

**The Possibilities of Layering Frameworks:
Examining the Promise of using Multiple Frameworks in Research on Teaching**

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Symposium Abstract

There are significant advantages of using shared frameworks to shape field-level research agendas for understanding teaching quality. Shared frameworks allow researchers and practitioners alike to aggregate knowledge and build shared technical vocabularies with which to describe and discuss the practice of teaching in greater nuance and detail. These advantages, however, carry hidden pitfalls as well. Frameworks, whether observational or theoretical, are lenses through which we see the world. Just like physical lenses, frameworks sharpen focus on particular things while blurring focus on others. Therefore, all frameworks offer both shared ways of seeing and shared ways of *not* seeing. As frameworks develop field-level prominence, an important task for researchers is to combat the development of field-level blind spots. One approach to tackling this task is to layer frameworks.

This symposium brings together researchers from Norway and the United States to discuss a variety of approaches to layering frameworks in research on teaching practice, teacher learning, and teaching quality. Including presentations of findings from three research projects and an overarching discussion by Dr. Pam Grossman, the symposium will examine how researchers are layering frameworks in ways that add nuance to some of the most prominent frameworks used to study teaching quality.

The first presentation will investigate how layering sociocultural theories of learning, critical theories, and complexity theory allowed researchers to illuminate and account for complexities in teacher learning processes. The second presentation will discuss how layering two observational frameworks, PLATO and the IQA allowed researchers to reveal nuances in classroom video data that one framework alone would not have uncovered. The final presentation illustrates how developmental frameworks for teacher learning can be partnered with frameworks that decompose the practice of teaching to help guide both research and designs for professional learning. Taken together, the included research argues that in order to tackle the blind spots that are baked into research communities that share common frameworks, researchers may benefit from layering multiple frameworks in strategic and systematic ways that allow us to address omitted perspectives without abandoning the progress we have made as a field.

Extended Summary

Research on teaching quality has been enormously influenced by the introduction of new frameworks of teaching quality. Tools like the Protocol for Language Arts Teaching Observation (PLATO) (Grossman, 2015), the Instructional Quality Assessment (IQA) (Boston, 2012; Matsumura et al., 2008), and the Science Discourse Instrument (SDI) (Gomez Zaccarelli et al., 2018) have offered researchers common lenses through which to examine teaching as well as shared measures that have allowed researchers to aggregate knowledge about teaching practice across studies, across contexts, and even across nations (Grossman et al., 2015; Klette et al., 2018). Along with supporting researchers to aggregate knowledge, this work has also supported researchers and practitioners alike to build shared technical vocabularies with which to describe and discuss the practice of teaching in greater nuance and detail, thereby benefiting professional learning projects and research agendas alike (Ball & Forzani, 2011)). By offering the field robust tools for collaboration, these frameworks have allowed research on teaching to build coherence, rigor, and community at a field level.

While there are significant advantages of using shared frameworks to shape field-level research agendas, those advantages carry hidden pitfalls as well. Frameworks, whether observational or theoretical, are lenses through which we see the world. Just like physical lenses, frameworks sharpen focus on particular things while blurring focus on others. Therefore, all frameworks offer both shared ways of seeing and shared ways of *not* seeing. Unfortunately, whenever we build community around a particular lens, we (necessarily) are also building community around shared blind spots. Some scholars argue that the danger of shared blind spots suggests that we should abandon the project of building shared languages for describing the practice of teaching (Horn & Kane, 2019). The researchers in this symposium, however, make an alternative argument. Taking both the benefits and dangers of shared frameworks seriously, the research spotlighted in this symposium argues for systematic approaches to using *multiple* frameworks in research on teaching practice and teaching quality.

The symposium showcases three research projects across Norway and the United States, which will be followed by a discussion from Dr. Pam Grossman, the author of PLATO. Each research team is made up of researchers who have been deeply involved in the work of building shared languages, frameworks, and measures for describing the practice of teaching. Across three projects, the participating researchers will present emerging work on the power of combining multiple, distinct frameworks in the study of teaching practice and teaching quality.

The first paper examines perennial problems of learning teaching through three theoretical lenses: *sociocultural learning theories*; *critical theory* and *complexity theory*. The authors describe how each lens reveals different relationships, tensions, ideas, and interactions that are important for understanding and theorizing new teacher learning and equitable teaching. By employing lenses that focus on different levels of social systems, the authors illustrate how layering frameworks might allow us to illuminate and account for the complexity of teacher learning. The second paper investigates the ways that a targeted framework for academic rigor and accountable talk can complement and nuance researchers' understanding of classroom discourse as measured by a broader teaching quality framework. By applying both PLATO (Grossman, 2015) and the IQA (Boston 2012; Matsumura et al., 2008) to classroom video data from 93 Norwegian lower secondary mathematics and language arts lessons the researchers illustrate how layering frameworks allowed them to reveal nuances in the data that one framework alone would not have uncovered. The final paper reports on research from a study that followed language arts teachers at one American school serving students ages five through fourteen as they engaged in an in-depth, job-embedded professional learning program

focused on developing their practice at text-based discussion. An analysis of video stimulated recall interviews with participating teachers suggests a developmental framework for learning to facilitate discussions that the researchers argue could be layered atop frameworks like PLATO and SDI, which decompose the practice of facilitating discussion.

Taken together, the included papers argue that the shared language project in research on teaching may be ready for a next step. To tackle the blind spots that are baked into research communities that share common frameworks, researchers may benefit from layering multiple frameworks in strategic and systematic ways that allow us to address omitted perspectives without abandoning the progress we have made as a field. Where critics of shared frameworks for describing teaching worry that these frameworks are dangerous endpoints, the researchers in this symposium argue that developing shared frameworks are necessary starting points in the much larger project of building nuanced, strategic approaches to analyzing teaching practice, teacher learning, and teaching quality.

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Paper Abstract #1

Theoretical Frameworks to Guide Teacher Education Research

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Research around the globe has documented a set of perennial problems of learning teaching (Korthagan, Kessels, Koster, Lagerwerf & Wubbels, 2001; Moon, 2016; Norwegian Ministry for Education and Research, 2018; Toom & Husu, 2021). By "problems" we mean perennial challenges to learning to think and act like a teacher, to enact practices that are equitable, and

to impact student learning. We call them 'perennial' because they relate to foundational features of learning, are not easily addressed, and are persistent tensions in designing for new teacher learning. For instance, learning to teach requires that new teachers come to think about and understand teaching quite differently than as students. Daniel Lortie (1975) called this problem "the apprenticeship of observation," referring to the learning that takes place by virtue of being a student for twelve or more years in classroom settings. This presentation begins with an overview of six perennial problems of learning teaching: *enactment, observation, vision, equity, complexity and fragmentation*. The presenters argue that naming these problems is critical for comparative teacher education research, and in turn, for advancing the field. Shared terminology (and problem spaces) enables researchers across international contexts to compare and contrast findings, within a common or shared understanding about the framing of the research. In addition, it supports more likely implementation across contexts due to deep understanding of fundamental challenges in teacher education.

Next the presenters will offer three theoretical frameworks that can be especially helpful in puzzling through these "problems of learning teaching." Theoretical frameworks push teacher educators to ask foundational questions about their work, such as: How do different explanatory concepts support our thinking about how PSTs learn? What features of pedagogical opportunities do frameworks reveal that can guide program design to support PST learning and equitable teaching? This presentation offers three theoretical frameworks that could be used to guide research on teacher education: *sociocultural learning theories; critical theory* and *complexity theory*. Each lens helps reveal relationships, tensions, ideas, and interactions that are important for understanding and theorizing new teacher learning and equitable teaching due to their focus upon different levels of social systems. Often, researchers treat theoretical frameworks as separate entities that compete with each other for the most complete explanations of phenomena. We argue that positioning theoretical frameworks about learning to teach as separate hinders our understanding of PST learning given the complexity and scale of the phenomenon. Bringing together theoretical frameworks to understand learning reveals different characteristics of the experience and when taken together, can usefully account for and illuminate the complexity of teacher learning. The three complementary theoretical frameworks can be helpful for those engaged in comparative research, and by helping support program design and planning for new teachers learning to teach in equitable ways. The presentation concludes with examples drawn from their international research that illustrate what these principles look like in teacher education programs; and how one might study them and in turn, teacher learning with a comparative lens.

References Paper #1

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Paper Abstract #2:
Combining observation frameworks to reveal nuances in classroom discourse in Mathematics and Language arts

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Professional development (PD) is essential for improving classroom discourse (Kavanagh et al., 2022). Successful PD initiatives are anchored in teachers' classroom practice, disciplinary content, and teacher communities (Darling-Hammond et al., 2017), creating a need for a shared professional language that enables teachers to analyze and learn from their teaching together. Observation frameworks have the potential to provide a common ground from which teachers can inquire into and improve their teaching – both within and across subject areas. Specifically, distinguishing specific facets of discourse can be advantageous in providing feedback to assist teachers in improving classroom discourse.

This paper aims to investigate in what ways a targeted framework for academic rigor and accountable talk can complement and nuance our understanding of classroom discourse as measured by a broader teaching quality framework. To explore this aim, we applied a framework with a comprehensive view of teaching quality, The Protocol of Language Arts Teaching Observation (PLATO) (Grossman, 2015), and a targeted framework for classroom discourse, the Instructional Quality Assessment (IQA) in Mathematics (Boston, 2012) and Language arts (Matsumura et al., 2008).

The study draws on video data from 93 Norwegian lower secondary classrooms, comprising 47 mathematics lessons and 46 language arts lessons. As the first step of our analytical approach, we used the PLATO framework to map mathematics and language arts lessons with extended opportunities for students to engage in classroom discourse, providing us with a subsample of lessons. In the second step, we used the IQA framework to further decompose, explore, and compare these opportunities across subjects.

Our initial analysis showed that both frameworks highlight many of the same quality features of classroom discourse. Whereas PLATO measured classroom discourse at an overarching level, the IQA revealed additional nuances in the data, particularly by decomposing discourse in facets such as teacher press, student reasoning, and teacher and student linking. Our preliminary findings indicated lower and higher levels of student reasoning, teacher pressing, and teacher and student linking in both subjects. In addition, findings suggested that even in high-quality discourse, certain practices, such as teacher linking, remain rare. These findings indicate that accountable talk moves represent a fruitful focus in PD across subject areas, while subject-specific aspects of classroom discourse, such as the importance of the choice of texts in Language Arts and tasks in Mathematics, should also be considered. The study contributes to the QUINT ambition of connecting ways of conceptualizing and measuring teaching quality to professional development initiatives.

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Paper Abstract #3
Towards Developmental Frameworks of Teacher Learning in Research on Core Teaching Practices

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Research on practice-based teacher education (PBTE) now rests atop a multitude of decompositions of core teaching practices (Alston et al., 2018; Fogo, 2014; Grossman et al., 2009; Grossman, 2021) and many of these decompositions have now been used as design frameworks for professional development (PD) programs (Gibbons et al., 2017; Kavanagh et al., 2022; Kazemi et al., 2021). When decompositions of practice are used as anchoring frameworks in the design of PD, designers are forced to make decisions about which components of a given practice should be introduced to teacher learners first and which might come later in a teacher learner’s development. While many experienced teacher educators and PD providers have strong case knowledge that they use to make these decisions, there is limited empirical research on core teaching practices that takes a developmental lens.

This cross-case study aims to address this gap in the research by mapping and comparing the developmental trajectories of four teacher learners over the course of two years as they engaged in a PD program focused on discussion facilitation. The aim of our work is to propose an initial developmental framework of teacher learning about discussion facilitation. Our hope is that such a framework might go on to inform larger scale research and ultimately be used in program design by teacher educators and PD providers alongside decompositions of high-quality discussions.

The study draws on 17 video-stimulated recall interviews conducted over the course of two years with a group of four teachers all of whom taught at the same K-8 school in a major city in

the United States. During data collection, the teachers met as a group with PD providers eleven times for full-day professional learning experiences all of which were focused on discussion facilitation. In between these sessions, researchers captured video of teachers facilitating discussions in their own classrooms and then led teachers through video-stimulated recall interviews (VSRIs) in which the teachers narrated what they were trying to accomplish at different moments during the filmed discussions. Researchers coded the VSRIs using a decomposition of the core practice of facilitating discussion (Gotwalt, 2023). This coding scheme allowed researchers to identify when teachers were working on particular elements of discussion facilitation, including when they were experiencing feelings of success and frustration with each element.

Initial analyses reveal that teachers worked on significantly fewer elements of discussion facilitation in year one than in year two. Their early attempts at discussion facilitation focused mostly on trying to position students as competent sense makers by adjusting how they elicited their thinking. Later they began orienting students to one another's' ideas. It was only after they had begun to find success eliciting in ways that positioned competently and orienting students to one another's' ideas that they began to reflect on moves that they could make to disrupt power dynamics in the classroom between students, between the teacher and students, and between students and society. This research suggests that researchers and practitioners may benefit from supplementing frameworks that decompose high quality discussion facilitation with developmental frameworks of teacher learning about discussion.

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