model not only as a structural framework but also as a philosophy of continuous improvement and collaboration. Tan et al. (2021) described how Singaporean schools have integrated PLCs into their systems, fostering an environment that encourages teachers to engage in reflective practices and action research. This systematic approach ensures that teacher professional development is focused and effective, with a strong correlation observed between PLC activity levels, teacher effectiveness, and student achievement.

In India, PLCs have catalyzed a shift from traditional rote learning toward more interactive and student-centered pedagogies. Sharma and Singh (2018) reported that the collaborative nature of PLCs has created a support system for teachers, allowing for the pooling of talents and resources. This focus on continuous professional learning within PLCs has equipped teachers with the necessary skills to manage the growing diversity of learners in Indian classrooms, leading to improved student engagement and academic achievement.

Malaysia has also experienced positive outcomes from the implementation of PLCs. Ling and Kwee (2020) highlighted how PLCs in Malaysian schools have played a pivotal role in fostering teacher leadership and professional growth. The empowerment of teachers through PLCs has led to improved teaching methods and a unified commitment to educational excellence. The collaborative nature of PLCs has created positive working relationships between teachers, influencing school culture and ultimately enhancing student performance.

As PLCs have gained prominence globally, research has identified several crucial elements that contribute to their success. Plank et al. (2024) emphasized the importance of a shared vision and goals,

noting that a unified purpose forms the foundation of effective PLCs. This shared vision aligns efforts and motivates participants, creating a cohesive community focused on continuous improvement.

Collaboration is another cornerstone of successful PLCs. Potvin et al. (2024) described PLCs as "epistemic communities," where knowledge is created and validated through collaborative inquiry and practice. This collaborative approach enables teachers to learn from each other's experiences and insights, fostering a rich environment for professional growth. Capobianco and Feldman (2006) further underscored the importance of collaboration in PLCs, highlighting how it contributes to the development of shared knowledge and best practices.

Reflective practice is integral to the PLC model. Alzayed and Alabdulkareem (2020) noted that PLCs place reflection-on-action at their core, offering opportunities for idea sharing, critical examination of practices, problem identification, and solution generation. This reflective cycle allows teachers to continuously improve their practice, leading to enhanced student outcomes.

Data-informed decision-making has gained increasing importance within PLCs. Bowers et al. (2023) described this process as an "iterative, cyclical" approach, where teachers with high data literacy collect and transform student data into meaningful information. This data-driven approach enables teachers to critically self-reflect on their teaching practices and make informed curricular decisions. However, the authors caution against over-reliance on data without critical reflection and collaborative interpretation.

Effective leadership is crucial for establishing and maintaining successful PLCs. Plank et al. (2024) emphasized the central role of leadership in creating substantive learning communities. While research suggests that leadership is an essential pillar for PLC development, there is a need for more studies offering practical insights into the concrete actions leaders can take to foster truly innovative communities of practice that promote a collaborative learning culture.

Structured programs and activities are typically integral to PLCs. Potvin et al. (2024) described how secondary science teachers use PLCs to facilitate action research, aiming to identify and address student misconceptions. Such purposeful activities help focus collaborative efforts on specific educational challenges, leading to targeted improvements in teaching and learning.

Time allocation is another critical factor in the success of PLCs. Bowers et al. (2023) underscored the importance of adopting a systematic approach to data analysis and reflection during PLC meetings. Sufficient time must be dedicated to these collaborative processes to ensure their effectiveness and sustainability.

Cultural alignment is essential when implementing PLCs, particularly in diverse communities. Sailor et al. (2024) emphasized the need to align PLC implementation with the distinct culture of the school and community. This cultural responsiveness ensures that PLC activities are appropriate and effective within the local context. Bishop et al. (2024) further highlighted the importance of incorporating local cultural perspectives and practices into teaching and PLC activities.

Recent research has explored the impact of English teachers' involvement in PLCs across several key areas. Plank et al. (2024) reported increased collaboration in lesson planning and more frequent use of

data-driven instructional strategies among English teachers participating in PLCs. The authors observed that the development of PLCs often begins with implementing structural factors and mandating specific activities, such as weekly grade-level planning sessions.

Slack (2019) found that PLCs led by English Language (EL) facilitators helped content area teachers develop more effective strategies for supporting English learners. Teachers reported shifts in their mindsets and practices, leading to more equitable access to learning for culturally and linguistically diverse students. The author noted that "Right after the first meeting, members started trying new strategies and began openly sharing successes and flops with one another, thus creating an environment where we celebrated and supported each other" (p. 23).

Beverborg et al. (2024) observed higher levels of self-efficacy and increased engagement in reflective practices among English teachers involved in PLCs. The study emphasized that transformational leadership practices within PLCs directly impacted individuals' engagement in information sharing and their perceptions of goal interdependence, fostering a more collaborative and supportive professional culture.

Bowers et al. (2023) highlighted the importance of collaborative data analysis in PLCs. They found that when English teachers engaged in systematic processes for analyzing student data during PLC meetings, it led to more targeted instructional decisions and improvements in practice. This data-driven approach enables teachers to identify areas of student struggle and adjust their teaching strategies accordingly.

Hayden (2022) conducted a phenomenological study in schools and found that PLCs provided a rich context for English teachers to cultivate their craft by learning district curriculum, instructional strategies, and systems for meaningfully interacting with each student. The study emphasized how PLCs support teachers in continuously improving their teaching skills and fostering a collaborative culture.

Brown et al. (2019) reported that PLCs enhanced collaboration among teachers, leading to improved instructional practices. The authors noted that "Professional learning communities design not only to determine what students will learn, but also to develop a space for teachers to determine how to respond when students do not learn" (p. 54). This focus on collective responsibility for student learning drove changes in teaching practices and strengthened collegial relationships.

Zhang and Yuan (2020) revealed that PLCs significantly enhance teacher job satisfaction and reduce teacher burnout. They found that PLCs provide a supportive environment where teachers can share experiences, collaborate on problem-solving, and develop a sense of collective efficacy, all of which contribute to improved collegial relationships and overall job satisfaction.

The theoretical framework underpinning PLCs draws from several interconnected theories that collectively shape how these communities operate within the context of English language teaching in Chinese universities. The Communities of Practice Theory, developed by Lave and Wenger (1991) and further elaborated by Wenger (1998), posits that learning is a social activity situated within the context

of joint engagement in shared practices. This theory emphasizes the importance of legitimate peripheral participation, where newcomers gradually build knowledge and experience to become full participants in the community.

Collaborative Learning Theory, rooted in the work of Vygotsky (1978) and further developed by Johnson and Johnson (1994), underscores the social nature of learning. Vygotsky's concept of the Zone of Proximal Development (ZPD) suggests that working with more skilled peers or instructors helps students reach higher levels of understanding than they could independently. Johnson and Johnson's work on cooperative learning identified five essential elements for successful collaboration: positive interdependence, individual accountability, promotive interaction, interpersonal skills, and group processing.

Reflective Practice Theory, stemming from the work of Dewey (1910) and Schön (1983), emphasizes the importance of continuous learning through the examination of experiences. Schön's distinction between reflection-in-action and reflection-on-action provides a framework for understanding how teachers can adapt their practices in real-time and learn from past experiences to improve future performance.

Data-Driven Decision-Making Theory complements the foundational theories of Communities of Practice, Collaborative Learning, and Reflective Practice by emphasizing the use of data, metrics, and analysis to guide instructional decisions (Mandinach & Gummer, 2016; Schildkamp et al., 2017). This approach involves collecting relevant data, analyzing it to identify patterns and insights, and using those findings to make informed decisions that align with specific educational goals (Marsh et al., 2006; Datnow & Hubbard, 2016). These theories collectively inform the structure and operation of PLCs, fostering an environment that promotes continuous improvement, collaboration, and evidence-based practices in English language teaching (Vescio et al., 2008; Stoll et al., 2006). By integrating these theoretical perspectives, PLCs provide a comprehensive framework for teacher professional development and improved student outcomes (DuFour et al., 2016; Hord & Sommers, 2008).

While PLCs have shown significant promise in improving English language teaching, several challenges and areas for future research remain. Cultural adaptation is a key consideration, particularly when implementing PLCs in diverse contexts such as Chinese universities (Zhang & Pang, 2016; Wang, 2015). Ensuring that PLC practices align with local educational norms and cultural values is crucial for their effectiveness and acceptance (Li & Dervin, 2018). Sustainability is another important challenge, as maintaining the momentum and effectiveness of PLCs beyond the initial implementation phase requires ongoing support and commitment from both teachers and administrators (Hairon & Dimmock, 2012; Huffman et al., 2016). Developing strategies to embed PLCs into the long-term fabric of educational institutions is essential for their continued impact (Fullan, 2007; Hargreaves & Fink, 2006). The integration of technology presents both opportunities and challenges for PLCs (Blitz, 2013; Trust et al., 2017). As remote and hybrid learning environments become more prevalent, exploring how technology can facilitate and enhance PLC activities is an important area for future research (Prenger et

al., 2021). This includes investigating the effectiveness of virtual PLCs and the use of digital tools to support collaboration and data analysis (Lantz-Andersson et al., 2018). Measuring the impact of PLCs on student learning outcomes in English language education remains a complex task (Lomos et al., 2011; Vescio et al., 2008). Developing robust methods for assessing the direct and indirect effects of PLC participation on student achievement is crucial for demonstrating the value of these communities and informing their continued development (Burns et al., 2017; Saunders et al., 2009).

Balancing teacher workload is an ongoing concern, as participation in PLCs requires time and effort beyond regular teaching duties (Vangrieken et al., 2015; Hargreaves, 2019). Finding ways to integrate PLC activities into teachers' schedules without causing undue stress or burnout is essential for the long-term viability of these communities (Timperley, 2011; Darling-Hammond & Richardson, 2009). Finally, the scalability of successful PLC models across diverse educational settings and institutions presents both a challenge and an opportunity for future research (Hairon & Tan, 2017; Harris & Jones, 2010). Investigating strategies for adapting and implementing PLCs in various contexts, from small language schools to large universities, can help maximize their impact on English language teaching and learning (Bolam et al., 2005; Stoll et al., 2006).

Statement of the Problem

This study aimed to investigate the role and effectiveness of Professional Learning Communities (PLCs) in enhancing English language teacher development in selected Chinese universities. Despite the growing adoption of PLCs globally, there is limited research on their implementation and impact within the context of English Language Teaching (ELT) in Chinese higher education institutions.

Research Questions

1. To what extent are Professional Learning Communities implemented in selected Chinese universities with respect to:
 - a) Shared vision and goals,
 - b) Collaborative learning practices,
 - c) Reflective practice,
 - d) Data-driven decision-making,
 - e) Leadership support,
 - f) Structured programs and time allocation, and
 - g) Cultural sensitivity and adaptation?
2. How does participation in Professional Learning Communities influence English language teachers' professional development in terms of:
 - a) Content knowledge and pedagogical skills,
 - b) Instructional delivery and classroom practices,
 - c) Personal growth and self-efficacy, and

- d) Collegial relationships and collaborative practices?
3. What are the key experiences and perceptions of English language teachers regarding their involvement in Professional Learning Communities?
4. How do the quantitative measures of PLC implementation and impact align with the qualitative experiences and perceptions of English language teachers participating in these communities?

Method

This study employed a mixed-method approach, specifically a convergent parallel design, to investigate the significance of Professional Learning Communities (PLCs) in teacher professional development at selected Chinese universities. The research design allowed simultaneous collection and analysis of both quantitative and qualitative data, providing a comprehensive understanding of the research questions (George, 2023).

The study was conducted in selected Chinese universities in Shanghai, with respondents being native Chinese EFL teachers with at least three years of experience. For the quantitative portion, G*power was used to determine sample size of 136 EFL teachers. Qualitatively, 14 participants (7 PLC leaders and 7 members) were selected using random selection through a bowl technique, with data collection stopping at saturation point.

Data gathering tools included a researcher-made questionnaire for quantitative data and an unstructured interview protocol for qualitative data. The questionnaire was validated by experts and pilot tested, yielding high validity and reliability scores. The qualitative data analysis followed Colaizzi's 7-step method, ensuring a rigorous approach to understanding participants' experiences.

Statistical treatment of the quantitative data involved descriptive statistics using a Likert scale and weighted means to gauge the level of involvement in PLCs. Regression analysis was used to determine the extent of PLCs' impact on teachers' English teaching development. The qualitative data was used to triangulate the quantitative findings and provide deeper insights into the contribution of PLCs to teacher development.

Results and Discussion

Quantitative analysis showed that teachers were highly involved in shared vision and goals ($M=3.63$, $SD=0.73$), collaborative learning ($M=3.62$, $SD=0.64$), reflective practice ($M=3.51$, $SD=0.68$), data-driven decision-making ($M=3.70$, $SD=0.80$), leadership ($M=3.95$, $SD=0.96$), and programs and activities with time allocations ($M=3.85$, $SD=0.88$) (Tables 1-6). These findings align with recent research emphasizing the importance of these elements in effective PLCs (Plank et al., 2024; Potvin et al., 2024; Alzayed & Alabdulkareem, 2020; Bowers et al., 2023).

The high level of involvement in shared vision and goals ($M=3.63$, $SD=0.73$) indicates that English teachers in these Chinese universities are actively engaged in shaping and pursuing common objectives within their PLCs. This aligns with the findings of Liu and Yin (2024), who emphasized the importance

of collaborative collective teacher effectiveness and cognitive engagement in influencing student achievement. The data suggests that teachers are not only participating in PLC meetings and discussions but are also actively sharing new ideas and innovative solutions that align with the PLC's vision and goals. This level of engagement is crucial for creating a cohesive and focused learning community that can drive meaningful improvements in teaching practices and student outcomes.

The slightly lower score for active participation in PLC meetings and discussions ($M=3.57$, $SD=0.78$) compared to other aspects of shared vision and goals suggests that there may be room for improvement in face-to-face collaboration. This finding echoes the work of Fleisher et al. (2013), who highlighted the importance of structured PLC time for effective collaboration among teachers. School administrators and PLC leaders may need to consider strategies to enhance participation in these meetings, such as ensuring that the discussions are relevant, engaging, and directly applicable to teachers' daily practices.

The high involvement in collaborative learning ($M=3.62$, $SD=0.64$) is particularly encouraging, as it suggests that English teachers in these Chinese universities are actively engaging in peer learning and knowledge sharing. This aligns with the collaborative learning theory rooted in Vygotsky's (1978) work and further developed by Johnson and Johnson (1994). The data indicate that teachers are regularly participating in collaborative learning sessions, sharing resources and ideas with colleagues, and seeking feedback from peers to improve their teaching practices. This level of collaboration is essential for creating a supportive professional environment where teachers can learn from each other's experiences and expertise.

The highest mean score for collaborative learning was observed in regular participation in collaborative learning sessions ($M=3.74$, $SD=0.86$), which suggests that these PLCs have successfully established a culture of ongoing professional development. However, the slightly lower score for valuing learning from collaboration with peers ($M=3.49$, $SD=0.64$) indicates that there may be opportunities to further enhance teachers' appreciation for the benefits of collaborative learning. PLC leaders and administrators could consider implementing strategies to highlight the tangible benefits of peer learning, such as showcasing successful collaborative projects or providing opportunities for teachers to reflect on and share their experiences of growth through collaboration.

The high involvement in reflective practice ($M=3.51$, $SD=0.68$) demonstrates that English teachers in these Chinese universities are actively engaging in self-reflection and critical thinking to improve their teaching practices. This aligns with the reflective practice theory developed by Dewey (1910) and Schön (1983), which emphasizes the importance of continuous learning through the examination of experiences. The data shows that teachers are consistently reflecting on their teaching practices, using insights from reflection to inform their participation in the PLC, and sharing reflections with colleagues to foster group improvement.

However, the slightly lower score for openness to constructive criticism ($M=3.49$, $SD=0.66$) suggests that there may be room for improvement in creating a culture where feedback is more readily accepted

and utilized for professional growth. This finding aligns with the work of Sjoer and Meirink (2016), who found that teachers who were more open to peer feedback showed greater professional growth over time. PLC leaders and administrators could consider implementing strategies to foster a more open and supportive environment for giving and receiving constructive feedback, such as providing training on effective feedback techniques or establishing clear guidelines for respectful and constructive peer review.

The high involvement in data-driven decision-making ($M=3.70$, $SD=0.80$) is particularly noteworthy, as it indicates that English teachers in these Chinese universities are actively using student data to inform their teaching practices and make decisions about learning. This aligns with recent research by Datnow and Park (2019) and Poortman and Schildkamp (2020), who emphasize the critical role of collaborative data use in enhancing teaching practices and improving student outcomes. The data shows that teachers are frequently involved in discussions about data interpretation, actively seek out data to inform their teaching strategies, and contribute to the PLC by providing relevant data and insights.

The highest mean score for data-driven decision-making was observed in involvement in discussions about data interpretation ($M=3.79$, $SD=0.96$), which suggests that these PLCs have successfully created a culture where data analysis is a collaborative and integral part of professional development. This finding is supported by the work of Schildkamp and Poortman (2022), who demonstrated that structured data use within PLCs leads to improved teacher collaboration and student achievement. However, the slightly lower score for supporting the use of data to set learning goals and assess progress ($M=3.63$, $SD=0.82$) indicates that there may be opportunities to further enhance teachers' skills in translating data insights into concrete learning objectives and assessment strategies.

The high involvement in leadership ($M=3.95$, $SD=0.96$) is a particularly positive finding, as it suggests that English teachers in these Chinese universities are actively taking on leadership roles within their PLCs. This aligns with recent research emphasizing the importance of distributed leadership in fostering collaborative inquiry and professional growth within educational settings (Poortman & Schildkamp, 2020; Marsh et al., 2021). The data shows that teachers are frequently demonstrating leadership by guiding PLC discussions and activities, mentoring new teachers, and showing initiative in addressing challenges faced by their PLCs.

The highest mean score for leadership was observed in demonstrating leadership by guiding PLC discussions and activities ($M=3.98$, $SD=1.08$), which suggests that these PLCs have successfully created an environment where teachers feel empowered to take on leadership roles. This finding is supported by the work of Vescio, Ross, and Adams (2019), who found that teacher-led discussions in PLCs are crucial for fostering collaborative learning environments and improving teaching practices. However, the slightly lower score for advocating for the PLC's work to the wider school community ($M=3.04$, $SD=1.12$) indicates that there may be opportunities to enhance teachers' skills and confidence in promoting their PLC initiatives beyond their immediate group.

The high involvement in programs and activities with time allocations ($M=3.85$, $SD=0.88$) demonstrates that English teachers in these Chinese universities are actively prioritizing their participation in PLC activities and effectively managing their time to fulfill their PLC commitments. This aligns with research emphasizing the importance of dedicated time and structured activities for effective PLCs (Bowers et al., 2023; Potvin et al., 2024). The data shows that teachers are prioritizing attendance at PLC meetings, actively engaging in programs designed for teacher development, and contributing to planning and organizing PLC activities.

The highest mean score for programs and activities was observed in prioritizing attendance at PLC meetings and activities ($M=3.91$, $SD=1.01$), which suggests that these PLCs have successfully established a culture where participation is valued and prioritized. However, the slightly lower score for contributing to planning and organizing PLC activities ($M=3.81$, $SD=0.89$) indicates that there may be opportunities to further involve teachers in the design and implementation of PLC programs, potentially increasing ownership and engagement.

Qualitative analysis, conducted using Colaizzi's 7-step method, provided deeper insights into teachers' experiences within PLCs. Themes that emerged included enhanced collaboration, improved instructional strategies, increased support for English learners, and personal growth (Slack, 2019; Beverborg et al., 2024; Hayden, 2022). Teachers reported shifts in mindsets and practices, leading to more equitable access to learning for cultural and linguistically diverse students (Slack, 2019).

The qualitative findings revealed that teachers experienced significant benefits from their participation in PLCs, particularly in terms of collaboration and professional growth. Many teachers reported that the PLCs provided a supportive environment where they could share experiences, collaborate on problem-solving, and develop a sense of collective efficacy. This aligns with the work of Zhang and Yuan (2020), who found that PLCs significantly enhance teacher job satisfaction and reduce teacher burnout.

Teachers also reported that their involvement in PLCs led to improvements in their instructional practices. Many participants described how collaborative discussions and data analysis within their PLCs helped them identify areas for improvement in their teaching and develop more effective strategies for supporting English learners. This finding is consistent with the work of Brown et al. (2019), who reported that PLCs enhanced collaboration among teachers, leading to improved instructional practices.

The qualitative data also highlighted the importance of reflective practice within PLCs. Many teachers described how the opportunity to engage in self-reflection and receive feedback from peers helped them critically examine their teaching practices and make meaningful improvements. This aligns with the work of Hairon et al. (2020), who found that reflective dialogue was a key component of effective PLCs, enabling teachers to critically examine their practices and improve student learning outcomes.

The integration of quantitative and qualitative findings revealed a strong alignment between the high levels of involvement reported in the survey data and the positive experiences described in the

interviews. This convergence supports the effectiveness of PLCs in fostering teacher development and improving English language teaching practices in Chinese universities. The data-driven approach within PLCs, highlighted in both quantitative and qualitative analyses, aligns with recent research emphasizing the importance of collaborative data use in enhancing teaching practices and improving student outcomes (Datnow & Park, 2019; Poortman & Schildkamp, 2020).

The strong alignment between quantitative and qualitative findings provides robust evidence for the effectiveness of PLCs in these Chinese universities. The high levels of involvement reported in the survey data are corroborated by the rich, positive experiences described in the interviews, suggesting that PLCs are indeed fostering meaningful professional development and improving teaching practices. This convergence of evidence strengthens the validity of the findings and provides a more comprehensive understanding of how PLCs are functioning in this context.

One area where the integration of quantitative and qualitative data provided particularly valuable insights was in the realm of data-driven decision-making. The high quantitative scores for involvement in data-driven practices were complemented by qualitative descriptions of how teachers used data to inform their instructional decisions and improve student outcomes. This alignment suggests that the PLCs have successfully created a culture where data analysis is not just a theoretical concept but a practical tool that teachers are actively using to enhance their teaching.

The integration of findings also revealed some areas for potential improvement. For example, while the quantitative data showed high levels of involvement in leadership activities, the qualitative data provided insights into some of the challenges teachers faced in taking on leadership roles, particularly in advocating for their PLC work to the wider school community. This suggests that while teachers are willing to take on leadership roles within their PLCs, they may benefit from additional support or training in promoting their work more broadly.

These findings have significant implications for educational practice in China and globally. The success of PLCs in Chinese universities suggests that this model can be effectively adapted to different cultural contexts, supporting previous research on the global applicability of PLCs (Vangrieken et al., 2017; Stoll & Louis, 2017). The high levels of teacher engagement across various PLC components indicate that these communities can serve as powerful tools for ongoing professional development and school improvement.

In the context of Chinese higher education, these findings suggest a positive shift towards more collaborative and participatory approaches to professional development. Traditionally, Chinese educational institutions have been characterized by hierarchical structures where leadership is often concentrated at the top levels of administration (Wang & Ho, 2020). However, this study indicates that English teachers are increasingly taking on leadership roles within their PLCs, contributing to a more distributed form of leadership. This shift could have significant implications for the broader landscape of teacher professional development in China, potentially leading to more bottom-up, teacher-driven initiatives for improving educational practices.

The high level of involvement in data-driven decision-making is particularly noteworthy in the Chinese context, where there has been a growing emphasis on evidence-based educational practices. The successful implementation of data-driven approaches within these PLCs could serve as a model for other educational institutions in China looking to enhance their use of data to inform teaching and learning practices. However, it's important to note that the effective use of data requires not only technical skills but also a supportive organizational culture that values data-informed decision-making. Universities and policymakers should consider how to foster such cultures more broadly across the Chinese higher education system.

The findings also have implications for teacher education programs in China. The high levels of involvement in collaborative learning and reflective practice suggest that pre-service and in-service teacher training programs could benefit from incorporating more collaborative and reflective elements, preparing teachers to actively participate in PLCs from the start of their careers. This could involve providing opportunities for student teachers to participate in mock PLCs or incorporating PLC-style activities into their practicum experiences.

Globally, these findings reinforce the importance of fostering teacher leadership within PLCs as a means to enhance professional development and improve teaching practices across educational contexts (Schildkamp & Poortman, 2022; Farrell et al., 2022). As more countries adopt and adapt PLC models to suit their educational systems, it is crucial to ensure that educators are empowered to take on leadership roles within these communities, driving meaningful changes in instructional practices and contributing to a culture of continuous improvement.

The study also underscores the need for professional development programs that equip teachers with both leadership skills and data literacy (Mandinach & Gummer, 2021; Jimerson & Wayman, 2019). The high levels of involvement in data-driven decision-making and leadership activities suggest that these skills are increasingly important for effective participation in PLCs. Educational institutions and policymakers worldwide should consider how to integrate these competencies into teacher training and professional development programs.

The success of PLCs in fostering collaborative learning and reflective practice in these Chinese universities also has implications for global efforts to enhance teacher professional development. The findings suggest that PLCs can serve as effective vehicles for promoting peer learning and critical reflection, even in educational contexts that may traditionally have emphasized more hierarchical or individualistic approaches to professional growth. This supports the idea that PLCs can be adapted to diverse cultural contexts while still maintaining their core principles of collaboration and continuous improvement.

However, the study also highlights some challenges that may be relevant to PLC implementation globally. The slightly lower scores for advocating PLC work to the wider school community suggest that there may be a need for more support in bridging the gap between PLC activities and broader institutional goals. This aligns with the work of Datnow and Park (2019), who highlighted the

challenges teachers face in connecting internal PLC work with wider organizational objectives. Educational leaders and policymakers should consider how to create structures and incentives that encourage teachers to share their PLC initiatives more broadly, fostering a more integrated approach to school improvement.

The findings also have implications for the use of technology in PLCs, particularly in light of the global shift towards more remote and hybrid learning environments. While this study did not specifically focus on technology use, the high levels of involvement in collaborative activities suggest that these PLCs have found effective ways to facilitate teacher collaboration. As education systems worldwide grapple with the challenges and opportunities presented by digital technologies, the experiences of these Chinese PLCs could provide valuable insights into how to maintain strong professional learning communities in increasingly digital educational landscapes.

Conclusion

This study provided compelling evidence for the effectiveness of Professional Learning Communities (PLCs) in fostering teacher development and improving English language teaching practices in Chinese universities. The high levels of teacher involvement across various PLC components, including shared vision and goals, collaborative learning, reflective practice, data-driven decision-making, leadership, and structured programs, indicate that PLCs serve as powerful tools for ongoing professional development and school improvement.

The findings revealed that English teachers in these Chinese universities are actively engaged in shaping and pursuing common objectives within their PLCs, participating in collaborative learning sessions, engaging in reflective practices, and using data to inform their instructional decisions. The high involvement in leadership activities suggests a positive shift towards more distributed forms of leadership within these educational communities, contributing to a more collaborative and participatory approach to professional development.

The integration of quantitative and qualitative findings provided a comprehensive understanding of how PLCs function in this context, highlighting the positive experiences reported by teachers and the tangible benefits they perceive from their participation. The success of PLCs in these Chinese universities demonstrates that this model can be effectively adapted to different cultural contexts, supporting the global applicability of PLCs in enhancing teacher professional development and student outcomes.

These findings have significant implications for educational practice in China and globally. The high levels of teacher engagement across various PLC components indicate that these communities can serve as effective vehicles for promoting peer learning, critical reflection, and evidence-based practices. The success of PLCs in fostering collaborative learning and reflective practice in these Chinese universities suggests that PLCs can be adapted to diverse cultural contexts while still maintaining their core principles of collaboration and continuous improvement.

Recommendations

Based on the findings of this study, the following recommendations are proposed. Universities should

1. Provide robust institutional support for PLCs, including dedicated time, resources, and recognition for teacher participation. This support should extend to creating structures that encourage teachers to share their PLC initiatives more broadly within the institution.
2. Implement programs to develop teacher leadership skills within PLCs, focusing on areas such as facilitating discussions, mentoring peers, and advocating for PLC work beyond the immediate community.
3. Offer professional development opportunities that enhance teachers' data literacy skills, enabling them to more effectively engage in data-driven decision-making within their PLCs.
4. Develop strategies for adapting PLC models to suit the specific cultural and institutional contexts of Chinese universities while maintaining the core principles of collaboration and continuous improvement.
5. Explore ways to integrate technology into PLC activities, particularly in light of the increasing prevalence of remote and hybrid learning environments.
6. Encourage collaboration between PLCs across different institutions to share best practices and innovations in English language teaching.
7. Conduct longitudinal studies to assess the long-term impact of PLC participation on teacher professional development and student outcomes in Chinese universities.
8. And policies should be developed at the institutional and national level that support the implementation and sustainability of PLCs in higher education settings.

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