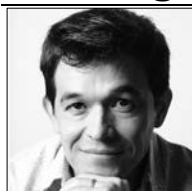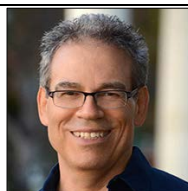# Dialogic teacher inquiry: The case of a preservice teacher learning to facilitate class discussion

Sergio L. Sanchez
University of California, Davis, USA

Steven Z. Athanases
University of California, Davis, USA

Abstract

Developing knowledge and practice for high-quality K-12 class discussion remains challenging, especially for new teachers juggling other classroom responsibilities. Our study reports the case of a preservice teacher learning to lead discussions while enrolled in a teacher education inquiry course, simultaneous with semester-long supervised practice teaching in a seventh-grade class (12-13-year-olds) in a high-poverty urban community. The work is guided by a complex teacher learning process for developing complex practice of facilitating discussions in culturally and linguistically diverse high school English classes. Countering popular approaches to "talk moves" as useful but often generic facilitation practices, the teacher education pedagogical innovation we describe positions teachers as knowledge-generating, agentive professionals. Our conceptual framework for teacher learning features dialogic teacher inquiry, with three domains. The first domain involves moving beyond methods texts to dialoguing analytically with and among multiple print, online, and mentor resources for supporting development of a dialogic teaching stance. The second domain intentionally guides new teachers to explore classroom data and consider students as knowledge resources in shaping instruction. The third domain sustains dialogue about discussion processes and evolving conceptions of dialogism in small groups of preservice teacher collectives, enabling sharing of inquiry data, emerging findings, and dilemmas of practice. Drawing upon a larger database, we present a case study demonstrating one preservice teacher's inquiry work with deep analysis of student talk, detailed memoing processes featuring challenges and benefits of developing dialogic teaching practices, thoughtful criticism of long-established discussion practices, and discoveries about nuances of dialogic teaching. Our case contributes to the literature by presenting an example of dialogic pedagogy for teacher education, in service of preservice teachers learning to lead classroom discussions. Additional innovative pedagogical designs are needed to assist teachers in gaining complex knowledge and practice for teaching and promoting meaningful and learning-rich talk in K-12 classrooms.

Sergio L. Sanchez (Ph.D., University of California, Davis) is a Postdoctoral Scholar at UC Davis School of Education, working in the *Teachers-as-Learners Project*, funded by the James S. McDonnell Foundation (Steven Z. Athanases, PI). Previously, Dr. Sanchez taught English as a second language (ESL) and classroom drama in his native Argentina and has recently taught undergraduate and teacher education courses for UC Davis School of Education. Dr. Sanchez draws upon his teaching experience for his research on early-career teacher learning to lead class discussions and integrate drama-based pedagogy in culturally and linguistically diverse classrooms. His research appears in *Teaching and Teacher Education, English Journal, Contemporary Issues in Technology and Teacher Education, International Journal of Education & the Arts, Research in Drama Education, Journal of Literacy Research,* and *Arts Education Policy Review* journals.

Steven Z. Athanases (Ph.D., Stanford University) is a Professor in the School of Education, University of California, Davis. Dr. Athanases is PI for a *Teachers-as-Learners Project*, funded by the James S. McDonnell Foundation, focused on preservice teachers learning to facilitate text-based discussions in culturally and linguistically diverse high school English classes. His work has documented multiple pedagogical innovations in teacher education, including partnering with diverse scholars and program graduates teaching in the region. His recent scholarship appeared in *Teachers College Record, Teaching and Teacher Education, Journal of Teacher Education, Contemporary Issues in Technology and Teacher Education,* and *Equity & Excellence in Education.* Dr. Athanases also directed the Center for Shakespeare in Diverse Classrooms (2018-2021), partnering with Globe Education, Shakespeare's Globe London, reporting new teachers' classroom drama and inquiry work in *Research in Drama Education, International Journal of Education and the Arts*, and *Arts Education Policy Review.*

Acknowledgments

<div align="center">ॐॐॐ</div>

Introduction

Studies document multiple merits of class discussion for student learning. Research has associated substantive student engagement in discussion (using authentic questions, uptake for cohesive discourse, high-quality evaluation of responses) with academic achievement, particularly in English language arts (ELA) (Applebee et al., 2003; Juzwik et al., 2013; Nystrand & Gamoran, 1991), the subject area focus of our study. Despite documented values and features, class discussion remains a complex, challenging practice to sustain substantively (Sedova, 2021), particularly for early-career teachers.

Among the challenges of developing effective discussions is the transient nature of talk. Discussion typically occurs in a fleeting manner, where a teacher performs some facilitation and may not recall what unfolds for future adjustments without records of what and how talk occurred, who participated, how ideas navigated through discussion. Students shape discourse and classroom cultures (Ghousseini, 2015), requiring that teachers attend to all voices, especially of students who are increasingly diverse, and often historically marginalized. Adding to these concerns is the still-dominant inherited discourse of schooling, with the teacher as an authoritative voice, guiding Initiation-Response-Evaluation (IRE) structures (Mehan, 1982) often learned by teachers through an apprenticeship of observation (Lortie, 1975), with far fewer models of classroom discourse that promote multiple interpretations and student voice (Applebee et al., 2003).

Structural factors also impact teachers' discussion practice. These include physical constraints of classrooms often shaped by rows of desks facing a teacher, necessitating restructuring of space for face-to-face talk. Time constraints also challenge teachers, often compelled by national, school, and departmental standards with expectations for content coverage and for compliance with other accountability measures (Stillman, 2011). These constraints may work at cross-purposes with discussion goals that include exploratory talk (Barnes, 1992) to try out ideas, especially in ELA curricula where multiple interpretations and ambiguities are central to the discipline. Teachers wrestle with how much time they can invest in exploratory discussions within contexts that dictate content coverage. Finally, teacher education (TE) as a context for preparing teachers for complex teaching such as ELA discussion seldom includes

time and human resources to manage such activity. A recent national survey of TE programs in the U.S., the site for our study, found that most ELA methods classes, sites for development of pedagogical content knowledge (Shulman, 1987), at least claim to move past generic "best practices," to those that support student learning (Caughlan et al., 2017). However, given the breadth of standards and curriculum dimensions TE programs seek to cover, few programs have opportunities dedicated to preparing teachers to develop effective practices for class discussion.

The study we report draws upon a larger project that investigates how new teachers learn about and implement dialogic instruction. That project includes the design of a 10-week teacher inquiry course in a post-Baccalaureate TE program focused on knowledge and practice for facilitating discussion in culturally and linguistically diverse secondary ELA classes. The course enabled the sustained study of class discussion over time, supported by teacher inquiry as systematic, intentional work focused on problems of practice (Cochran-Smith & Lytle, 2009). The focal course also instantiates cohesion between a pedagogical process to be learned for use in K-12 classrooms and the TE pedagogical process that guides relevant PST learning. While such integration of K-12 and TE is needed for many instructional goals, our project assumes that developing class discussion particularly benefits from such linkages.

Too often, K-12 teaching and TE get dominated by methods and strategies in a lockstep manner (Athanases, 2021). In TE courses, for example, sometimes little attention is paid to deeper structures and nuances of practices that can help a teacher judiciously choose and adapt activity, with strategies limited to those that preservice teachers (PSTs) can easily replicate in their classrooms. Although rehearsing discussion practice with fellow PSTs in methods classes has proved valuable for PST learning, we feature PSTs' more sustained activity informed by concepts of dialogism. Effective teaching is associated with the capacity for instructional adaptations (Parsons et al., 2018), which can include micro-adaptations during instruction (Corno, 2008) or improvisational responses (Sawyer, 2011). Our project rests on the assumption that sustained engagement with a breadth of relevant resources, guided by teacher inquiry, may prepare PSTs to move past static practices to inquiry-informed repertoires of responsive discussion practices.

In what follows, we identify several concepts from the literature on dialogism and dialogic teaching that inform the pedagogical design of the focal course within which our study is situated. We then present a case study that unveils the developing knowledge and practices of an English language arts preservice teacher as she strives to facilitate class discussion.

Background

Conceptions of Dialogism and Dialogic Instruction

While we do not intend an exhaustive treatment of dialogism and dialogic teaching, we highlight definitions and tensions in the literature that inform our work. These elements are important for K-12 dialogic work in ELA and inform our TE pedagogical design.

Dialogic instruction often has competing definitions, muddying researchers' and teachers' understanding of this pedagogical approach (Asterhan et al., 2020; Kim & Wilkinson, 2019). For some, dialogue and dialogic instruction signal a competency that students must develop to realize themselves as responsible citizens capable of engaging in critical, democratic conversations. This *ontological* stance highlights dialogue as a process through which students make meaning of their world and their relationships with others in that world (Matusov & Wegerif, 2014).

Many other authors, particularly in educational and social sciences research, take a more *epistemological* approach to define dialogism (e.g., Alexander, 2019; Juzwik et al., 2013). In this

interpretation, dialogue and dialogic teaching are central to enriching students' thinking and learning (Kim & Wilkinson, 2019; Sedova et al., 2014), including, for example, the development of argumentation and a deeper understanding of subject matter (Athanases et al., 2020; Reznitskaya, 2012), while honoring students' meaning-making processes (Aukerman, 2013).

Within this epistemological understanding, students defend positions and critically examine those of others. During dialogic participation, students are able to express ideas, often in their own language, supported by prior knowledge, sometimes grounded in home cultures and backgrounds (Lefstein, 2010). Classroom culture also plays an important role in dialogic classrooms, requiring teachers to create classroom spaces that center open-mindedness, mutual respect, a reduced teacher role, and a place for exploration. In such contexts, the teacher takes a "dialogic stance" to create a classroom space where students and teachers are responsible for continuous, respectful, and shared dialogue (Boyd & Janicki-Gechoff, 2020; Juzwik et al., 2013), focusing more on functions of discourse for learning than on surface-level attention to forms (Boyd & Markarian, 2015).

Our framing of dialogic pedagogy is largely informed by an epistemological focus on fostering learners' co-construction of meaning and knowledge. However, such learning opportunities also relate to an ontological perspective. Through dialogical engagement with often complex texts, ideas, meaning-making, and interpretive processes--particularly possible in ELA study--learners may reflect on their sense of being in the world and on their own and others' stories, diverse experiences, understandings, and identities. These potentially expansive discussions of being and identities, in turn, may deepen and add complexity to close text-based sense-making and interpretations. In this way, we view these dialogic perspectives as mutually informing, helping to foster expansive and equitable learning.

From Recitation to Dialogic Instruction

Class discussion remains a valued yet challenging teaching practice that warrants great care. Studies across national contexts surface limitations of IRE structures, movement beyond monologic engagement, and affordances of dialogic pedagogy for students. A Mexico-based study, for example, found students resisted teacher authority reflected in IRE, refusing to speak up, indicating disagreement with the teacher's perspective and control, not resistance to learning (Candela, 1998). When teachers have sought to move past monologic structures, changes are evident. In a U.S. classroom, Sherry (2019) found that Mr. Weber – the PST featured in the study – would include IRE/non-dialogic practices at times, yet managed to break through the pattern, enabling increased high student engagement and successful classroom talk. Similarly, a study in the eastern US reported how a third-grade teacher used forms associated with recitation but still found ways to promote a dialogic stance that functioned to support learning (Boyd & Markarian, 2015).

Studies of dialogic engagement have surfaced many benefits for students. A study in Chile, for example, found that as dialogic instruction progressed, students shared background knowledge more comfortably, aiding their interpretation of text and ability to build arguments to support opinions; preservice teachers developing such practice needed opportunities to identify relevant features and "approximate practice at a representational level (for example, analyzing cases, videos, transcriptions)" (Meneses et al., 2018, p. 121). In a study documenting the consistent use of classroom talk across four Canadian classrooms during narrative writing activities, students were willing to take risks more comfortably after engaging in discussions and often negotiated social ideologies based on gender, age, or socioeconomic status (SES) (Peterson & Calovini, 2004). A study in the Czech Republic found that when lessons included dialogic instruction, students engaged in asking questions more often and took up others' replies more regularly; however, the study reported how teachers considered dialogism time-consuming when juggling

teaching responsibilities (Sedova, 2017). Nonetheless, Sedova added that when teacher development programs combine preparation to lead discussions, enactments of such practices, and teacher reflections aided by videos of their own teaching, dialogic teaching might become part of the teacher's repertoire.

Challenges also include managing social dynamics and creating classroom cultures for collaboration. Such cultures include norms for safe, equitable participation in small-and large-group structures (Cohen et al., 1999) and a climate for exploratory rather than final-draft talk (Barnes, 1992). Creating these safe spaces--though necessary--can be a daunting endeavor, especially for early-career teachers. This is particularly true in trust-building and treatment of complex topics (Reznitskaya et al., 2001), including social issues, identities, and personal values (Medina, 2010). This need is heightened when classes are large, heterogeneously grouped, and racially and linguistically diverse. In Norway, for example, students in a linguistically diverse class challenged the class status quo by engaging in heated negotiations over social ideologies that often go unchallenged; the study's author (Pastoor, 2004) argued that discussion challenges may arise from teachers' lack of preparation to work with linguistically diverse students.

Other sociopolitical issues may arise that teachers feel unprepared to facilitate, including how to navigate conversations about race (Rogers et al., 2006) and systemic inequities. As classrooms grow increasingly diverse in terms of race, language, and gender identities, teachers may need to attend more thoughtfully than ever to ways in which texts (often literary works within ELA classes) and remarks made by students may need redress related to racialized identities, immigration experiences, and gender and sexuality. If teachers envision equitable participation opportunities, they also need to attend to the supports that emergent bilingual learners (EBs) may require for engaging in public talk in the classroom (de Oliveira & Athanases, 2017; de Oliveira & Jones, 2021). Supports for EBs may mitigate, for example, self-evaluation of target language proficiency and an anxiety component (Edwards & Roger, 2015), both of which can impede discussion engagement.

In general, PSTs may find it challenging to move from teacher-centered questions of *what and how am I doing*, to a focus on students and *what and how they are doing* in classroom talk. Preservice teachers often replicate pursuit-and-recitation of canonical knowledge, a practice that may be acute in a generation of teachers in the United States raised on scripted curricula, accountability regimes, and testing mania dominating instruction (Murphy, 2003; Wills & Sandholtz, 2009). Also, resident teachers who host and mentor PSTs may not possess the knowledge, skills, and/or dispositions to model and support classroom talk that breaks tradition (Bieler, 2010) and, at times, may redirect student-centered teaching to mandated curricula and scripts (Anderson & Stillman, 2010). This may occur especially when communication appears less controlled and seemingly more chaotic (Aukerman et al., 2008).

Attempts to Develop Teachers' Dialogic Instruction

In the last two decades, TE and professional development projects and programs of research have explored the pursuit of effective discussion practice. Examples include sites where PSTs engaged in approximations of practice (Adler et al., 2003/4; Kavanagh et al., 2020), pulling apart components of discussion as a "high-leverage practice," then recomposing it through insights derived from observations, rehearsals, and reflections (e.g., Grossman et al., 2009). Other studies document teachers learning to notice patterns of engagement through video-clubs featuring teachers leading discussions (Sherin et al., 2011), and learning to understand classroom social dynamics by observing videos of themselves leading classroom talk (Ghousseini, 2015).

Other relevant studies feature learning to listen to meanings of students' silence, including resistance (Candela, 1998; Schultz, 2009) and learning to leverage students' cultural and linguistic resources for classroom activity that may include discussion (Lee, 2001; Martinez et al., 2017). These

approaches present promising practices for work with PSTs, a special population learning to facilitate discussion while immersed in countless demanding new tasks. Although varied in context, needs, and processes, programs can develop TE learning designs that approach "alignment amid variation" (Alston et al., 2018), serving teacher learning and TE as a field. For programs and the PSTs they serve, diverse innovations illuminate opportunities where knowledge (in this case, of facilitating discussion) is not transferred but developed (Korthagen et al., 2001).

Space for Multiple Voices in Tension

Historical patterns of ELA classroom discourse, of whose voices have been centered, for what purposes, and through what means, inform present and ongoing patterns, challenges, and opportunities for disruption. This is particularly relevant in culturally and linguistically diverse classrooms, where students often are on the receiving end of historically unjust classroom practices. Some reframing of class discussion is informed by Bakhtin's (1981) work rooted in literature study, in which he argued that any "text" draws from language, concepts, and knowledge from others, in an echoing of past texts and language. This dimension of Bakhtin's work is often neglected, with dialogism "reduced to immediate interactions between or among people" (Smagorinsky, 2017, p. 35). A more expansive adaptation of Bakhtin's work highlights dialogue among utterances across time and space, with single speech utterances invoking and situated within past discourses and anticipating follow-on utterances.

Extending this notion of utterances containing echoes of past texts and ideas, pedagogical practices also contain echoes of past voices, beliefs, and positions. Knowing the antecedents of a practice is important to grasp its history, ways it has been entrenched, and who has benefited and in what ways from inherited notions of how to do school and subject matter activity. Practices a PST reads about, observes, and studies contain voices and assumptions deep within social and educational histories. These are at play, for example, as one facilitates ELA discussion in diverse 21st-century classrooms. A monologic approach in TE might highlight that a methods text says X, a TE supervisor says Y, a resident teacher expects Z, all of which can result in pressures for a preservice teacher to align practice accordingly, based on which "voice" gets most amplified. In this way, PSTs experience "competing centers of gravity" as they engage potentially conflicting orientations and messages (Smagorinsky et al., 2013). We view articulation of such tensions as indication of increasingly textured understanding of complex practice in a subject or cross-subject instructional domain. Although tensions may impede PSTs' movement toward pedagogical action, they often lead to deep and transformative learning (Gutiérrez et al., 1999; Sedova, 2017), enabling PSTs to reconcile past beliefs, ideas, or experiences.

In dialogic teacher inquiry, tensions are intentional, highlight competing priorities, and are sites for learning. Any site and resource offers perspective and knowledge that is partial. In their review of functions of discourse, O'Connor and Michaels (2007) draw upon various authors, including Bakhtin (1981), to contrast functional monological with dialogical discourses. They explain that monologic forms often present talk with meaning as authoritative or fixed, with such forms used to replicate social ideas and practices. In contrast, they characterize dialogic discourse where meaning is negotiable, meaning-making is generative, and discourse supports creative inventions. As Wells (2007) argues:

> ...one (monologic) mode makes the assumption that there is only one valid perspective, which is put forward with no expectation that there is more to be said, while the other (dialogic) mode embodies the assumption that there is frequently more than one perspective on a topic and that it is worthwhile to present and discuss them (p. 261).

This framing of dialogic discourse captures discussion goals for K-12 classrooms, particularly apt for ELA where multivocal interpretive processes are central. However, we also draw upon this monologic/dialogic

distinction in our design of teacher inquiry practice. In our work, a dialogic lens on teacher inquiry sharpens focus on *more than one perspective on a topic.* We propose intentional treatment of knowledge and practice development as a conversation of ideas of complementary and conflicting interactions, creating productive tension (Nystrand, 1997), all of which support teacher learning.

Conceptual Framework: Aligning TE Learning Design with Dialogic Goals for K-12

The framework informing our TE innovation features *dialogic teacher inquiry*. By this we mean that our design engages PSTs in concepts from dialogism and dialogic instruction, including a multitude of voices, voices in tension, exploratory talk, and collective meaning-making.

A Multitude of Voices: Engaging with a Democracy of Resources

To aid PSTs in learning about a complex ELA practice, our framework design intentionally guides PSTs to engage with a democracy of resources (Figure 1), which PSTs access in interactive, non-hierarchical ways. This plethora of diverse resources helps new teachers develop a repertoire of knowledge and practice for facilitating discussions.

Figure 1: A Democracy of Resources that May Inform and Guide Development of Knowledge and Practice of Preservice Teachers
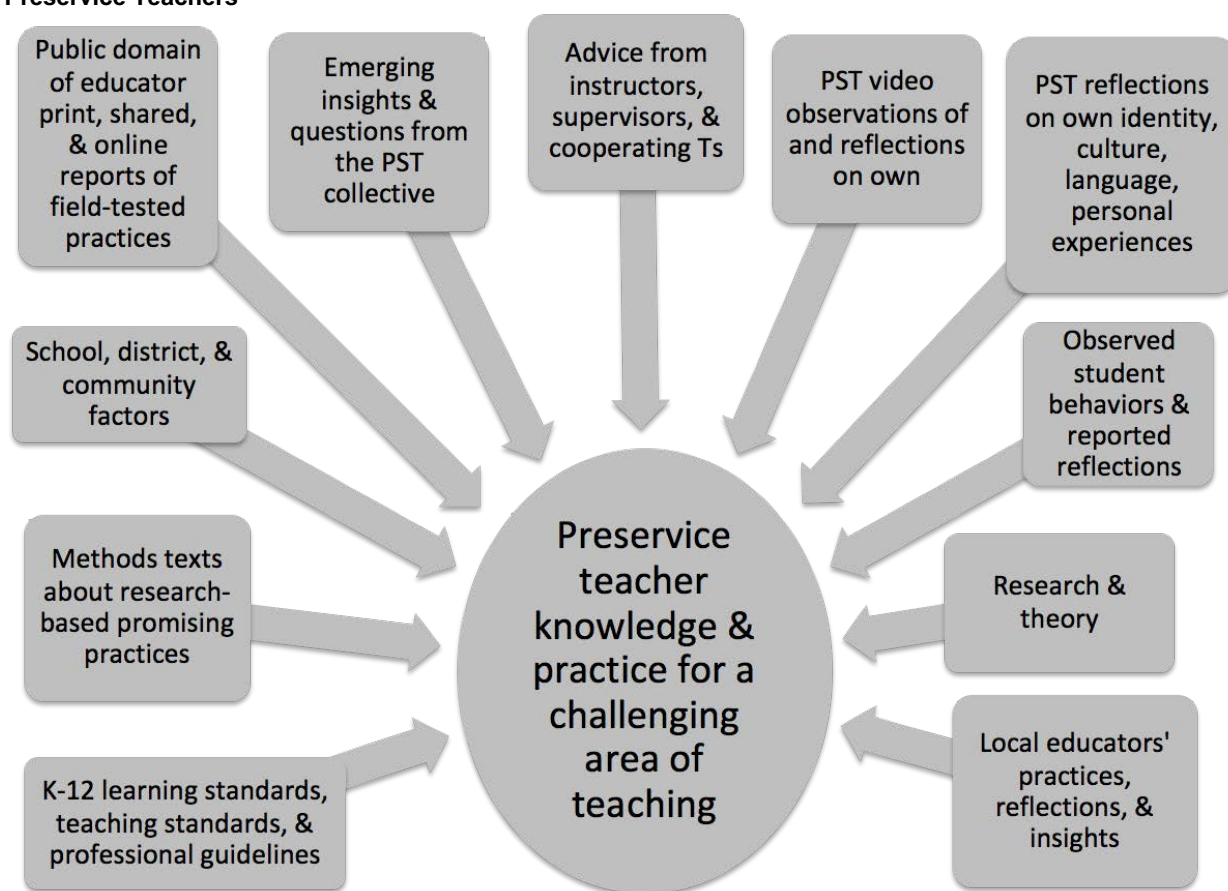
Note. In the focal TE inquiry course, a democracy of resources for PSTs to learn about classroom discussion includes a plethora of voices and perspectives, often in conflict, about what it means to enact this complex ELA practice. From Athanases et al. (2020). CC BY 4.0.

However, multiple resources may overwhelm especially prospective teachers. Additionally, knowledge to be gleaned from such a complex set of informing resources may be loaded with tensions between, for example, ideas gleaned from research and advice from local cooperating/resident teachers or between one's convictions grounded in one's cultural and linguistic identities and the expectations of a school leader. In prior work featuring small groups of PSTs collectively exploring problems of practice in culturally and linguistically diverse classes, we found that repeated use of figure-making tools helped surface developing conceptions of an instructional domain and helped track resources informing evolving conceptions (Athanases, 2014; Athanases et al., 2020). We also found figures, as reified texts, "talked back" to their creators, aided management of complexity, charted gaps and more nuanced understanding and sharpened learning targets. Aligned with the notion of tensions as learning supports in dialogic classroom practice (Lefstein, 2010), our dialogic teacher inquiry framework embraces tensions among resources as potential prompts for teacher learning.

Engaging with this democracy of resources at times achieves synthesis, where discoveries support conceptual or practical understanding, both needed to learn a complex instructional practice (Grossman et al., 2009), to mitigate a retreat to practices unresponsive to particular students in all of their diversity (Athanases & de Oliveira, 2014; Enright et al., 2012). For dialogic instruction, conceptual tools include principles and concepts that organize understanding of classroom discourse, while practical tools include strategies, methods, and practices that guide and support dialogic talk (Williamson, 2013). Deeper structures of understanding how to successfully engage learners in classroom talk are necessary for teachers to navigate, respond, and improvise. As Hsieh (2015) suggests, TE programs with these types of engagements may support new teachers in "developing adaptive and collaborative practice grounded in theory, examination of practice, and reflection" (p. 188), which may enable development of a dialogic teaching stance.

In a panel dialogue about dialogic teaching and learning, and in response to the question of why classroom practices are hard to change despite documented benefits (Asterhan et al., 2020), Adam Lefstein addressed this theme of tensions:

> Teachers need to negotiate conflicting goals and agendas, both their own and those of their students. They need to manage multiple voices and bodies. This creates enormous complexity and uncertainty, which they must cope with at a brisk pace…Dialogic teaching amplifies the uncertainty and complexity, in part because it gives greater weight to student agency and ideas, and requires greater teacher flexibility and knowledge. At the same time dialogic teaching robs teachers of many of their existing tools to cope with teaching's difficulties. So, dialogic teaching is difficult, and educational systems are not well-designed to help teachers cope with these difficulties (Asterhan et al., 2020, p. S13).

Tensions outlined in Lefstein's reflection also apply to a TE course. In addition to instructor goals and agendas, learners in the focal program of this study are preservice teachers, juggling multiple other responsibilities at the onset of their careers. Besides practice-teaching in diverse, often high-need communities, these PSTs are required to interact with parents and school officials while also completing assignments for the TE course (which includes an intense 10-week inquiry project). Most also are applying and interviewing for permanent teaching jobs starting the following fall. These are some of the competing priorities PSTs encounter during the TE course we describe in this work, which purposefully provides PSTs with structure to engage with a democracy of resources for learning a complex practice: learning to lead dialogic class discussion.

Toward Needed Structure for Engaging with Multiple Resources Often in Tension

In our work, we have organized the plethora of resources explored in the TE inquiry course into three domains in order to guide and track contributions to PST learning (Figure 2).

Figure 2: Three Resource Domains for PST Engagement and Learning Related to Class Discussion

Dialogue *with* and *across* multiple print, online, and mentor resources (R=resource)

R3   R4
R2 ←——→ R5
R1   R6

Classroom inquiry and *dialogue* observations: students as resources

Full-class dialogic tryouts
+
Surveys & interviews plus deep engagement with 4 focal students
+
Whole-class observation, discussion, transcripts

PST 1
PST 2 ←——→ PST 3
PST 4

Collective inquiry with fellow preservice teachers, each *in dialogue* w/ particular classes of K-12 students

Dialoguing with *and* among *Print, Online, and Mentor Resources to Develop a Dialogic Teaching Stance*

Our first domain of resources aligns with Wells' (2007) notion of dialogic modes engaging several perspectives. This domain is anchored in the treatment of PSTs as agentive, knowledgeable professionals who learn from diverse resources (Figure 2, top left). To foster such engagements, we saturate the learning space with a wide range of resources and mediational tools (Gutiérrez & Vossoughi, 2010). By resources, we mean human and material aids used to "support claims, an available supply that can be drawn upon when needed" (Zuidema & Fredericksen, 2016, p. 15). While a teacher educator guides PSTs' uses of tools and processes to understand a focal domain, all is embedded in the democracy of resources. By this we mean useful knowledge generated in diverse contexts and explored and analyzed through diverse means (Athanases et al., 2020), including research, teacher practice reports, standards documents, and interviews

and conversations with students, teachers, and cohort peers. This process can help PSTs move past hierarchical notions of knowledge production, rethinking where education knowledge originates and who constructs it, supporting teacher flexibility and adaptive practice (Athanases, 2014). Resources and tools also can help PSTs reframe problems of practice as sites for expansive learning (Engeström, 2001).

Beyond simply exploring diverse resources, however, our design features analysis and reflection. Resources are accompanied by protocols that help PSTs collect information and by tools and processes that mediate the process of transforming information into data (Erickson, 2011). Without such structure, the breadth of resources may go unnoticed or may be treated superficially by PSTs. Classroom-based original inquiry works intentionally in dialogue with other "knowledges," and preservice teachers' developing knowledge for teaching content may be traceable to specific sources and the interface of these. While such learning processes may occur across many models of teacher inquiry, they are central to our design for teacher learning. The inquiry course described in Methods provides PSTs with purposeful activities that engage a diversity of resources and invite them to dialogue with and among such resources, challenging propositions and addressing new concerns arising from teachers' own practice in local contexts.

Students as Knowledge Resources for Teachers' Shaping of Dialogic Instruction

Our second domain of resources focuses on students' behavior and classroom talk, which inform teacher practice (Figure 2, top right). Foundational to developing as an effective discussion facilitator is learning how students shape discourse and how one perceives social dynamics of classrooms during the talk. Perceiving classroom dynamics is complex, however, teachers need to learn to listen to and notice students' verbal and nonverbal engagements (Schultz, 2009), and how to elicit, prompt, and prod. Additionally, the process requires that teachers notice the myriad ways students co-construct classroom talk and other patterns of engagement (Sherin et al., 2011), whether visibly engaged or silently resisting (Candela, 1998). By utilizing teacher inquiry techniques and tools, such as transcribing classroom conversations (Meneses et al., 2018) and writing reflections (Rogers et al., 2006) on discussions, teachers identify students' resources and assets that can be leveraged in classroom learning. For instance, inquiring into students' performance during class discussions can provide information about specific content topics that pose difficulty for students and about ways teachers can scaffold learning and leverage students' cultural and linguistic resources for use in discussion (Lee, 2001; Martinez et al., 2017).

Much of what occurs during ELA discussions requires keen perceptual skills. Teachers need to observe student interactions and meaning-making. This includes attending to ways students try out interpretations of texts and make sense of others' attempts. Teachers also may notice interactions requiring direct intervention on issues arising such as bias, racism, or other forms of discrimination (Patterson Williams et al., 2020). A 21st-century PST needs to know that developing dialogue in a culturally and linguistically diverse class in a high-poverty context (sites within which our project works) carries echoes of the rarity of teachers facilitating challenging, meaningful discussion in low-SES schools serving predominantly youth of color (Oakes et al., 2006). This is much to observe and comprehend during the unfolding discussion. The interpretation process taps a teacher's capacity to draw upon a repertoire of knowledge and practice (Figure 1) to understand what is happening and what might come next if new actions occur (Banes et al., 2022).

Voices in a PST Collective Shaping Evolving Conceptions of Dialogic Instruction

The third domain of resources in our framework highlights how dialogues are situated within collective teacher inquiry (Figure 2, bottom). By this, we mean inquiry that generates cumulative knowledge using a multicase study anchored by a quintain or central unifying topic (Stake, 2006) – here, class discussions. Intentional dialogue among PST peers in topic-alike groups and in cross-group reflections

supports preservice teacher learning. As Ohlsson (2013) argued, the "collective learning process through which team members [in our case, small groups of PSTs] create knowledge and understanding [help them] develop collective competence to solve their task and handle problems in everyday work" (p. 298). In our design, PSTs in small topical groups share classroom examples, video-view their own and peer teaching examples, and engage in peer feedback guided by protocols for sharing inquiry findings and for reflecting on comparisons and contrasts across individual classroom inquiries. Even as PSTs attend to particular learners in their own K-12 placement classes, they also contribute findings, patterns, and anecdotes from their own class discussion inquiry to move collective knowledge and practice forward.

Data collection tools and pattern-finding and analysis from data, constructed collectively, serve preservice teachers' metacognitive goal of thinking conceptually about what they are learning about teaching, mediating interpersonal knowledge that may be internalized later (Vygotsky, 1962; Wertsch, 1985). Developing insights from inquiry discoveries may be shared within and across inquiry groups. Through such practices, new teachers can gain other benefits, including peer-learning (Wilkinson et al., 2017), teacher agency (Adler et al., 2003/2004; Soini et al., 2015), and trust-building between educators (Loughran, 2003). Novice teachers' individual and collective reflective practices often support shifts in understanding of teaching and learning needed for the development of adaptive expertise patterns (Anthony et al., 2015). Adaptive teachers are frequently metacognitive about their practice, willing problem-solvers as challenges arise, and prepared to adapt as needed (Parsons et al., 2018). However, this is a tall order for a PST who can benefit significantly from sorting through discoveries and tensions in the company of peers.

Framework Applied to a Case of One PST Learning to Facilitate ELA Discussions

Learning to facilitate discussion in diverse English language arts classes provides an ideal site for exploring our design. Discussion is particularly challenging for PSTs, as talk is ephemeral, difficult to unpack, and challenging for metacognitive awareness. This relates to a key challenge of teacher education: Guiding PSTs to develop metacognition as they embrace the complexities of teaching (Hammerness et al., 2005). PSTs are often preoccupied with promoting multiparty talk that they hope will approach the conversation that occurs in non-classroom settings (Banes et al., 2022). However, PSTs also need to consider how students engage with discussion collectively for learning. Embracing complexity in this way disrupts fixed notions of effective practice (Cochran-Smith et al., 2014), memories from the apprenticeship of observation (Lortie, 1975), and prevalent school constraints and requirements. For our focus on learning to facilitate ELA class discussions, this process includes learning about and dialoguing with inherited discourses of school talk and its purposes and structures, dialoguing with others about these ideas and practices, and talking back at inherited ideas that warrant redress.

We offer the case of a preservice teacher developing a dialogic stance. We explore her evolving conceptions and practice in a diverse classroom, examining the resource-rich learning processes of one PST going dialogic for the first time. The case enables us to track the PST's work as she dialogues among resources, surfaces tensions and competing priorities, and textures her understanding of how to lead ELA discussions. The study asked:

- As she engaged with multiple resources, what themes did this PST surface in her learning about the complex nature of developing classroom discussion practices with diverse middle school youth?

- In what ways, if at all, did her engagement with the dialogic teacher inquiry design support this PST's learning and discoveries?

○ In what ways, if at all, did *dialoguing analytically with and among print, online, and mentor resources* support her learning about dialogic practice?

○ In what ways did this PST's discoveries arising from *students as knowledge sources* contribute to her learning about dialogic practice?

○ In what ways did her cohort of peers, and the *dialoguing in the collective*, contribute to our focal PST's nuanced understanding of discussion practice?

Methods

We used the three framework domains of resources to examine a PST's learning (during a 10-week teacher inquiry course) about dialogic teaching in ELA.

Context

This study is set within a 10-month, post-Baccalaureate TE program that yearly credentials 150+ California teachers and fosters advocacy for equity for diverse students, with focused attention to emergent bilinguals (EBs) (Athanases & Martin, 2006). The TE program links coursework with yearlong supervised K-12 practice. Beyond foundations and methods, PSTs complete courses guiding inquiry design and use of fieldnotes, survey, focal student interviews, and data coding and analysis. Inquiry as responsive to content, context, and professional community guides the English courses (Athanases et al., 2012). In the 10-week inquiry course, PSTs formed topic-aligned groups that explored problems of ELA instruction. Topics included leading discussion and promoting critical thinking, character in literature study, and discussion-writing links. PSTs were encouraged to collaborate, seek support from peers, and offer each other critical feedback on data-based claims.

Focal Teacher, Her School, and Class

We analyzed the work of one four-member group who explored ELA discussion. The group was comprised of four Asian American women of varied ethnicity. All four completed the full set of inquiry tasks and worked collectively to deepen their discussion knowledge and practice. To unpack complexity of this learning process, we selected one PST from the group as a "critical case" with strategic importance to a focal concern (Flyvbjerg, 2001)--a preservice teacher learning to foster discourse with young students age 12-13 in a highly diverse school.

Nina, who is Vietnamese American, was doing semester-long practice teaching in a seventh-grade class in a low-SES California urban middle school diverse in race, ethnicity, and languages. Nina and her students offered the opportunity to highlight diverse participants seldom featured in teacher learning research. Nina's school had 875 students in grades 7-8 (ages 12-14), 91% from low-SES families, 100% eligible for free lunch, well above the national average. In the United States, "high-poverty schools are those where more than 75.0 percent of the students are eligible for FRPL (free or reduced-price lunch)" (U.S. Department of Education, 2021). Students were 40% Latinx (mostly Mexican descent); 30% Asian/Asian American (many South East Asian, especially Hmong); 17% Black/African American; 5% White; 4.3% mixed race; 2% Pacific Islander. Overall, 30% were EBs, with Spanish (50.8%), Hmong (21%), Vietnamese (9.1%), Cantonese (4.4%), Mien/Yao (3.6%), and Other (11.5%) (e.g., Farsi, Russian, Punjabi) as home languages. One-third of students were proficient in English (state ave. 49%).

In this context, Nina's class (reflective of the school's demographics) offered a rich site to explore how one PST worked to develop discussion practices and to learn from early-adolescent students'

perceptions and discussion engagements. Nina's focal inquiry class had 32 heterogeneously-grouped students. Seven (22%) were identified as EBs, with 2 others redesignated English proficient (formerly receiving English language support classes, now mainstreamed into content curricula, with assumptions they will need support for their writing). This means that 28% of Nina's students were currently or recently developing English language proficiency. Such linguistic diversity invites preservice teachers to find ways to leverage students' diverse communicative repertoires for academic learning (Athanases et al., 2018; Martinez et al., 2017).

Project Activities: Practical Manifestations of Framework Domains

The project used analytic and reflective prompts to intentionally engage PSTs in dialogue with multiple human and material resources, moving beyond compliance with seemingly authoritative perspectives on practice. Each PST project yielded an average of 30+ pages of documentation and reflection. We organized inquiry content by our framework domains (Table 1).

Published Research and Mentor Resources

Print sources were co-curated by the inquiry course instructor in conversation with each inquiry group. For Nina and her group, this included guidance to examine research on class discussion in an array of major journals, with special attention to literacy and English-oriented publications. The instructor encouraged mining citations and reference lists for pieces particularly pertinent to middle and high school contexts. Bolded language (Table 1, Column 1) shows PSTs are guided to move from summarizing published research to being interpretive and agentive (e.g., *paraphrase through your perspective*), signaling value placed on PSTs' perspectives drawn from experience and socio-cultural identities--a sense of agency needed for in-practice decision-making central to dialogic instruction and learning (Boyd, 2016). For research articles, PSTs reflect on what is lacking and needed: *what further study*, what *warrants critique*. These prompts highlight an interpretive, critical stance in which PSTs engage their whole selves in dialogue with, as opposed to being recipients of, understandings as static and finished.

Table 1: Engaging in a Democracy of Resources: Guided Dialogic Teacher Inquiry in Coursework Activity [a]

Dialoguing with print, online, and mentor resources	Focus on students as resources	Collective inquiry: In dialogue with PST peers
Published research: • Complete a structured abstract of article • Paraphrase to filter research **through your perspective** • What **further study** might build on this research? • What in this research **warrants critique**? *Interviews with 2 teachers:* • Transcripts or interview narrative accounts • In 3+ page memo, **report what you learned** from Ts: difficulties and support for Ss, successes and tips for working with EBs, etc.	*Focal student performance data and interviews:* • Find ways to make "things" into visible data for evidence (Erickson, 2011) • Mine data. **Examine** Ss' work, their remarks, for what the **data tell you** • Annotate Ss' work in the margins to **clarify how you interpret** and analyze Ss' work • Focus on **depth**, not breadth (due to small N of focal Ss, short timeframe) *Student surveys:* • Display results of selected response items; analyze trends • Bins and coding: Notes **showing your process** of pattern-finding in responses to any 2 open-ended items • Use selected language from Ss' responses or full "juicy quotes" to illustrate themes	• How do research findings relate to something you know from **prior collective conversations**? • Focal Ss' race/ethnicity/first language (if relevant), interests, performance in other classes? Interactions with peers? • **Show some Ss' responses** in bins/coding during peer feedback • In a group presentation, **dialogue about two emergent bilingual learners** in your inquiry and their learning/performances

[a] Language is excerpted from coursework assignments, available upon request.

Note. Bolded text indicates ways PSTs were guided to bring personal reflection, interpretation, and critical questions to data and information from resources they reviewed.

Mentor resources included interviews with regional educators (Table 1, Column 1, bottom). Each PST interviewed two ELA teachers in the region about their focal topic--in Nina's case, facilitating class discussion. PSTs transcribed interviews (each running 30-45 minutes) and reported on emerging themes, comparison/contrast between their two interviews, and their own remaining questions. PSTs then shared findings with TE class peers and instructor.

Students as Resources

Students in PSTs' classes were key informants through co-designed surveys and focal student interviews (Table 1, Column 2). Beyond full-class surveys, the project guided PSTs to engage deeply with an "N of 4" diverse learners, including two emergent bilingual learners of varied English language proficiency, a particularly important data source (Appendix). This enabled PSTs to learn about these focal students' learning processes, likes, and dislikes through observations, surveys and interviews, and to examine engagement in literacy activities. To foster synthesis of findings and discoveries during practice, PSTs wrote three data analysis memos on student performance; memos included data trends, discoveries about ELA issues, instructional adaptations to meet focal student needs, and notes on dilemmas. PSTs were guided to annotate student work (*clarify how you interpret* student data) and to be transparent (*show your process* while reviewing/analyzing survey data). This work expanded Nina's and her peers' understanding of what worked and what needed further tryouts for dialogic instruction. Each PST prepared a 20-minute slideshow featuring contexts, research questions, methods, full-class data, focal student profiles and findings, synthesis of learning through inquiry, and next steps for follow-on work.

Teacher Inquiry in a Collective of Peers

In small, topic-aligned groups, PSTs were guided to dialogue with their peers about patterns, findings, and questions from their inquiries, sharing insights on ways to further support learners for active participation in ELA classes. For Nina and her peers, this involved sharing copies of transcribed classroom discourse with preliminary coding schemes and providing each other with feedback on codes (what was captured, what missed) and on what the transcripts revealed about discussion processes and students' challenges and successes. Each small group collaborated on identifying collective discoveries and tensions that they integrated within their individual slide presentations that featured their site-specific findings (Table 1, Column 3).

PSTs Dialoguing across/among Resources

Beyond naturally occurring connections across data sources, activities guided PSTs to forge links between classroom findings and published research. Such guided dialogue *among* resources helped PSTs identify tensions and hypothesize ways to manage them. For example, questions guided Nina and her peers to discuss how published research on dialogic instruction *related to other research they read* and how such research also *related to what* they *know from classroom experience* as learners and instructors (Table 1). Similarly, PSTs' interviews with teachers included questions about students and their interactions during dialogic talk. Takeaways from these interviews worked at an interface with PSTs' own student-focused data related to class discussion (Table 1, Column 2) specifically focused on students and their role in discussions, where PSTs *synthesized and integrated* classroom data with findings from previous sources. At all times, PSTs were guided to *make sense* of student data they were analyzing and to document *tensions* arising from data. Finally, during collective inquiry with peers, PSTs discussed challenges and tensions as they weighed discoveries and often conflicting insights from diverse resources in a kind of dialogue among sources in support of their developing knowledge and practice.

Data Collection and Analysis

Moving from full-class, to the group of four, to Nina as a focal case, we compiled Nina's inquiry data into an expanded 32-page dataset. This included Nina's data reports and reflections plus her final slides reporting research questions, knowledge sources considered and what they revealed, visual displays and patterns from student data, inquiry syntheses, and steps for future inquiry. Our first broad research question asked, "As she engaged with multiple resources, what themes did our focal PST surface in her learning about the complex nature of developing classroom discussion practices with diverse middle school youth?" We reviewed all data for ways Nina worked analytically with diverse resources (Table 1). We entered reflective comments in the document margins and reviewed for patterns in themes and language. Using Strauss's (1987) axial coding process, we tracked ideas Nina identified as important. We read data independently and together, seeking inter-coder agreement, and distilled themes.

Our second research question asked, "In what ways, if at all, did her engagement with the dialogic teacher inquiry design support this PST's learning and discoveries?" Our analysis treated the three sub-questions to this overarching question. To answer our first sub-question on processes and impact of Nina's *dialoguing analytically with print, online, and mentor resources,* we refined codes and themes from our first research question analyses and collected illustrative examples from data sources. For example, Nina noted something she gleaned from a teacher interview: "Crucial for conversations with the class, stating that it is okay to make mistakes…it's good to give students oral rehearsal and allow them to talk to a partner." We coded this as "safe environment." We also found a pattern in Nina's language that marked linkages *among* sources--at times highlighted with linguistic markers of complementarity: *also, and, in a related way.* In other cases, Nina's language marked tensions: *however, but,* and *although*. For instance, as she reflected on findings from Jadallah et al. (2010), Nina placed this study in dialogue with her observation data: "Although I have seen models where teachers at the secondary level accept multiple interpretations and ideas, I have not seen how teachers ask students to truly expand and substantiate opinions." Here Nina reflects on the value of accepting diverse interpretations, as reported in the study, but also engages observation data, raising the critical question about elaboration and support. Similarly, Nina unpacked the treatment of scaffolding during discussions when comparing Jadallah et al. (2010) with Christoph and Nystrand's (2001) study. We coded her commentary on how scaffolds may be detrimental to classroom talk as "scaffolding tensions." To understand the links Nina forged between sources and how understandings evolved during the inquiry, we examined across datasets for ways ideas, discoveries, and themes were echoed in her own words.

To answer our second sub-question about ways *students served as knowledge sources* about dialogic practice, we coded for discourse details and the kinds of noticing Nina reported in her transcript analyses (Rosaen et al., 2008). We tracked patterns and what she deduced from students' engagements and examined her coding processes, what she deemed quality discussion engagement, and her treatment of focal students (e.g., preparing a table summarizing focal student information). Analyses considered Nina's final slideshow and corresponding notes featuring focal students and coded transcriptions that included focal student attempts at dialogic talk.

Finally, for our third sub-question about contributions of *dialoguing in a collective* of PST peers, we focused on Nina's written reflections on emerging knowledge and practice (Table 1, column 3). We coded instances where Nina reported learning from her peers' videos, suggestions she and her peers made during feedback sessions, and insights from general peer discussions. Such insights were supported by audiotaped excerpts of Nina's peer group talk.

Across datasets and considering the three overarching framework domains (Table 1), we used coding and the constant comparative method (Merriam, 1998) to understand Nina's learning about leading dialogic instruction. We tracked patterns and themes to illuminate ways resources advanced and troubled Nina's conceptions of discussion practice, and how she drew links among resources across time. We also situated Nina's case within her four-member group to reflect on any ways in which Nina's processes were anomalous and/or echoed in her peers' inquiries.

Positionality

As authors, we are a Latin American native Spanish-speaking male and a White male (inquiry course instructor), both committed to research and innovative practice for teacher learning in diverse classrooms. The instructor had easy access to project data and insights--beneficial but also challenging (Lampert, 2000). To critically review datasets and avoid biased findings (Clift & Brady, 2005), some analyses were conducted independently of the instructor.

Results: Nina's Dialogic Learning to Teach Dialogically

Nina's knowledge and practice in leading English language arts discussions evolved from formats (large group, small group, Socratic Seminar) to underlying discourse features. We report on several emerging themes, tracing ways Nina deepened her discussion knowledge and practice through our dialogic teacher inquiry framework, which included Nina's dialogue with and among resources, prompting her to wrestle with conflicting and, at times, problematic ideas analyzed individually and explored collectively with her inquiry group peers. Central to her evolving conceptions was a focus on students as informants for her learning about classroom talk complexities. Besides gaining ideas from resources, Nina raised questions, taking a critical stance on long-established practices that might hinder equitable teaching during classroom talk.

Multiple Interpretations and Voices

A movement toward multiple interpretations and voices is evident in both Nina's emerging discussion focus and her inquiry process as she entertained multiple interpretations of discussion practice. At times, Nina reported the synthesis of knowledge sources. However, aligned with our framework, Nina also embraced tensions as learning opportunities--for her students as they interpreted text and for herself as she developed vision and practices for class discussion.

Across written and spoken inquiry work, Nina consistently indicated both interest and challenges in creating a student-centered discussion that could support interpretation of the text. In written reflections, Nina deepened her commitment to moving beyond legislating right and wrong answers, an approach she reported was common in her own schooling. She drew upon her own *memories of discussion as a resource* to recall contrasting patterns. Her earliest recall of discussion was 8th grade (a year beyond where Nina's students currently were): "These discussions were always teacher-led and question-and-answer based." This contrasted with discussions she recalled from a later Honors English class, which she found more student-led, occasionally debate- and persuasion-oriented. Recalling the Honors teacher's role, Nina noted, "She would interject to stimulate discussion, clarify a point, or challenge an idea, but her role was not to lead the discussion in any way." This example resonated with Nina.

These memories aligned with how Nina's resident teacher emphasized a need to "move away from simple recall questions" to deeper student engagement with text and meaning-making. Nina was synthesizing information from varied *human and print resources*: written reflections she completed on memories of her schooling discussions practice, recommendations from her resident teacher, and a

research article (Jadallah et al., 2010) that described how pursuit of right/wrong answers from students persists as an ELA practice. This interplay of resources also surfaced a tension for Nina about the lack of models as resources:

> I have not seen how teachers ask students to truly expand and substantiate their opinions. It is one thing to hold this belief that discussion has to be open and free flowing, but it is another thing entirely to execute and sustain one successfully.

Though she struggled to discern appropriate classroom discourse practices at this point, Nina gained clarity about a need to teach students to think, explain, and defend opinions during discussions, and to accept varied students' understanding of texts and meanings. Nina used these reflections to name a teaching goal of "breaking the mold," saying "I need to not only accept and ask for multiple interpretations, but I must also not show preference or signal clues for one desired answer." She further reflected on her goal of moving from "monologic to dialogic" discussion:

> Teachers should not be (or act like) the sole gatekeepers of information and correct answers. True discussion, a free exchange of multiple and possibly contradictory ideas, cannot take place if there is an underlying belief that there is a "correct" and "incorrect" answer. It also cannot take place if the teacher's presence is too influential during the actual discussion.

Nina viewed her students as capable of providing multiple ideas and reported a need to monitor ways she and other teachers expect compliance with canonical interpretations, and instead planned to maintain a democratic, equitable distribution of ideas and voices. Doing so would help create space for tensions in interpretations, an idea Nina reported in a "going deep" memo on a *research article as resource*. There, Nina referenced Bakhtin's (1981) framing of discourse as inherently dialogic and continually structured by tension among conversants. Space for such tension was part of Nina's vision for discussion.

Support for Meaning-Making: Challenges and Tensions

Probing for Evidence and Elaboration in Discussion

Nina sought to develop through discussion what Aukerman (2013) refers to as a pedagogy that privileges students' sense-making. Nina used a *data analysis memo as resource* to unpack students' emergent meaning-making in discussion. Students had been reading *The Giver* (Lowry, 1993) and an essay on China's historic one-child policy. Nina posed a question to students: "Does the government always know what is best for its people?" She described how she primed students:

> Before the discussion, students had to actually write down 3 pieces of evidence (1 from the article and 2 from *The Giver*) and explain how these supported their opinion. Therefore, students had thought about the two pieces of text extensively, making it easier for them to share their thoughts completely and fully (Data analysis memo, 4.22).

Despite this preparation, we see in the following discourse episode, transcribed for her *data analysis memo as resource*, how Nina uses time, patience, and persistence to foster multiparty talk and to orient students to sharing opinions and evidence.

1. Me: The question for today is—"Does the government always know what is best for its people?"
     [Various shouts: "yeah," "no," "not always"]

2.	Me:	Who would like to start? [Beto raises his hand] Go ahead, Beto.
3.	Beto:	Yeah.
4.	Me:	Go ahead.
5.	Beto:	Yeah…[pauses] Wait.
6.	Ethan:	Go. Explain why.
7.	Beto:	Oh. Okay…[pauses] I'm getting there. [Students whispering]
8.	Me:	Be respectful. [. . .] Go ahead.
9.	Beto:	They know what's best for the people because of population control. So there's less poverty and more jobs.
10.	Me:	Any responses to Beto's claim that yes, the government does know what's best because it prevents poverty? [Bree raises her hand]
11.	Me:	Bree respond.
12.	Bree:	I do not agree with that.
13.	Me:	Ok— [Beto interrupts]
14.	Beto:	Why?
15.	Bree:	Because, um, because I don't think that there…they don't know what they are doing with the community because like…because like…wait [Students laugh]
16.	Me:	Are you talking about *The Giver* or the article?
17.	Bree:	The article.
18.	Me:	The article.
19.	Bree:	Okay. I don't think that the um government in China knows what's best for the community because they are making women in China have an unwanted abortion.So that's why I think that…I don't…[stops talking]
20.	Me:	Alright. We have another opinion. Bree just said that the government does not know what's best because they are making women get abortions…by force. Anyone want to elaborate or contradict this idea?
21.	Amie:	I agree with Bree.
22.	Me:	Alright, Amie agrees…
23.	Amie:	With Bree.
24.	Me:	With Bree. So go ahead and elaborate.
25.	Amie:	So I'm supposed to explain why?
26.	Me:	Uh-huh.

Lines 2-8 show the fits and starts of prompting 12/13-year-old volunteers to speak in a room full of peers. Beto probes (line 14) to learn why Bree disagrees with him, eliciting elaboration from Bree (line 15). Nina probes for clarification (line 16), and Bree further elaborates (line 19). In line 24, Nina prompts Amie to explain why she agrees with Bree. Amie's line 25 response ("So I'm supposed to explain why?") highlights the fledgling nature of discussion engagement for meaning-making. Nina uses revoicing (lines 10 and 20), each time "broadcasting" what a student offered as opinion, helping to keep ideas centered to advance meaning-making.

This extended exchange between students and Nina illustrates the difficulty for teachers in presenting dialogic structure and for students to engage in dialogic interaction. The process is complex, and it requires teachers to attentively listen and probe to move the conversation forward. Much like Lefstein noted in Asterhan et al. (2020), teachers in a dialogic class have to "manage multiple voices and bodies, creat[ing] enormous complexity and uncertainty, which they must cope with at a brisk pace" (p. S13). This complexity is also heightened when students are still learning about dialogic talk, often competing with students' prior conceptions of classroom instruction. Nina's navigation of the dialogue guides learners in

dialogic structure while making sure her interjections do not lead students to the expected, interpretative answers.

Tensions in Scaffolding Discussion

After reviewing her inquiry reflections, Nina reported that a key theme was the need to scaffold participation through various means. She reflected on the inherited discourses of schooling: "[Students] are accustomed to asking the teacher questions and getting a 'correct' response--especially during teacher-led discussions." Nina recognized the need for supports. She initially responded well to sentence starters, and touted in *resources of professional materials and local teachers*, noting these are "great to help students who struggle with speaking and writing in English" (Interview Report, 3.25). She found reinforcement for scaffolding students' talk in Jadallah et al. (2010) and initially lauded its use in student-led small-group discussions. Nina reflected on the need to present students with tools for talk. These frames are part of teachers' attempts to foster language production using sentences with fill-in-the-blank structures. Further engagement with resources, teaching, and discourse data led Nina to a revised position. She noted the treatment of scaffolding in Christoph and Nystrand's (2001) article differed from Jadallah et al.'s (2010); the latter authors found scaffolds do not always foster meaningful discussions.

Moreover, Nina revisited the topic in early data collection, arguing that "too much scaffolding" in discussions can over-direct thinking and responses. Scaffolding, she reflected, is usually planned but less about interaction. Through dialogue with and reflection on *professional print resources*, Nina now critiqued sentence starters as helpful but insufficient:

> …usage of these key phrases informs me that students are aware that these serve as sentence starters for participating in discussion. What they do not understand is how to truly "build on" or directly contradict each other's comments. This might be due in part to the fact that they are more concerned with reciting their own opinions--ones that were already thought out and "pre-recorded" on their binder papers (Data Memo, 5.9).

Nina agreed with *the research resource* by Christoph and Nystrand (2001) that planned scaffolds do not ensure quality discussion. Instead, she found these can constrain creative responses to peers' comments despite "safety" in highly structured answers. She valued teacher probes that "aimed to help students elaborate or clarify their points" and deepen thinking but inquired:

> I often wonder if it is considered "cheating" or undermining the learning process, if I supply the answer when they are "stuck."...[Our] role can be further complicated if the discussion loses momentum, gets off topic, or is not engaging enough. How much is too much input and guidance?

Nina also addressed a need for interactional scaffolds, contributions that move beyond planned, often generic and routine supports, to moves that are contingent upon in-the-moment talk (Athanases & de Oliveira, 2014; Hammond & Gibbons, 2005; van de Pol et al., 2009). Interactional scaffolds are particularly useful for EB learners, especially when teachers make explicit connections to students' prior knowledge and experiences during class talk (de Oliveira & Athanases, 2017; de Oliveira & Jones, 2021). When reporting discoveries from *interviews-as-resource with her mentor teacher*, Nina learned that this teacher found "discussion as a way to engage students in different modes and types of discussion. Her answer demonstrates the importance of collaboration with peers." This excerpt from Nina's memos may have helped her understand how a more experienced teacher envisioned collaborative learning as a goal of discussion, which Nina was just starting to explore.

Nina questioned instruction where teachers and students may perpetuate static practices. She engaged a tension aligned with what Sawyer (2004) identifies as a needed balance between structure and creativity in effective teaching. Through her exploration of and dialogue with a democracy of resources, Nina was able to see this challenge of balance and managing competing priorities as she envisioned her role as a discussion leader. Thus, Nina positioned herself as a reflective, agentive new teacher mining multiple resources carefully, thinking critically about resources, challenging concepts not aligned with her developing conceptions of practice, and exploring an interface between these external resources and her students' engagements.

Questions raised by Nina, based on tensions she uncovered during her early leading of classroom talk, may have helped her develop a deeper understanding of what it means to truly create a dialogic classroom. Her dialoguing with and among resources may also have helped her clarify some of these concerns and raise new questions for an evolving dialogic teaching stance.

How Individual Voices Shape Discussion

As part of her inquiry, Nina audio-recorded student discussions, transcribed them, and coded transcriptions using a priori codes from research and emerging codes from her classroom observations and analyses. From this work, Nina created three detailed data analysis memos over several weeks, each documenting patterns in students' discussion engagements with discourse moves counted and tabulated, and micro-level analyses of discourse moments. Analyses resulted in Nina's unveiling of students' detailed turns at talk formatted as dialogue, supported by accounts of actions: pauses, interruptions, hand-raising, various shouts: "yeah," "no," "not always" from a selected discussion. She color-coded discussion questions, tabulated kinds of questions and responses she and her students used, then constructed a two-part table tallying students' responses to probes. The tabular representation showed how Nina was learning to display findings. Describing her pattern-finding at a countable level, Nina noted:

> Although many students shared various ideas, I was looking specifically at how well students were able to state their opinions and do so using textual evidence to support their opinion. 4 students were able to state their opinions and supporting textual evidence without any probing from their peers or me.

Evident in Nina's analysis are her discussion concerns and values: focus (*responding appropriately and directly*), elaboration (*questions aimed to help students elaborate*), and depth (*responds superficially to probe/prompt*). Nina's analyses are evidence of her using transcription to locate, count, and display interaction patterns, capture the ephemeral nature of discussion, and analyze how students participate in the co-constructing discourse.

Analysis of Focal Students' Engagements as a Key Resource

Through analytic engagement with multiple resources, and by using discourse analysis as an inquiry tool, Nina discovered nuances in her focal students' discussion participation patterns. Using student data from *surveys as resource* (Table 1, column 2), Nina identified and logged focal students' "baseline strengths" and "areas of struggle" (Table 2) – potential assets and growth areas in discussion. She characterized her students as 7th-graders who "possess and exhibit varying skill levels in terms of reading, writing, speaking, and listening," central to ELA classrooms.

From surveys, Nina learned that her focal students found discussions "extremely beneficial to their understanding of the text[s]." For example, Beto attributed understanding "differences of the different arguments" presented by peers to discussion. Alexa rated discussion impact highest, adding: "If I did the

reading on my own, I probably would not have understood." For Nina, Alexa's answer "exemplifies how beneficial discussion can be to low-performing students" and the importance of structuring discussions around strengths and areas for growth.

Table 2: Nina's Discussion Engagement Profiles for her Four Focal Students

	Beto[a]	**Alexa**	**Karen** (RFEP)[b]	**Bella**
Race/ ethnicity	Latino	African-American	Korean-American	Multiracial
Interests	Video games Kendama (Japanese skill toy)	Track Basketball	Anime drawings	Cheerleading
Baseline strengths	Reading comprehension Asks critical questions that challenge others	Vocalizes opinions with ease Summarization	Citing textual evidence Attentive, keen listener Vocal Sociable	Summarizing Asking for feedback Citing textual evidence Vocalizing opinions
Baseline areas of struggle	Speaking with "flow" Organization and specificity Citing and analyzing textual evidence Building on peers' ideas	Active participation Grammar and spelling Reading aloud Citing and analyzing textual evidence Building on peers' ideas	Analyzing evidence Building on peers' comments & idea	Explaining and analyzing textual evidence Building on peers' ideas

[a]Pseudonyms.
[b]Reclassified Fluent English Proficient indicates holistic assessment (with parent consultation) of meeting language performance basic skills (California Department of Education, 2021).

Across focal students, Nina noted a challenge of "building on peers' ideas," a discourse feature Nina explored later. For example, Nina described Beto, a Latino, as "the most outspoken":

> He likes to make jokes, so sometimes, the thing that he contributes to the discussion is not relevant.... He also likes to take the less conventional, and less popular, opinion.... He is not motivated to complete his work, and he is very disorganized. He is incredibly intelligent and consistently performs well on exams that test reading comprehension.

Nina noted that Beto enjoyed playing Devil's Advocate and "likes to challenge his classmates' thinking." She suggested his unconventional or unpopular positions might enrich discussion and valued Beto's boldness to ask questions many of his peers did not think of until he posed them. However, Nina also noted "his preoccupation with upholding this role further undermines his ability to finish the task at hand," making Beto a struggling student in terms of academic achievement.

In *dialogue with her peers*, Nina reflected how discussion is often heavily shaped by classroom culture, individual students' personalities, and the interactions and social dynamics among learners. She noted that Karen's and Alexa's preference for small-group discussions echoed those of quiet and shy students: "they appreciated the ability to talk and participate but…in a safe number of peers" (Slideshow Notes, 6.5). In contrast, Beto chose whole-class discussions leading Nina to associate students' preferences with personalities and interaction patterns. During *small-group data debriefings as resource*, some of Nina's PST peers described their focal students as "headstrong" or "opinionated," suggesting such qualities negatively impacted discourse. Nina disagreed and reflected on how her class discussion benefited from contributions of Beto, who would be labeled disruptive in other classrooms and who liked to

play "class clown." To illustrate her point, Nina highlighted ways Beto challenged peers' thinking to help drive discourse forward. It was in the *collective discourse with PST peers* that Nina sharpened such understanding. Dialogic discourse, grounded in particularity of learners, helped Nina's students "think critically about the text(s)...no matter what discussion format the conversation took place in" (Final Reflection, 6.10). Sharing such findings and reflections in the collective served Nina in clarifying her emerging discoveries and convictions, and potentially contributed to the learning of her peers.
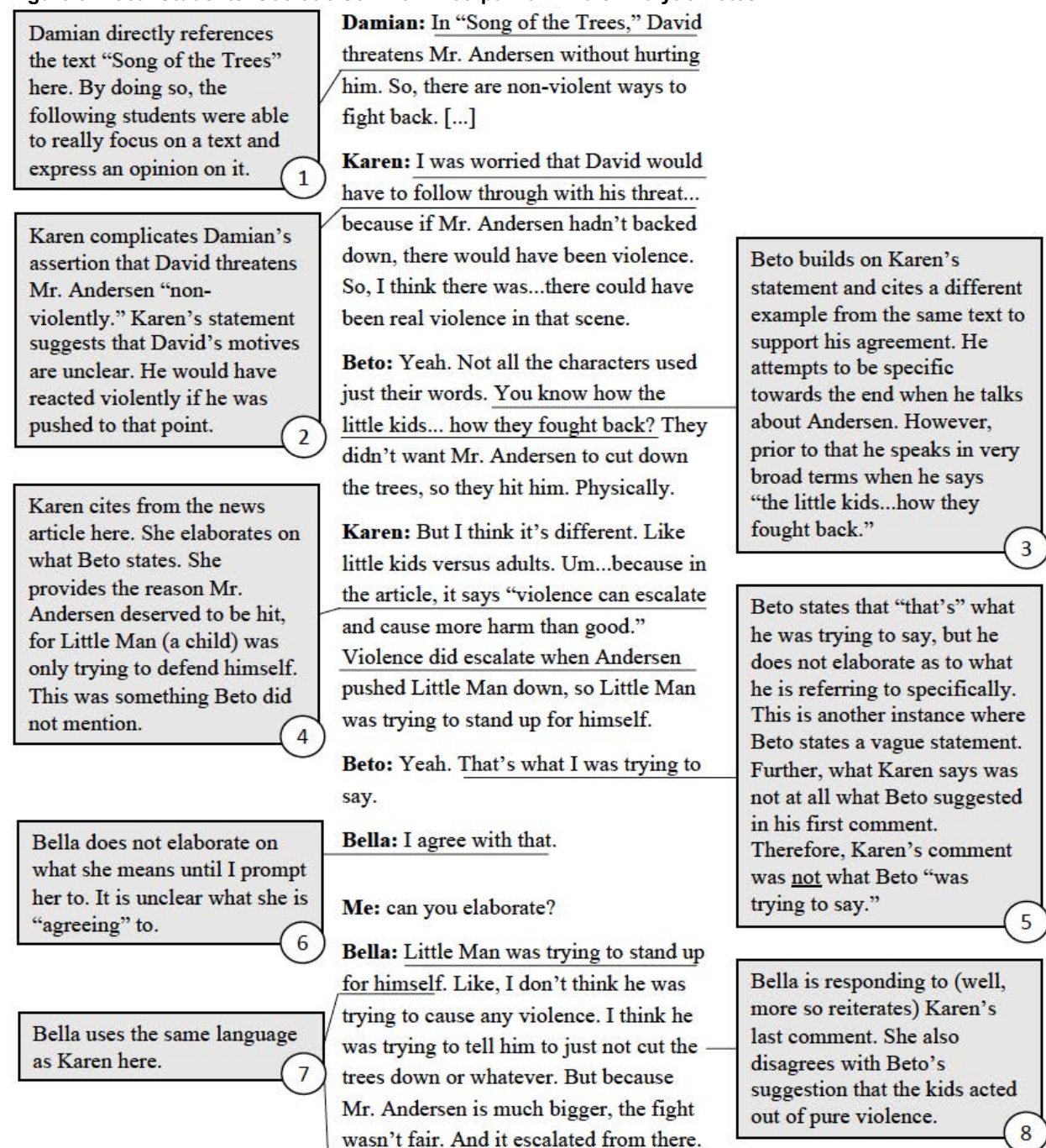
Elaboration and Misfires in Students' Co-Constructing Knowledge

Nina's conception of discussion gained additional texture when she examined focal students' discourse in detail after students had read three texts exploring aggression and violence. Texts included *Song of the Trees* (Taylor, 1996), a novella set in Mississippi during the 1930s Depression in the United States. The story concerns the Logans, an African-American family struggling for food and work, who have valuable trees on their land. Two White businessmen, including Mr. Anderson, aggressively offer the Logans a sum for the trees less than they are worth. Negotiations grow tense and the children, including David and Little Man, resist. Supporting study of the novella were "Amigo Brothers" (Thomas, 1978), about two teenage friends whose boxing activity extends to other fighting, and an article ("Benefits of Boxing") exploring boxing violence. Nina analyzed discourse about themes from the texts, with detailed notes (Figure 3).

The notes (Figure 3) relate to a Socratic seminar, a fairly common discourse structure in U.S. English language arts classes in which the teacher prepares students to lead and sustain discussion (often among half the class, with the other half observing), without teacher intervention. Nina had learned about Socratic Seminars from her peers, who had implemented this practice to great success. She appreciated hearing that such seminars "supported students' listening and speaking skills--and this encouraged students to engage in uptake." She audiotaped and transcribed Socratic discussion, excerpting a section in which three of her focal students engaged in crosstalk. In the excerpted transcript, Karen, Beto, and Bella discussed forms of violence in *Song of the Trees* and how violence escalated quickly when Little Man (a child) was "pushed down" by Mr. Anderson after the children physically attacked the man, due to tensions in the perceived unethical financial offer and feelings of being bullied. While Beto explained that the children's actions led to the violence that ensued, Bella argued that "the fight wasn't fair" as it was a grown man against children.

Using her transcript *as a student-based resource*, Nina analyzed and underlined discursive moves. She composed interpretive and analytic comments alongside each student's entry, enabling her to learn more about students' contributions and interactions. Nina discovered how students impacted each other's contributions. Her inserted text boxes (hereafter "Notes 1-8") clarify how she featured issues of focus (Note 3: *attempts to be specific/speaks in very broad terms*) and elaboration (Notes 4 & 6: *She elaborates on what Beto states/Bella does not elaborate*). However, Nina offered additional foci. She clarified her value on textual references in discussion (Notes 1 & 4: *Damian directly references the text/Karen cites from the news article*). Nina valued such references not only from an academic or assessment standpoint, but also because referencing serves group discourse, prompting a text-reference snowballing effect. She noted that after Damian's reference, "the following students were able to really focus on a text and express an opinion on it" (Note 1), emphasizing student roles in others' discursive contributions. Nina noticed adherence to her conception of higher-order thinking as a key discussion goal. However, her conception of discussion also began to include how students co-construct discourse through individual moves.

Figure 3: Focal Students' Socratic Seminar Excerpt with Nina's Analytic Notes

Damian directly references the text "Song of the Trees" here. By doing so, the following students were able to really focus on a text and express an opinion on it. (1)	**Damian:** In "Song of the Trees," David threatens Mr. Andersen without hurting him. So, there are non-violent ways to fight back. [...]
Karen complicates Damian's assertion that David threatens Mr. Andersen "non-violently." Karen's statement suggests that David's motives are unclear. He would have reacted violently if he was pushed to that point. (2)	**Karen:** I was worried that David would have to follow through with his threat... because if Mr. Andersen hadn't backed down, there would have been violence. So, I think there was...there could have been real violence in that scene.

Beto: Yeah. Not all the characters used just their words. You know how the little kids... how they fought back? They didn't want Mr. Andersen to cut down the trees, so they hit him. Physically.

Beto builds on Karen's statement and cites a different example from the same text to support his agreement. He attempts to be specific towards the end when he talks about Andersen. However, prior to that he speaks in very broad terms when he says "the little kids...how they fought back." (3)

Karen cites from the news article here. She elaborates on what Beto states. She provides the reason Mr. Andersen deserved to be hit, for Little Man (a child) was only trying to defend himself. This was something Beto did not mention. (4)

Karen: But I think it's different. Like little kids versus adults. Um...because in the article, it says "violence can escalate and cause more harm than good." Violence did escalate when Andersen pushed Little Man down, so Little Man was trying to stand up for himself.

Beto: Yeah. That's what I was trying to say.

Beto states that "that's" what he was trying to say, but he does not elaborate as to what he is referring to specifically. This is another instance where Beto states a vague statement. Further, what Karen says was not at all what Beto suggested in his first comment. Therefore, Karen's comment was <u>not</u> what Beto "was trying to say." (5)

Bella: I agree with that.

Bella does not elaborate on what she means until I prompt her to. It is unclear what she is "agreeing" to. (6)

Me: can you elaborate?

Bella: Little Man was trying to stand up for himself. Like, I don't think he was trying to cause any violence. I think he was trying to tell him to just not cut the trees down or whatever. But because Mr. Andersen is much bigger, the fight wasn't fair. And it escalated from there.

Bella uses the same language as Karen here. (7)

Bella is responding to (well, more so reiterates) Karen's last comment. She also disagrees with Beto's suggestion that the kids acted out of pure violence. (8)

Note. Students discuss "fighting back" in context of *Song of the Trees* (Taylor, 1996) and essay on violence. Three focal students (Karen, Beto, Bella) speak in this stretch of discourse, enabling Nina to analyze their remarks. Figure reconstructs word-for-word (with near-identical layout) original Figure where Nina used one color text per student to code quotes and analytic remarks. Nina's annotations are in darker numbered text boxes for display and to readily align with analysis in our commentary.

One kind of move Nina noticed was how students attempted to extend peer remarks (Note 3: *Beto builds on Karen's statement*). Nina did not yet use the term *uptake* (neither student nor teacher uptake) from research readings but noticed students' successful attempts and misfires at building cohesive discourse. She noted, for example, "It is unclear what [Bella] is 'agreeing' to" (Note 6) and "what Karen says

was not at all what Beto suggested in his first comment [and]…was not at all what Beto 'was trying to say'" (Note 6). In this way, Nina scrutinized students' early attempts at extending or refuting peers' ideas. Among talk moves not identified was Nina's *teacher uptake*, which took the form of a probe for Bella to elaborate on a response (Note 6). Nina's discourse analysis nonetheless reflects how she noticed and valued student argumentation (Notes 2 & 8: *Karen complicates Damian's assertion/[Bella] disagrees with Beto's suggestion*). This reveals Nina's developing conception of individuals deepening arguments and building collective ideas and text interpretations. Through inquiry, then, and situated activity of doing and learning, Nina was expanding her understanding of discussion process and learning to uncover various ways students co-constructed ELA discussion focused on literary and informational text.

Pseudo-Uptake: On a Path Toward Discussion Cohesion

Nina wanted to deepen her work on an area of struggle for her students: "building on peers' ideas." Drawing on her analytic memo regarding the *resource of published research* by Nystrand (1997) and Christoph and Nystrand (2001), Nina now had a conceptual tool of *uptake*, which she defined as: "when students actually built on comments previously made, creating continuity in discussions" (Data Analysis Memo, 5.9). This definition is not far from that of Nystrand et al. (2003), who frame uptake as "facilitating the negotiation of understandings, as conversants listen and respond to each other…promo[ting] coherence within the discourse" (p. 146). As she grew increasingly interested in this concept, Nina presented to her students an *online professional resource*--a video of a discussion in which a student used the word "piggyback" to indicate extending an idea. Several of Nina's students playfully took up the term during extended discussion of *Song of the Trees*:

> Seba: Oh. Well. Um. I guess because in *Song of the Trees* David threatened them to blow up the
>   forest instead of using violence against them, he used words.
> Damian: I'd like to piggyback on that. [Laughter and "He said piggyback!"] In *Song of the Trees*, David
>   threatens Mr. Andersen without hurting him. So, there are non-violent ways to fight back.
> Seba: I'd like to piggyback on that too. [Laughter]

Although the term elicited laughs, Nina noted value in "the introduction of a new phrase 'piggyback' to show agreement."

Nina used transcription and analysis of *student talk as a resource* to reflect on how "I agree" showed an inching toward cohesive talk:

> These phrases were something that students could rely on when they couldn't think of how to fully express their
> opinions or textual support. The fact that phrases like "I agree" were used (but never utilized to expand on their
> opinions) is consistent with the findings in my teacher-led discussion. The students' dependence on discussion
> "lingo" or "terminology" weakened their arguments rather than supported them.

Nina reported that she wondered "why they continue to use these. Here is an example of how ineffective these phrases are":

> Beto: But, I agree with you.
> Seba: Well, I agree with you too…sir.

Nina added: "I believe that these students think that it is enough to just use these phrases and never elaborate further as to *why* they agree. These phrases appear to stifle rather than support students' abilities to expand on their claims."

In a transcript, Nina continued analytic work with *student talk as resource*, italicizing relevant linguistic markers (*I agree, I disagree*) and bolded ways discourse began to cohere:

Me: In that case, the 10th grader used violence against his bully. Um, thoughts on that?

Otto: *I agree* with how he fought back. If he didn't fight back, the other kids watching would keep making fun of him and tormenting him....

Kai: I'd like to respond to that. *It says that the older child broke the younger child's ankle*. And while the tormenting had been going on for a long period of time, I think what **Bella said earlier is better**. If the older child just spoke to someone sooner then maybe the other problem could have been fixed…without breaking anyone's ankle. So, I agree with what Bella said. He could have just stood up for himself.

Scott: *I agree*, but maybe it's the bully's own fault. If he would have never bullied that kid, **he would have never got his ankle broken** in the first place.

Nina was pleased to see uptake occur, marked explicitly with language of agree and disagree, and implicitly as students extended thinking and co-constructed meaning.

Supported by discourse analysis and her memo process, Nina made a discovery ("The most interesting phenomenon that I noticed") about students' attempts at cohesive discourse. She identified how students learned to use sentence starters (*I agree, I disagree, in my opinion*) but added, "upon closer examination…more than half of the time they used these phrases, they were not actually agreeing or disagreeing with what was previously stated. Instead, they would present a completely new idea." She reported what is "abundantly clear" in her transcribed discourse, coding, and tabular displays: Students grappled with the underlying nature of uptake, how to truly build on or contradict another's comment. She labeled and defined this as *pseudo-uptake*: "Use of phrases to show agreement/disagreement: there is superficial elaboration on previous response; or presents new idea" (Data Memo, 5.9).

For one of her discussion transcripts, Nina used this coding scheme to unpack this pattern:

[U.A.] – Uptake/agrees: Student uses phrases to show agreement/disagreement and actually builds on a previous point

[U.I.]   – Uptake/introduces: Student uses phrases to show agreement/disagreement and does not build on previous point. Introduces new point.

[P.U.] – Pseudo uptake: Using phrases to show agreement/disagreement and does not build on previous point nor introduce new point.

In the discussion on violence, based on analysis of several texts and after small-group work, this scene unfolded, begun by Seba (italics indicate Nina's highlights):

Seba: The article says, "Researchers find that *those who fight back their aggressors are more mature* than those who don't."

Beto: I agree with that. If you…if you don't fight back. Like for example, if a homeless guy tries to take your shoes, and you don't know how to fight back…[Laughter]

Me: Beto, avoid hypothetical examples. Use what you know from the text.

Beto: Yes. Ok. It says, wait, hold up. It says on the 6th paragraph in the article.

[Various students shout, "That's the same one!"]

Beto: I'm still going to bring it back to it. "…children who *stand up for what they believe in are more mature*."

Nina wrote that while Beto's comment garnered laughs, highlighting his "jokester" personality, it was not "particularly insightful":

> He tried to recover after I told him to "use what you know from the text." Beto chose to simply reiterate what Seba said before, and the class recognized this…Even though Beto did cite textual evidence, he failed to explain it. Further, his reiteration of Seba's point is another case where uptake was not fully realized.

Although she critiqued his playfulness and frequent need to say things for laughs, Nina also noticed his positive contributions. Viewing Beto and his interaction patterns through an asset-based lens, Nina documented, for example, Beto and Karen using "true uptake" focused on David in *Song of the Trees* and on the article on boxing (Figure 3). Karen expressed relief that Mr. Anderson (one of the lumbermen) backed down after being confronted by David, the Logan patriarch, or otherwise, she added, "there would have been violence." Beto agreed but added that "not all the characters used just their words," in fact the kids "hit [Mr. Anderson]. Physically," suggesting there was violence nonetheless. Beto's challenge to Karen's initial statement led her to push her position forward, saying that "Little Man [one of the Longan children] was trying to stand up for himself" after Mr. Anderson, an adult, had pushed him to the ground.

Nina documented multiple other examples of *true uptake*. She differentiated uptake forms, adding to her conception of "true uptake" as synonymous with "critical thinking…speaking, listening, and analytical skills…to extend, contradict, and/or complicate a comment that was previously made." As she reflected on successful uses of "true uptake," Nina wrote:

> I am more inclined to believe that this was because students had to talk to each other. In order to have a conversation, they had to actually listen first. The amount of uptake visibly increased near the end. Although the usage of phrases like "I agree" appeared in these cases as well, students I believe got into a natural, conversational rhythm in the end, allowing them to elaborate and build on the previous comment(s). Some students successfully connected back to the text, but they were all able to expand and build on each other's comments (Slideshow Notes, 6.5).

Nina's reflection on the importance of listening and actually having a conversation emerged only after she worked with audiotaping and transcription to unpack what students were doing in the talk. She reported a deepened conception of uptake as a discourse strategy that fosters coherence, meaningfully advances and enhances discussion, and prompts complex interpretations. In a Final Reflection, Nina further pondered her moves in shaping discussion, including those that did not work as anticipated (*I had assumed that…* and *This is not what I expected since I thought...*). Nina had "assumed that the actual format was a large factor in dictating the level of student engagement" but learned countless ways students--as co-actors-- shape and reshape discourse. Aided by the interplay of situated inquiry and varied human and material resources, Nina used discourse analysis and frequency counts to surface new conceptions of how students explore new discourse strategies and used this knowledge to refine her practice.

Discussion: How a Dialogic Framing Reveals Nina's Learning about Leading Discussions

Our case study makes several contributions. First, we document how one preservice teacher engaged with what we refer to as dialogic inquiry informed by our framework. Reports abound of teachers perceiving research literature as disconnected from K-12 classroom realities, vilifying and using language inaccessible to teachers (Freedman et al., 1999; Zeichner, 2009). Our case instead illustrates how a focal PST explored an interface of multiple resource types, highlighting a reconfiguring of knowledge hierarchies

for learning to teach. In her inquiry, Nina is in dialogue with histories of IRE (Mehan, 1982), traditions of talk, and past teachers, including her own whose practice she recalls. Nina is in dialogue with readings and understandings of diverse learners and linguistic demands and needs for scaffolds. She is also in dialogue with voices published on new ideas, forward-thinking visions of talk that break traditions. In conducting inquiry, Nina is in dialogue with notions that an inquiry stance raises questions of all things related to teaching, learning, and schools (Cochran-Smith & Lytle, 2009).

Second, our case study illustrates possibilities of a preservice teacher synthesizing discoveries to challenge long-established practices, critiquing teachers who refuse to share interpretive authority with students and who overuse sentence starters and scaffolds. Nina, as our case teacher, neither blindly accepted nor fully rejected ideas learned in her inquiry but used them as touchstones for learning. This was illustrated by her uncovering nuances of uptake, adding insight from multiple analytic memos about unsuccessful student attempts she defined as pseudo-uptake. Nina also used her developing knowledge to guide moves she tested, illustrating inquiry as praxis (Athanases, 2011), echoing Freire's (1998) view of practice and theory in a dynamic tension between doing and critically reflecting on doing. Engaging in this inquiry process, as opposed to simply learning methods, prompted PSTs in the project to question things. Nina, for instance, wondered if teachers truly practice accepting varied responses from students, and questioned and analyzed students' emergent uses of uptake. She discovered the importance of noticing the navigation of ideas and arguments, as she wondered if Beto was only playing jokester or if he advanced conversation by posing non-standard questions, pushing others in their talk. Nina's discoveries and nuanced understanding of class discussion were relevant to her teaching practice as well as those of her peers who accessed Nina's findings through collective reflections. These collective reflection spaces became rich opportunities for teacher learning (Ohlsson, 2013).

Third, our case highlights how one PST used deepening knowledge about student strengths and interests, developed through inquiry tools, to create opportunities for engagement. Evident in her dialoguing with peers, Nina's balanced views of students' assets, needs, and contributions to talk demonstrate a PST's pedagogical commitment to diverse learners' success. This is important work, as deficit perspectives are deeply entrenched in educators' conceptions of learners and learning, historically highly resistant to reform (Artiles, 1998; Oakes et al., 1997). Deficit lenses diminish challenging goal-setting especially in educating minoritized youth (Resnick, 2010), reinforce a culture of low expectations (Lee, 2007), and enact an ideology of remediation with minoritized students assumed to be deficient, needing repair (Gutiérrez et al., 2009). Clearly, the field needs more inquiry into processes and tools that guide PSTs in acquiring an asset-based lens.

In contrast to deficit-oriented activity, PSTs in our project used inquiry tools to examine what focal students were doing within discussion activity. For example, in transcript analysis, Nina noted "class clown" behavior of Beto, a Latino student, but also his unconventional contributions that pushed others' thinking. Inquiry processes in our dialogic inquiry framework, particularly PSTs' nuanced analyses of discourse data, helped PSTs engage with what literatures on noticing describe as key processes of attending to students' thinking and interactions; reflecting on and analyzing what was observed; and responding to or acting on students' inputs (e.g., Sherin et al., 2011). To develop asset orientations, such care in noticing is needed.

Although Nina, our focal PST, chose four culturally diverse focal students and appeared equity-minded, she reported little about emergent bilingualism in her data. Despite mentioning the importance of interactional scaffolds, often useful for EB learners (Athanases & de Oliveira, 2014; de Oliveira & Athanases, 2017; de Oliveira et al., 2021; Hammond & Gibbons, 2005), Nina did not include details of how she may have implemented these types of scaffolds during discussion in a class in which 28% of students were EB learners. For her report on teacher interviews, Nina noted neither teacher interviewee went deep

in unpacking their discussion practices related to linguistically diverse students. One suggested that emergent bilingual learners do not get special treatment although the teacher acknowledged scaffolding their learning initially. Nina did not probe on what type of scaffolding, and she was unable to glean concepts or practices for use. This may have been due to the hierarchical position of teacher-mentor and mentee, or to Nina missing an opportunity to challenge her teacher resource on treating every student the same, even when emergent bilingual students may need additional learning support. This is an important consideration. PSTs may need more opportunities to explore ways to challenge instructional practices they find inadequate or detrimental to students' learning, even if such practices are observed or absent in the work of more experienced teachers. TE programs may need to further prepare PSTs to counter problematic practices as they learn to advocate for all learners.

Nina's scant attention to EB students in her inquiry highlights the need, especially in teacher preparation, for additional knowledge of discussion supports for these students, a concern we identified in our background to the study. To support EBs, teachers benefit from pedagogical language knowledge to support design and teaching that maximize learning for linguistically diverse learners (Bunch, 2013). Recent work highlights how alternative modes of participation support EBs, including "silent graffiti" where learners post responses to images or quotes on shared poster paper and engage in written uptake, building chains of response at their own pace (Glick & Walqui, 2021). The COVID-19 pandemic further pressed teachers to diversify ways of inviting EBs and other learners into discourse, through digital tools that included "safe" modes of engagement (e.g., private chat in Zoom) and other digital spaces for sense-making and responding to peer remarks (Ferdinandsen et al., 2022). Such activities are needed especially in culturally and linguistically diverse settings: If a minoritized student senses that their efforts to enter conversation on their terms is assessed as *disengagement* by teachers or peers, they may *choose disengagement,* knowing they will not be called upon to contribute (Glick & Walqui, 2021).

Nonetheless, our case study enabled us to see how Nina's explorations of students' identities in the context of discussions showed an evolution in how she viewed students, perceiving them as participants with much to offer. Through the interaction of all dialogic framework domains, Nina explored elements to advance discussion enacted by both teacher and students as shapers of classroom talk. This is a valuable takeaway for new teachers. Student voices, their perceptions of discussions, and classroom social dynamics gained focus for Nina, supported by a student-centered teacher learning design. Nina widened the scope of her inquiry from fostering "higher-order thinking" through discussion, to the myriad ways learners interacted with texts, language, ideas, and each other. Such noticing and learning illustrate processes that may benefit other teachers. Instruction in TE methods courses, such as the practices described in our innovation, can support first-time discussion leaders. Collecting and analyzing student data also may foster deep and memorable learning, textured with particularity of individual students as informants about their own learning.

Finally, we advance a dialogic design for teacher learning and inquiry about a classroom practice that expands preservice teacher learning beyond a process of replicating methods for generic use in practice. Instead, our innovation presents PSTs with opportunities to challenge classroom discourse that relies solely on IRE structures and that holds the teacher as authority assessing student talk through quiz-like questions. By fostering multiparty talk as a foundation and guiding development of cohesive discourse, preservice and more veteran teachers can create spaces for learning through dialogue and interaction with students, intentionally considering learners' voices and avoiding overly-scripted conversations in ELA and other subject areas. Drawing upon multiple inquiry sources, Nina, for example, attended closely to Beto's voice, his learning assets, noticing ways he helped fuel talk, far beyond rigid assumptions of what counts as serious discourse. Yet she also recognized his potential for growth as a discussant, challenging him to engage in the academic literacy task of seeking textual evidence to support claims.

Our study had two limitations. First, shorter-term TE programs may not have opportunities for PST inquiry to unfold as our framework describes. At the time of the study, Nina had completed an introductory inquiry course and two months of extended student teaching. Without such opportunities, teacher educators wishing to promote similar teacher learning may need alternate means to foster similar complex teacher learning and practice. Programs might adapt our design, with PSTs examining more or fewer print sources, teacher interviews, or classroom data as they discuss findings with peers. We believe, however, that a solid foundation of teacher inquiry is crucial for the success of our project design. Second, our study is limited by the treatment of a single case. However, our unit of analysis is not Nina as a heroic teacher but Nina's practices and learning processes as a "critical case" (Flyvbjerg, 2001). Examining one preservice teacher's practices with rich detail enabled us to move past the probable of PSTs inundated with ideas, practices, and expectations driven by whichever text or voice gets most amplified–to instead instantiate the possible in an elaborated case of teacher learning (Shulman, 1983).

Complexity in Teacher Preparation for Complex Teaching Practice

Documented across many research studies and across national contexts, facilitating class discussions that center dialogue and collective meaning-making is a complex practice that complicates simple teacher preparation in "talk moves" and methods (Caughlan et al., 2017; Sedova, 2021). In English language arts, a subject that embraces ambiguity, multiple interpretations of texts, and sociocultural/socio-historical perspectives on content and themes, teachers need a rich repertoire of knowledge, practices, and preparation in thinking deeply about how every learner may contribute to discussion and co-construction of understanding.

Teacher education methods and related courses are generally designed to hit many topics, often preventing in-depth consideration of the plethora of issues in any curricular domain. Many TE programs may not have time and opportunities for extended treatment of a domain within crowded schedules. Our case study rests on the assumption that extended treatment of a single curricular domain can enlighten PSTs about teaching and learning in that domain, about complexities of teaching and learning, and about processes and tools for future inquiry. The case study presents ways TE programs can support development of knowledge and skills to better understand and promote equitable, meaningful classroom talk. In our study, Nina invoked elements of resources she had engaged with during her inquiry course, each mediated by an analytic or reflective process. From a dialogic perspective, each discovery Nina made echoed voices, language, ideas (akin to Bakhtin's focus on dialogue and utterances), and resources she had tapped and explored in explicit ways. Discoveries also echo discourse within schooling, ELA practice, and TE methods, with Nina--at times--challenging such discourses and methods. To truly meet the demands of complex teaching in culturally and linguistically complex settings, the field of teacher education needs infusion of and documentation of innovative pedagogies that equip teachers effectively. We present our case study of such an innovation as the context within which we offer one PST's learning journey.

Our study positions Nina, at the dawn of her career, not yet a teacher-of-record in her own classroom, implementing dialogic talk and learning from student interactions through inquiry, as a professional committed to comprehending the nuanced nature of class discussion in diverse K-12 classrooms. Despite our own extensive work on facilitating discussions, our analysis of Nina's practices and emerging insights shed light on the centrality of students in sustaining authentic talk in schools seldom designed for safe, *social* construction of knowledge (Resnick et al., 2015; Wells, 2007). Little work has treated knowledge constructed in teacher inquiry as warranting analysis or useful to inform models of teaching (Zeichner, 2009). Despite that pattern, we learned from Nina's inquiry and reflections about complexities of learning to lead discussion and about what is possible in teacher education. A case such as this can serve as a TE resource, highlighting for teacher educators and PSTs the complicated, nuanced

nature of learning to teach a practice so dependent upon and mediated by learners in all of their diversity and complexity.

References

Adler, M., Rougle, E., Kaiser, E., & Caughlan, S. (2003/4). Closing the gap between concept and practice: Toward more dialogic discussion in the language arts classroom. *Journal of Adolescent & Adult Literacy*, *47*(4), 312-322.

Alexander, R. (2019). Whose discourse? Dialogic Pedagogy for a post-truth world. *Dialogic Pedagogy: An International Online Journal*, *7*, E1-E19.

Alston, C. L., Danielson, K. A., Dutro, E., & Cartun, A. (2018). Does a discussion by any other name sound the same? Teaching discussion in three ELA methods courses. *Journal of Teacher Education*, *69*(3), 225-238.

Anderson, L., & Stillman, J. (2010). Opportunities to teach and learn in high-needs schools: Student teachers' experiences in urban placements. *Urban Education, 45*(2), 109-141.

Anthony, G., Hunter, J., & Hunter, R. (2015). Prospective teachers development of adaptive expertise. *Teaching and Teacher Education*, *49*, 108-111.

Applebee, A. N., Langer, J., Nystrand, M., & Gamoran, A. (2003). Discussion-based approaches to developing understanding: Classroom instruction and student performance in middle and high school English. *American Educational Research Journal, 40*(3), 685-730.

Artiles, A. J. (1998). The dilemma of difference: Enriching the disproportionality discourse with theory and context. *The Journal of Special Education, 32*(1), 32-36.

Asterhan, C. S. C., Howe, C., Lefstein, A., Matusov, E., & Reznitskaya, A. (2020). Controversies and consensus in research on dialogic teaching and learning. *Dialogic Pedagogy: An International Online Journal*, *8*, S1-S16.

Athanases, S. Z. (2011). Research as praxis: Documenting the dialectical relationship between theory and practice. In D. Lapp & D. Fisher (Eds.), *Handbook of research on teaching the English language arts* (3rd ed., pp. 358–363). [Sponsored by the International Reading Association and the National Council of Teachers of English]. Routledge.

Athanases, S. Z. (2014). Mentoring and mediating the interface of multiple knowledges in learning to teach challenging content. In C. J. Craig & L. Orland-Barak (Eds.), *Advances in Research on Teaching* (Vol. 22, pp. 403–426). Emerald Group Publishing Limited. https://doi.org/10.1108/S1479-368720140000022022

Athanases, S. Z. (2021). Locked in sequence and stuck on skills in a college-for-all culture for urban Latinx youth. *Urban Education*, *56*(8), 1328–1359. https://doi.org/10.1177/0042085918806944

Athanases, S. Z., & de Oliveira, L. C. (2014). Scaffolding versus routine support for Latina/o youth in an urban school: Tensions in building toward disciplinary literacy. *Journal of Literacy Research*, *46*(2), 263–299. https://doi.org/10.1177/1086296X14535328

Athanases, S. Z., & Martin, K. J. (2006). Learning to advocate for educational equity in a teacher credential program. *Teaching and Teacher Education*, *22*(6), 627–646. https://doi.org/10.1016/j.tate.2006.03.008

Athanases, S. Z., Banes, L. C., Wong, J. W., & Martinez, D. C. (2018). Exploring linguistic diversity from the inside out: Implications of self-reflexive inquiry for teacher education. *Journal of Teacher Education, 70*(5), 581-596. http://journals.sagepub.com/doi/10.1177/0022487118778838

Athanases, S. Z., Sanchez, S. L., & Martin, L. M. (2020). Saturate, situate, synthesize: Fostering preservice teachers' conceptual and practical knowledge for learning to lead class discussion. *Teaching and Teacher Education*, *88*, 1–16. https://doi.org/10.1016/j.tate.2019.102970

Athanases, S. Z., Wahleithner, J. M., & Bennett, L. H. (2012). Learning to attend to culturally and linguistically diverse learners through teacher inquiry in teacher education. *Teachers College Record*, *114*, 1–50.

Aukerman, M. (2013). Rereading comprehension pedagogies: Toward a dialogic teaching ethic that honors student sensemaking. *Dialogic Pedagogy: An International Online Journal, 1*, A1-A31.

Aukerman, M., Belfatti, M., & Santori, D. (2008). Teaching and learning dialogically organized reading instruction. *English Education, 40*(4), 340-364.

Bakhtin, M. M. (1981). *The dialogic imagination: Four essays.* University of Texas Press.

Banes, L. C., Houk, J. G., Athanases, S. Z., & Sanchez, S. L. (2022). *Multi-lens noticing in pre-service teachers' first attempts at facilitating discussion in diverse English classes* [Paper presentation at AERA (2023) & Manuscript submitted for publication]. School of Education, University of California, Davis.

Barnes, D. (1992). *From communication to curriculum.* Boynton/Cook- Heinemann.

Bieler, D. (2010). Dialogic praxis in teacher preparation: A discourse analysis of mentoring talk. *English Education, 42*(4), 391-426.

Boyd, M. (2016). Connecting "Man in the Mirror": Kindling a classroom dialogic teaching and learning trajectory. *L1 Educational Studies in Language and Literature*, *16*(Special Issue on International Perspectives on Dialogic Theory and Practice), 1-26.

Boyd, M. P., & Janicki-Gechoff, E. (2020). 'Seeing with poet's eyes': Dialogic valuing of the local, the everyday and the personal. *Language and Education*, *34*(1), 1-21.

Boyd, M. P., & Markarian, W. C. (2015). Dialogic teaching and dialogic stance: Moving beyond interactional form. *Research in the Teaching of English, 49*(3), 272-296.

Bunch, G. C. (2013). Pedagogical language knowledge: Preparing mainstream teachers for English learners in the new standards era. *Review of Research in Education, 37*, 298-341.

California Department of Education. (2021). *Reclassification-English learners (CA Dept of Education)*. Retrieved September 24, 2021, from https://www.cde.ca.gov/sp/el/rd/

Candela, A. (1998). Students' power in classroom discourse. *Linguistics and Education, 10*(2), 139-163.

Caughlan, S., Pasternak, D. L., Hallman, H. L., Renzi, L., Rush, L. S., & Frisby, M. (2017). How English language arts teachers are prepared for twenty-first-century classrooms: Results of a national study. *English Education*, *49*(3), 265-297.

Christoph, J. N., & Nystrand, M. (2001). Taking risks, negotiating relationships: One teacher's transition toward a dialogic classroom. *Research in the Teaching of English, 36*(2), 249-86.

Clift, R. E., & Brady, P. (2005). Research on methods courses and field experiences. In M. Cochran-Smith & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 309-424). Erlbaum.

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance*. Teachers College Press.

Cochran-Smith, M., Ell, F., Ludlow, L., Grudnoff, L., & Aitken, G. (2014). The challenge and promise of complexity theory for teacher education research. *Teachers College Record*, *116*, 1-38.

Cohen, E. G., Lotan, R. A., Scarloss, B. A., & Arellano, A. R. (1999). Complex instruction: Equity in cooperative learning classrooms. *Theory Into Practice*, *38*(2), 80-86.

Corno, L. (2008). On teaching adaptively. *Educational Psychologist*, *43*(3), 161-173.

de Oliveira, L. C., & Athanases, S. Z. (2017). A framework to reenvision instructional scaffolding for linguistically diverse learners. *Journal of Adolescent & Adult Literacy*, *61*(2), 123–129. https://doi.org/10.1002/jaal.663

de Oliveira, L. C., & Jones, L. (2021). Dialogic teaching through interactional scaffolding in practice with multilingual learners in the middle years. *Literacy Learning: The Middle Years*, *29*(2), i–vi.

Edwards, E., & Roger, P. S. (2015, February). Seeking out challenges to develop L2 self-confidence: A language learner's journey to proficiency. *Teaching English as a Second or Foreign Language, 18*(4).

Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work, 14*(1), 133-156.

Enright, K. A., Torres-Torretti, D., & Carreón, O. (2012). Hope is the thing with metaphors: De-situating literacies and learning in English Language Arts classrooms. *Language and Education*, *26*(1), 35-51.

Erickson, F. (2011). On noticing teacher noticing. In M. Sherin, V. Jacobs, & R. Philipp (Eds.), *Mathematics teacher noticing: Seeing through teachers' eyes* (pp. 17-34). Routledge.

Ferdinandsen, T., Hutchings, M., Athanases, S. Z., Higgs, J., & Aiello, L. (2022). Remotely (re)discovering the how, where, and when of student cross talk. *English Journal, 112*(1), 40–47.

Flyvbjerg, B. (2001). *Making social science matter*. Cambridge University Press.

Freedman, S. W., Simons, E. R., Kalnin, J. S., Casareno, A., & The M-CLASS Teams (1999). *Inside city schools: Investigating literacy in multicultural classrooms*. Teachers College Press.

Freeman, D. (1993). Renaming experience/reconstructing practice: Developing new understanding of teaching. *Teaching and Teacher Education*, *9*(5), 485-497.

Freire, P. (1998). *Pedagogy of freedom: Ethics, democracy, and civic courage*. Rowman and Littlefield.

Ghousseini, H. (2015). Core practices and problems of practice in learning to lead classroom discussions. *The Elementary School Journal, 115*(3), 334-357.

Glick, Y., & Walqui, A. (2021). Affordances in the development of student voice and agency: The case of bureaucratically labeled long-term English learners. In A. Kibler, G. Valdes, & A. Walqui (Eds.), *Reconceptualizing the role of critical dialogue in American classrooms: Promoting equity through dialogic education* (pp. 23-52). Routledge.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, *15*(2), 273-289.

Gutiérrez, K. D., Baquedano-López, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity*, *6*(4), 286-303.

Gutiérrez, K. G., Morales, P. Z., & Martinez, D. C. (2009). Re-mediating literacy: Culture, difference, and learning for students from nondominant communities. *Review of Research in Education, 33*, 212-245.

Gutiérrez, K., & Vossoughi, S. (2010). Lifting off the ground to return anew: Mediated praxis, transformative learning, and social design experiments. *Journal of Teacher Education, 61*(1-2), 100-117.

Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M., & Zeichner, K. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (First, pp. 358-389). Jossey-Bass.

Hammond, J., & Gibbons, P. (2005). Putting scaffolding to work: The contribution of scaffolding in articulating ESL education. *Prospect, 20*(1), 6-30.

Hsieh, B. (2015). The importance of orientation: Implications of professional identity on classroom practice and for professional learning. *Teachers and Teaching*, *21*(2), 178-190.

Jadallah, M., Anderson, R., Nguyen-Jahiel, K., Miller, B., Kim, I., Kuo, L., Dong, T., & Wu, X. (2010). Influence of teachers' scaffolding moves during child-led small discussions. *American Educational Research Journal, 48*(1), 194-230.

Juzwik, M. M., Borsheim-Black, C., Caughlan, S., & Heintz, A. (2013). *Inspiring dialogue: Talking to learn in the English classroom*. Teachers College Press.

Kavanagh, S. S., Metz, M., Hauser, M., Fogo, B., Taylor, M. W., & Carlson, J. (2020). Practicing responsiveness: Using approximations of teaching to develop teachers' responsiveness to students' ideas. *Journal of Teacher Education*, *71*(1), 94-107.

Kim, M.-Y., & Wilkinson, I. A. G. (2019). What is dialogic teaching? Constructing, deconstructing, and reconstructing a pedagogy of classroom talk. *Learning, Culture and Social Interaction*, *21*, 70-86.

Korthagen, F. A. J., Kessels, J., Koster, B., Lagerwerf, B., & Wubbels, T. (2001). *Linking practice and theory: The pedagogy of realistic teacher education*. Lawrence Erlbaum.

Lampert, M. (2000). Knowing teaching: The intersection of research on teaching and qualitative research. *Harvard Educational Review*, *70*(1), 86-99.

Lee, C. D. (2001). Is October brown Chinese? A cultural modeling activity system for underachieving students. *American Educational Research Journal, 38*(1), 97-141.

Lee. C. D. (2007). *Culture, literacy, and learning: Taking bloom in the midst of the whirlwind*. Teachers College Press.

Lefstein, A. (2010). More helpful as problem than solution. In K. Littleton & C. Howe (Eds.), *Educational dialogues: Understanding and promoting productive interaction* (pp. 170-191). Taylor & Francis Group.

Lortie, D. (1975). *Schoolteacher: A sociological study*. University of Chicago Press.

Lowry, L. (1993). *The giver*. Houghton Mifflin.

Matusov, E., & Wegerif, R. (2014). Dialogue on 'Dialogic Education': Has Rupert gone over to 'the Dark Side'? *Dialogic Pedagogy: An International Online Journal, 2*, E1 - E20, doi:10.5195/dpj.2014.78.

Martinez, D., Morales P., & Aldana, U. (2017). Leveraging students' communicative repertoires as a tool for equitable learning. *Review of Research in Education, 41*(1), 477-499.

Medina, C. (2010). "Reading across communities" in biliteracy practices: Examining translocal discourses and cultural flows in literature discussions. *Reading Research Quarterly*, *45*(1), 40-60.

Mehan, H. (1982). The structure of classroom events and their consequences for student performance. In P. Gilmore, & A. Glatthorn (Eds.), *Children in and out of school* (pp. 59-87). Center for Applied Linguistics.

Meneses, A., Hugo, E., García, M. de los Á., & Müller, M. (2018). Facilitating academic text-based discussions in initial teacher education: Evaluating specialized knowledge. *Teaching and Teacher Education*, *69*, 119-130.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. Jossey-Bass.

Murphy, S. (2003). That was then, this is now: The impact of changing assessment policies on teachers and the teaching of writing in California. *Journal of Writing Assessment, 1*(1), 23-45.

Nystrand, M. (1997*). Opening dialogue: Understanding the dynamics of language and learning in the English classroom*. Teachers College Press.

Nystrand, M., & Gamoran, A. (1991). Instructional discourse, student engagement, and literature achievement. *Research in the Teaching of English, 25*(3), 261-290.

Nystrand, M., Wu, L. L., Gamoran, A., Zeiser, S., & Long, D. A. (2003). Questions in time: Investigating the structure and dynamics of unfolding classroom discourse. *Discourse Processes, 35*(2), 135–198.

O'Connor, C., & Michaels, S. (2007). When is dialogue 'dialogic'? *Human Development*, *50*(5), 275-285.

Oakes, J., Rogers, J., & Lipton, M. (2006). *Learning power: Organizing for education and justice*. Teachers College Press.

Oakes, J., Wells, A. S., Jones, M., & Datnow, A. (1997). Detracking: The social construction of ability, cultural politics, and resistance to reform. *Teachers College Record, 98*(3), 482-510.

Ohlsson, J. (2013). Team learning: Collective reflection processes in teacher teams. *Journal of Workplace Learning*, *25*(5), 296-309.

Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., ... Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research*, *88*(2), 205-242.

Pastoor, L. de W. (2005). Discourse and learning in a Norwegian multiethnic classroom: Developing shared understanding through classroom discourse. *European Journal of Psychology of Education*, *20*(1), 13-27.

Patterson Williams, A. D., Athanases, S. Z., Higgs, J., & Martinez, D. C. (2020). Developing an inner witness to notice for equity in the fleeting moments of talk for content learning. *Equity & Excellence in Education*, *53*(4), 504–517. https://doi.org/10.1080/10665684.2020.1791282

Peterson, S., & Calovini, T. (2004). Social ideologies in grade eight students' conversation and narrative writing. *Linguistics and Education*, *15*(1-2), 121-139.

Resnick, L. B. (2010). Nested learning systems for the thinking curriculum. *Educational Researcher*, *39*(3), 183-197.

Resnick, L. B., Asterhan, C. S. C., & Clark, S. N. (2015). *Socializing intelligence through academic talk and dialogue*. American Educational Research Association.

Reznitskaya, A. (2012). Dialogic teaching: Rethinking language use during literature discussions. *The Reading Teacher*, *65*(7), 446-456.

Reznitskaya, A., Anderson, R. C., McNurlen, B., Nguyen-Jahiel, K., Archodidou, A., & Kim, S. (2001). Influence of oral discussion on written argument. *Discourse Processes, 32*(2 & 3), 155-175.

Rogers, T., Marshall, E., & Tyson, C. A. (2006). Dialogic narratives of literacy, teaching, and schooling: Preparing literacy teachers for diverse settings. *Reading Research Quarterly, 41*(2), 202-224.

Rosaen, C. L., Lundberg, M., Cooper, M., Fritzen, A., & Terpstra, M. (2008). Noticing noticing: How does investigation of video records change how teachers reflect on their experiences? *Journal of Teacher Education, 59*(4), 347-360.

Sawyer, R. K. (2004). Creative teaching: Collaborative discussion as disciplined improvisation. *Educational Researcher, 33*(2), 12-20.

Sawyer, R. K. (2011). *Structure and improvisation in creative teaching*. Cambridge University Press.

Schultz, K. (2009). *Rethinking classroom participation: Listening to silent voices*. Teachers College Press.

Sedova, K. (2017). A case study of a transition to dialogic teaching as a process of gradual change. *Teaching and Teacher Education, 67*, 278-290.

Sedova, K. (2021). Is dialogic teaching sustainable? Portrait of a teacher three years after completing a teacher development programme. *Dialogic Pedagogy: An International Online Journal, 9*, A37-A59.

Sedova, K., Salamounova, Z., & Svaricek, R. (2014). Troubles with dialogic teaching. *Learning, Culture and Social Interaction*, *3*(4), 274-285.

Sherin, M., Jacobs, V., & Philipp, R. (Eds.) (2011). *Mathematics teacher noticing: Seeing through teachers' eyes*. Routledge.

Sherry, M. B. (2019). Emergence and development of a dialogic whole-class discussion genre. *Dialogic Pedagogy: An International Online Journal*, *7*, A27-A57.

Shulman, L. S. (1983). Autonomy and obligation: The remote control of teaching. In L. Shulman & G. Sykes (Eds.), *Handbook of teaching and policy* (pp. 484-504). Longman.

Shulman, L. S. (1987). Knowledge and teaching foundations of the new reform. *Harvard Education Review, 57*(1), 1-22.

Smagorinsky, P. (2017). Discussion, conversation, and dialogue: Applebee, Bakhtin, and speech in schools. In R. K. Durst, G. E. Newell, & J. D. Marshall (Eds.), *English language arts research and teaching: Revisiting and extending Arthur Applebee's contributions* (pp. 27-40). Routledge.

Smagorinsky, P., Rhym, D., & Moore, C. P. (2013). Competing centers of gravity: A beginning English teacher's socialization process within conflictual settings. *English Education*, *45*(2), 147-183.

Stake, R. E. (2006). *Multiple case study analysis*. Guilford Press.

Stillman, J. (2011). Teacher learning in an era of high-stakes accountability: Productive tension and critical professional practice. *Teachers College Record, 113*(1), 133-180

Strauss, A. L. (1987). *Qualitative analysis for social scientists*. Cambridge University Press.

Taylor, M. (1996). *Song of the trees*. Bantam Doubleday Dell Publishing Group.

Thomas, P. (1978). Amigo brothers. In P. Thomas, *Stories from El Barrio*. Knopf.

U.S. Department of Education, National Center for Education Statistics. (2021). *The Condition of Education 2021* (NCES 2021-144), Concentration of Public School Students Eligible for Free or Reduced-Price Lunch. https://nces.ed.gov/fastfacts/display.asp?id=898

van de Pol, J., Volman, M., & Beishuizen, J. (2009). Patterns of contingent teaching in teacher-student interaction. *Learning and Instruction, 21*, 46-57.

Vygotsky, L. S. (1962). *Thought and language* (E. Hanfmann & G. Vakar, Eds. and Trans.). MIT Press.

Wells, G. (2007). Semiotic mediation, dialogue and the construction of knowledge. *Human Development*, *50*(5), 244-274.

Wertsch (1985). *Vygotsky and the social formation of mind*. Harvard University Press.

Williamson, P. (2013). Enacting high leverage practices in English methods: The case of discussion. *English Education*, *46*(1), 34-67.

Wills, J. S., & Sandholtz, J. H. (2009). Constrained professionalism: Dilemmas of teaching in the face of test-based accountability. *Teachers College Record*, *111*(4), 1065-1114.

Zeichner, K. M. (2009). *Teacher education and the struggle for social justice*. Routledge.

Zuidema, L. A., & Fredricksen, J. E. (2016). Resources preservice teachers use to think about student writing. *Research in the Teaching of English, 51*(1), 12-36.

APPENDIX: Inquiry and Focal Students

Working with an N of Four: Overview

Your N, or number of participants, may be a full class, but your special focus is four students, an N of 4. So what is the value of studying an N of 4? You can't really generalize from such a small number to whole classes or whole grade levels or to students across school sites. So what does an inquiry with such a small N yield?

The answer is: careful mining of data, in a case study manner, to learn about learning challenges, to uncover issues, problem areas, ways young people grow in their learning, close looking at individuals and phenomena, factors involved in their learning in your focal ELA area, and the revealing of relevant themes.

Some researchers write journal articles using an N of 1—often one learner, one child, one student. But what they try to achieve in that study is a deep looking at learning and development issues, using a range of data sources. The reporting needs to use rich sampling from the data in order for the "case" to come alive and shed light on teaching and learning issues.

Mine the data deeply. Look closely at your students' work, their remarks, to understand what the data can tell you. You cannot do a lot with breadth (with such a small number of focal participants, and in just a short timeframe). But do as much as you can with depth.

Synthesize and integrate your data and what you are finding. Think about how what a student does relates to what s/he tells you, and how this relates to or differs from input from another student. Think of how these things relate to what you have learned from professional resources you reviewed. This synthesizing and integrating is what makes inquiry into an N of 4 compelling. A student can be an example of something. Or one piece of work or one remark from the student can illustrate a phenomenon you have been seeing.

Provide a trail from claims to evidence. Avoid making sweeping claims without evidence. How can you do this with student work, with student interview data, with Venn diagrams, outlines, revisions to essays, or transcripts of classroom discourse? Be thoughtful and creative about this. Find ways to make "things" into visible data that serve as evidence. This is how you make your inquiry credible and trustworthy. Some of you have been doing some of this in excellent ways in your memos. Here are examples:

- annotate students' work with your own language in the margins of student work, in order to make clear how you are interpreting and analyzing bits and pieces.

- scan student work excerpts and reflections right beneath claims you make about them, to build evidence for things you want to say about students' understandings and reflections.

- transcribe a stretch of discourse in scripted fashion, and interpret and analyze what occurs with students' contributions to talk. Locate what is occurring, with specific references to what student 1 or 2 or 8 says and what a specific student remark does to shape discourse.

Make explicit the trail from student work/talk/reflections to your claims or comments about them!

Introducing Linguistically Diverse Focal Students: Reflection

Too often we imagine emergent bilinguals/English Learners as a unified group with the same strengths and needs. In fact, we know that levels of English language proficiency vary widely for emergent bilingual learners, as do motivation, interest in a particular topic or subject area, and general literacy skills and abilities. For this reflection, choose two very different emergent bilingual learners in your focal class for your inquiry and reflect on their learning and performances. If you do not have two relevant students in your focal class in which you will conduct inquiry, then choose students who demonstrate some challenges in their literacy performances.

Collect work samples from these two students for close study. Remove names and add pseudonyms.

(1) **Introduce the students.** Who are they? Race/ethnicity/first language (if relevant)? What do you know of their broader interests? Performances in other classes? Ways of interacting with peers in class? Level of English language proficiency according to "official" school indicators and according to your assessment at this point.
(2) **Specific strengths in work, especially in writing**. Characterize what each student does that demonstrates achievement that is there. If you have a sample writing, examine exactly what is going on in the work that demonstrates achievement and what it shows. Quote from the work if you can.
(3) **Room to grow**. What literacy goals might you still hold for these students? Where do you hope they might get to in future literacy tasks? By the end of the year? In future years? How might you help these students reach even higher?
(4) **Comparing these two students' work**. How would you compare the work of these two students? Thoughts on the kind of scaffolding you might still use with them?
(5) **Closing thoughts**? Thoughts on these students as learners related to focus of your inquiry?

Focal Students' Work: Memo 1

Questions to Consider:

1. What do my focal students know and understand about this area of English language arts work?
2. What do they need to understand more fully?

3. Who among my students appears to need more scaffolding to move ahead in their understanding/performance?
4. What do I need to understand more fully about the focal area of content, in order to help my students understand it more fully?
5. Among four focal students, which students appear to understand what about the focal content/process work?
6. Rather than only noting the deficiencies in my focal students' work—or areas where they fall short of my learning goals for them—how can I document the achievement that is there in order to build on this achievement?
7. What IS the achievement that is there? What are the very specific pieces of performance that I can tease apart, in order to understand what is working and what is not?
8. What are my students' learning preferences related to the focal content/process?
9. Are their particular ways my focal students prefer engaging with the content?
10. Are their particular kinds of scaffolding that my various focal students benefit from most?
11. In what ways do especially my focal students seem to resist the focal content/process?