

From Isolation to Influence: Examining the Impact of a Statewide Virtual Professional Learning Community on Special Education Professionals

Calandra Reichel¹, Lois Vaughan-Hussain², Kristine Gullen³, Margaret Chamberlin⁴

¹Public Policy Associate, Lansing, Michigan USA, ²LVH Consulting, Harrison Township, Michigan USA;

³Michigan Association of Administrators of Special Education, Lansing, Michigan USA; ⁴Educational Consultant

HOW TO CITE:

Calandra Reichel, Lois Vaughan-Hussain, Kristine Gullen, Margaret Chamberlin (2026). From Isolation to Influence: Examining the Impact of a Statewide Virtual Professional Learning Community on Special Education Professionals. International Journal of Special Education, 41(2s), 454-463.

COPYRIGHT STATEMENT:

Copyright: © 2026 Authors.
Open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

ABSTRACT:

The MITTIN Project is a virtual learning library designed to strengthen independent living skills for students with moderate-to-severe disabilities. Virtual PLCs were launched to support the implementation of the interactive mixed-reality instructional modules. While prior research has demonstrated the impact of PLCs on instructional practice, less is known about their influence on educators' professional growth, leadership development, and career trajectories, particularly in special education contexts. This qualitative evaluation examines the experiences of early MITTIN virtual PLC participants. Semi-structured interviews were conducted with members from the first two PLC cohorts. Interview data were analyzed using a multi-stage coding process to identify key themes related to participant characteristics, reported outcomes, and explanatory factors. Findings indicate that participation in the MITTIN virtual PLC was associated with increased knowledge and skill development, enhanced confidence and self-efficacy, expanded professional networks, and exposure to new career opportunities. Participants reported shifts in aspirations, leadership roles, and job satisfaction. Key mechanisms supporting these outcomes included collaborative learning, professional networks, facilitation, and a psychologically safe environment that positioned participants as both learners and contributors. These findings suggest that well-designed, virtual PLCs can simultaneously strengthen educator capacity while also improving outcomes for students with disabilities.

Keywords: professional learning community (PLC), special education, leadership development, teacher isolation, teacher retention

INTRODUCTION

The Michigan Transition to Independence (MITTIN) Project is a partnership between the Michigan Association of Administrators of Special Education (MAASE), Michigan Council for Exceptional Children (MCEC), Great Lakes Reality Labs (GLRL), and Public Policy Associates (PPA).

Funded through a grant from the Michigan Legislature, this project was designed to strengthen independent living skills for students with moderate-to-severe disabilities. Through the development of mixed-reality modules along with teacher-created curricular materials, MITTIN

resources allow learners to virtually practice daily living skills in a safe, structured environment.

To support the implementation of these innovative instructional resources, MITTIN established a statewide virtual professional learning community (PLC) to foster learning, engagement, and collaboration among special educators. In monthly meetings, participants shared ideas, lesson plans, and challenges while learning with and from

each other to strengthen post-secondary outcomes for students. As illustrated in the MITTIN Logic Model (Gullen et al, in press), the virtual PLCs intentionally addressed federal and state mandates and brought together professional expertise and digital resources in a structured learning environment to build a collaborative network, reduce teacher isolation, and improve independent living outcomes for students and their families.

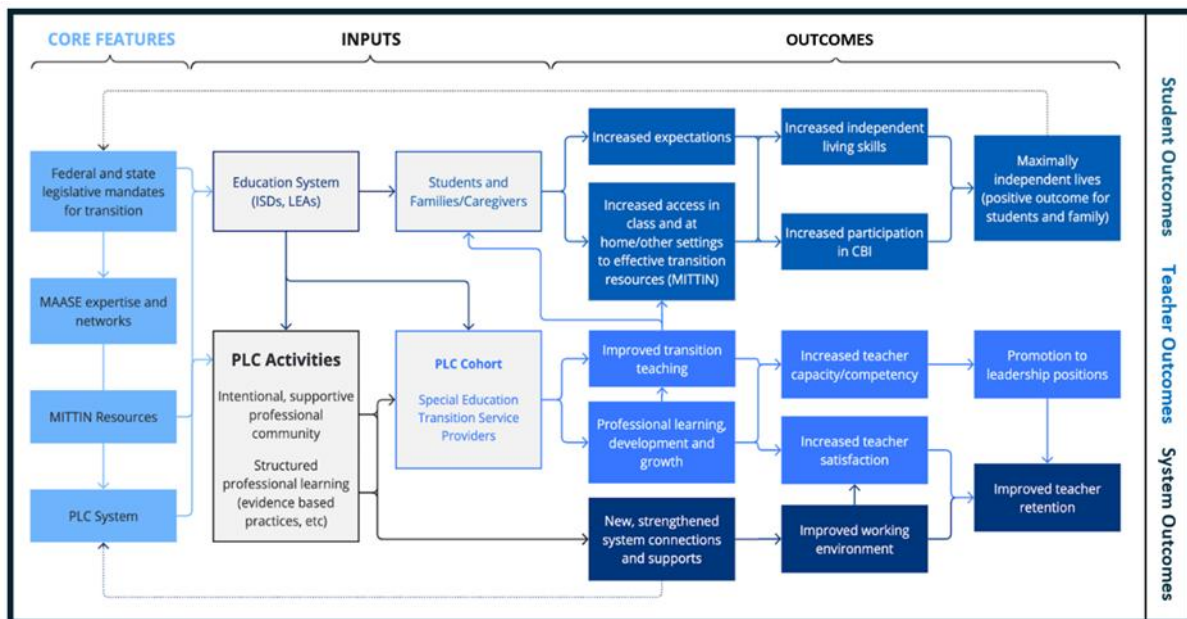


Figure 1. MITTIN Logic Model

As confidence and expertise grew, the participants from the initial MITTIN PLC cohorts began sharing their new learning with colleagues. This led to the facilitation and implementation of MITTIN resources at department meetings, which soon turned into staff meetings, then district professional learning days, and even state and national conferences. Many of the original cohort members were taking on new leadership roles. They were being asked to train educators in this new work, as well as to facilitate other initiatives with their enhanced skill set. Previous studies have shown that participation in PLCs can lead to increased educator skill development, confidence, and advancement (Wilson, 2016). To explore whether special educators participating in virtual PLCs might have similar outcomes, PPA developed an evaluation examining changes in roles, benefits, and career trajectories.

Problem Statement

While PLCs are recognized as effective for improving instructional practice and student outcomes, limited research has examined the impact on professional growth, leadership development, and career advancement. Special education professionals often work in isolated roles, frequently the only specialist within a school or district, which can limit opportunities for collaboration, mentorship, and leadership development with colleagues in like positions. Although virtual PLCs offer a promising approach to addressing these challenges by connecting educators across geographic and organizational boundaries, there is insufficient understanding of how participation in such models influences long-term professional outcomes. Little is known about the mechanisms through which PLC participation

may contribute to increased confidence, leadership identity, advancement, and professional satisfaction among special education educators.

Research Objectives

This evaluation sought to explore this gap by examining the impact of participation in the MITTIN virtual PLC on special education professionals. The objectives of the evaluation were to: explore the professional outcomes associated with participation in the MITTIN virtual PLC; examine participants' perceptions of the impact of the PLC; identify the key mechanisms and features that contribute to these outcomes; and contribute to the body of literature by extending understanding of PLCs beyond instructional impact to include educators' professional trajectories and leadership identities.

Literature Review

PLCs are well-researched and have been shown to increase effective teaching practices for both special and general education teachers, along with better outcomes for learners (Abdallah et al., 2021; DuFour & Marzano, 2011; Gullen, 2014; Larson, 2016). These collaborative learning environments provide structured opportunities for peer interaction, shared problem-solving, and collective learning (Abdallah et al., 2021; Gullen, 2013; Lantz-Andersson et al., 2018). Drawing upon the success of electronic social networks, virtual PLCs have come into play as a viable and often necessary structure for professional learning (Cooley et al., 2021; Lantz-Andersson et al., 2018; Voelkel & Chrispeels, 2017). This is important for special education professionals who are often the sole specialists in their building or district. Educators who work with students with low-incidence disabilities might be the only professionals of their specialty across multiple districts, which can contribute to professional isolation and limit opportunities for collaboration, mentorship, and leadership development (Hardman, 2015; Hirsch et al., 2023). Thus, collegial networks are essential in creating connections between like-role professionals in geographically remote classrooms (Mangione & Cannella, 2021). Virtual PLCs can foster connection and professional engagement

among the most isolated teachers (Wenger et al., 2002).

Participation in a PLC contributes to increased skill development and professional capital (Wilson, 2016). Integral to its design is increased networking and connection to advancement opportunities (Zamiri & Esmaeili, 2024). While PLCs are widely recognized as effective models for improving instructional practice and supporting teacher learning, comparatively less attention has been given to their potential influence on educators' longer-term professional trajectories, particularly within specialized fields such as special education (Blanton & Perez, 2011; Zamiri & Esmaeili, 2024).

Virtual PLC models may be uniquely well-suited to address issues of isolation, as they enable educators to connect across geographic and organizational boundaries to a professional network (Gullen, 2024; Lardier et al., 2024; Mangione & Cannella, 2021). Within the MITTIN Project, a virtual PLC was intentionally designed to support both the implementation of resources and the professional growth of educators (Gullen et al., 2025).

This evaluation builds upon existing PLC literature by examining how participation in the MITTIN virtual PLC contributes to professional development, leadership emergence, and career advancement among special education professionals.

METHODOLOGY

The MITTIN Project is a statewide initiative designed to strengthen transition services for students with moderate-to-severe disabilities through interactive digital and mixed-reality modules and related curricular supports. As part of this initiative, MITTIN established a statewide virtual PLC to support implementation of resources and foster collaborative professional learning among educators. The PLC met regularly in virtual formats and emphasized collective inquiry, shared practice, peer learning, and collaborative development of transition-related instructional materials. The MITTIN virtual PLC serves as a professional network for educators who often work in specialized or geographically dispersed roles. This

context made it a strong setting for examining how participation in a virtual PLC may influence not only instructional practice but also professional outcomes.

Research Design

This evaluation employed a qualitative case study design to examine the experiences of special education professionals who participated in the early cohorts of the MITTIN virtual PLC. A qualitative approach was appropriate because the purpose of the evaluation was to explore how participants understood and described the influence of PLC participation on their professional growth, leadership development, and career trajectories. The case study design allowed for an in-depth examination of the MITTIN virtual PLC as a bounded professional learning model situated within a specific statewide initiative. This design was selected to capture the complexity of experiences and to identify the mechanisms through which the PLC may have contributed to reported outcomes. Because the evaluation sought to understand perceptions, meanings, and explanatory themes rather than test causal relationships, qualitative inquiry was well aligned with the research purpose.

Participants and Sampling

Participants in this case study were drawn from the first two MITTIN virtual PLC cohorts, which began in 2021. These cohorts were selected because they provided the longest period of participation, thereby offering the greatest opportunity to examine longer-term professional outcomes. There were 20 individuals in the first two MITTIN virtual PLC cohorts; all were invited to participate. Fifty percent completed interviews. Interviewees had a broad range of job titles, including special education teacher, consultant, job coach, instructional coach, transition coordinator, and administrator. They worked across diverse settings, including self-contained classrooms, resource classrooms, center-based programs, and transition programs. Participants had between five and 21 years of experience in special education, with most having 10 or more years in the field. A purposeful sampling approach was used, with the evaluation intentionally focusing on individuals with

direct experience of participating in the MITTIN virtual PLC. Including all members of the first two cohorts helped maximize variation in role, setting, and level of involvement while remaining feasible within the timeline and budget.

Instruments

Data were collected on the MITTIN virtual PLC using a semi-structured interview protocol developed by the PPA (PPA, 2025). The instrument was aligned with the research questions and analytic focus, which included a combination of open-ended questions and follow-up probes to ensure consistency across interviews while allowing participants to describe their experiences in depth. Key domains addressed in the instrument included: participant background and professional role; nature and duration of involvement in the MITTIN PLC; perceived impacts of PLC participation on instructional practices; changes in knowledge, skills, and confidence; experiences related to leadership development and career advancement; perceptions of networking, collaboration, and professional relationships; and features of the PLC that influenced outcomes. The semi-structured format enabled interviewers to adapt questions as needed to clarify responses and explore emerging themes while maintaining alignment with the core areas of inquiry.

Procedures

Participants were recruited from the first two MITTIN virtual PLC cohorts. An initial email invitation was sent to all eligible participants, followed by reminder communications from the research team. The invitation included information about the purpose, expectations for participation, a link to schedule an approximate 60-minute individual interview, and directions on how to complete the informed consent process.

At the beginning of each session, participants were reminded of the purpose, the voluntary nature of participation, and their right to withdraw at any time. With participant consent, all interviews were audio-recorded to ensure accurate data capture. Recordings were transcribed by a third-party transcription service, and transcripts were subsequently reviewed by members of the

research team for accuracy. Any discrepancies between audio recordings and transcripts were corrected prior to analysis. These procedures were designed to ensure consistency and rigor in data collection while also creating a comfortable and flexible environment that allowed participants to reflect openly on their experiences.

Data Analysis

A multi-stage qualitative coding process was used to analyze interview data. Initially, transcripts were coded using a deductive coding approach aligned with the interview protocol and major areas of inquiry. Initial codes captured descriptive information about participant roles, PLC involvement, reported outcomes, and perceived explanatory factors. In the second stage, coded excerpts were reviewed by a second member of the research team to identify emergent and overarching themes. This stage focused on synthesizing patterns in how participants described professional outcomes and the mechanisms through which those outcomes occurred. Analysis attended to both descriptive themes, such as participant characteristics and types of advancement, and interpretive themes, such as confidence development, networking, and the role of PLC structure and facilitation. Analytic attention centered on three domains: (a) participant characteristics and continued involvement in the PLC; (b) reported professional outcomes, including career advancement, leadership development, changes in professional goals, and job satisfaction; and (c) explanatory themes participants identified as contributing to those outcomes.

Results

Analysis of interview data revealed that participation in the MITTIN virtual PLC was associated with meaningful professional outcomes for special education educators, including career advancement, leadership development, shifts in professional goals, and enhanced job satisfaction. Across participants, these outcomes were supported by several interconnected mechanisms related to knowledge development, confidence, collaboration, and the structure of the PLC. Participants reported notable career advancement and leadership growth,

including promotions to roles such as instructional coach, department lead, and administrator, as well as increased informal leadership through mentorship, advocacy, and peer support. Even among those who did not change formal roles, participants described expanded influence within their schools and districts. These findings suggest that PLC participation contributed to both formal and informal leadership development.

Participation in the virtual MITTIN PLC also influenced career aspirations and professional trajectories. Several participants reported increased interest in leadership roles, including administrative positions they had not previously considered. Others described a strengthened belief in their ability to pursue professional goals, reflecting increased self-efficacy and career agency. In addition, participants consistently reported enhanced professional satisfaction, often attributing this to improved instructional practice, increased collaboration, and a stronger sense of purpose. Many described feeling “professionally renewed,” with improvements in both work quality and overall job fulfillment.

Six themes emerged to explain these outcomes. (1) Participants described significant knowledge and skill development, particularly in instructional practices, lesson design, leadership, and facilitation. These gains translated into improved classroom practice and professional competence. (2) They reported increased confidence and self-efficacy, often describing this as transformative in shaping their professional identity and willingness to pursue leadership opportunities. (3) Networking and collaboration were central to participant experiences. There were opportunities to connect with educators across the state, reducing professional isolation, fostering ongoing collaboration, and maintaining professional relationships beyond formal PLC meetings. (4) Participants described increased exposure to career opportunities and supportive resources, including access to mentorship, recommendations, and professional networks that facilitated career advancement. (5) The PLC environment and facilitation were identified as critical enabling factors. Participants highlighted the importance of a

psychologically safe, engaging environment where individuals could contribute as both learners and experts. (6) The PLC reduced professional isolation, a common challenge in special education.

Participants described feeling more connected, supported, and engaged in their work as a result of their involvement.

Table 1: Summary of MITTIN Virtual PLC Themes, Mechanisms, and Outcomes

Summary of MITTIN Virtual PLC Themes, Mechanisms, and Outcomes		
Theme / Mechanism	Description	Associated Outcomes
Knowledge & Skill Development	Increased knowledge of instructional strategies, leadership, facilitation, and assessment practices	Improved instructional practice; enhanced work quality; expanded professional expertise
Confidence & Self-Efficacy	Growth in confidence to lead, present, collaborate, and pursue new opportunities	Leadership development; career advancement; shifts in professional goals
Networking & Collaboration	Statewide connections, peer learning, and ongoing collaboration across roles and districts	Reduced professional isolation; increased job satisfaction; sustained engagement
Exposure to Opportunities & Resources	Access to mentorship, recommendations, professional networks, and career pathways	Promotions, pursuit of advanced degrees, and expanded career trajectories
PLC Environment & Facilitation	Psychologically safe, engaging environment with strong facilitation and shared participation	Increased engagement; leadership identity development; willingness to take risks
Reduction of Professional Isolation	Increased connection to a professional community network	Improved retention, satisfaction, and professional fulfillment

Discussion

The purpose of this case study was to examine how participation in a statewide virtual PLC contributes to professional growth, leadership development, and career advancement among special education educators. Findings extend existing PLC literature by demonstrating that participation in the MITTIN virtual PLC not only supports instructional improvement but also has impacts on educators' professional trajectories, confidence, and leadership identity. Consistent with prior research, participants reported gains in instructional knowledge and practice (Abdallah et al., 2021; Blanton & Perez, 2011). This study highlights how these gains are closely linked to increased confidence and self-efficacy, which appear to function as key mechanisms driving leadership development and career advancement. Participants frequently described a shift in how they perceived themselves, now as capable leaders,

contributors, and change agents. This suggests that PLC participation may support the development of professional identity in addition to skill acquisition. This aligns with research on communities of practice, which emphasizes identity formation as a central outcome of sustained collaborative learning (Wenner & Campbell, 2018).

The findings also suggest the importance of networking and collaboration as critical features of effective PLCs, particularly in special education contexts. Participants consistently described the value of connecting with peers across geographic and organizational boundaries, reinforcing prior research that identifies collaboration as essential for both instructional improvement and professional satisfaction (Lantz-Andersson et al., 2018; Mangione & Cannella, 2021). The virtual nature of the MITTIN PLC appears to be especially important in mitigating isolation, enabling access to a professional community that would otherwise be

unavailable to many special education practitioners. Another key contribution is the identification of exposure to opportunities and resources as a mechanism linking PLC participation to career advancement. Participants described how connections formed within the PLC led to mentorship, recommendations, and awareness of new professional pathways. This finding supports and extends emerging research suggesting that PLCs may influence employability and career mobility by expanding access to social capital and professional networks (Zamiri & Esmaili, 2024). In this way, the MITTIN virtual PLC functions not only as a site of learning but also as a platform for professional opportunity and advancement.

Importantly, the structure and facilitation of the PLC emerged as foundational to these outcomes. Participants emphasized the value of a learning environment characterized by psychological safety, shared leadership, and opportunities to contribute as both learners and experts. These features closely align with established models of effective PLCs (Hord & Sommers, 2008), but the findings further suggest that intentional facilitation plays a critical role. The ability of facilitators to model engagement, encourage participation, and create space for authentic collaboration appears to be central to sustaining both engagement and impact.

The PLC had a role in reducing professional isolation, a persistent challenge in special education. Participants described increased connection, support, and a sense of belonging within a targeted professional community. This reduction in isolation may have important implications for educator retention and well-being, as recent research has linked professional isolation to burnout and attrition among special education teachers (Hirsch et al., 2023; Shipp, 2024). By fostering connection and collaboration, virtual PLCs such as MITTIN may serve as a protective factor against these challenges.

These findings suggest that virtual PLCs, when intentionally designed and facilitated, can function as multi-dimensional professional learning systems that simultaneously support instructional improvement, leadership development, and career

advancement. The MITTIN PLC demonstrates how integrating technology, collaboration, and structured facilitation can create a scalable model for strengthening the special education workforce.

Implications for Theory, Practice, and Policy

This case study contributes to an emerging body of research regarding PLCs extending their impact beyond instructional improvement to include professional identity development, leadership emergence, and career trajectory advancement. Findings suggest that PLCs function not only as places for learning and the exchange of knowledge but also as communities of practice designed to foster educators as leaders, collaborators, and change agents. The results also highlight the role of self-efficacy and social capital as key mediating mechanisms. Increased confidence and expanded professional networks appear to link participation in collaborative learning environments to additional professional outcomes. This supports and extends existing theories of teacher leadership and communities of practice by emphasizing the importance of identity formation, collaborative learning, and access to opportunity. The study contributes to emerging theory on virtual PLC environments, demonstrating that technology-enabled PLCs can replicate and may enhance the core elements of effective in-person collaboration, particularly in reducing professional isolation and expanding access to diverse expertise.

For practitioners and educational leaders, this work shows the importance of intentional design and facilitation in creating effective PLCs. Successful PLCs should move beyond information sharing to provide structured opportunities for collaborative problem-solving and co-construction of knowledge; active participation and shared leadership; and the application of learning in authentic, practice-based contexts. The study also highlights the importance of creating psychologically safe environments where educators can take risks, share challenges, and contribute as both learners and experts. This type of environment appears critical for fostering confidence, engagement, and leadership development. The findings suggest that PLCs can be leveraged as a strategy for reducing professional isolation,

particularly in special education settings where educators may work in highly specialized or geographically dispersed roles. Virtual PLCs offer a practical approach for connecting educators across districts and regions, expanding access to collaboration and support. Educational leaders should also consider PLCs as a pipeline for leadership development, intentionally creating opportunities for participants to facilitate, mentor, present, and contribute to shared work. These experiences can support both formal and informal leadership growth within schools and systems.

At the policy level, findings suggest that virtual PLCs represent a scalable and cost-effective strategy for addressing several persistent challenges in special education, including workforce shortages, professional isolation, and limited access to high-quality professional learning. State education agencies and policymakers should consider: investing in sustained, collaborative professional learning models rather than one-time professional development; supporting statewide or regional virtual PLC networks, particularly in low-incidence disability areas; recognizing PLC participation as a pathway for leadership development and career advancement; and providing resources for the infrastructure needed to sustain PLCs, including time, facilitation, and technology. These findings also suggest that policy efforts aimed at improving educator retention and effectiveness should include relational and collaborative components, not solely content-focused training. By fostering connection, professional identity, and access to opportunity, PLCs can play a critical role in strengthening and sustaining the special education workforce.

Limitations

Limitations to this work include: (a) The study used a small, purposive sample of participants drawn from the first two MITTIN PLC cohorts. While this allowed for an in-depth exploration of participants' experiences, the sample may not be representative of all PLC participants or of special education populations. (b) Participants who chose to engage in interviews may have had more positive experiences, introducing the potential for self-selection bias. (c) Data were collected through self-report interviews, which may be subject to recall

bias or social desirability bias. Although steps were taken to ensure accuracy through transcription and review, findings reflect perceptions rather than independently verified outcomes. (d) The study design also does not allow for causal attribution, and it is possible that other contextual or professional factors contributed to the reported outcomes. (e) MITTIN partners with PPA to provide expertise, structures, and accountability for its evaluation work and is ever mindful to mitigate any conflict of interest or researcher bias. (f) The MITTIN virtual PLC represents a specific, contextually rich model, with unique features related to its statewide scope, technology integration, and facilitation. Findings may not be directly generalized to other PLC models or settings without consideration of contextual differences.

Future Research

Future research should build on these findings by examining PLC participation in larger, more diverse samples. Longitudinal studies are needed to better understand the sustained impact of PLC participation on career trajectories, leadership development, and educator retention over time. Research should explore the relationship between PLC participation and student outcomes, particularly in transition services for students with disabilities. Further investigation into the specific PLC design features and facilitation practices would also be valuable. Comparative studies examining virtual, hybrid, and in-person PLC models could provide insight into the role of technology in shaping collaboration and professional growth.

CONCLUSION

This study provides support that participation in the MITTIN virtual PLCs extends beyond improving instructional practice; it influences professional outcomes for special education educators. Findings indicate that participation in the PLC was associated with increased knowledge and skill development, enhanced confidence and self-efficacy, expanded professional networks, and access to new career opportunities. These experiences contributed to leadership development, career advancement, shifts in professional aspirations, and improved job

satisfaction. The findings highlight the role of intentional design and facilitation in creating conditions that support these outcomes. The MITTIN PLC fostered a collaborative and psychologically safe environment in which participants could engage as both learners and experts, apply new learning in authentic contexts, and build meaningful professional relationships. The virtual format further enabled sustained collaboration across geographic and organizational boundaries, helping to reduce professional isolation and strengthening a sense of professional community.

As education systems continue to address challenges related to workforce development, retention, and equitable access to high-quality professional learning, the MITTIN virtual PLC offers a promising, scalable model. By integrating technology, structured collaboration, and purposeful facilitation, virtual PLCs can expand access to professional networks, strengthen educator capacity, and support sustained professional growth. This study suggests that well-designed virtual PLCs enhance educator practice and also empower special education professionals as leaders and change agents, thereby contributing to stronger educational systems and improved outcomes for students with disabilities.

REFERENCES

- Abdallah, R., Abdat, R. M., & Hill, C. (2021). Extent of implementing the characteristics of professional learning communities at the UAE special education Centers. *International Journal of Learning, Teaching and Educational Research*, 20(4), 265–283. <https://doi.org/10.26803/ijlter.20.4.14>
- Blanton, L. P., & Perez, Y. (2011). Exploring the relationship between special education teachers and professional learning communities: Implications of research for administrators. *Journal of Special Education Leadership*, 24(1), 6–16. <http://www.psychosphere.com/Exploring%20Relationship%20Between%20Sp%20Ed%20Teachers%20&%20PLCs%20by%20Blanton%20&%20Perez.pdf>
- Cooley, D., Lewis, C., Moore, N., & Vaughan-Hussain, L. (2021). How special education practitioners use inclusive instructional practices to create access for students with disabilities in remote settings. *Leaderboard Magazine*, 7(3), 37–39.
- DuFour, R., & Marzano, R. (2011). *Leaders of learning: how district, school, and classroom leaders improve student achievement*. Solution Tree Press
- Gullen, K., Houseworth, J., & Hitchcock, J.H. (2024). Using mixed methods to inform development of a researcher-practitioner-partnership focusing on supporting students with disabilities: An editorial. *International Journal of Multiple Research Approaches*, 16(3). <https://ijmra.org/product/163-02-using-mixed-methods-to-inform-development-of-a-researcher-practitioner-partnership-focusing-on-supporting-students-with-disabilities-an-editorial/>
- Gullen, K., & Sheldon, T. (2014). "Synergy Sparks Digital Literacy: Redefining Roles Create New Possibilities for Teachers and Students" *JSD Journal of Staff Development*, 35 (2) p. 36-39. <https://www.learntechlib.org/p/155388/>
- Michigan Transition to Independence (MITTIN): Strengthening Transition Services Gullen, K., Vaughan-Hussain, L., Cunningham, P., DeLora, S., & Ruskusky, S. (2025).
- Through Accessible Digital Resources. Assistive Technology Outcomes & Benefits (ATOB), 19. Assistive Technology Outcomes & Benefits (ATOB), 2025, Vol 19, p123. https://www.atia.org/wp-content/uploads/2025/06/ATOB-V19_Final.pdf
- Gullen, K., Vaughan-Hussain, L., Cunningham, P., DeLora, S., & Chamberlain, M (in press).
- Strengthening Transition, Reducing Isolation, and Enhancing Teacher Practices: A Virtual PLC Model to Address Systemic Challenges in Michigan and Beyond. *Transition in Practice*.
- Gullen, K., & Zimmerman, H. (2013). "Saving Time with Technology." *Educational Leadership*, 70 (6) p. 63-66. <https://www.learntechlib.org/p/132059>

- Hardman, E. (2015). How Pedagogy 2.0 can foster teacher preparation and community building in special Education. *Social Inclusion*, 3(6), 42–55. <https://doi.org/10.17645/si.v3i6.415>
- Hirsch, S. E., Mathews, H. M., Griffith, C., Carlson, A., & Walker, A. (2023). Fostering social support and professional learning for special educators: Building a community of practice. *Journal of Emotional and Behavioral Disorders*, 31(2), 132–143. <https://doi.org/10.1177/10634266231154196>
- Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities: Voices from research and practice*. Thousand Oaks, CA: Corwin.
- Lantz-Andersson, A., Lundin, M., & Selwyn, N. (2018). Twenty years of online teacher communities: A systematic review of formally-organized and informally-developed professional learning groups. *Teaching and teacher education*, 75, 302-315. <https://doi.org/10.1016/j.tate.2018.07.008>
- Lardier Jr, D. T., Dickson, E. L., Hackett, J. M., & Verdezoto, C. S. (2024). A scoping review of existing research between 1990 and 2023: Measuring virtual communities of practice across disciplines. *Journal of Community Psychology*, 52(1), 198-225. <https://doi.org/10.1002/jcop.23092>
- Larson, J. (2016). *The relationship between South Dakota public school superintendents' perceptions of professional development principles and student achievement* [Unpublished doctoral dissertation]. University of South Dakota.
- Mangione, G. R. J., & Cannella, G. (2021). Small school, smart schools: Distance education in remoteness conditions. *Technology, Knowledge and Learning*, 26(4), 845-865. <https://doi.org/10.1007/s10758-020-09480-4>
- Public Policy Associates. (2025). MITTIN Virtual PLC Interview Protocol. https://drive.google.com/file/d/1tWfcmP_YQPWyxx6aWgdqQUrcUtp5pp3q/view?usp=drive_link
- Shipp, P. A. (2024). *Examining the relationship of job satisfaction to emotional support and loneliness among us special education teachers* [Doctoral dissertation, Northcentral University].
- Voelkel Jr, R. H., & Chrispeels, J. H. (2017). Understanding the link between professional learning communities and teacher collective efficacy. *School effectiveness and school improvement*, 28(4), 505-526. <https://doi.org/10.1080/09243453.2017.1299015>
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Seven principles for cultivating communities of practice. Cultivating Communities of Practice: a guide to managing knowledge*, 4, 1-19. ISBN: 978-1578513307
- Wenner, J. A., & Campbell, T. (2018). Thick and Thin: variations in teacher leader identity. *International Journal of Teacher Leadership*, 9(2), 5–21. https://scholarworks.boisestate.edu/cifs_facpubs/202
- Wilson, A. (2016). From professional practice to practical leader: Teacher leadership in professional learning communities. *International Journal of Teacher Leadership*, 7(2), 45–62. <http://files.eric.ed.gov/fulltext/EJ1137497.pdf>
- Zamiri, M., & Esmaeili, A. (2024). Strategies, methods, and supports for developing skills within learning communities: A systematic review of the literature. *Administrative Sciences*, 14(9), 231. <https://doi.org/10.3390/admsci14090231>