Teachers’ Perceptions of Instructional Coaches’ Practices in Professional Learning Communities

Hamada Elfarargy1, Beverly J. Irby1, Erin A. Singer1, Rafael Lara-Alecio1, Fuhui Tong1, and Elisabeth Pugliese1

Abstract
In this study, we investigated Texas teachers’ perceptions of instructional coaches’ (ICs) practices that improve professional learning communities (PLCs) to enhance teachers’ instructional capacities. The study’s participants included 67 teachers from rural, urban, and suburban school districts across the state of Texas. They enrolled in a virtual professional development (VPD) module related to improving instruction in high needs schools. Data were collected from participants via an open-ended survey. To answer the study research question, we employed a qualitative phenomenological research approach. Findings indicated that teachers perceived ICs can perform two main types of practices that contribute to enhancing PLC meetings: (a) practices for creating a safe PLC learning environment and (b) practices in PLCs for enhancing teachers’ instructional capacities. Our findings add to the literature providing the first empirical study in which researchers investigated teachers’ perceptions about ICs’ practices within PLCs.

Keywords
instructional coaching, professional learning communities, instructional capacity, instructional coaches, teacher professional development

Over 20 years ago, Hord and Southwest Educational Development Laboratory (1997) indicated several design elements for professional learning communities (PLC) as follows: (a) Supportive and shared leadership, (b) Shared values and vision, (c) Collective learning and application of learning, (d) Supportive conditions (physical and human capacities), and (e) Shared practice. Dufour (2004) added to information about PLCs and noted they should emphasize a tool for educators with three big ideas: (a) an emphasis on learning, (b) developing a culture of collaboration, and (c) a focus on results (pp. 6, 11). More recently, Irby (2021) challenged the traditional definitions of the PLC, but did not advocate removing anything previously recommended by Hord and/or Dufour. Rather, Irby suggested intentionally adding the following premises to the definitions of PLCs: (a) instructional capacity of teachers is of primary importance in PLCs as a component of their learning, (b) infusion of new information into PLC discussions is required; without it, the learning in professional learning communities is only experiential and could simply stagnate, and (c) the intent of the PLC is not to be equated with a data meeting, a curriculum planning meeting, or a grade level/department meeting. There must be a purpose to enhance professional learning by including new information based on findings from the literature or from action teacher research, with such new information infused into the discussions and decisions.

Dufour, along with others, found that PLCs can play an important role in enhancing teachers’ instructional capacities (DuFour & Mattos, 2013; Marsh et al., 2015). Evidence collected on well-structured PLCs has indicated that they provide teachers with opportunities to collaborate with each other and with other professionals in ways to enhance their instruction (Farley-Ripple & Buttram, 2014). Though there are studies that include the examination of PLCs and coaches, there are none we could find that include the examination of instructional coaches (IC) leading PLCs. Irby (2018) indicated that coaches engage in a formal and structured professional relationship in which a coach targets specific skill(s) to develop and strengthen in a coachee over a specific time period or in a specific environment. We posit that this formal and structured relationship between IC and teacher can occur within PLCs as the coach leads the PLC.

1Texas A&M University, College Station, USA

Corresponding Author:
Hamada Elfarargy, Education Leadership Research Center, Texas A&M University, 1411 Hensel Street, College Station, TX 77840, USA. Email: helfarargy@tamu.edu

Creative Commons CC BY: This article is distributed under the terms of the Creative Commons Attribution 4.0 License (https://creativecommons.org/licenses/by/4.0/) which permits any use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (https://us.sagepub.com/en-us/nam/open-access-at-sage).
In this study, we sought to identify practices that ICs engage in during PLCs which may enhance teachers’ instructional capacities as perceived by teacher participants in the study. The participants included 67 teachers across Texas who were enrolled in virtual professional development (VPD) on the topic of PLCs, which was provided by Project Massive Online Individualized Learning (MOOPIL) at Texas A&M University in Texas.

**Literature Review**

We reviewed literature from the ERIC, JSTOR, and Education Source databases related to practices that ICs perform in PLCs as related to enhancing teachers’ instructional capacities. Keywords we used were: instructional coaches, coaching, professional learning communities, or PLCs. About 25 papers were discovered and reviewed in one search and 321 were found in the second search. In the literature we reviewed, we found information on how ICs helped individual teachers to analyze student achievement data and make changes in their instruction as needed (Farley-Ripple & Buttram, 2014; Marsh et al., 2015; Thornton, 2015). We also found information on how well-structured PLCs provided teachers with opportunities to collaborate with other teachers on instruction, which contributed to improving the quality of teaching and learning (Irby et al., 2020; De Neve & Devos, 2017; Lee et al., 2011). However, we were not able to find literature investigating ICs’ practices in PLCs. The one study that we found about IC coaching PLCs was by Voelkel et al. (2021), who investigated the perceptions of district leaders (principals, ICs, and district-level leaders) on the procedures a particular district followed to shift the role of ICs from coaching individual teachers to coaching PLCs. However, the authors did not explore practices ICs may perform in PLCs.

To the best of our knowledge, our empirical study is the first to investigate the perceptions of teachers related to ICs practices in PLCs that could contribute to improving the quality of PLCs and teachers’ instructional capacities. This makes what the 67 participant teachers in this study shared on ICs’ practices significant. They observed in PLCs of their schools or ICs’ practices teachers engaged in during PLCs which may enhance teachers’ instructional capacities as perceived by teacher participants in the study. The participants included 67 teachers across Texas who were enrolled in virtual professional development (VPD) on the topic of PLCs, which was provided by Project Massive Online Individualized Learning (MOOPIL) at Texas A&M University in Texas.

**Instructional Coaches’ Practices With Individual Teachers**

Coaching is a formal and structured professional relationship in which a coach targets specific skill(s) to develop and strengthen in a coachee over a specific time period (Irby, 2018). Although districts put notable emphasis on instructional coaches, though not specifically related to PLCs, with the specific task of helping teachers improve their teaching quality, they often do not specify clear descriptions of the coaches’ roles or responsibilities in attaining this goal (Galey, 2016). Evidence collected about ICs’ influence on individual teachers showed that ICs performed some practices that had a positive impact on enhancing teachers’ instructional capacities, mainly assisting with data analysis and teaching strategies (Farley-Ripple & Buttram, 2014; Marsh et al., 2015; Thornton, 2015). However, there was not strong evidence in the literature about which structured roles ICs play in PLCs with large groups of teachers and how those roles contributed to PLCs’ success enhancing teachers’ capacities for improving student achievement (Galey, 2016; Voelkel et al., 2021). This is because most of the studies that investigated ICs roles were qualitative in nature and restricted to case studies of individual schools (Galey, 2016). Hopkins et al. (2018) highlighted the importance that ICs foster trust in their professional relationship with teachers. Once established, this trust motivates teachers to take leadership roles at their schools and provide instructional assistance to other colleagues (Hopkins et al., 2018).

**Assisting teachers in analyzing and using student data.** Analyzing student achievement data and making decisions on instructional practices is not an easy task for many teachers (Farley-Ripple & Buttram, 2014; Marsh et al., 2010, 2015). There is evidence that ICs and PLCS (but not in a combined manner) were two important mediating factors in improving teachers’ data analysis skills to make major changes in their delivery of instruction (Marsh et al., 2015). Marsh et al. (2015) found that ICs helped teachers utilize their vertical expertise (an individual’s knowledge of their content subject) and horizontal expertise (knowledge gained through interaction across contexts) to better understand student achievement data and adjust their instruction accordingly.

The Delaware Department of Education had an initiative to assist teachers in analyzing and using student achievement data to inform instructional changes in Delaware (Farley-Ripple & Buttram, 2014). They mandated 90-minute PLCS in all schools, focusing the core of PLCS on analyzing data, providing teachers with data coaches in PLCS, hiring a data center to work on finding data and making them accessible to teachers so they could obtain student performance reports. In the four elementary schools from the two districts that participated in the study, ICs worked with teachers in PLCS on data analysis in only one school. However, they did not seem to make connections related to how these data could inform changes in instruction. Thus, those procedures were not perceived by teachers as sufficient to help them make major changes in their instruction (Farley-Ripple & Buttram, 2014). Understanding student data was not enough; teachers also needed assistance to make instructional decisions and to modify their instruction.
to help improve student achievement (Farley-Ripple & Buttram, 2014; Marsh et al., 2010).

The ability to analyze data is very important for a professional teacher; however, the literature we were able to find did not address an IC working within a PLC to do this important task. Though data meetings are ubiquitous in the PLC literature, Irby (2021) has levied concerns with calling a data meeting a PLC. A data meeting is about analyzing the data of the classroom, grade level, school, or even district; however, it typically does not bring in new research-based information since the participants in the data meeting are typically focused on analyzing and conducting a deep dive into their own classroom data. Irby (2021) has suggested that for a PLC to adhere to basic standards, it must bring in new research-based information.

**Characteristics of PLCS That Enhance Teachers’ Collaboration**

In addition to the definitions noted previously, PLCS are described in the literature as professional meetings that allow interactions, discussions, and reflections among teachers on issues of teaching concern such as lesson planning, teaching strategies, and best practices (DuFour et al., 2008; DuFour & Mattos, 2013; Hord & Southwest Educational Development Laboratory, 1997). Many scholars have highlighted the importance of PLCs in helping teachers improve their teaching capacity (Brodie, 2013; DuFour et al., 2008; Marsh et al., 2015; Stoll et al., 2006). For PLCS to be beneficial to instruction, they need to be well-structured and provide opportunities for professional collaboration among teachers (Brown et al., 2018; Chua et al., 2020; Coburn & Russell, 2008; Jones-Goods, 2018). PLCS without a clear purpose and those in which some teachers may just tell stories about their classrooms are not expected to inform discussions or provoke deep reflection about instructional practices (Coburn & Russell, 2008). Pirtle and Tobia (2014) found that actually determining a clear purpose for PLCS helped to make teachers’ interactions and activities more goal-oriented.

There are a number of PLC characteristics that help enhance teachers’ instructional capacities (Scott et al., 2011; Teague & Anfara, 2012). For example, fostering trust among PLC members contributed to creating a safe learning environment for teachers to engage properly in PLC through conversation, asking questions, and reflecting on their teaching (Thornton, 2015). Antinluoma et al. (2021) identified a number of positive characteristics in schools’ relationships that contributed to advancing professional relations among teachers at four schools and in their PLCS. These characteristics included being flexible, open, supportive, professional, and tolerant.

**Clear values and goals for PLC meetings.** Establishing a framework of clear values and goals for PLC meetings ensures good communication between teachers (Walkowiak, 2016) and increases the meetings’ effectiveness and focus on improving student learning (Pirtle & Tobia, 2014; Stoll et al., 2006). In his qualitative case study on one high school, Jones-Goods (2018) found that structured PLCS with scheduled meeting times and clear purposes for teachers’ collaboration were perceived by teachers as contributing to advancing their instructional capacities. Similar to this, Pirtle and Tobia (2014) explained that for PLCS to be effective they need to have a clear focus on increasing teachers’ collaboration in ways that advance their self-reflection. These goals of collaboration and self-reflection are necessary to improve classroom instruction, which contributes to improving student achievement.

**Collaboration among teachers on instruction.** Many scholars reported that teachers collaborating on matters of instruction contributes to the improvement of teachers’ teaching practices (e.g., Antinluoma et al., 2021; Brown et al., 2018; De Neve & Devos, 2017; Farley-Ripple & Buttram, 2014; Jones-Goods, 2018; Lee et al., 2011). Brown et al. (2018) concluded from reviewing the literature that focusing PLCS on identifying students’ learning needs and improving their learning contributes to enhancing both teachers’ pedagogical capacities and student achievement. Similarly, Lee et al. (2011) found that providing teachers with opportunities to ask questions and solicit feedback during PLCS increases their efficacy and commitment to students. Aligned with that, De Neve and Devos (2017) found that dialogue between teachers during PLCS, whether on content knowledge or pedagogy, assists new teachers, in particular, in differentiating their instruction.

Antinluoma et al. (2021) argued that when teachers collaborate on lesson planning and co-teaching, they have better opportunities for professional discussions on improving the quality of instruction. Though dialogue and planning for lessons may constitute a PLC, per Irby et al. (2020), a lesson, unit, or curriculum planning meeting does not, in itself, mean it is a PLC. To be a PLC, it must have new information from research being introduced to support some aspect of the planning; learning can take place from each other among the teachers involved. However, without new research information being infused, the discussions may become simply cyclical. This research base does not have to be extensive, but it does need to be relevant, and it can be derived from existing literature or from action or teacher research. For collaboration among teachers to be beneficial to instructional improvement, the following factors should be considered: (a) having structured time for collaboration; (b) focusing collaboration on data analysis and students’ needs; and (c) assigning instructional coaches to coordinate such collaboration (Farley-Ripple & Buttram, 2014).

Chua et al. (2020) found that teachers’ passive attitudes such as their perceptions that they are implementing the best practices in their classroom and, thus, being not willing to try other practices, limits or hinder the effectiveness of teachers’ collaboration in PLC meetings. The authors argued that in such cases...
administrators need to play active roles in facilitating those PLCs to ensure effective collaboration and peer mentoring among teachers.

Research Question

One research question guided our study: As perceived by teacher participants, what practices can ICs engage in during PLCs which may enhance teachers’ instructional capacities?

Theoretical Framework

To interpret the findings of the study, we used theoretical assumptions of the theory of organizational learning (OL; Fiol & Lyles, 1985; Leithwood et al., 1998) and of the zone of proximal development (ZPD) from Vygotsky’s (1978) sociocultural theory. The theory of OL introduced the positive impact of the different learning levels within an organization: individual, group, and entire organization, and how they contribute to increasing the strength and competitiveness of organizations (Fiol & Lyles, 1985). Drawing on the theory of OL, Leithwood et al. (1998) explained how this theory can help in understanding why valuing different levels of learning at schools, as organizations, and creating PLCs, could contribute to advancing the effectiveness of those schools. The theory of OL, thus, is appropriate for the study as it helps in understanding how the surrounding beliefs that the leadership team, instructional coaches, and teachers value in relation to the importance of learning for organizational effectiveness to facilitate their support and contribution to PLCs (Figure 1).

On the other hand, in the ZPD, Vygotsky (1978) and Verenikina (2003) explained how individuals can master skills by receiving scaffolding assistance that helps them to move from their current learning stage to the learning stage they want to achieve. Although the ZPD was originally used by Vygotsky (1978) to interpret the social environment for child development, scholars such as Bonk and Kim (1998) asserted that the ZPD can also be applied to interpret skills development for adults.

The ZPD is appropriate for the study as it helps in understanding how the practices of ICs in PLCs, perceived as effective by the teacher participants in the study, could provide teachers with the instructional scaffolding they need to enhance their teaching and level up their instructional capacities. This scaffolding assistance could take several forms of social interactions between teachers and ICs, such as questioning, feedback solicitation, inquiries, discussions, and reflections that usually occur during PLC meetings. Teachers use the scaffolding assistance of instructional coaches and translate their data analysis, instruction modeling, and suggested feedback into more effective teaching strategies for their students.

Methods

Research Approach

A phenomenological research approach (Creswell, 2012; Creswell et al., 2007) was employed to identify teachers’ perceptions of ICs’ practices that contribute to improving PLCs to enhance teachers’ instructional capacity as perceived by teacher participants in the study. A phenomenological approach can help researchers analyze the perceptions of multiple participants with the goal of understanding a certain phenomenon (Creswell, 2012; Creswell et al., 2007). This approach was appropriate for a study analyzing what 67 teachers perceived as practices of ICs as they work in PLCs.

Participants

The participants of this study included 67 K-12 teachers, 56 females, and 11 males. Teachers were recruited from rural, urban, and suburban school districts across the state of Texas. The teachers taught a range of subjects including English/Language Arts, Mathematics, Science, and Social Studies. Each teacher was enrolled in a virtual professional development (VPD) module related to improving instruction in high-needs schools. To ensure participant confidentiality, we used pseudonyms to replace the real names.

Data Collection

We collected data for the study from the responses of 67 teachers to an online qualitative survey prior to their participation in a VPD. The survey included seven questions: (a) How might the instructional coach be involved in PLCs?; (b) What might the IC do differently to encourage a safe PLC environment of
respect and trust and engage all members?; (c) How might learning be structured to provide differentiated support and learning for all team members?; (d) How might engaging in intentional discourse during the PLC foster professional learning?; (e) How might learning be structured to provide differentiated support and learning for all team members?; (f) How might engaging in “intentional discourse,” rather than avoidance, foster professional learning?; and (g) How might the professional learning community members ensure that their learning remains student-focused?

Data Analysis

Two members of the research team read teachers’ responses to the survey questions in order to make sense of the data collected. Then, the nodes feature on NVivo 11 pro was utilized on one computer to identify common ideas throughout the narrative in order to perform a conventional analysis of the data collected. This helped identify the sub-themes and themes emerging from the data (Hsieh & Shannon, 2005). Zamawe (2015) explained that the nodes feature in the NVivo Software is convenient for thematic analysis. Emerging themes and subthemes were reviewed and validated by two members of the research team and were confirmed with a third member of the team.

Findings

We report the findings of the study with the emergence of two themes and six sub-themes of ICs’ PLC practices associated with perceived effective IC practices in PLCs. The two sub-themes were determined to be: (a) ICs create and sustain a safe PLC learning environment and (b) ICs assist teachers in enhancing their instructional capacities. The six sub-themes are shown in Figure 2. Two were identified under the theme of ICs creating and sustaining a safe PLC learning environment and four sub-themes were identified under the theme of ICs assisting teachers in enhancing their instructional capacities. Each sub-theme with low inference descriptors is shared.

Trustworthiness and Credibility of the Study

To advance the trustworthiness and credibility of the study, the research team employed two major techniques: investigator triangulation (Krefting, 1991) and low inference descriptors (Johnson, 1997). For the investigator triangulation, two members of the team worked with NVivo 11 Software to identify the emerging sub-themes, which were validated by a third member (Krefting, 1991). Triangulation of investigators is an effective qualitative research technique to reduce bias that might occur in studies with a single author. Triangulation is especially useful when the researchers are from different backgrounds, which is the case in our study (Krefting, 1991). The third technique, low inference descriptors (Johnson, 1997), refers to the researchers using participants’ actual wording from their specific responses to the qualitative survey questions.

IC Practices in PLCs: Create and Sustain a Safe PLC Learning Environment

As shown in Figure 3, teachers’ perceptions of ICs’ practices for creating and sustaining a safe PLC learning environment
were divided into two sub-themes: (a) establish norms and rules for PLC meetings and (b) foster trust and mutual respect among PLC participants.

Establish norms and rules for PLC meetings. Forty-Five teachers believed that one of the most important ICs’ practices to create and sustain a safe PLC environment is to establish norms and rules for PLC meetings. For example, Teacher 28 stated, “I think setting up norms for the group and making sure everyone has a turn to be heard is an important part to creating a safe environment.” Similar to this, Teacher 3 said, “Set values and rules for what a PLC needs to look like. Make sure that everyone is following those rules and procedures.”

Aligned with this, Teacher 34 noted, “Set expectations and agree with members on accountability methods to maintain the environment.” Teacher 1 described norms created by ICs as social contracts organizing interactions among PLC participants. She stated, “I believe that creating a safe learning environment could be accomplished by establishing a set of norms for each meeting and possibly having a social contract where participants agree on how they will act and treat each other.” Teacher 20 noted, “Establish clear procedures, routines and processes to ensure effective communication during their time together.” Teacher 14 emphasized a fundamental PLC rule that ICs be committed to attend the PLC meetings. She said, “Well, first of all, he/she SHOULD BE AT THESE MEETINGS! An instructional coach is intended to bring value to its department. Being absent from score scrutiny with the team is not bringing value at all.

Foster trust and mutual respect among PLC participants. Nineteen participants highlighted fostering trust and mutual respect among participants as important practices of ICs to create a safe PLC environment. For example, Teacher 9 stated, “It’s important to create trust among PLC members and once this occurs all the above [positive PLC outcomes] will occur.” Teacher 24 introduced one of the strategies she believed as effective for ICs to foster trust and respect in PLC meetings. She said, “They [ICs] can make sure to be positive in speech and action and to ask for input so that others feel comfortable and encouraged to speak, as well as valued.”

Aligned with this, Teacher 37 noted, “The IC could encourage each team member by being their unconditional support while trying to decide what is the best route to take with reteaching and interventions.”

To attain trust in PLC meetings, Teacher 45 stated that the IC needs to “ensure that there is an environment that is welcoming and nurturing for sharing and growth among teachers.” Teacher 26 shared two strategies ICs can use to increase teachers’ trust in ICs and enhance teachers’ trust among themselves. She noted, (a) “be open and listen to all ideas with an expectation of using data to drive results” and (b) “be willing to privately discuss all concerns from team members without reporting discussions to the principal.”

Aligned with the second strategy, Teacher 66 highlighted the necessity that ICs get to know their teachers as individuals before getting to know them as teachers. She noted, “Get to know the members on a more personal level so they feel more confident speaking. Talking to them more one-on-one first and listen to their ideas and relate to them when in a group.”

Demonstrating respect for teachers and their opinions was also perceived as an important key to gaining teachers’ trust. Teacher 34 stated, “ICs should show respect and promote every teachers’ opinion and ideas related to instructional techniques, lesson design. Also, should assure that conversations during meetings remain respectful, constructive, objective, and goal-oriented.”

Teacher 59 noted, “Open discussion. ICs need to listen to everyone’s needs rather than focusing on their own.” Teacher 53 noted, “An IC encourages and motivates during a PLC by providing positive feedback for all those participating.” Teacher 21 mentioned, “Being respectful to the other members of the team and listening to their concerns.” Teacher 47 noted, “Ensure all members are respectful of each other’s teaching style and time.”

IC Practices in PLCs: Enhance Teachers’ Instructional Capacities

The second type of ICs’ practices perceived by the participants as effective in PLCs were those associated with advancing teachers’ instructional capacities. As shown in Figure 4, the participants reported four practices: (a) assist teachers in analyzing student data, (b) share instructional strategies and ideas with teachers; (c) facilitate collaboration among teachers on instruction, and (d) engage teachers in intentional discourse rather than avoidance.

Assist teachers in analyzing student data and improving their instruction in PLCs. Twenty-five teachers believed that ICs can play a remarkable role in assisting teachers in understanding, analyzing student achievement data, and utilizing best instructional practices that would work for students. For example, Teacher 19 stated, “An instructional coach could have reviewed the data with the TEAM and then gone through some best practices that the teachers may need to

Figure 3. Perceived ICs’ practices for creating and sustaining a safe PLC learning environment.
implement in their classrooms to best serve their students.” Teacher 1 said, “The instructional coach would be useful in analyzing data from students and provide meaningful strategies and resources based on the data.” Similar to this, Teacher 63 stated,

The instructional coach could walk through the data analysis piece with the group giving tips and pointers over what is best to use to interpret results and shape instruction. Experienced teachers can offer insight and guidance in a non-threatening way.

The participant also explained how ICs can help teachers identify patterns and trends from analyzing their student data. For example, Teacher 15 noted, “The coach can guide teachers to look at areas in the data that should be focused on and to explicitly teach the team how to look for trends and what should be noted when reviewing the data.” Similar to this, Teacher 51 suggested, “If I were the IC, I would have given the folders to each teacher and asked them to analyze their data on their own. I would ask the teachers to come with any trends they see in their classrooms. Then, I would meet as a team to discuss the data.” Teacher 28 argued that ICs with the help of other teachers in the PLC meetings can help teachers struggling with data analysis to better analyze them and plan accordingly. She said,

I think that the instructional coach needs to sit down with the team and look at the individual data with the teachers. Once the teacher put it away like two of them did at the end there is no real room for growth. The teachers could have all discussed the trends that the two teachers who said behind realized and the Instructional coach could have helped them set up an action plan.

Helping teachers address low performing students by analyzing their data was another role the participants in the study highlighted as important practices of ICs in PLCs. For example, Teacher 11 noted, “The instructional coach could have been the one leading the PLCs explaining to teachers how to best read the data and tools/techniques/activities that would specifically help the low areas.” Similarly, Teacher 9 stated, “The IC analyzes data, designing with teachers’ new interventions or strategies for at-risk students.” Teacher 49 said, “They could walk the teachers through the steps of benchmark data analysis; give ideas of how to improve teaching methods to increase scores.”

Share instructional strategies and ideas with teachers in PLCs. Fifty-three teachers highlighted the importance of ICs’ practices in PLCs related to sharing instructional strategies and ideas that worked for them with other teachers. Teacher 6 stated, “Instructional coaches can provide different strategies that might have worked in the past for them, provide some materials they can use, and give them feedback on their ideas.” Teacher 42 noted,

The instructional coach will be able to give various strategies based on the student’s needs and how they can focus and aim to each which may need more help. He or she would be specialized and be able to pinpoint particular ways which may be able to help the individual.

Similar to this, Teacher 58 stated,

The instructional coach should give guidance on things that have worked in the past and give each member an opportunity to contribute their ideas. Then they can help the rest of the group with how to incorporate into their class.

Figure 4. Perceived ICs’ practices in PLCs for enhancing teachers’ instructional capacities.
Teacher 29 noted, “They [ICs] could bring strategies that work.” Teacher 49 said, “The instructional coach could be utilized to offer instructional practices that are effective and research based.” Aligned with this, Teacher 13 noted,

The instructional coach could bring in strategies that are research based and model the strategies for the teachers. In addition to this the instructional coach could also bring in RTI [Response to Intervention] activities that the students can participate in based on their level of success on the assessment.

Teacher 36 explained how an IC can provide tailored instructional support to individual teachers in PLCs. She noted, “Teachers could share their ideas within the meeting. Those teachers that need additional support should be offered the opportunity for the instructional coach to give one-on-one instruction or model a lesson.” Teacher 51 stated, “The coaches should be used to facilitate the PLCs along with veteran teachers in that grade level.”

Facilitate collaboration among teachers on instruction in PLCs. Sixty teachers indicated that facilitating collaboration among teachers on instruction is one of the most important practices of ICs in PLC. They explained how ICs can help teachers focus their dialogues and conversations on instruction to attain PLC meeting goals. Teacher 3 noted, “They [ICs] can push discussion forward and guide it. They can give insight into what needs to be done.” Teacher 12 stated, “An instructional coach could lead team dialogue with data focused practices.” Teacher 10 explained how ICs can help create effective collaboration among teachers in PLC meetings. She said, “The IC can make sure everyone is involved and that the meeting is ran efficiently. Too many times we are stuck listening to small talk instead of working.” Similar to this, Teacher 15 mentioned, “The instructional coach could suggest that they all meet the following day so that they can look at the data together and help brainstorm together.”

Utilizing expertise of experienced teachers to help new teachers enhance their teaching was also one of the effective practices highlighted by teacher participants in the study. Teacher 30 noted, “If two of the teachers were using strategies from the instructional coach then she [the IC] could have made sure the new teachers knew the same strategies their teammates were using.” Teacher 19 explained that ICs can facilitate collaboration among teachers from different subjects. She reported,

Engage teachers in intentional discourse in PLCs. Fifty teachers highlighted the role of ICs in engaging teachers in intentional discourse to discuss teaching issues teachers might have with the goal to enhance their instructional capacities. This is because participant teachers perceived intentional discourse as an effective tool ICs can use in PLCs to help teachers overcome avoidance and have purposeful communication with each other. For example, Teacher 13 mentioned, “It [intentional discourse] would encourage team members to speak to one another and not feel isolated by their own actions. It is not beneficial for team members to avoid each other and go in their rooms to do what they want.” Similar to this, Teacher 7 stated, “This [intentional discourse] would get any “issues” out and resolved versus holding it in and gossiping about it.” Teacher 12 mentioned, “Intentional discourse must be a productive dialogue among team members designed to collaborate and implement best practice.” Teacher 66 noted how intentional discourse can help teachers put their issues up front for team members to discuss together during their PLC meetings. She said,

Teacher participants indicated that intentional discourse rather than avoidance can help teachers participating in PLCs to improve student achievement. Teacher 42 noted, “Intentional discourse would have a structure of sort and a plan when discussing assessments and gathering strategies to make sure that the individuals are ready to discuss and plan strategies which might help their classes and their needs.” Teacher 10 said, “Avoidance would not help raise test scores. Intentional discourse is needed to promote a growing practice. It keeps you engaged with other teachers and you can start keeping records of student progress.” Similar to this, Teacher 26 said, “Engaging in intentional discourse invites members to think aloud, critically, and with a deeper understanding; this fosters meaningful and purposeful conversations with a common goal.”

Intentional discourse seemed to have been perceived by teachers as effective in addressing particular issues such as misconceptions teachers may have about data analysis in PLCs as well as issues associated with using power dynamics by school leaders to ensure teachers’ participation in PLCs. For example, Teacher 28 noted “Many teachers feel as though looking at how well classes did is ranking one teacher over another when in fact it is an opportunity to find out everyone’s strengths and weaknesses.” Teacher 54 mentioned,
Discussion

The purpose of this qualitative study was to identify practices that ICs engage in during PLCs which may enhance teachers’ instructional capacities as perceived by participants in the study. The study sample is diverse, including 67 Texas teachers of different ethnicities, subjects, and grade levels. This made participants able to share a wide range of perceptions regarding actual or potential IC practices in PLCs they believe can enhance teachers’ instructional capacities. Findings of the study are considered an addition to the literature related to practices ICs can perform in PLCs to enhance teachers’ instructional capacities as perceived by participants. This is because we did not find previous literature on this particular topic. All the studies we found, as previously described in the literature section, addressed either ICs practices to support individual teachers (Hopkins et al., 2018; Hord & Southwest Educational Development Laboratory, 1997; Marsh et al., 2010, 2015; Pirtle & Tobia, 2014; Stoll et al., 2006; Walkowiak, 2016) or studies on the characteristics of PLCs that contribute to enhancing teacher instructional practices (Antinluoma et al., 2021; Brown et al., 2018; De Neve & Devos, 2017; DuFour et al., 2008; DuFour & Mattos, 2013). However, we did not find any studies investigating the perceptions of teachers, or any practitioners at the school or district levels, of the ICs’ practices in PLCs as described in this study. The only study we found was Voelkel et al. (2021). They investigated the perceptions of district leaders (principals, ICs, and district-level leaders) on the procedures a particular district followed to shift the role of ICs from coaching individual teachers to coaching PLCs. While there were studies that investigated ICs’ practices with individual teachers and other studies that explored characteristics of PLCs contributing to enhancing teachers’ practices, this is the first study to investigate ICs’ practices in PLCs, to the best of our knowledge.

To better interpret the findings of our study, we employed a theoretical framework based on two theories: the theory of OL (Fiol & Lyles, 1985), particularly at the school context (Leithwood et al., 1998); and the ZPD assumptions (Verenikina, 2003; Vygotsky, 1978). We combined theoretical assumptions from the two theories to shed light on two levels of learning support that may exist at schools, as organizations. These two levels can be described based on the level of support provided to teachers on instruction as an outer level and an inner level of learning support. To emphasize this, the outer level of learning support describes the general school level support when all school members, including leadership team, teachers, parents, and students, value learning and realize its importance in increasing organizational strength and competitiveness as described in the theory of OL. While this advances the learning environment of the school, it still does not provide specific instructional support to teachers. As for the inner level of learning support, it describes how ICs’ PLC meeting practices designed to enhance teachers’ instructional capacities can provide a focused instructional support to teachers.

Participants in the study shared two main types of practices ICs can perform in PLCs which can contribute to enhancing teachers’ instructional capacities. Under each of the two types, we were able to identify more specific practices. The first main type is IC creating and sustaining a safe PLC learning environment, which seems to be more of a framework organizing participants’ interactions in the PLC meetings. Through this framework, participants shared two more specific practices ICs can perform in PLCs: to establish norms and rules for PLC meetings and to foster trust and mutual respect among PLC participants. While these specific practices do not provide direct guidance to teachers on instruction, they were perceived as fundamental IC practices to help create a safe environment for all teachers where they can learn how to improve their instruction.

Informed by the previous studies we conducted on PLCs for teachers and leadership teams (Irby et al., 2017; Irby, 2018, 2021), we agree with participant statements related to how trust among teachers in PLCs is important for professional learning. This is simply because if teachers, particularly new and novice teachers, did not feel that trust, they would not feel comfortable sharing ideas with or soliciting feedback from other professionals in PLCs. This would affect collaboration negatively and would definitely limit opportunities for professional learning. Thus, participants in the study believed that creating a safe learning environment is a basic practice of ICs in PLCs upon which other practices might be established.

The other main practice perceived by the participants was IC assisting teachers in enhancing their instructional capacities. Under this main ICs’ practice, there were four more specific ICs’ practices that were to: assist teachers in analyzing student data; share instructional strategies and ideas with teachers; facilitate collaboration among teachers on instruction; and engage teachers in intentional discourse. While some of these specific practices seem to be similar to ICs’ practices with individual teachers outside PLCs, the participants perceived ICs’ practices in PLCs as more effective for improving teachers’ instructional capacities. This is because collaborative learning environments that ICs can create in PLCs allow for various instructional interactions such as questioning, brainstorming, and reflecting on teaching, which contribute to teachers learning more about instruction and enhancing their instructional capacities.

Intentional discourse was perceived as one of the most effective of ICs’ practices to enhance teachers’ instructional capacities in PLCs. The participants believed that ICs performing this
particular practice effectively results in maximizing the functionality of other IC practices in PLCs. In other words, ICs successfully utilizing intentional discourse to enhance teachers’ accountability for improving student achievement helps create a safe PLC learning environment. Creating a safe PLC environment informed by trust among all professionals participating in PLCs helps to overcome the sense of avoidance some teachers might have in PLCs. This trust also advances collaboration between teachers on instruction, which contributes to enhancing teachers’ instructional capacities and improving student achievement.

Conclusion

While some studies investigated ICs’ practices with individual teachers and other studies explored characteristics of PLCs that contribute to enhancing teachers’ practices, this is the first study to investigate ICs practices in PLCs, to the best of our knowledge. Participants shared two types of practices: the first was intended by ICs to create and sustain a safe PLC learning environment. The participants highlighted two specific practices, including to establish norms and rules for those meetings and to foster trust and mutual respect among PLC members. The other type of ICs’ practices the participants focused on was instructional support that ICs can provide to teachers in PLC meetings. Particularly, participants reported four specific practices, including to assist teachers in analyzing student data to improve their teaching practices, share instructional strategies and ideas, encourage collaboration among teachers on instruction, and engage teachers in intentional discourse.

In these four specific practices, the participants expressed the remarkable roles ICs can play to facilitate collaboration among teachers on instruction, such as to encourage experienced teachers to share strategies and ideas that worked for them in their classrooms with other teachers attending PLC meetings. The participants also believed that ICs are important in PLCs as they support reflections on ideas and strategies, whether they provide their own reflections or they encourage other professionals to share their thoughts and reflections in a mutually respectful PLC learning environment ICs created.

In many ways, the participants’ perceptions about ICs’ practices in PLCs to enhance teachers’ instructional capacities as highlighted in our study is a unique contribution to the literature in this area. We posit this because while district and school leaders rely on ICs to help teachers improve their instructional practices, the roles those ICs are expected to play in PLCs are not clear enough. For ICs to meet expectations of school and district leaders, ICs’ roles need to be clearly framed and supported by research-based evidence. This increases the importance of our study as we explore and report effective practices ICs play, or are expected to play, in PLCs to enhance teachers’ instructional capacities as perceived by practitioner teachers. To build on this work, we invite colleague researchers to further investigate ICs’ practices in PLCs from the perspectives of other professionals including school and district leaders, in addition to the ICs themselves. We hope this can provide better understanding of those important practices as they help teachers promote their instructional practices, which ultimately contribute to improving student learning and achievement.

Findings of the study can help district leaders develop guidelines for practices of ICs to use in PLCs. We developed a number of recommendations for district and campus leaders to consider as they work to develop ICs who lead PLCs on campuses. We believe these recommendations can help ICs advance the effectiveness of their PLCs related to enhancing teachers’ instructional capacities:

1. Set clear goals and objectives for PLCs informed by teachers’ and students’ instructional needs.
2. Establish communication rules/protocols to facilitate communications among teachers and between teachers and ICs.
3. Determine expectations and responsibilities of ICs and teachers in PLCs.
4. Involve teachers participating in PLCs in decision-making related to PLC goals, activities, resources, schedules, and outcomes.
5. Introduce intentional discourse as a framework for PLCs, compare it to avoidance, and share examples of the research findings on how intentional discourse can serve as an effective practice of ICs in PLCs.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by Project Massive Open Online Individualized Learning (MOOPIL). MOOPIL is funded through the National Professional Development Grant from the U.S. Department of Education, Office of English Language Acquisition Grant [T365Z170192] September to August 2022.

ORCID iDs

Hamada Elfarargy https://orcid.org/0000-0002-8899-3558
Fuhui Tong https://orcid.org/0000-0003-0555-892X

Reference

Antinluoma, M., Ilomäki, L., & Toom, A. (2021, April). Practices of professional learning communities. *Frontiers in Education, 6*, 89. https://doi.org/10.3389/feduc.2021.617613
Bonk, C. J., & Kim, K. A. (1998). Extending sociocultural theory to adult learning. In M. Cecil Smith & T. Pourchot (Eds.), *Adult learning and development: Perspectives from educational psychology* (pp. 67–88). Routledge.
Brodie, K. (2013). The power of professional learning communities. *Education as Change*, 17(1), 5–18. doi:10.1080/16823206.2013.773929

Brown, B. D., Horn, R. S., & King, G. (2018). The effective implementation of professional Sagelearning communities. *Alabama Journal of Educational Leadership*, 5, 53–59. https://files.eric.ed.gov/fulltext/EJ1194725.pdf

Chua, W. C., Thien, L. M., Lim, S. Y., Tan, C. S., & Guan, T. E. (2020). Unveiling the practices and challenges of professional learning community in a Malaysian Chinese Secondary School. *SAGE Open*, 10(2), 1–11. doi:10.1177/152244020925516

Coburn, C., & Russell, J. (2008). Getting the most out of professional learning communities and coaching: Promoting interactions that support instructional improvement. *Learning Policy Brief*, 1(3), 1–5.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.

Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The Counseling Psychologist*, 35(2), 236–264. https://doi.org/10.1177%2F0011000006287390

De Neve, D., & Devos, G. (2017). How do professional learning communities aid and hamper professional learning of beginning teachers related to differentiated instruction? *Teachers and Teaching, 23*(3), 262–283. https://doi.org/10.1080/13540602.2016.1206524

DuFour, R. (2004). What is a “professional learning community”? *Educational Leadership*, 61(8), 6–11.

DuFour, R., DuFour, R. B., & Eaker, R. E. (2008). *Revisiting professional learning communities at work: New insights for improving schools*. Solution Tree.

DuFour, R., & Mattos, M. (2013). Improve schools. *Educational Leadership*, 70(7), 34–39.

Farley-Ripple, E. N., & Buttram, J. L. (2014). Developing collaborative data use through professional learning communities: Early lessons from Delaware. *Studies in Educational Evaluation*, 42, 41–53. https://doi.org/10.1016/j.stueduc.2013.09.006

Fiol, C. M., & Lyles, M. A. (1985). Organizational learning. *Academy of Management Review*, 10(4), 803–813.

Galey, S. (2016). The evolving role of instructional coaches in US policy contexts. The *William & Mary Educational Review*, 4(2), 11. https://scholarworks.wm.edu/wmer/vol4/iss2/11

Hord, S. M., & Southwest Educational Development Laboratory. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. https://scedl.org/pubs/change34/plc-ch34.pdf

Hopkins, M., Spillane, J. P., & Shirrell, M. (2018). Designing educational infrastructures for improvement: Instructional coaching and professional learning communities. In S. A. Yoon & K. J. Baker-Doyle (Eds.), *Networked by design: Interventions for teachers to develop social capital* (1st ed., pp. 174–195). Routledge.

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Irby, B. J. (2018). Editor’s overview: Differences and similarities with mentoring, tutoring, and coaching. *Mentoring & Tutoring: Partnership in Learning*, 26(2), 115–121. https://doi.org/10.1080/13611267.2018.1489237

Irby, B. J. (2021). *Introduction to PLCs*. Top-Class education, educational leadership research center. Texas A&M University. https://elrc.tamu.edu/top-class-educational-pd/

Irby, B. J., Abdelrahman, N., & Lara-Alecio, R. (2020). *Mentoring across teacher career stages*. Oxford Research Encyclopedia of Education.

Irby, B. J., Lynch, J., Boswell, J., & Hewitt, K. K. (2017). Mentoring as professional development. *Mentoring & Tutoring: Partnership in Learning*, 23(1), 1–4. https://doi.org/10.1080/13611267.2017.1312895

Johnson, R. B. (1997). Examining the validity structure of qualitative research. *Education, 117*(2), 282–292.

Jones-Goolds, K. M. (2018). A phenomenological study of teacher collaboration using a professional learning community model. *Journal of Research Initiatives*, 3(3), 10. https://digitalcommons.unfcsu.edu/jri/vol3/iss3/10

Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214–222. https://doi.org/10.5014/ajot.45.3.214

Lee, J. C. K., Zhang, Z., & Yin, H. (2011). A multilevel analysis of the impact of a professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and Teacher Education*, 27(5), 820–830.

Leithwood, K., Leonard, L., & Sharratt, L. (1998). Conditions fostering organizational learning in schools. *Educational Administration Quarterly*, 34(2), 243–276. https://doi.org/10.1177%2F0013161X98034002005

Marsh, J. A., Bertrand, M., & Huguet, A. (2015). Using data to alter instructional practice: The mediating role of coaches and professional learning communities. *Teachers College Record*, 117(4), 1–40.

Marsh, J. A., Sloan McCombs, J., & Martorell, F. (2010). How instructional coaches support data-driven decision making: Policy implementation and effects in Florida middle schools. *Educational Policy*, 24(6), 872–907. https://doi.org/10.1177%2F0899504809341467

Pirtle, S. S., & Tobia, E. (2014). Implementing effective professional learning communities. *SEDL Insights*, 2(3), 1–8. https://files.eric.ed.gov/fulltext/ED593422.pdf

Scott, A., Clarkson, P., & McDonough, A. (2011). Fostering professional learning communities beyond school boundaries. *Australian Journal of Teacher Education*, 36(6), 5. https://doi.org/10.14221/ajte.2011v36n6.2

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, 7(4), 221–258. https://doi.org/10.1007/s10833-006-0001-8

Teague, G. M., & Anfara, V. A., Jr. (2012). Professional learning communities create sustainable change through collaboration. *Middle School Journal*, 44(2), 58–64. https://doi.org/10.1080/00940771.2012.11461848

Thornton, K. (2015). The impact of mentoring on leadership capacity and professional learning. In C. Murphy & K. Thornton (Eds.), *Mentoring in early childhood education: A compilation of thinking, pedagogy and practice* (pp. 1–13). NZCER Press.

Verenikina, I. (2003). *Understanding scaffolding and the ZPD in educational research*. University of Wollongong Australia. https://ro.uow.edu.au/edupapers/381
Voelkel, R. H., Jr., Fiori, C., & van Tassell, F. (2021). District leadership in redefining roles of instructional coaches to guide professional learning communities through systemic change. *Leadership and Policy in Schools*. Advance online publication. https://doi.org/10.1080/15700763.2021.1917622

Vygotsky, L. (1978). Interaction between learning and development. In M. Gauvain & M. Cole (Eds.), *Readings on the development of children* (5th ed., pp. 34–41). Worth.

Walkowiak, T. A. (2016). Five essential practices for communication: The work of instructional coaches. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 89(1), 14–17. https://doi.org/10.1080/00098655.2015.1121121

Zamawe, F. C. (2015). The implication of using NVivo software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal*, 27(1), 13–15. https://doi.org/10.4314/mmj.v27i1.4