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Developing Horizontal Expertise with Professional Learning Communities in Social Studies Teacher Preparation

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Cover Page Footnote

This paper is dedicated to all of the teacher candidates who have participated in the social studies professional learning community. Together we built a space that we never could have anticipated but is exactly what we needed.

Developing Horizontal Expertise with Professional Learning Communities in Social Studies Teacher Preparation

In recent years, teacher education programs have become increasingly organized around the requirements of external accrediting agencies and state licensure policies.[1] It is important and intensive work to prepare social studies teacher candidates to meet these standards, which commonly include the National Council for the Social Studies' (2017) *National standards for the preparation of social studies standards* and the edTPA performance assessment (or similar).[2] These entail a large number of specific skills and significant pedagogical content knowledge (Powell, 2018) for candidates to master, which, in turn, often means teacher education faculty design social studies education courses around these expectations. Commonly lost is space within courses for candidates and faculty to co-construct learning experiences, to collectively respond to current topics, or collaboratively address needs that are not previously identified by accreditors. In essence, we often are unable to be responsive to the needs and interests of teacher candidates -- ironically, the very things we urge them to do as teachers with their future students (Au, 2009). There is already too much to do in too little time.

Over the past nine years, Loyola University Chicago (LUC) has implemented professional learning communities (PLCs) as a core component of its teacher preparation program to create dynamic, open space within its sequence of courses. Organized around areas of subject and/or grade level specialization, these PLCs bring together candidates at all stages of the program, from undergraduate freshmen to master's degree candidates, to explore important topics that often don't appear in content area methods courses. Used in this way, teacher candidates can increase their content and pedagogical expertise, engage in collaborative professional learning, and more quickly socialize into a community of educators. For middle grades and secondary candidates, it also provides a space that simulates collaborative teacher teams and departmental team meetings that candidates will encounter in schools during their future careers.

This article analyzes the evolution of the LUC's secondary social studies PLC to understand the promise and value that these dynamic, co-constructed learning spaces have in teacher preparation. As the two facilitators of this PLC

[1] Recent teacher shortages, in part due to the impact of the COVID-19 pandemic, have some US states rethinking the numerous requirements for becoming a state certified teacher. This seems to apply to university as well as alternative pathways to teaching.

[2] As of July 2022, edTPA or another performance based assessment is required in 17 states and Washington DC. In another 23 states, edTPA is being considered or implemented in teacher preparation programs, https://edtpa.org/policy_and_accreditation. For more information on the edTPA as an assessment, see: http://www.edtpa.com/PageView.aspx?f=GEN_AboutEdTPA.html

for its first six years,[3] we recount ways in which the PLC developed over time, analyze PLC assignments undertaken by candidates, and examine how the PLC has contributed to the development of our secondary social studies teacher candidates. We find that our PLC has become a space within the program where expertise is developed and shared horizontally (Anagnostopolous et al., 2007; Zeichner et al., 2015), upending traditional models and creating opportunities to be responsive to candidates' needs, interests, and lived experiences (Schiera, 2021).

Background and Context

This paper is situated within the context of an intensive field-based model of teacher preparation where teacher candidates complete extended clinical time in schools, community organizations, and cultural institutions. The program comprises eight curricular sequences that in turn are made up of two to four learning modules. The first three sequences are the exploration or beginning phase of the program. During this time candidates learn the fundamentals of teaching and learning while engaging in all levels of schooling (P-12) and delving into informal education environments through experiences with community organizations and cultural institutions (e.g. museums). After exploration, candidates enter the concentration or developing phase, where they begin to focus on their subject-area and/or grade-level. At this point, candidates spend time in schools and organizations with specific age groups and focus on content areas within their specialty area. This phase focuses on subject-specific methodology, literacy and data-based informed methods, and integrating content, cultures, and communities into the curriculum. The final two sequences, in the specialization or mastering phase, include a year-long internship where candidates bring their learning together to meet the needs of all learners in their own classroom. The program is an apprenticeship model with teacher educators and experienced teachers coaching new professionals toward independence and mastery in the field (Rogoff, 1994; Westrick & Morris, 2016).

In the final three weeks of every sequence (semester), teacher candidates meet in their grade level and/or subject-specific PLC for two hours per week. The PLCs are facilitated by university faculty in their respective specialized fields and designed to be driven by the interests of candidates. The PLCs also allow candidates to demonstrate leadership in the program, since all candidates across the undergraduate program meet in their grade-band and/or subject areas. As a result, a first-year candidate in the program from Sequence 1 is working with candidates from Sequences 2 through 8. The PLC becomes a community of

[3] Both authors began teaching the social studies PLC in fall of 2013. The first author continues to teach the PLC, the second author ceased teaching the PLC upon leaving the university in 2019.

practice (Lave & Wenger, 1991; Schiera, 2021) where candidates from different phases of the program can learn from one another's experiences and expertise. Working in small groups with common interests allows the learning to be emergent, targeted, and collaborative where candidates learn from one another.

In the social studies PLC, we have had primarily undergraduate candidates involved from the program's inception in 2013. For a short time, 2013-14, we included graduate candidates, but then focused only on undergraduate candidates due to a change in course requirements. One purposeful addition to our group that we made from the start was to invite alumni of the social studies education program. Each semester, with the exception of the first, we have had the good fortune of several alumni attending the PLC with our undergraduate candidates. This has been a considerable boon for the PLC. Our candidates have found it to be a real benefit, especially those in the later sequences, and the alumni have reported the PLC to be a source of useful professional development.

In the first semester of the PLC, we organized the curriculum of the PLC, rather than candidates. We used the sessions to get a sense of what candidates were interested in for future sessions. This shaped the second semester PLC's content, where we had candidates research essential questions in the teaching of social studies and then share their findings with their peers and alumni teaching in local schools. The topics for subsequent PLC sessions came about through surveying candidates. From those surveys, we shaped the sessions to match candidates' interests and available resources. We worked to bring in speakers, professional development organizations, and to connect with schools and museums. In the Spring of 2015, we began to make a more direct link between the social studies methods modules and the PLC by having the Sequence 6 candidates facilitate the PLC during the same semester that they were enrolled in their two-modules of social studies methods. The evolution of the social studies PLC over its first nine years has allowed it to become a vibrant learning community where rich curricular resources are exchanged and meaningful social studies specific to pedagogical conversations are had. Table 1 indicates the topic of each semester's PLC and the assignment candidates completed. Further, each semester's curriculum products are posted to the PLC's public website[4] so that candidates and other educators have access to the material for future classroom use.

[4] PLC website url: https://sites.google.com/view/lucssplc

Table 1 *Social Studies PLC Topics and Assignments, Fall 2013 through Spring 2022*

Term	PLC Topic	Summative Assignment
Fall 2013	Disciplined inquiry in history	Design a document-based activity
Spring 2014	Burning questions in social studies education	Group presentations on a burning question
Fall 2014	Teaching world history and world studies	World studies curriculum through-line
Spring 2015	Teaching with controversy*	Controversial topic lesson plan
Fall 2015	Action civics	Action civics project proposal
Spring 2016	Teaching with stories	Group lesson plan and resource list
Fall 2016	Teaching elections	Teacher resource collections**
Spring 2017	Simulations activities***	Design and facilitate a classroom simulation
Fall 2017	Interdisciplinary Teaching: Social Studies, English Language Arts, and World Languages	Interdisciplinary Field Trip Plan
Spring 2018	Teaching with Technology: Tech Tools	Social Studies Lesson Demonstration with a Tech Tool
Fall 2018	Using Film in Social Studies	Curated Film Clips on Historical Topics
Spring 2019	Incorporating LGBTQ+ History	Brochures Profiling Major LGBTQ+ Historical Figures

Fall 2019	Trauma-informed teaching	None
Spring 2020	Self-care for teachers & teacher-candidates	Self-care plan & showcase
Fall 2020	Teaching Native histories	Critiquing passages from the *American Yawp*
Spring 2021	Politics in the Classroom	Personal reflection on how to approach controversial issues in your future classroom
Fall 2021	Supporting Refugee Youth	Hypothetical written response on how to support recently arrived Afghan refugee students
Spring 2022	Student & Teacher Rights	Written discussion about how to handle student protests in your future classroom

Note: **Start of social studies methods candidates planning and facilitating spring PLCs*
***Candidate products publicly posted for sharing for the first time.*
****Candidates in undergraduate methods course plan spring PLC for the first time*

Professional Learning Communities and Preservice Teachers

PLCs are now an established practice within the teaching profession having emerged in the early- and mid-1990s as a valuable practice to deepen and extend teachers' learning (Liberman, 1996; Senge, 2006). The international spread of PLCs provides strong evidence that they build the organizational capacity of schools (Stoll et al., 2006) and have some positive demonstrable influences on teaching practice and student learning (Vescio et al., 2008). Incorporating PLCs into pre-service teacher preparation is still an uncommon approach, however, a few programs have begun to explore this model (Rigelman et al. 2012; Ryan et al., 2014). Such programs suggest that the value of incorporating PLCs during the preservice phase is to prepare candidates to be full participants of PLCs once in the profession as well as help candidates become reflective practitioners with agency over their own professional development (Kagle, 2014). Others are more invested in constructing of communities of practice (Schiera, 2021) which pre-date and are akin to professional learning communities, but looser in organization and not as invested in having a specific product as its outcome (Blankenship et al., 2007).

PLCs serve as the touchstone of the LUC teacher preparation program, bringing together candidates within specialty areas, e.g. secondary social studies, elementary, special education, etc., and across developmental levels (i.e., beginning, developing, and mastering as well as recent program alumni) to share and co-construct knowledge, skills, and dispositions applied to diverse classroom, school, and community contexts. Facilitated by faculty members with expertise in each specialty area, the PLCs function like communities of practice (Lave & Wenger, 1991), whereby candidates come together with a common purpose and learn through regular social interactions with one another. Utilizing the cognitive apprenticeship model of learning communities (Brown et al. 1989; Rogoff, 1994), the PLCs bring together individuals at different levels of their teacher education program, and more experienced and advanced members apprentice newcomers by sharing experiences of success and failure with them and offering advice and support to novice candidates within the community (Lave & Wenger, 1991; Zeichner et al., 2015; Schiera, 2021).

Theoretical Framework

In education and related fields, vertical and horizontal forms of expertise exist simultaneously. However, vertical expertise is most often, or arguably, overly relied upon for the facilitation of teaching and learning. Vertical expertise privileges those with "more" experience and expertise sharing with those who are novices in the field. In contrast, horizontal expertise "recognizes the unique knowledge and understanding that each professional [brings] to the collective activity and treats the knowledge as equally valuable, relevant, and important"

(Zeichner et al., 2015, p. 125). The notion that an expert may be a peer, rather than an experienced authority figure, is something that Engeström et al. (1995), emphasize in their study defining horizontal expertise. Engeström et al. (1995) refer to Helgesen (1995), who asserts that experts "can be simply someone who knows what resources to use. Resources such as organization-wide information systems, by providing a wealth of information to anyone who knows how to use them, can serve to radically redistribute expertise in an organization" (Engeström et al., 1995, p. 332). Expanding the definition of expertise from the more traditional, or vertical position, to a more horizontal form, requires the crossing of boundaries and sharing information and resources (Engeström et al., 1995, p. 332).

In working with teachers and teacher candidates, Anagnostopoulos et al. (2007) contend that "[h]orizontal expertise emerges from these boundary crossings as professionals from different domains enrich and expand their practices through working together to reorganize relations and coordinate their work." (p.139). Through this process of engaging in cross-domain activities using boundary objects, like curricular standards, in-service and/or pre-service teachers work together to understand a common task or problem. Zeichner et al. (2015) see this as akin to deliberative democracy where teachers work together to solve "compelling dilemmas" (p. 125).

Schiera (2021) also emphasizes the democratic character of horizontal expertise and believes it has significant value for teacher preparation if teacher educators honor and integrate their students' knowledge. Schiera (2021) outlines three critical areas of expertise that students bring into teacher preparation: 1) knowledge of teaching and learning from their own K-12 and teacher education experiences; 2) lived experiences with justice, as well as informal and formal learning of justice; 3) the totality of their lived experiences and those specific to their identity (p. 470). The rich and complex experiences that students bring with them as they are being and becoming teachers provide content to integrate into the curriculum they construct.

Like Schiera (2021), this study concentrates on the development of horizontal expertise among teacher candidates. It also expands on this form of horizontal expertise as we examine how we have facilitated this within a consistent community of practice in the form of a PLC in a university teacher education program. In these PLCs, teacher candidates work across several clearly defined different professional roles. The vast majority of the group are in the same category - teacher candidates - and are joined by two faculty members and occasionally by alumni joining the group, who are largely practicing teachers. The expertise being shared horizontally is tied to experiences, both within the teacher education program and personal and professional experiences beyond the program. We have brought in outside speakers and taken field trips and in one

case worked across the teacher preparation program's PLCs to create an interdisciplinary opportunity for candidates.

A vital aspect of the PLC semester has been groups of teacher candidates from across the program collaboratively developing curriculum products. These products are designed to develop middle or secondary students' learning in social studies. To facilitate this, teacher candidates are placed in groups to construct a curricular product with some pre-set parameters using related social studies curricular standards. The standards serve as existing boundary objects, which provide common ground (Engeström et al. 1995; Anagnostopoulos et al., 2007). The teacher candidates have different levels of experience with the standards based on their individual backgrounds and/or level of experience in the program (the sequenced they are enrolled in); hence they may have different depths of understanding and/or understand the standards in different ways (Anagnostopoulos et al., 2007). For teachers or pre-service teachers, curricular standards have become a point of reference and a place to begin a conversation.

Vertical processes consider how the "'scientific' concepts [used by educators] move downward while everyday concepts move upward" (Anagnostopoulos et al., 2007, p.139). Using horizontal expertise depends on developing a useful idea or tool, a co-created boundary object, through collaboration that solves a common problem or meets a common need (Anagnostopoulos et al., 2007). The focal point of horizontal sharing and collaboration provides a space for educators to take a boundary object (Star, 1989), like curricular standards, to assist teacher candidates in problematizing curriculum development. It helps facilitate solving a curricular problem, designing a new curricular tool, meeting a common instructional need, and more (Anagnostopoulos et al., 2007) This facilitates shared languages and vantage points so teacher candidates can collaborate despite different expertise and experience (Anagnostopoulos et al., 2007, p.140). This type of learning also relies on combining "theory and practice" as teacher candidates "are involved in processes of boundary-crossing" (Engeström et al., 1995, p. 333).

Within PLCs, teacher candidates (a) share learning from various school-based experiences, (b) apply learning through completion of summative assessments from semester coursework, and (c) synthesize learning through reflection and discussion related to essential understandings and dispositions. Candidates come together to make meaning of the learning that takes place in their courses and clinical experiences. The knowledge acquired interpersonally through this collaboration is adopted by the individual teacher candidate and used to guide future situations where problem-solving skills are needed (Moll, 1990). This more effectively ensures that candidates apply learning within their chosen specialty areas and increase their content and pedagogical expertise (Grossman, 1990; McLaughlin & Talbert, 2006; Shulman, 1986).

Methodology

This case study (Yazan, 2015) examines the evolution of the LUC secondary social studies PLC to better understand this co-constructed learning space over time. We collected data from the PLC generated by teacher candidates which included: curriculum artifacts, written reflections, and peer evaluations. For each PLC curriculum artifact, we posed the following questions largely derived from the elements that Anagnostopolous et al. (2007) include in horizontal expertise.

1. What is the expert idea being learned?
2. What kind of tools or concepts are candidates creating to solve a practical teaching problem?
3. What kinds of existing boundary objects are they working with?

We focused on a cohort (n=6) of undergraduate teacher candidates' PLC peer evaluations and reflections from the start of their program (fall 2018) through graduation (spring 2022) to examine how they developed horizontal expertise through negotiation over the language used, the practices chosen, and the tools employed in the PLC (Anagnostopoulos et al., 2007). This sub-sample of candidates from the 102 who have participated in at least one PLC since inception is not representative but does provide us with the most recent longitudinal experiences of a cohort with consistent attendance. This gives us insight into how the PLC has developed over the past four years, a period when many of the core design decisions had been implemented.

As noted in Table 1, the past four years have seen several shifts. One of the facilitators left the institution in summer 2019 and the other was on sabbatical for fall 2019. During fall 2019, the PLC was facilitated by another faculty member, and while the remaining social studies faculty member (who was on sabbatical) had input into the topic (trauma-informed teaching), the facilitation was done by others and did not include a final curriculum product. To complicate matters further, the spring of 2020 required an unexpected shift to online class meetings; the Sequence 6 methods candidates planning this PLC quickly reorganized into two synchronous and one asynchronous session focused on self-care. The fall 2020, spring 2021, and fall 2021 PLCs were planned and held as online experiences while the spring 2022 PLC was back in person.

Peer evaluations, which ask candidates to assess the contributions of the colleagues they work with in small groups, have been a feature of the PLC since the start. The evaluation asks each candidate to provide numerical ratings based on a scale of 3 for each of the following prompts:

- did fair share of work
- was cooperative/did agreed upon task
- contributed to ideas/planning

- added relevant resources to assist in the development of the curriculum project
- was available for communication
- was positive, helpful
- contributed to overall project success

For the purposes of this analysis, we focused on responses to two of these prompts that best aligned with the development of horizontal expertise: contributed to ideas/planning and added relevant resources to assist in the development of the curriculum project. Descriptive statistics are used to analyze this data of which there were four semesters of a possible eight.

We drew qualitative data from the open-ended reflection questions that are also required following each PLC. We had data from seven semesters, missing only the fall 2019 semester that was facilitated by a different faculty member. The questions, written by the faculty members and, each spring, in collaboration with methods candidates, change to be relevant to the semester's topic and experiences. The analysis of the qualitative data utilized axial coding (Vollstedt & Rezat, 2019). We started with aspects of horizontal expertise as discussed by Anagnostopoulos et al. (2007) - mutual engagement, negotiation, hybridization - and then coded data using a grounded approach within each of these categories. We then employed a constant comparative method (Creswell, 2002) to create nodes that combined thematically similar codes within the three main categories (see Table 2). In the following section, we discuss the nodes that emerged from this process.

Table 2 *Qualitative analysis categories, nodes, and number of references per node*

Mutual Engagement		**Negotiation**		**Hybridization**	
Group dynamic	9	Tools	6	Adapted existing lesson	2
Mixed sequences good	5	Practices	3	Use wide variety of AV material	1
Induction	4	Language	2	Using colleagues' products	1
Produced good work	3				
Mixed sequences challenging	2				

Findings

The expert ideas that the fall 2018 cohort examined over their eight semesters include a range of topics that are specific to social studies and others that are germane to the field of teaching. Harkening back to the organization of the PLC and that its topics are largely determined by candidates' interests, it is important to note that the balance of ideas explored remains well within the field of teaching and learning. In the area of social studies, the fall 2018 cohort delved into the use of film in social studies classrooms, creating inclusive curriculum, controversial conversations, and student and teachers' rights. In the broader realm of teaching and learning, the fall 2018 cohort explored the ideas of creating safe learning environments and self-care vs. self-soothing.

In the PLC, candidates took these expert ideas and investigated how to address them in practical ways. This involved curating a set of film and video

clips; sharing multimedia resources and research on key figures and events in LGTBTQ+ history; critiquing an open source US history textbook's portrayal of Indigenous history; devising a self-care plan to share with peers given the particular stresses of education; reflecting on how to approach controversial issues in your future classroom; hypothetical written response on how to support recently arrived Afghan refugee students; and discussing in writing how you will handle student protests in their future classroom. Each of these practical teaching exercises utilized an existing boundary object to ground students thinking in the profession of teaching. These existing boundary objects included those common to practicing teachers: curricular standards, curriculum mandates, state policies, supreme court cases, and textbooks.

Table 3 *Analysis of PLC Assignments, Fall 2018-Spring 2022*

Term	PLC Topic	Expert Idea	Tool/Concept	Boundary Object
Fall 2018	Using Film in Social Studies	Using films in the classroom	Films and videos	State standards
Spring 2019	Incorporating LGBTQ+ History	Creating inclusive curriculum	Key figures and events in LGTBTQ+ history	State standards
Fall 2019	Trauma-informed teaching	Creating safe learning environments	n/a	n/a
Spring 2020	Self-care for teachers & teacher-candidates	Self-care vs. self-soothing	Personal self-care practices	n/a
Fall 2020	Teaching Native histories	Creating inclusive curriculum	Indigenous history as the context for US history	*The American Yawp* textbook
Spring 2021	Politics in the Classroom	Controversial conversations	Case studies and hypothetical situations	State standards and civics mandate

Fall 2021	Refugee Youth	Creating inclusive curriculum	Case study of local high school	State standards
Spring 2022	Student & Teacher Rights	Student and teachers' free speech rights	Historical case studies	State policies and Supreme Court cases

This cohort was largely given opportunities to develop horizontal expertise in standards-based inclusive curriculum. In the subsequent section, findings demonstrate a high degree of engagement in these activities.

Mutual engagement

In the context of horizontal expertise, mutual engagement is the collaborative participation of group members. In the PLC mutual engagement can take many different forms: sharing knowledge, contributing ideas, identifying resources, organizing materials, and so on. Key is that the engagement is not prescriptive or predicated on being the expert within a small working group. Rather, mutual engagement emphasizes each individual making valuable contributions to the overall development of the group's curriculum product.

In examining the peer ratings on the peer evaluation prompts "contributed to ideas/planning" and "added relevant resources to assist in the development of the curriculum project" for the Fall 2018 cohort (n=6), their responses had a mean of 2.8 out of 3, which was the same as the median and mode. This made it a unimodal distribution. It also had a restricted range with the highest score assigned by candidates being a 3 and the lowest a 2.5. Consequently, the descriptive statistics gleaned from the peer evaluation did not shed much light on engagement except that the candidates believed their peers were considerably and consistently collaborative in the curriculum development process.

The peer evaluations only offered one way to understand the extent and depth of candidates' engagement in the PLC. The analysis of candidates' reflections provided detailed evidence of their experiences and assessments of how they and their peers interacted with each other. What follows are the themes we discerned from those reflections with illustrative quotes.

Candidates found that it required time to develop relationships built on trust and respect in PLC. Candidates were able to cultivate these relationships in their small groups within the PLC to produce curricular artifacts. On a broader scale, in the spring semesters, the Sequence 6 candidates worked together to develop and facilitate the PLC as a whole. Candidates in both situations found that these group dynamics required time. As one candidate wrote, "[s]ince all of

the planning was done in a group, it became a lesson in collaboration and working with colleagues. I enjoyed getting to work together with my peers and professor to plan this experience."

Candidates also expressed that they felt the PLC provided practical preparation for work in schools. As one candidate responded, "[t]hat is why it is so key that in PLCs (and other courses) that we try to simulate as much real-life teaching experiences as we can, knowing that being able to be put in a position of vulnerability and risk-taking is ultimately how we will best learn what works and what doesn't work." This fits with other candidates' replies that the PLC helped develop skills that would be useful in department meetings and collaborations with colleagues in the future.

Candidates saw the composition of their groups within the PLC as another important aspect of mutual engagement. They believed it both promoted new ideas and made things more difficult at times. For those who saw it in more of a constructive light, they framed it as a way to learn from others or share their expertise. One candidate expressed, "[t]he various backgrounds and varying levels of group members within the education sequences enabled for interesting in-depth conversation about how to connect various ideas…The conversations alone created a positive work environment and provided new perspectives about how to integrate films into the classroom."

The candidates also expressed that the mixed-level groups provide a kind of induction experience into the profession. As one noted, "[s]ince I was able to plan with students in higher sequences, it allowed me to get a glimpse into the knowledge about teaching that I will eventually learn." And later in the program, candidates step into leadership roles where they provide this kind of mentoring for younger colleagues. A candidate reflected, "...senior year in education forces the reversal of my role in the PLC classroom. Previously, we were still mentees asking for help and tips from our older peers, but this year forced us into leadership roles in the group."

In those instances when the mix of sequence members came into question, candidates worried that those in the upper sequences shut down candidates in earlier ones. One candidate wrote in reference to colleagues in earlier sequences, "[i]t is simply more difficult for them to make strong and meaningful contributions quickly due to the lack of experience. I feel a little more intentionality with the groups would have been useful." There was also a response from one candidate in their first PLC that she felt "silenced" by older group members when trying to contribute to their project. This candidate still provided strong peer evaluation scores to groupmates, but the comment stood out as a strong negative experience that requires consideration.

Negotiation

Connected to the category of mutual engagement was the demonstration of negotiation within the PLC groups. According to Anagnostopoulos et al (2007), "[c]onstructing this hybrid conception of discussion fundamentally entailed negotiating our different social languages" (p.144). Negotiating language is centrally important for horizontal expertise because "social languages" (Bakhtin, 1981) that "are not just tools for getting things done. They are resources for the construction of professional identities. The language that professionals use identifies them as particular types of people authorized to do particular types of work and distinguishes them from other professional and lay groups" (Anagnostopoulos et al, 2007, p.144). The PLC is a space where candidates speak from their own expertise and through negotiation move towards a shared understanding of the professional language of social studies education.

Earlier we saw that candidates at times struggled to make sense of why there were candidates from different sequences in their groups in the PLC. In the following examples, we see candidates negotiating language as they learn the discourse of teaching and learning. In the PLC, they are given an existing boundary object (e.g., state standards) to work with to co-create a curriculum artifact with a group of peers. They need to negotiate with their fellow candidates to understand the language of the teaching profession, share what they know, and develop a product that they or others might use tomorrow or in the future. This creates tension and allows them the opportunity to use their own resources to solve problems.

As candidates learned the language of teaching and learning, they sometimes found it difficult to share that beginning expertise with another candidate. As one reported, "[i]t is a lot of explanation of what an objective is, how to write a lesson plan, the need for pacing in a lesson, and many other examples of help. While I was more than willing to provide those items, miscommunications made it difficult to help at the onset to prevent redoing sections that needed a more mature guiding hand."

Alternatively, some candidates create common ground and language through their experiences as former PK-12 students. One candidate noted, "[t]he curriculum framework that was used in our presentation was mainly discovered through personal experience. Our group would discuss our past experiences in education to construct a curriculum that would reflect those experiences as a student. Our varying experiences within education had a common ground in which we all attended high school and that high school was our intended preference for a curriculum."

When the candidate had their turn to lead the PLC during their Sequence 6 methods semester, they reflected deeply on whether their use of language and boundary objects met the needs of their peers in the PLC. One explained, "I think what our PLC lacked was more careful consideration and planning. After our first

PLC [session], I found myself wondering, 'What is our objective? Has it changed? Are we achieving it? How do we address people's needs but be mindful that people are at different places?'" As the candidate shares, there is a considerable concern for being focused on the curricular goal but also an admirable understanding that the goal is only worthwhile if it addresses the many different needs of the students in the PLC.

Hybridization

The final area of horizontal expertise is hybridization. This is the idea that when working within a community of practice or PLC teachers produce new and novel curriculum products, which develops their horizontal expertise (Anagnostopoulos et al., 2007). Teacher candidates were not specifically asked about this area; therefore, this is the thinnest data set. However, candidates did, without prompting, reflect on how they created new curricular ideas from their own experience and expertise or that of their peers. This included adapting an older curriculum artifact with new updated knowledge: "[t]he lesson used was adapted from one I taught in school, and so it was great to hear feedback." It also reflected candidates' plans to develop a curriculum from resources shared by peers in the PLC. As one explained, "[a] great way in which I could start to further my knowledge around the expansive LGBTQ+ history is by going through all the sources that my classmates pointed out in their own projects whether that be online articles, documentaries, or even podcasts."

Implications and Conclusion

Through the PLC, teacher candidates developed elements of horizontal expertise. Candidates reported consistently high levels of mutual engagement with their colleagues and noted that with time, they were able to cultivate collaborative relationships. They viewed this as practical preparation for future work in the profession. Candidates also viewed their small mixed-level working groups within PLCs as providing diverse viewpoints and providing a form of induction. The mixed-level groupings also presented challenges, and in at least one case, a candidate felt silenced by more experienced peers.

The candidates negotiated language with their colleagues which helped them learn the language of social studies education with each other. This occurred through more experienced members teaching newer candidates as well as by finding common ground among their individual experiences. When taking their turn to lead the PLC, candidates showed concern about how their language use and boundary object selections affected their peers. The curriculum artifacts that were ultimately produced reflected hybridization through the adaptation of existing materials as well as the collection of resources for future integration into lessons.

While we see horizontal expertise being developed within the PLC, the use of this concept comes after many years of the PLC's development. We believe that horizontal expertise is a good fit for the PLC's goals and experiences; we also find that it is a valuable analytic perspective to understand what is happening in this space. But it also highlights the fact that we need to be more intentional and explicit about the development of horizontal expertise within the PLC.

While in the past, we have told teacher candidates varying versions of "everyone has something to contribute in the PLC," presenting horizontal expertise as a formal idea and its cultivation as a goal with practical professional benefits would be more accurate and informative. This should be extended by a discussion of the different forms expertise can take in social studies teaching: content knowledge, pedagogical knowledge, pedagogical content knowledge, identifying relevant resources, personal experiences, facility with technology, creativity, and so on. Emphasizing the diversity of valuable expertise leads to considerations of how these will need to be negotiated as well as how they will contribute to a hybrid product. In short, this gives greater depth and purpose to several of our regular practices such as mixed-level groupings and creating curriculum artifacts.

Employing horizontal expertise also pushes us as facilitators to organize experiences and assignments that promote the development of horizontal expertise specifically in the social studies. Our general guide has long been that candidates should produce materials they might use in their future classrooms, but the process of creating these would be much stronger if the task explicitly engaged horizontal expertise. This includes being purposeful in selecting different kinds of boundary objects for candidates to engage beyond standards and textbooks. Choosing a social studies specific curricular boundary object – a place (a landmark, museum, body of water, or similar), primary source, or other item and using it in creative ways could assist in advancing and diversifying the PLC and candidates' professional knowledge in the field.

This needs to be followed by a process where candidates can analyze the boundary object using their own areas of expertise (academic, personal, etc.) to bring back to the group for negotiation. And the final co-constructed product should have elements that bring together their expertise in novel ways allowing for hybridization. It may be that groups should have more flexibility and choice in the curriculum artifact they create since the artifact should be reflective of the unique blend of expertise found within the group. The PLC should be followed by a peer evaluation that explicitly asks what kinds of expertise each member contributed.

Based on our own experiences and feedback from our candidates, we believe that the PLC is a very valuable space for preparing social studies teachers because, in large part, it reorients the typical direction of learning. It requires

candidates to contribute their own knowledge and learn from peers, which includes program faculty. This makes the PLC responsive to candidates' needs and interests as well as strong professional preparation.

Candidates will graduate from our program and become new teachers who join social studies departments; they will be novices joining more experienced colleagues in the ongoing work of teaching. And over the years, these new teachers will become veterans who will work with new teachers. The PLC mirrors this experience by creating a dynamic collaborative space that requires mutual engagement, negotiation, and the creation of hybrid curriculum products, which is the way we expect strong social studies departments to function. Working from a perspective of horizontal expertise is not a "soft skill" but rather an essential disposition for teachers, one that will help them successfully participate in the profession. This is an aspect of the job that accreditation and licensure standards do not consider.

Of course, these kinds of spaces are fraught with challenges. Our candidates expressed concerns about miscommunication and tensions with less experienced peers, as well as uncertainty about their own contributions and a report of feeling silenced. All of our social spaces are shot through with individual biases and systemic oppressions that will cause harm; yet we need to create spaces where candidates learn in community. The PLC and horizontal expertise are not a cure-all, but they do provide a supportive space for candidates to work through uncertainty and build relationships with colleagues from different backgrounds in ways that traditional courses cannot. This also requires faculty to let go of their expert position in the classroom and foster spaces where candidates have equally valuable expertise to contribute as we work together towards a shared goal.

Our programs need more self-directed, participatory spaces that start with the premise that each candidate has something important to contribute. This reflects the foundation of what we teach our candidates about their students. It is critical that we build on the assets candidates bring into our learning environments. Future social studies teachers are not in our classes just to learn what we already do. They are there to help us make something new if only we invite them to bring their expertise to bear on our field.

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