Examining Collaborative Professional Development: A Participatory Teacher Inquiry by Teacher Educators

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Abstract

As a teaching team for an undergraduate introductory education course with one faculty member and 10 doctoral students, we both engage in and critically examine collaborative professional development (PD) as it emerged through our flexibly structured bi-weekly team meetings. Here, we draw upon our own experiences and support our learning with qualitative survey data via inquiries of two team members who share how they experienced the team meetings as collaborative PD. Our work highlights the value of the interdisciplinary expertise of our team and the role that reflective structures played in team members' sense of responsibility to share resources, perspectives, and knowledge, advancing the curriculum and educator PD. Our unfolding research promotes future directions for teacher education and educator PD by inviting all to consider how we can position teachers as sources of knowledge from which we can develop new ways of interpreting curriculum, teaching practices, and PD.

Keywords: teacher inquiry, collaborative professional development, professional development, teacher education, participatory action research

Background: Establishing our Inquiries into Teacher PD

What might "collaborative professional development" mean and involve? In our new roles as teaching team coordinators, this was the overarching question guiding our (Mark and Emily's) early conceptualizations of a research project centering on our own teaching team. The now ongoing project studies the experiences of this teaching team to examine how both curriculum and professional development (PD) occur during and as a result of bi-weekly teaching team meetings. The 2021–2022 team consisted of seven doctoral student teaching assistants (TAs), including Lori, who were instructors of record (IORs) for multiple sections of an undergraduate introductory education course; Mark, a doctoral student TA coordinator; Emily, a faculty course coordinator; and Minki, a doctoral student research assistant, or RA. This team was responsible for teaching and overseeing eight sections per semester of a discussion-based introductory education course at a large Southeastern research university.

This course is a general education (non-subject-area specific) course that is a prerequisite for entrance into any of our university's undergraduate educator preparation programs. Moreover, the course critically examines the American education system using a discussion-based format. Teaching such a course has presented challenges for some TAs who are not familiar with American education or who

have limited experience in leading discussions as a primary form of instruction. Additionally, some TAs have limited experience teaching undergraduate courses altogether. Therefore, it was paramount that the PD organized by the course coordinators was meaningful and fostered a supportive environment.

Given our roles in shaping this unfolding PD and research about it, in this opening section, "we" refers to Mark and Emily as the team coordinators. We (Mark and Emily) sought to approach bi-weekly team meetings as opportunities for the TAs to share their own knowledge and classroom practices, resources, and philosophies with one another and, in turn, help to develop the course curriculum. We wondered how to facilitate meetings that would feel collaborative and individually useful for the TAs and whether and how the TAs might engage with our meetings as part of their PD experiences. We also wanted to intentionally consider how to create collaborative PD *with* the teaching team through the team's input and own design.

From these wonderings, we conceptualized our research project in Summer 2021 prior to the Fall 2021 semester in which our team began collaborative PD work together. Given the participatory frameworks underlying our study, particularly practitioner inquiry (Cochran-Smith & Lytle, 2009) and PD, we centered "collaborative design" (Voogt et al., 2015) with teachers as "participatory designers" (Cober et al., 2015) and extended an open invitation to all TA team members to be co-researchers.

All seven TAs (see Table 2) consented to engage in the study as participants.
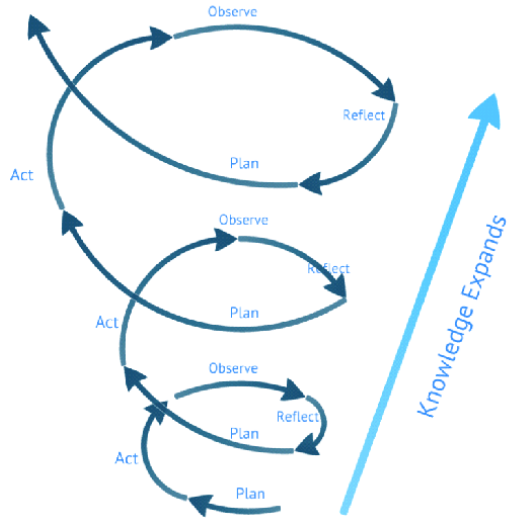
Table 2. *Study Participants*

TA Team Member	Area of Specialization	Number of Semesters as IOR for this Course
Lori	Early Childhood Education	6
Iris	Science Education	1
Meggie	Mathematics Education	3
Nancy	Elementary Education	2
Nick	Mathematics Education	1
Ralphie	Science Education	1
Raul	Special Education	1
Susanna	Early Childhood Education	3

Note: Except for the TA who is a co-author (Lori), we use pseudonyms.

Two team members, Minki (the team's RA) and Lori (an IOR teaching two Fall 2021 course sections and one Spring 2022 course section), expressed interest in further involvement with the study. Lori is an experienced early education teacher and teacher educator with an extensive background in developing and facilitating teacher PD, an interest and expertise that compelled her to participate in data analysis and discussion. Minki is an Art Education doctoral student who oversees data collection and organization efforts and engages in critical literature reviews on topics relevant to ongoing data analysis. Minki specializes in participatory action research (PAR) and played an important role in

bringing a conceptual framework to this study: the participatory research cycle (Frankel et al., 2019) in Figure 1.

Figure 1. *Frankel et al.'s (2019) Participatory Research Cycle*

Note. The participatory research cycle (Frankel et al., 2019) serves as a key conceptual framework for this study.

Participatory research facilitates the spiraling expansion of perspectives and knowledge by stakeholders/participants involved in a shared problem, repeating the cycle of *plan*, *action*, *observation*, and *reflection* (Fraenkel et al., 2019). This study draws on Fraenkel et al.'s (2019) participatory research cycle as an iterative framework through which teaching team members engage in and with collaborative forms of practitioner inquiry (Cochran-Smith & Lytle, 2009). From experiences as part of this teaching team and more broadly as educators who have encountered PD across career contexts, individually and together the co-authors seek to understand how to foster collaborative approaches to both curriculum development and PD. Further, we aim to uncover the impacts such approaches have on educators' classroom practices and senses of themselves as educators individually and in community.

In explorations of what is meant by "educators in community," Levine (2010) emphasizes the multiple ways of conceptualizing "teacher community," all of which the co-researchers and authors here understood as applying to our TA team meetings: inquiry community, teacher professional community, community of learners, and community of practice (p. 111). Most intriguing was Levine's articulation that all conceptions of "teacher community" have a "common core": "the notion that ongoing collaboration among educators produces teacher learning, and this ultimately improves teaching and learning" (p. 110). This work aims to build on other research related to professional learning communities (Stoll et al., 2006) and communities of practice (Wenger, 1999) particularly while taking up Levine's (2010) charge: "additional theorizing regarding how individuals may act and learn together offer even more affordances for studying collaborative teacher learning" (p. 110). Together, the four of us as co-authors and researchers are further conceptualizing collaborative PD and doing so through the perceptions of teachers (Gutierez, 2019), who, in our team context, engaged in our own collaborative, flexibly structured PD experience.

Study Context

In the Fall 2021 semester, Mark and Emily together assumed new roles as TA coordinator and faculty course coordinator, respectively, for a team of eight TA IORs for this introductory education course. Mark was a doctoral student who had taught the introductory education course for four semesters and participated in teaching team meetings as part of his teaching duties. Those past meetings resembled PD sessions he had experienced previously: one person read through notes and announcements, and the remaining time was filled with addressing logistical issues. Other common forms of PD Mark (and other team members) experienced involved an administrator or company promoting a new product, service, or pedagogical tool for instructor adoption. In Mark's experience, the productivity of such meetings was minimal and rarely sustained. Both Mark and Emily had the vision of making the Fall 2021 team meetings a productive, useful space by inviting everyone to participate in planning and facilitation.

In order to facilitate such participatory forms of practitioner inquiry, Mark and Emily organized bi-weekly teaching team meetings with discussion of course content and administrative concerns in the first half, and in the second half, one TA per meeting presented on a course topic of their choosing. This approach represented a purposeful shift away from how teaching team meetings in years prior emphasized curricular fidelity over the development of course content and instructor collaboration and growth. In line with participatory and practitioner-oriented frameworks (Cober et al., 2015; Cochran-Smith & Lytle, 2009; Voogt et al., 2015), Mark and Emily recognized in their pre-semester planning that the doctoral student TAs who were to serve as IORs for this undergraduate course already held valuable experience, knowledge, and ideas the entire team could learn from around classroom practices, pedagogical philosophies, and PD. This recognition resulted in this new TA presentation component in bi-weekly team meetings as an intentional but flexible structure for centering teachers as sources of knowledge and "participatory designers" (Cober et al., 2015) of both course content and the PD experience as a teaching team.

TAs were asked to align their presentations with course content for a given week (all sections of the course follow the same weekly content outline) but were given freedom in how they approached their presentations, all with the goal of individually and collaboratively thinking critically about shared course curriculum and individual teaching practices, ideas, and tools as well as professional and personal growth as educators. Presentations were framed as informal, with suggested approaches including modeling a lesson, problematizing a reading, or sharing a resource. Within a week of presenting to the team, each TA was emailed a link to a post-presentation survey (see Appendix) that Emily and Mark had created as a means of both self-reflection for the TAs as instructors and participatory curriculum designers (Cober et al., 2015) and as a data source to help understand whether and how the presentation was experienced as individually and collaboratively useful.

From this presentation structure, an emergent reflective component was organically added to the beginning of team meetings. In the meeting following the first presentation, Mark prompted the team to discuss how the previous meeting's presentation was received and how it informed subsequent pedagogical practices and perspectives. Although incorporating this reflective component was not in the original plan of the meeting structure, it became a regular practice for subsequent team meetings.

Following the emergence of the above reflective discussion component at the start of team meetings, Minki came to realize that the semi-structured meeting experience resembled components of participatory action research, which has cyclical rather than linear processes (Fraenkel et al., 2019), as seen in ongoing cycles of *planning*, *acting*, *observing*, and *reflecting* collaboratively and individually. Team members discussed experiencing PD growth by planning and implementing practical measures through their presentations and discussions of them while participating in challenging field situations and identifying curricular areas for revision. Furthermore, when team members discovered areas for revision and growth both in the course curriculum and in their classroom practices, they were

reflected in planning and facilitating the next cycle for future TAs and teaching teams. In this participatory research, the presentation honors and grows knowledge among team members through information, instruction, material, and resource-sharing. Expanding perspectives and knowledge through sharing and interaction also serves as a cycle to enhance PD.

Data Collection in Context

Data include reflective structures meant to both support TAs in thinking about their pedagogical practices, philosophies, and growth and inform our research around collaborative PD. In addition to the post-presentation survey mentioned above, Mark and Emily also created similarly reflective, open-ended qualitative surveys (paragraph response) and shared them with the other team members during end-of-semester meetings (December 2021 and April 2022). The surveys focused on how TAs' views around PD shifted from the start to the end of the semesters and also asked how the teachers came to understand their classroom practices and their participation in team meetings in relation to one another.

All members of the teaching team engaged in one-hour semi-structured group interviews (Ravitch & Carl, 2016) during the final two weeks of the fall and spring semesters. The group format of the semi-structured interviews aligned with an emphasis on both individual and collaborative learning, growth, and PD and fit with the ongoing meeting schedule. Semi-structured interviews also allowed Mark and Emily to draw on initial readings of instructors' prior survey responses to create "specific, tailored follow-up questions" (Ravitch & Carl, 2016, p. 154). Interview questions were also developed based on the ongoing collaborative work among all four co-authors. These culminating group interviews and each bi-weekly team meeting's reflective discussions were recorded via Zoom and transcribed.

The informal "presentations" each instructor gave once per semester during bi-weekly meetings served as central data in terms of content, delivery, and reflection during team meetings, in course sections, and in surveys. The presentations also served as the driving force behind the teacher inquiries of Minki and Lori.

Our Inquiries: Sharing Our Learning and Supporting with Data

Ongoing inquiry discussions and data analysis efforts cohere around the potential for professional learning and educator communities to emerge through intentional but flexible structures for sharing expertise. Such "expertise" includes content-area knowledge as well as personal and cultural perspectives and extends across disciplines and experience "levels." Perceptions of TA-led presentations and their impacts also point toward the importance of such structures for individual and collaborative reflection and support. In the following sections, two team members, Minki and Lori, illuminate through their distinct lenses how and why they experienced our team meetings as collaborative PD and the impact of these meetings, both personally and more broadly, on teacher education and PD. First, Minki describes his experiences in relation to interdisciplinarity; then, Lori discusses her experiences regarding shared responsibilities. In these respective inquiry sections, Minki and Lori refer to themselves in the first person. All collective pronouns refer to the teaching team as a whole.

Minki's Experience: Inquiry into Interdisciplinary and Sharing Expertise

All teachers have diverse expertise according to their educational philosophies and disciplinary backgrounds; our TA team has content-area backgrounds in various disciplines, including mathematics, English, art, special education, and early childhood education (see Table 1), and at the

same time, TAs all also teach pre-service teachers with different majors. However, even though our TAs (and teachers more broadly) are experts in a specific field, they may feel uncomfortable when they perceive a lack of expertise in relation to course content and/or delivery style, especially since this is a discussion-based course. In my case, I (Minki) sometimes fear or respond with a defensive attitude when I have to teach content outside my background area of art education. Accordingly, how TAs are supported has to be deeply related to providing an environment where they can develop more expertise in course content and teaching in an unfamiliar discussion-based format and a place to share their diverse teaching experiences and content-area expertise. The climate promotes value in others' experiences.

In addition, teaching team meetings and the courses TAs teach operate in complex systems. Therefore, their actions and teaching should be non-linear. The interdisciplinary approach seeks to share the perspectives of each expert in a complex system and pursue the discourse created over a process (Newell, 2001). Our team is within the appropriate environment to practice an interdisciplinary approach. Both our meeting structure and course content were constructed and implemented within a complex educational system. Throughout the process of the team meetings, our ongoing project has assumed an interdisciplinary approach to support TAs to expand their knowledge and bring their integrated new knowledge, which they share in meetings and reconstruct by themselves, into the classroom. Our study also facilitated TAs in considering their classroom practices and developing as educators through collaboration, sharing, connecting, and integrating their knowledge at regular team meetings.

Participants in interdisciplinary environments integrate their perspectives and knowledge through more comprehension of the content or by solving a complex problem (Klein & Newell, 1997; Newell, 2001). In our case, a complex problem relates to TAs' different backgrounds, experiences, and expertise. The interdisciplinary team helps to support and lessen that discomfort around "expertise," as the TAs are not teaching in their specific content areas and are doing so in a course format that may be less comfortable or familiar, a discussion-based format. We could support each other in bringing in our backgrounds as knowledge and in further developing our pedagogical knowledge through PD with sharing, collaboration, participation, and understanding in the interdisciplinary environment. TAs instruct in parallel in their own classrooms individually and separately; however, in team meetings and presentations, the expansion of perspectives and the integrated knowledge are not parallel in the aspect of the TAs' expertise, which emphasizes the importance of collaboration across expertise. If the TAs each instructed their course by themselves, rather than with regular team meetings where reflective, non-linear ideas could be shared, the course and the PD would not be integrated. Team members found that regular meetings and presentations to share expertise related to course topics provided TAs with opportunities to integrate and expand their knowledge. Through our team meeting structure, particularly the TA presentation component, Raul, a team member whose background was in special education, described growing his own and others' perspectives on course materials and teaching practices, in turn creating new knowledge by sharing experiences and approaches with others across disciplines. "It helped me convey my knowledge and passion to the other instructors, and it was great to discuss how special education could be integrated into future iterations of the course. Also, it was helpful to have feedback" (Post-presentation survey, Fall 2021). TAs integrated interdisciplinary perspectives, formed new knowledge, and incorporated it into their classrooms.

Team members found they encountered various new perspectives and were inspired by the presentation topics in an interdisciplinary and multicultural environment. Our course includes the history and legislation of U.S. education as part of the course content. One of the TA participants, Meggie, an international doctoral student from South Korea, introduced South Korea's case in her presentation and provided the motivations associated with the U.S. school legislation by comparing differences between the U.S. and South Korea. Meggie responded to why she chose this topic in a

post-presentation reflection survey as follows: "This is an interesting topic for me and students to not only…learn what happened in the U.S. education system under certain administration, but also to connect to equity issues" (Post-presentation survey, Fall 2021). Team members supported introducing another country's case and were interested in it, as noted in Meggie's survey response: "I am very glad that the team members are supportive and I felt they were interested in the South Korean case, and they attempt to think about school legislation or other policies in education more" (Post-presentation survey, Fall 2021). The topic of the presentation facilitated perspective-sharing and critical conversation between team members and promoted their understanding of the course content. The presentations provided a series of growth opportunities for TAs to construct expertise in course content beyond their own disciplines and backgrounds.

TAs have extensive educational and experiential backgrounds and knowledge to draw from in their classrooms. However, the content of this course—U.S. laws, legislations, and policies—may be feared because it is unfamiliar and challenging. The interactive presentations that seamlessly linked backgrounds, research interests, and course content demonstrated that interdisciplinary team meetings served as a safe place to share and take risks. Team members found the presentations were closely related to this interdisciplinary approach to intertwined knowledge beyond one's particular discipline and helped to support and lessen fear around teaching outside of one's specific content area, about a foreign education system, and/or in a discussion format unfamiliar to many first-time instructors. TAs' knowledge sharing and expansion continued as we explored how community, regular meetings, presentations sharing expertise, and shared perspectives can support mutual responsibility for content and professional learning over several cycles.

Lori's Experience: Inquiry into Flexible, Reflective Structures and Shared Responsibility

Team meetings were situated as collaborative environments with a *share*, *structure*, *support* framework, aiming to provide a space for sharing in various ways, including the aforementioned presentations and individual and collaborative reflections (the former through the post-presentation survey) as well as editing capabilities of the shared curriculum through the university's learning management system. Team members revealed flexible structures for reflection and feedback as key collaborative design aspects. A collaborative space was constructed for reflection at the beginning of meetings, and TAs engaged in a post-presentation survey as a personal reflection space, but team members recalled the presentation experience (developing theirs and receiving feedback and engaging with others' presentations) as allowing for reflection on their teaching as well. TA team member Susanna described her experience with the presentation as both individually and collaboratively useful for her teaching and professional learning:

> I feel responsible for participating in TA meetings, including this presentation, as a team member. At the same time, it is collaborative work since I have been learning the course content from other team members during the meeting and this helped me to come up with new ideas. (Post-presentation survey, Fall 2021)

The result of these multiple, flexible, reflective structures is that TAs felt a sense of responsibility for sharing their knowledge *and* for constructing new knowledge to advance the curriculum.

The structure of the team meetings supported the participatory research cycle in Figure 1: plan, act, observe, reflect (Fraenkel et al., 2019). Each week, TAs **planned** how they intended to present the course content and readings for their class sections. TAs often chose to use the presentation to try out what they intended to do for an upcoming class session, explaining this process as key to their growth. One team member, Nancy, described that sharing the responsibility of "presenting to my peers required a different lens than presenting as a student or as the instructor to a class" (Post-presentation survey, Spring 2022), as it pushed TAs to engage with material at a deeper level and

develop more thorough explanations for pedagogical choices and to participate in open dialogue about resources and practices.

Engaging with others' presentations allowed team members to gain new insights into how others interpreted course readings and materials and planned to help their own class connect to the content with activities, readings, and resources. This challenged TAs to reflect on whether the particular strategy or focus shown in a team member's presentation would be something they could/would use, as reflected in a post-presentation survey response from TA Nick: "Even as I presented, I gained new perspectives and insight to the content. I really liked how Lori organized her timeline on Padlet. It really helped my timeline [a course assignment] be clearer for students" (Post-presentation survey, Spring 2022). The interconnections between course development and PD are clear here, as the instructor engages simultaneously as a teacher and a learner, drawing on other team members' resources and perspectives with the aim of creating an engaging classroom experience for students, also demonstrating that classroom planning can be both collaborative and individualized.

Such flexibility around the **act** segment of the cycle is how our team's model of PD differs from more frequently encountered models mandating the use of particular new pedagogical approaches or tools with students. Presenters have the opportunity to act and implement the pedagogical choices they have made. This participatory PD, as organized around the iterative research cycle, shifts the emphasis of PD from a one-size-fits-all approach to a more customized experience in which I (Lori), as the one who "receives" the PD, consider how what is presented fits within my knowledge base and prompts questions that are immediately practical and steeped in personal and collective perspectives. Some of these questions include: Do I know enough to implement the strategies seen? What other resources could help me become more grounded in the new idea? Does the new idea provide a more effective way than what I am already doing?

As the week progressed following each team member's presentation, team members **observed** how their plans unfolded and evaluated the effectiveness of those plans in the subsequent team meeting. Such a practice provided a **reflective** structure to identify how/if TAs incorporated ideas from the previous presentation into their own implementation of the curriculum without the stigma of mandating the incorporation of ideas. This was accomplished through a consistent opening question at the start of each meeting about the uptake of the prior week's presentation. Team members experienced this practice as an open, non-judgmental space that allowed for testing new strategies and offering new ideas that would help professional growth. Such a space afforded by a flexible structure was documented and explained by team member Nancy in the following post-presentation survey response: "The atmosphere in the meetings was such that I felt free to take risks and 'be wrong' and [have] a learning experience" (Post-presentation survey, Spring 2022). Teaching can be an isolating position, as Nancy also articulated: "Teaching is so often a solitary endeavor, but the team meetings (i.e., instructor meetings) made it into an excellent learning and collaborative event" (Post-presentation survey, Spring 2022). This final reflection demonstrates the collaborative growth that occurs through our participatory research cycle.

Unfolding Implications and Our Team's Next Steps

To help conceptualize what "collaborative PD" looks like and involves based on our team's own experiences, the co-authors developed Figure 2 to represent the construct of collaborative PD through three major themes perceived from survey responses and Minki's and Lori's inquiries: reflective structures, shared responsibilities across roles, and interdisciplinary knowledge creation and sharing. The co-authors collaboratively created Figure 2 as we tried to understand the relationships among these various aspects of the PD that emerged as most productive and meaningful.

Figure 2. *The Interconnected Nature of Collaborative Professional Development as Experienced by the Teaching Team*
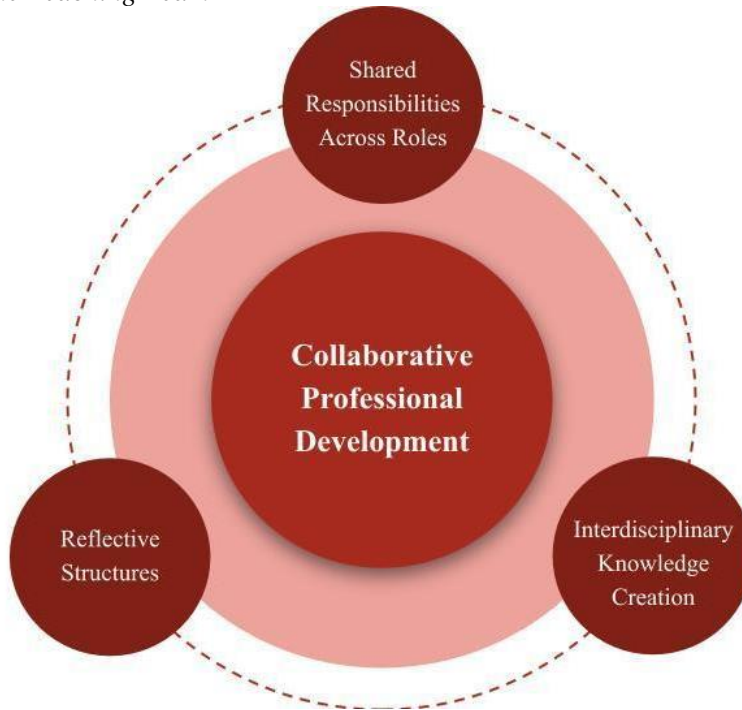
Note. This figure was created by the teaching team to represent the construct of collaborative PD as developed from our own experiences.

Minki's and Lori's inquiries highlight how reflective structures contribute to collaborative but flexible planning, supporting and affirming teachers' own efforts while offering peers' resources and peers as resources. The inquiries also exhibit how our uniquely interdisciplinary team distributed responsibilities across roles such that members shared their own expertise while simultaneously helping others to grow and feel more comfortable teaching outside their content areas. Such interdisciplinary knowledge creation benefitted not only the instructors but also the course itself, as team members contributed to the development of curriculum materials, e.g., Raul shared his special education perspective with the team, which was then incorporated into several team members' lessons and into future curriculum design for the course. Therefore, this unfolding research and our individual and collaborative inquiries highlight future directions for teacher education and teacher PD, inviting all participants to collectively consider how they and others can position teachers and teacher educators as sources of knowledge from which we can develop new ways of seeing, knowing, and understanding curriculum, teaching practices, and PD.

In both facilitating and participating in PD, the co-authors invite teachers and teacher educators to consider the sorts of critical prompts Lori first introduced in her inquiry and offer the following as examples of such prompts that align with the elements of our Figure 2 collaborative PD conceptualization:

- What might it mean for PD to be "collaborative" in your context?

- What forms of participation might you invite in your PD?

- What resources and support do your teachers (and their students) need? What resources do they bring?

- How is responsibility for design and moderation of PD distributed in your context?

- Who makes decisions about what structures are implemented?

- In what ways do participants' roles structure the delivery of PD?

- How will you invite and support new approaches and ideas?

- How will you make reflection feel authentic, useful, and safe?

Through these questions, we suggest teacher educators can continually (re)consider how to flexibly plan PD *and* to attune to the forms of collaborative learning that emerge. Emily and Mark engaged in intentional but flexible planning through multiple reflective surveys and the presentation structure. Forms of collaborative learning that were able to emerge as a result include the discussions during meetings about the prior week's presentation. The surfacing of our team's own participatory research cycle was also emergent. Just as our team's participatory research cycle has evolved and continues to evolve through multiple iterations, we envision that Figure 2 will naturally adjust with our team's experiences and needs for PD.

As co-authors, our next steps include continued collaborative data analysis alongside closer consideration of how team members' distinct but overlapping roles and inquiries can be meaningfully woven together with the research data as well as represented through Figure 2. We move forward in the aim of offering a conceptualization of collaborative PD that centers teachers' forms of knowledge, perspective sharing, and emotional support in relationship to flexible structures for PD and shared responsibilities around both creating and engaging in and with those structures as iterative.

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Appendix

Post-Presentation Survey

- How and why did you choose your topic for your informal presentation?
- In what ways was this presentation topic useful (or not) to you as an educator (and/or researcher, learner, etc.)?
- In what ways was preparing and delivering this presentation useful (or not) to you?
- In what ways do you hope your presentation was or can be useful to other team members?
- In what ways do you think your presentation could have been more useful (to you, to your students, and/or to other team members)?
- Did you experience your presentation as collaborative or participatory; why or why not?
- Please feel free to share any other comments, concerns, or reflections.