



**Literature Review on
Leading and Facilitating
Professional Learning Communities
– in USA**



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Introduction

In the USA, professional learning communities (PLCs) are considered essential in the pursuit of high-quality education. Critical factors impacting the effectiveness and drive for inquiry and reflection among educators lie in leadership and facilitation duties within these groups. This literature review explores many facets of PLCs with emphasis on the roles facilitation and leadership play in fostering an environment of ongoing professional development and improving student results. This examines conclusions, perspectives and findings from seven related empirical studies on the topic. These communities serve as a platform for educators to jointly examine, reflect on, and refine their practices with the ultimate goal of enhancing student achievement (Gray & Summers, 2015; McBrayer et al., 2018). Leadership within these communities, particularly the role of the principal, has been identified as a catalyst for nurturing an environment where reflective practice is valued and exploration into effective teaching strategies is incorporated into routine (Olivier & Huffman, 2018). Distributing leadership roles and empowering teacher leaders are essential in guiding these communities towards successful outcomes (DeMatthews, 2015; Wilson, 2016).

The objective of this review is to shed light on the dynamics of facilitation and leadership in PLCs in the USA and explore how these roles impact the application of inquiry and reflection practices. The review highlights the importance of shared leadership, fostering supportive environments, and sharing a common vision. Emphasising the synergistic relationship between teacher cooperation and distributing leadership will allow for an understanding of collaboration within these communities (DeMatthews, 2015; Wilson, 2016)

Methodology

The methodology for selecting literature for this review involved a comprehensive and systematic search of databases and academic repositories, including Google Scholar, Open Athens, and Scopus. The search was focused on literature concerning PLCs within the USA educational context. To ensure a thorough investigation, a combination of keywords was used. These keywords included "PLC leadership," "teacher facilitation," "educational inquiry," "reflective practice," "collaborative learning," and "school improvement." The selection process for seven (7) published articles to be reviewed relied on relevance to the theme as well as recognizing studies examining how PLC leadership and facilitation connects to processes of inquiry and reflection. With one exception, an effort was also made to review articles published in the past 10 years. The publication's contribution to the understanding of PLCs, the role of leadership and facilitation in promoting educators' inquiry and reflection, and the effects of these elements on teaching and learning were among the inclusion criteria. Every chosen article was reviewed to determine relevance, quality of research, and contribution to the discussion of PLCs in the US.

Article Summaries

DeMatthews, D. E. (2014). Principal and teacher collaboration: An exploration of distributed leadership in professional learning communities. *International Journal of Educational Leadership and Management*, 176-206.

Gray and Summers examined the influence of enabling school structures, trust among educators, and collective efficacy on PLCs in 14 pre-kindergarten to 12th-grade international private schools in South and Central America. They highlighted the critical role of trust in the principal and the significance of both formal and informal organizational structures in the successful development of PLCs. The study found that these elements are significantly correlated with the growth of PLCs, leading to enhanced student achievement, teacher satisfaction, and school improvement. It suggested that a structured, yet trust-based approach to collaborative learning is effective in fostering PLCs, indicating that a balanced blend of hierarchical and democratic elements might be beneficial for PLC development.

McBrayer, J. S., Chance, J., Pannell, S., & Wells, P. (2018). A System-Wide, Collaborative, Purposeful, and Sustainable Distributed Leadership Plan Utilizing Teacher Leaders to Facilitate Professional Learning Communities. *Educational Planning*, 25(4), 27-46.

McBrayer et al. conducted a mixed-method case study in a high-poverty district in southeast Georgia to enhance professional learning through the establishment of effective PLCs. This initiative, a collaboration between a university and the local school district, focused on distributed leadership and teacher-led facilitation. The study used narrative feedback and self-reported assessments, emphasizing the role of PLCs in fostering collective inquiry and action research to improve student outcomes. Teachers, acting as leaders within these PLCs, guided collaborative learning processes. Findings revealed that PLCs not only enhanced professional practices but also effectively utilized distributed leadership. The study highlighted the transformative impact of collaborative learning in PLCs, promoting environments supporting collective inquiry and reflective practice. A key aspect of the study was its proposed support structure for PLCs, involving teacher experts and a semi-structured learning plan, emphasizing the importance of shared leadership and adaptability in professional development.

Nelson, T. H., Slavit, D., Perkins, M., & Hathorn, T. (2008). A culture of collaborative inquiry: Learning to develop and support professional learning communities. *Teachers college record*, 110(6), 1269-1303.

Nelson et al. conducted a study as part of the Partnerships for Reform in Secondary Science and Mathematics (PRiSSM) project, aimed at enhancing secondary teachers' engagement in PLCs through professional development. Involving 12 professional development providers, the study used a narrative case study method from March 2004 to December 2005, focusing on the developmental phase and key events of the group. The research used interviews, archived documents, and meeting recordings to explore how the Steering Committee established and maintained collaborative standards and processes, and supported teacher leaders in creating inquiry-based PLCs. Funded by the U.S. Department of Education, the PRiSSM project supported teachers from 22 schools across six districts in collaborative inquiry into their practices. The findings shed light on the structures and processes that support collaborative inquiry, identifying the challenges and strategies for fostering a collaborative inquiry culture and its implications for teacher professional development.

Tipping, S., & Dennis, J. (2022). K-12 School Leaders' Application of Professional Learning Communities (PLCs) During a Pandemic. *International Journal for Leadership in Learning*, 22(1), 364-395.

Tipping and Dennis focused on how K-12 school leaders adapted and utilized PLCs during the COVID-19 pandemic. Using reflective practice inquiry, the study discusses about leadership approaches during the pandemic's challenges, highlighting adaptability, ethical standards, and trust between teachers and principals. Key findings include the important role of effective PLC application in maintaining educational quality and continuity during the pandemic. Leadership adaptability and resilience were important, also noting the importance of ethical standards. Building trust between teachers and principals fostered collaborative school communities, benefitting both social and academic progress. The pandemic brought the need for flexible, responsive educational leadership.

Olivier, D. F., & Huffman, J. B. (2018). Professional learning community process in the United States: Conceptualization of the process and district support for schools. In *Global Perspectives on Developing Professional Learning Communities* (pp. 109-125). Routledge.

Olivier and Huffman's study explored the role of district support in enhancing the efficacy of PLCs in schools. Employing a qualitative methodology, the research involved interviews with educators from two school districts in Louisiana and Texas, focusing on how office staff support PLCs. The study identified themes across five dimensions of PLCs; shared leadership, vision, collective learning, personal practice, and supportive conditions. Key findings highlighted the necessity of transformative district involvement, emphasizing shared and supportive leadership, collaborative learning, and establishing a culture of trust and respect. The research suggested that proactive district support, including leadership development

and a focus on student success, is vital for the sustainability and effectiveness of PLCs in promoting school improvement.

Wilson, A. (2016). From Professional Practice to Practical Leader: Teacher Leadership in Professional Learning Communities. *International Journal of Teacher Leadership*, 7(2), 45-62.

Wilson's study investigated the perceptions and experiences of secondary teachers involved in PLCs with a focus on identifying leadership patterns and variables influencing teacher leadership development. The research was framed around Hord's conceptualization of PLCs, comprising of five dimensions, shared leadership, shared values, collective learning, shared practice, and supportive conditions. Using online survey methods, including multiple choice and open-ended questions based on Hord's School Professional Staff as Learning Community Questionnaire (SPSLCQ), the study revealed that teachers have diverse perceptions and experiences in PLCs that can potentially both foster and hinder their development as leaders.

DeMatthews, D. E. (2014). Principal and teacher collaboration: An exploration of distributed leadership in professional learning communities. *International Journal of Educational Leadership and Management*, 176-206.

DeMatthews' study explored the distribution of leadership in PLCs across six elementary schools in West Texas. Using a qualitative multi-case study approach, the research involved in depth interviews with principals, assistant principals, instructional coaches, and teachers, as well as observations of PLC meetings throughout the 2013-2014 academic year. The study aimed to understand how leadership was distributed in schools to foster effective PLCs. Findings indicate that the way principals distribute leadership significantly influences the effectiveness of PLCs, impacting both teacher and principal interactions and key aspects of the PLCs. This research provides insights for in-service professional development and those involved in principal preparation programs, emphasizing the role of distributed leadership in successful PLCs.

Review of the literature

Methodological approaches of articles reviewed

Regression analysis employed by Grey and Summers (2015) statistically explored efficacy and trust across international schools through PLC engagement evaluations. McBrayer et al. (2018) mixed-methods examination presented a balanced perspective using both quantitative and qualitative data in a system-wide professional learning project case study. Although offering comprehensive context-specific insight into secondary science and mathematics, Nelson et al.'s (2008) narrative case study demonstrated restricted generalizability. Tipping and Dennis' (2022) reflective practice inquiry shed light on K12 leadership challenges during the Covid-19 pandemic, yet subjective personal analyses need to be cautiously evaluated before deriving to definite conclusions. Tipping and Dennis (2022) introspectively evaluated their viewpoints and leadership experiences through reflective practice inquiry. Even though both authors held strong opinions, the conclusions might be seen as context-specific because they were based on reflective practice inquiry, which entails introspection and individual interpretation of experiences that can differ from person to person and are dependent on personal viewpoints. Olivier and Huffman's (2018) qualitative interviews offered a thorough analysis and contextual understanding of the district's support for PLCs. However, the possibility of participant bias in that participant roles could potentially shape expressed views and invested interests was considered. Wilson (2016) captured teacher PLC experiences through online surveys still posing a question on whether this method fully captures the complex dynamics within a PLC group rather than presenting a rhetoric. Lastly, DeMatthews (2015) carried out a qualitative investigation using interviews and

observations in elementary schools, providing rich contextual data. Collectively, these methodologies contribute significantly to understanding PLCs' complex and multifaceted nature.

Key Themes

The articles reviewed explore various aspects of PLCs with key themes emerging and concerning the importance of trust, collaborative leadership, professional development and the impact on teaching and student learning. Gray and Summers's (2015) study emphasised the role that **trust**, **collective efficacy** and **supportive school structures** play in the growth of PLCs in international schools. It was evident that trust, especially in the principal, was essential to the formation of a successful PLC. The importance of formal and informal organisational frameworks in supporting efficient PLCs was also emphasised in the article. McBrayer et al. (2018) highlighted the significance of **teacher-led facilitation** and **distributed guidance** with a focus on a high poverty district in Georgia. The study demonstrated how well PLCs work to improve teaching, advance professional practices, and use distributed leadership to cultivate growth. Nelson et al. (2008) explored collaborative inquiry within PLCs, emphasising the role professional development providers have in helping secondary teachers participate in PLCs. As part of transformative methods used, the necessity of establishing a **shared vision**, promoting **evidence-based decision making**, and **distributing responsibilities** was highlighted. Tipping and Dennis (2022) need for **resilience and adaptability in leadership** as their examination of K12 guidance during Covid-19 emphasized **trust's** importance between principals and teachers for maintaining education continuity. Oliver and Huffman (2018) looked at PLC implementation and support systems in American schools, particularly district support. **Shared leadership**, **values**, **collaborative learning**, and **professional progression** centred on student success were important aspects identified. Wilson's (2016) study explored the experiences of PLC secondary teachers and how they progressed to become teacher leaders. It emphasised how crucial it is for teacher leaders in PLCs to have a **shared vision**, **supportive environments** and **shared leadership**. DeMatthews (2015) investigated the collaboration between principals and teachers inside PLCs, with an emphasis on elementary schools. The study emphasised how teacher leaders must have distributed leadership in order for PLCs to operate well as well as the role of principals in supporting and empowering teacher leaders.

Key words emerged from the literature review

- trust
- collective efficacy
- shared vision
- shared values
- supportive environment
- collaborative learning
- professional progression
- evidence-based decision making
- supportive school structures

- teacher-led facilitation
- shared leadership
- distributed guidance
- resilience and adaptability in leadership
- distributing responsibilities

Leadership

A common theme across these studies was the emphasis on leadership, particularly distributed and collaborative leadership, as a fundamental component for the success of PLCs. Professional relationships fostering trust between principals, teacher leaders and colleagues created a supportive environment within PLCs. Gray and Summers (2015) emphasized how **trust**, particularly regarding principals, played an important role in supporting effective PLCs. Effective leadership depended on trust which was essential for developing, sustaining, and expanding PLCs as well as connecting to the broader idea of school leadership in an educational framework. Tipping and Dennis (2022) explored how **shared leadership** contributed to forming PLCs by discussing its role in building a positive school culture nurtured through trust generated by leaders' actions and interactions. Their focus on flexible school leadership especially during Covid-19's challenging period demonstrated the importance of adaptability in leadership for supporting student learning outcomes and educators' professional development. DeMatthews (2015) demonstrated distributed leadership's positive impact on cooperative teaching and learning practices within PLCs, explaining the beneficial **relationship dynamics** between principals and teachers through synergistic relationships and suggesting school leadership played an

important role in cultivating inquiry-based reflective learning environments within PLCs. Similarly, Wilson (2016) investigated the dynamics of teacher leadership in PLCs, highlighting the potential of PLCs to **cultivate teacher leaders** who can lead school transformation and promote student learning, provided that the administration and school culture are receptive. Importance was also placed on aligning school goals with leadership. Tipping and Dennis (2022) discussed shared leadership's value within the PLC structure by adding an additional layer to their research, viewing **leaders as supportive facilitators** playing a critical role in assisting staff to adapt to challenges such as online learning during the pandemic. Lastly, Nelson et al. (2008) emphasized the part of **facilitators in guiding inquiry-based professional development** suggesting a shift towards **collaborative reflective and teacher-led practices** in the educational system.

Professional Development

The professional development aspect within PLCs was also a prominent theme discussed throughout the seven articles. The studies illustrated how PLCs act as platforms for fostering integrated transformative professional learning experiences for educators which in turn improve student learning outcomes. In the Partnerships for Reform in Secondary Science and Mathematics (PRiSSM) project by Nelson et al. (2008), the focus was on shifting teachers from isolated professional development experiences to **integrated and transformative practices**, emphasizing a **common vision** for teaching and learning, **data-informed decision-making**, and **shared leadership roles**. Similarly, in Wilson's (2016) study focusing on secondary teachers in Florida, PLCs were initiated to enhance student achievement and support teacher professional growth, reflecting the role of PLCs in facilitating continuous professional development. McBrayer et al. (2018) explored a professional learning initiative in a Georgian high-poverty district with the intention of establishing a sustainable PLC system through **distributed leadership** and **teacher-led facilitation**. This initiative was perceived to enhance professional practices and teaching quality, effectively utilizing **distributed leadership** for professional development. The important role of district involvement was discussed by Olivier and Huffman (2018) who emphasised the necessity for **transformative and proactive district support**. Their findings support leadership capacity development and the integration of PLC processes into a district's culture, reinforcing the value of **shared leadership** and **collective learning experiences**. Gray and Summers (2015) contributed to this matter through discussing the importance of both **formal and informal organizational structures** in developing effective PLCs, reporting the need for trust and collective efficacy in the development of PLCs. Restating the importance of leadership dynamics, McBrayer et al. (2018) further emphasized the significance of **distributed leadership** and **teacher-led facilitation** in fostering professional development and improving student learning outcomes through collaborative inquiry. Nelson et al. (2008) investigated into the cultural aspects of PLCs, particularly the culture of **collaborative inquiry** that supports and sustains PLCs. Their study provided insights into the development of PLCs as a transformative process through the support of facilitators who guided inquiry-based professional development.

Challenges and adaptability

A theme concerning challenges and adaptability presented views on the challenges and resilience necessary for the success of PLCs. Wilson (2016) explored the complex dynamics of teacher leadership within PLCs, presenting that PLCs have the capacity to develop teacher leaders who can drive school improvement and student learning, especially when supported by a supportive school culture and administration that allows for overcoming challenges. The importance of adapting to change was discussed in the study by Tipping and Dennis (2022), where leaders played important roles in addressing challenges such as adapting to new technology, changing teaching practices as well as creating opportunities for teachers to engage and connect with students. Leadership roles had to evolve to focus on staff and student well-being and learning during that challenging period. The importance of having leaders who are supporters, providing structure and direction while empowering staff, was crucial in this adaptability. Furthermore, the growth of PLCs presented additional challenges, including the increased demand for support, lack of resources, and the complexity of implementing long-term projects within short timeframes, as noted by Nelson et al. (2008). Facilitators initially struggled with unclear

roles and expectations, but over time, a better understanding and confident decision-making were developed. Olivier and Huffman's (2018) study identifies the challenges in transforming the perception of PLCs from events to ongoing professional learning processes embedded within the school culture. This transition required leadership skill development, maintaining focus on PLC vision, resource allocation, and balancing expectations and acknowledging achievements and successes.

Impact on Teaching and Learning

The impact of PLCs on teaching and learning was one more significant theme evident in the reviewed articles, demonstrating how PLCs contribute to educational improvement. The collaborative effort between a university and a school district in McBrayer et al. (2018) structured around distributed leadership and cycles of inquiry and action research, was perceived to enhance professional practices, improve teaching, and effectively utilise distributed leadership for professional development. Complementing this perspective, DeMatthews' (2015) study highlighted the role of effective school leadership in the success of PLCs, particularly within the collaborative dynamic between principals and teachers. They reported that leadership, particularly in its capacity to lead and facilitate, is central to the development of effective PLCs, integral to fostering a reflective and inquiry-driven culture within schools. In their study, Tipping and Dennis (2002) reported that reflection, a critical aspect for engaging in professional learning, along with technology played a crucial role in adapting to online learning. Leaders in this context were facilitators and supporters, providing structure and direction to assist staff in addressing challenges. In their study they reference literature suggesting a connection between shared leadership and improved teaching and learning outcomes. Shared leadership was associated with increased teacher motivation and capacity building, impacting student engagement and achievement. The study also highlighted the adaptability of school leadership in facilitating PLCs during challenging times like the pandemic, emphasising the necessity for leaders to be flexible and responsive. Wilson's (2016) contributes to this, with a study of sixty-five teachers from eight high schools, seeing inquiry as a collaborative ongoing process vital for collective learning within PLCs, with teachers engaging in inquiry to address student needs. The articles collectively reveal positive outcomes from PLCs. For instance, Gray and Summers' (2015) study found that PLCs provided a structured approach to collaborative learning linked to positive student outcomes and school improvement, leading to increased student achievement and greater teacher job satisfaction.

Inquiry and Reflection

The seven articles collectively clarify the processes of inquiry and reflection as fundamentals to PLCs. According to Nelson et al. (2008), inquiry in PLCs is a collaborative ongoing process involving teachers **mutually negotiating understanding**. To improve teaching and student learning, this approach entails a **critical examination of perspectives, co-constructing understanding, and engaging in meaningful dialogue**. Due to the action-oriented nature of this inquiry, it encourages instructors to constructively criticise student work, collectively establish shared knowledge, and pursue professional development. **Reflection**, as McBrayer et al. (2018) and Tipping and Dennis (2022) observed, is integrated into the inquiry process, allowing educators to **critically evaluate the impact of their decisions and practices**. This reflective practice aligns with their reference to Schön's concept of 'reflection in action' (1983, as cited in Tipping & Dennis, 2022), where professionals actively engage with and adapt to their learning environment. Research by Olivier and Huffman (2018) provide understanding into supportive conditions facilitating effective inquiry and reflection, like trust, respect, and a culture encouraging critical inquiry. These conditions rely on technology, communication, and material use enabling educators to meet, discuss on best practices, and evaluate student performance. Nelson et al. (2008) identified a number of skills and competencies that are fostered through inquiry and reflection in PLCs. These include the ability to develop and **negotiate a shared vision**, the **flexibility to navigate different contexts**, and the **participation in deep, constructive conversations that foster collective understanding**. Moreover, the ability to engage in metacognitive thinking is emphasised, enabling participants to adapt in real-time and apply knowledge thoughtfully while making decisions (Tipping & Dennis, 2022). **Cooperative problem-solving, shared decision-making, effective communication** and **instructional data analysis** support such skills. According to Olivier

and Huffman (2018) these competences also include **capacity building facilitation** and **leadership development**. Furthermore, competencies like continuous learning and the adaptation of teaching methods based on collective insights highlight the evolving nature of teaching practice within PLCs (Olivier & Huffman, 2018).

Structures

Findings from the articles reviewed, outline the support structure that PLCs are built upon. Grey and Summers (2015) discuss about the assistance that **school structures** offer, including the **guidelines**, **regulations**, and **environments** that are critical to empowering educators to carry out their duties in an efficient manner. They point out that in order to encourage teamwork and direct the adoption of innovative teaching techniques inside PLCs, leadership is essential. **Expert-led guidance** is important to the function of PLCs, as reported by McBrayer et al. (2018), who observed that in the Jenkins County School System, teacher experts, supported by system-level assistance, played a crucial role. Providing school administrators the tools they need to lead and resource PLCs like frameworks and plans, will help foster **staff autonomy** and **collaborative participation**. Nelson et al. (2008) discussed about the importance of **resource supply**, especially by the math and science education professionals in the Steering Committee who used media, protocols for data analysis, and guides to record and facilitate teacher development inside PLCs. According to Tipping and Dennis (2022), technology was used to adapt to online learning, making it easier to prepare and carry out effective classes and online teaching methodologies. Additionally, opportunities for cooperation inside the regular teaching schedule were allowed as a result of this technological integration. The five elements of leadership, **values** and **vision**, **learning application**, **personal practice**, and **enabling conditions** are the dimensions in which Olivier and Huffman (2018) explain the joint role that administrative and instructional staff perform. **Offering resources** and **creating a climate of transparency, trust, and shared accountability** were reported to be, mostly the duty of district staff. According to Olivier and Huffman (2018) community involvement also forms a part of the PLC support structure, as members participate in decision-making processes that have an impact on school campuses, such as the creation of report cards and school improvement plans. Wilson (2016) adds that PLCs can be supported by teachers, coordinators, and administrators as well as **instruments** (like surveys), in addition to **strategies** (such peer evaluations and organised meetings). Federal funding and other internal and external resources are mentioned as important sources of structural and financial support. Finally, the studies emphasized the significant role of school principals in supporting PLCs. Principals are responsible for **managing resources**, **cultivating the organizational culture**, and **setting clear expectations** for the school's educational development and outcomes, as described by Gray and Summers (2015), Olivier and Huffman (2018), and DeMatthews (2015).

Roles within PLCs

Throughout the articles, roles within PLCs were defined. The articles (McBrayer et al., 2018; Nelson et al., 2008; Olivier & Huffman, 2018; Wilson, 2016) use a variety of terminology for roles within PLCs, such as "teacher leaders," "school leaders," "facilitators," and "principals". Leading PLCs with support from individuals such as the Director of Federal Programmes, teacher leaders play a crucial role in promoting ongoing, work centred learning that improves student results (McBrayer et al., 2018). Tipping and Dennis (2022) point out that school leaders go beyond than just giving instructions as they also ensure that resources are available, they empower staff, and encourage an adaptive leadership style that fosters collaborative problem-solving. Facilitators, including those on Steering Committees, are essential in supporting inquiry and reflection, helping teachers in their collaborative efforts, and addressing educational challenges (Nelson et al., 2008). According to Olivier and Huffman (2018) administrative roles play a critical part in planning and decision-making for superintendents and other school-level administrators. They also create a climate that supports shared leadership and gives teachers the authority to make decisions about their students' education. Lastly, as noted by Grey and Summers (2015), Olivier and Huffman (2018) and DeMatthews (2015), principals are essential in developing distributed leadership by actively collaborating with teachers to determine the course and efficacy of PLCs.

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Biographies

Dr. Loucas Louca is a Professor of Science Education at the European University Cyprus. He has a longstanding interest in supporting professional teacher development. His research interests focus on student abilities for inquiry in science, and on teachers' instructional strategies for promoting student inquiry in science. He has been involved in several nationally and EU funded projects focusing on student thinking in science, teacher professional development, professional learning communities, development of curriculum materials, promoting opportunities for gender balance in science education, STEM education, and promoting inquiry-based teaching and learning in science. He is also experienced in the development and enactment of afternoon clubs for young children in Science, and he also has designed various out-of-school STEM activities for students.

Marina Constantinou worked as a postdoctoral researcher at the Department of Educational Sciences at the European University Cyprus. Her research interests are rooted in science education, reflecting a strong inclination towards an empirical approach in social science research. Her current research interests focus on evaluating the significance and enhancing practical work in secondary and tertiary life sciences for both students and educators, enhancing health and biology literacy, as well as investigating the potential for automating qualitative research methods.