Title
Using Hybrid MOOCs to Improve Teachers' Academic Discourse Practices

Author
Hasser, Neil Ericson

Publication Date
2017

Peer reviewed|Thesis/dissertation

Using Hybrid MOOCs to Improve Teachers' Academic Discourse Practices

By

Neil E. Hasser

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Joint Doctor of Philosophy

with San Francisco State University

in

Special Education

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor P. David Pearson, Chair
Professor Amber Friesen
Professor Susan Stone
Professor Kenji Hakuta

Spring 2017

Using Hybrid MOOCs to Improve Teachers' Academic Discourse Practices

Neil E. Hasser

Abstract

Using Hybrid MOOCs to Improve Teachers' Academic Discourse Practices

By

Neil E. Hasser

Doctor of Philosophy in Education

University of California, Berkeley

San Francisco State University

Professor P. David Pearson, Chair

Curricular and demographic changes in our schools have created significant shifts in the instructional needs of our classrooms. Inservice professional development (PD) through Massive Open Online Courses (MOOCs) has been posed as a scalable approach to meet the professional needs our teachers need to respond to instructional challenges. But what we know about MOOC PD is limited by our lack of knowledge of how teachers respond to this online mode, and by the shifting of MOOCs from simply online modes to hybrids using face-to-face interaction. This study is a multiple, embedded case study of the professional learning of 7 teachers participating in a hybrid MOOC. The MOOC was a multidimensional and adaptive platform to introduce current practices of engagement, the information gap, and an increased attention to language for teaching instructional strategies to elementary level teachers to support students' development of academic uses of English.

The research questions focused on how teachers processed PD features emphasized in the MOOC across 3 time points using a socio-cultural theoretical frame of developing teacher expertise (Snow, Griffin & Burns, 2005). Data sources included interviews, observations, surveys, and participants' work assignment submissions. Findings suggest that teacher expertise was a mediator variable in response to the PD content and modes of delivery.

The findings from this study have implications in research, policy, and practice. At a research level, multiple measures support analysis of modal interactions across different settings. Policy implications include specific suggestions to strengthen the collaborative nature of the PD. Implications for practice include providing additional instruction to teachers beyond the MOOC. Moreover, there is a need to develop teacher capacity for scaffolding authentic instructional interactions within context and based on ongoing formative assessment.

This dissertation is dedicated to Caitlin, Cole, and Graeme

Table of Contents

List of Tables and Figures

Acknowledgements

As I near the completion of my dissertation, I am truly overwhelmed with the gratitude I have for everyone who has helped me along the way. I wish to take this moment to pause and thank the many family members, colleagues, mentors, and friends who have supported me in this process, sometimes even picking me up in periods of despair.

First and foremost, I'd like to thank Caitlin, my soul mate, for her dedication and indefatigable faith in me. Our bond has been tested in so many ways during this time… and we made it. We made it! I thank you with every ounce of my being. Thank you for your encouragement, honesty, and the many layers of support you have provided since the beginning--intellectually, emotionally, financially, and practically. We both know that reaching graduation is as much due to your support as it is to my own efforts. I am forever indebted to you. I'd also like to thank my two boys, Cole and Graeme, both of whom bring so much joy and meaning to my life. I love you both more than you could possibly know. I can only imagine how challenging my life, as a graduate student, must have been for both of you at times. I'll never forget, for instance, how you had to endure so many evenings and weekends with me being "sequestered in the west wing." I hope that what you may have lost in the way of spending time with me, you will gain in resilience and a deeper understanding of the value of working hard and doing your best to accomplish your goals.

Thank you, as well, to the many other members of my family for your emotional and practical support. Your encouragement was felt at so many different times, places, and in different ways, and they were all so critical to helping me move forward with my work. I'd like to thank my mother for taking care of Cole and Graeme on all of her visits to San Francisco, allowing me to focus on my studies. I'd also like to thank my mother and father for their support during our visits with them in Maine, such as allowing me to work at their kitchen table or the local Starbucks while they watched the kids despite having crashed into their home like a tornado. I'd like to thank my three brothers, Ted, Joe, and Sam, as well as my sister-in-law, Jen, for the countless instances during which they provided the same types of support. Whenever in Maine or San Francisco, they never thought twice about carving out space for me to work as they took care of my boys and other obligations.

I also owe a great debt of gratitude to other members of my family. I'd like to thank Sue and Pat for all of their support over the years, such as the innumerable occasions when they took time out from their own work and lives to watch the kids, so that I could work. And, thank you for the countless weekend days when you spent time with my family and supported Caitlin (and the boys). I'd also like to thank Meagan and Charlie for all the times when they trekked out here to San Francisco on the weekends not only to hang out, but to also support our family whenever I needed the time to study.

I am also deeply indebted to Catherine and all of the support you have provided me intellectually and emotionally. I view you as an exemplar for what it means to support others in their pursuits. The time and effort you put into supporting my own work was selfless and incredibly generous, and I will never forget it. I am reminded once more that it takes a village to get through the many milestones of graduate school, and I have you to thank for this. You are and will remain a true inspiration as I hope and look for opportunities to return the favor to others.

I have also been so lucky to benefit from so many mentors over the years in school. I owe so much to my co-advisors, Amber and David, whose inspiration, patience, and thoughtful

feedback along the way were invaluable. You were both critical in helping me strengthen my dissertation work and in supporting me in any way you could as I moved forward through the program. Thank you for believing in me and in the work I was doing. I'd also like to thank David for providing me with so many professional opportunities. They have been so helpful financially as well as professionally, as they have given me the opportunity to put into practice my intellectual interests within meaningful settings.

From the outset, I have also felt so fortunate to be a part of David's research group at UC Berkeley and my small, but important cohort consisting of Andy and Jody. I'd also like to thank the regular members of the writing group I joined this year—Leslie, Catherine, and Marjorie. I'd like to thank Leslie in particular for her consistent and steadfast support and willingness to respond to the many questions I've posed over time. All of these colleagues have been nothing but supportive, honest, and kind. I owe them so much for the countless feedback they provided with position papers, preparation work for orals, and the very rough drafts of my dissertation. Thanks, as well, to those staff at Berkeley and SFSU who have supported me over the years both logistically and financially. I am so indebted to the support you have given me—thank you.

I'd also like to thank the team from Understanding Language (UL) at Stanford with whom I was working as I collected data for my dissertation—Kenji, Jeff, Steven, Renae, and Rebecca. Your guidance, feedback, support, and patience during the human subjects and data collection phases were instrumental in helping me implement my dissertation. I am also so grateful that you allowed me to build my own project within your larger work with teachers. I hope my data will be of some use to you as you continue your work to support teachers and students. I'd like to thank Renae in particular for helping me with increasing the trustworthiness of my data by taking time to travel around to observe some of the classrooms as well as engaging in different rounds of the coding process. I'd also like to thank other members of UL-- Lisa, Hsiaolin, Sara, and Annie—for your camaraderie and ongoing support. Thank you so much!

Finally, I'd like to thank the teachers/ participants who took time out of their busy schedules to allow me to learn from them by observing their classrooms and conducting interviews over several months. I literally could not have done the dissertation without your involvement, help, and support.

CHAPTER ONE: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Introduction

Significant curricular changes in our educational system, paired with rising numbers of English Language Learners (ELLs) in our classrooms, have precipitated a fundamental shift in classroom instructional needs. These shifts respond to the need for teachers to support all students, including ELL students, to gain access to a curriculum with high language and literacy demands. The adoption of the Common Core State Standards (CCSS's) in many cases has set the bar higher for texts and tasks of reading instruction. This higher bar has increased the gap between the language and reasoning skills students, including ELLs and those with special needs, bring to the classroom and the grade-level expectations of what they are expected to learn and demonstrate by the end of each grade. Teachers, who address these gaps in what students can do and what they can learn to do with skilled instruction, require effective instructional interventions to support all students in their classrooms. As we face the higher standards, there is concern that curricular shifts are being pushed into classrooms with a concurrent decrease in overall educational funding, placing more pressure to weather through these changes on our teachers (Kleiman & Wolf, 2015). It is within this context that we search for ways to support the academic and linguistic needs of our student populations, including those considered at risk for failure: ELLs, students identified with learning disabilities with IEPs, and students who come to the classroom with low-vocabulary and comprehension skills, all of whom can benefit from skilled literacy instruction.

The quest for reform, however, is all too often accompanied by the proviso that it must be accomplished with no additional resource expenditures. Many teachers are under-prepared for delivering the more challenging curriculum required by the new standards (Reutzal &Clark, 2014). But these same teachers lack opportunities to increase their knowledge of evidence-based language and literacy instruction through professional development (PD) (Reutzal & Clark, 2014). Moreover, many of our educators lack sufficient background in how to adapt effective instructional practices to provide extra linguistic support among much of the ELLs and other diverse learners (Gibbons, 2015).

This last point, that teachers don't know how to adapt instructional practices that might benefit their diverse students, is important because the population of students with diverse learning needs and linguistic backgrounds continues to grow. Demographic studies of our school populations estimate that our schools had well over 5 million ELL students in the public schools in 2011 (Bailey& Heritage, 2008; Goldenberg, 2011), and this number continues to grow according to the National Center for Education Statistics (2015). This growing body of students is more likely to struggle with the language and literacy demands of school. Bailey and Heritage (2008) pointed out, for example, that NAEP assessments at the 4th and 8th grade levels were alarmingly low for ELLs. Over 70% of these students showed evidence of being unable to read at or above the basic level in these two grade levels. Taken together, the consequences of not finding effective ways to support these students' access to the content are severe, ranging from increasing dropout rates as well as having fewer employment prospects as they enter the job market (Bailey & Heritage, 2008).

And, while concerns over student language skill deficits are valid, we must take care not to limit ourselves to a perspective of what diverse learners do not bring to the classroom. A more productive line of inquiry can focus on how to support teachers in capitalizing on the many strengths these students bring to the classroom. Many teachers who work in the classroom

already know that a student's home language and cultural background are strong assets in acquiring language and literacy skills (Lee, Quinn, & Valdez, 2013; McIntryre, 2010). Even though many ELLs face several challenges as they develop two languages, the acquisition of literacy skills in a second language is very much worth the initial hardships one might encounter as it affords many cognitive benefits like metalinguistic awareness and quicker reaction times when provided multiple stimuli involving language and other problem solving tasks (Frede & Garcia, 2010). Much empirical support has also demonstrated that bilingualism and biliteracy are associated with other positive cognitive outcomes, including executive functioning, "working memory…and abstract and symbolic representation skills" (Adesope, Lavin, Thompson, & Ungerleider, 2010, p. 207). In addition to cognitive benefits, Hakuta (2011)rightly argued that bilingualism has significant communication and cultural value, bestowing positive effects on "social growth, competitiveness in a global marketplace, national security, and understanding of diverse peoples and cultures" (Hakuta, 2011, p. 172). To see these strengths flourish, however, many teachers must cultivate a deeper understanding of the challenges these and other diverse learners face in acquiring language and literacy skills in English.

In general, Gibbons (2015) reminds us that while all students are relatively unfamiliar with the language registers when starting school, many ELLs face the additional challenge of having to acquire them in a less familiar language (e.g., core grammar of the language, applying language in familiar social contexts). ELL students follow a similar developmental trajectory as monolingual speakers with certain literacy skills (e.g., decoding), but many of these same students struggle with academic language (Bailey & Heritage, 2008; Goldenberg, 2011). These students are less likely "to intuit word meanings, the structures of language, and the strategies they need to comprehend text" (Silverman & Doyle, 2013, p. 127). While ELL students need academic language to gain access to classroom instructional content, Gibbons (2015) and Cummins (2000) remind us that we cannot suspend student academic development until they have acquired the instructional language of schooling. We must integrate "language, subject content, and thinking skills" to support their language and communication development most effectively (Gibbons, 2015, p. 11). Teachers can use key strategies like using the students' first language (when viable) to introduce or clarify new concepts as well as to plan scaffolding of linguistic input in their planning process (e.g., use of graphic organizers, visuals as a scaffold, explicit teaching of language components, and opportunities to use expressive language to discuss content, etc.). Teachers can and should address the instructional needs of ELLs by scaffolding student language and literacy (Goldenberg, 2011), though many are not sure how to do this.

What can we do to address the lack of teacher knowledge about instructional interventions for our diverse learners, and especially of the strengths and the areas of need that many of our ELLs bring to the classroom? One possible way to address this lack of teacher knowledge is through PD on evidence-based language and literacy practices to teachers in the field, preservice teachers, graduate students, and the like.

One way to address the expense and distribution challenges of wide-scale PD is by using contemporary approaches to PD for educators, namely Massive Open Online Courses (MOOCs). Within the last few years, MOOCs have grown significantly in popularity on an international scale (Kim, 2014). Many educators and scholars have recently speculated as to what its potential role might be in the world of PD (Boling & Martin, 2005; Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009; Kleiman & Wolf, 2015). Klienman and Wolf (2014) and others argue that the positive affordances of MOOCs include instructional flexibility, relatively lower implementation

costs, close attention to local curriculum alignment, and innovative pedagogical approaches to learning (Dede et al., 2009). While it is true that MOOCs have these affordances, it does not follow that what teachers learn as a result of taking a MOOC effectively informs their practice and knowledge base. If we limit our focus on the ease and flexibility of the delivery system provided by web-based tools, we may overlook the deeper challenges of influencing teacher practice in the classroom (Hammerness, 2005).

Guskey (2000) asserted that without depth of content in a PD, the application of knowledge in the classroom is less likely to occur. If he is correct, then we need to learn whether or not teachers are developing a deeper conceptual understanding as a result of participating in a hybrid MOOC PD. This study examines the effectiveness of one hybrid MOOC used to provide PD on the knowledge, practices, and dispositions of elementary level teachers in how to effectively support ELLs' and other diverse learners' language and communication development.

Most of the studies that examine the effectiveness of PD efforts on teacher knowledge and practice involve traditional settings (e.g., large lecture groups or smaller professional communities) and tools (e.g., lecture, discussion, practice) that are unrelated to MOOCs (Garet, Porter, Desimone, Birman, & Yoon, 2001). When examining the MOOC literature as it applies to its impact on teachers, most of the studies have relied primarily on self-report measures (Dede et al., 2009; Desimone, 2009), such as surveys, that are geared towards understanding participants' reactions to the medium rather than growth in one of the dimensions of learning (Desimone, Porter, Garet, Yoon, & Birman, 2002). Essentially, we do not know much about the impact of MOOCs as a medium for PD on teacher change. We understand even less about the impact of hybridized versions of MOOCs as a vehicle for ongoing PD (Dede et al., 2009). Regardless of the medium of presentation, we need to learn whether or not teachers are developing a deeper conceptual understanding of the content (Guskey, 2000, 2002). Recent investigations have used pre- and post- assessment measures focusing on the major content of the course, which involves assessing the participants' pedagogical content knowledge of the content (e.g., Kleiman & Wolf, 2014). While these are important indicators in their own right and a step in the right direction, they still fall short of capturing the elusive construct of teacher understanding and its impact on practice. The traditional research conducted in the area of PD effectiveness has taught us that multiple measures are ideal when trying to capture the various dimensions of teacher learning (Guskey, 2000).

Purpose

The intent of this embedded case study is to understand how teachers made sense of and learned from a MOOC designed to extend and deepen teacher knowledge of how to support and facilitate students' academic language development. The medium for promoting increased knowledge was teacher engagement in a hybrid MOOC that was designed to help teachers learn how to use particular instructional strategies to foster effective discourse practices among students. Often, this 30- minute period of ELD instruction contains a diverse array of students beyond just those who are identified as ELL, such as typically developing EOs as well as other diverse learners. I used pre- and post- surveys as well as teacher work assignments in which assessments of teacher knowledge, practice, and dispositions are embedded to measure teachers' understanding of the content at different intervals throughout their participation in the MOOC. Simultaneously, the three research questions that guided this work were investigated using qualitative interviews and classroom observations with a case study of 7 credentialed, General Education teachers from the same school district in the Bay Area.

In this chapter, I begin with a review of what many leading scholars consider to be the most effective characteristics needed to implement high-quality PD's followed by the promising role that MOOCs have begun to play in this domain. I then explore some of their strengths and weaknesses associated with using MOOCs as a form of PD and why, in the end, they seem to hold promise for providing meaningful PD in the area of language and communication. Next, I provide some critical background on some of the theoretical frameworks that inform the instructional approaches towards language development emphasized in the PD, as these strategies have been shown to be challenging for more novice teachers to learn and implement (Gibbons, 2002; Juzwik, Borsheim-Black, Caughlan, & Heintz, 2013).

I then provide an overview of what we know regarding how to support the linguistic development of ELLs and students with diverse learning needs. I also review some key theoretical frameworks that explain my inclusion of diverse learners as well as a rationale for why we should consider including both populations of students when discussing linguistic strategies and instructional supports. I briefly describe some important cultural and developmental components that influence second language acquisition, pointing out some of the differences between English-only and ELLs in their language development in the context of schooling. Following this, I discuss what the literature shows regarding how to maximize language-learning in our classrooms most effectively and how this links to Vygotsky's theoretical contributions toward language development. I then highlight how this more action-oriented approach toward language acquisition in which academic content and the teaching of language are taught concurrently contrasts with the more typical approach many of our schools have adopted over the years. I point out some of the negative repercussions the more typical approach seen in our classrooms has had on many of our ELLs and diverse learners. Following this discussion, I connect what we know about more effective instructional practices from the literature with the approach toward language-learning emphasized in the hybrid PD, unpacking the three primary features that should inform our teachers' instruction during designated ELD: explicit attention toward language, integrating a useful and engaging purpose, and creating an information gap.

I provide a synopsis of the theory of dialogic instruction and how this provides a rationale for the three features as a way to better understand these three features. Finally, I outline the key models used to inform and ground my conceptualization of the depth and breadth of teacher knowledge, which includes their practices that I used to help me understand the nature of teacher change. A review of this literature matters because it represents a departure from the ways in which many teachers are initially trained as well as what they learn about how to provide linguistic support to students in the classroom. Thus, it is critical to offer an in-depth portrait of the theoretical underpinnings that inform the vast majority of the content that these teachers are asked to learn, process, evaluate, and implement.

Theoretical Framework

Becoming an effective teacher is a complex process. We know that teaching requires a vast array of knowledge, practices, and dispositions that work to the educational benefit of all students (Darling-Hammond & Bransford, 2007). We also know that the growth, development, and expertise required to be an effective teacher does not happen overnight or solely as a result of participating in a high-quality teacher education program as a preservice teacher (Snow, Griffin, & Burns, 2005). While teacher preparation programs certainly play an important role in

the degree to which a teacher develops different types of expertise, such growth must also factor in a host of other intervening variables (Snow et al., 2005).

In my proposed study, I examine changes in teacher knowledge, dispositions, and professional classroom practices as a result of their participation in and completion of a hybrid MOOC. I limit my analysis to one MOOC that focuses on helping teachers improve their ability to create, adapt as well as implement classroom activities as a vehicle for improving students' academic oral language and communicative development in order to access new, and often demanding content within other content areas.

Effective Characteristics of PD

PD for teachers is one effective means for improving both teacher performance and, by extension, student learning. For a long time, however, many researchers have highlighted different ways in which we need to improve how PD is implemented as well as how we measure its impact (Darling-Hammond & McLaughlin, 1995; Griffith, Ruan, Stepp, & Kimmel, 2014; Guskey & Huberman, 1995). Many researchers have investigated how to maximize the positive impact of PD on educators (Darling-Hammond & McLaughlin, 1995; Guskey, 2000; Guskey & Huberman, 1995) with a critical eye on its previous failures, such as the tendency for developers to implement a top-down approach (Guskey & Huberman, 1995), limit the PD to a traditional short-term workshop, and in respect to evaluation, limiting the focus exclusively on the participants' degree of enjoyment as a measure of effectiveness (Guskey, 2000). We seem to have not made much progress, however, in discerning what characteristics are worth aspiring to integrate and which are less effective (Desimone, 2009). This section touches upon what we understand regarding how to measure the learning of participants more effectively as well as the general principles shown to be characteristic of higher-quality PD practices.

The impact of effective PD opportunities can have a meaningful impact on advancing the knowledge, practice, and dispositions of practicing teachers (Hammerness, 2005). Many researchers agree that the most successful efforts start with adopting a content focus that clarifies what subject matter will be highlighted and a research-based understanding of how participants will learn the content most effectively (Desimone, 2009; Griffith et al., 2014; Vrasidas & Zembylas, 2004). In an analysis of the literature on effective teacher PD, Hammerness et al. (2005) identifies programs aiming to improve teacher learning should focus on four primary objectives of teacher development in (1) understanding, (2) practices, (3) dispositions, and (4) tools (see p. 386 of this article for a figure depicting these relationships). The following is a synopsis of each of these constructs.

Teachers need more than just a set of strategies to be effective in the long run (Bransford, Derry, Berliner, Hammerness, & Beckett, 2005; Snow et al., 2005). They benefit from gaining *knowledge, or understandings,* that support the rationale, justification, and purpose underlying the use of any particular strategy. In other words, teachers need a substantive knowledge of the content and pedagogical approaches related to that content. Teacher *practices*, on the other hand, consist of active opportunities to begin practicing and developing the new knowledge and strategies, such as implementing instructional strategies or developing lesson plans. *Dispositions* consist of habits of the teachers, such as how they reflect upon and act in respect to teaching and their students. Finally, *tools* are broken down further into both conceptual and practical tools. For example, conceptual tools might be theories about teaching and learning, while practical tools could be instructional approaches or other tools, such as textbooks or approaches to assessment. Together, these elements, when integrated thoughtfully in a PD, are more likely to increase teacher learning and practice.

Many researchers (Guskey, 2002; Wei, Darling-Hammond, & Adamson, 2010) argue that successful PD should show evidence of improvement in both teacher practice and student learning outcomes. Wei et al. (2010) provided six characteristics of PD that support these improvements. First, there needs to be emphasis on supporting participant learning of the content behind the pedagogical approaches. Second, the curriculum must integrate content with activities common to teaching, such as actual teacher instructional strategies or lesson planning. Third, participants should have opportunities for applying new material within a case-study format during which teachers apply, analyze, and evaluate the new content in relation to their own students. Fourth, participants benefit from working in a collaborative manner. Next, the program should, as much as possible, align its goals with those of the school and/or district and, finally, prioritize those methods that use modeling, coaching, and collaboration to maximize participant learning. Others have rightly added the importance of weaving PD activities in a manner that is intimately connected with their teaching job, providing opportunities for teachers to practice the new content, and to provide appropriate, immediate, and explicit feedback (Guskey, 2000; Kleiman & Wolf, 2015; Wasik & Hindman, 2011).

With increasing demands of accountability, we need to measure the impact of PD in robust and systematic ways. We must collect evidence to document its impact using a variety of data sources in our evaluations (Guskey, 2014). Historically, much evaluation has focused on teacher feedback about their level of satisfaction with and enjoyment of the PD experience, including the content and the process. However, I agree with Guskey when he argued that measurement should focus not only on enjoyment, but also on how and what teachers are learning, the extent to which they use or put into practice the new skills and knowledge, the impact it has on student learning outcomes, and finally, the level of organizational support and change that takes place after the PD.

In any *evaluation* of a PD, which can be defined as a "systematic investigation of merit or worth" (Guskey, 2014, p.450), he urges us to take into account six critical levels of evaluation whenever possible if we are to capture a sense of how participants may have changed. They consist of capturing the participants' reactions, what they learn, the degree to which there was organizational support (e.g., availability of resources), their application of content in the classroom, and finally, student outcomes. These suggestions have important consequences for the broader domain of researching the impact that PD's have on teachers' knowledge, beliefs, and practice. What he is implying here is that capturing change that may occur in a teacher is an elusive undertaking at best, and so we must tap into this construct from as many angles as possible.

Beyond Traditional Forms of PD

There is often a gap between what we know teachers need and what we provide for in PD. Many factors probably contribute to this conundrum, such as limited resources and time, which makes any effort to resolve this issue hard to achieve. Moreover, Wei, Darling-Hammond, and Adamson (2010) found after analyzing several data sets related to PD quality that over half of the teachers were dissatisfied with the amount of PD opportunities available. Other researchers suggest that many teachers report feeling like they lack access to various types of PD efforts in which they would like to participate (Kleiman, Wolf, & Frye, 2014). This may be due in part to the "sit and listen" approach, which remains all too common even though many teachers find these approaches less helpful. At the end of the day, these efforts may result in increasing teacher awareness of what is required or should be done, but with little evidence

showing the extent to which the new knowledge gets generalized to practice in the classroom or in improving student achievement.

More effective forms of PD can be implemented on a large scale. This is important as we face decreased funding, shifting demographics, and increased pressure in meeting the demands of the CCSS, Next Generation Science standards, and CA English Language Development Standards. My discussion of PD is in fact addressing the larger matter of academic equity for our vulnerable student populations, especially language-minority students and students with special needs in our schools. Teachers need more exposure to a variety of knowledge and instructional practices that support and advocate for all of these students' development of language and communication development.

In general, what we know about effective approaches to reading instruction in English for students in general also benefit ELLs and other diverse learners (Amendum & Fitzgerald, 2011; Goldenberg, 2011), but as Goldenberg (2011) highlights, this is true up to point. He proposes that ELLs, and I would add other diverse learners who need more support, also tend to benefit from additional modifications and accommodations due, in the case of ELLs, at least in part to their limited oral proficiency in English and, in the case of other diverse learners, underlying disabilities or other socio-cultural factors like exposure to fewer linguistically rich conversations and vocabulary with adults during their preschool years (Dickinson & Tabors, 2001). Wharton-McDonald (2011) reminds us, for instance, that supporting students with learning disabilities does not necessitate an entirely separate pedagogical approach from what we know to be effective when working with typically developing EO students. There is strong empirical support, for instance, favoring an explicit instructional approach when teaching many of the different components of language and literacy (e.g., phonological awareness, fluency, reading comprehension, vocabulary, and phonics). In other words, this approach benefits all students regardless of their strengths and areas of need. This should not be inferred, however, as a suggestion that all students, particularly those who have a disability or are categorized as being an ELL, have the same instructional needs in every respect as EO's. Rather, they represent a heterogeneous population in which one approach to supporting some students in literacy does not automatically mean that it will meet the needs of other students, even if they also have a disability or have been identified as being an ELL (Gargiulo & Metcalf, 2015; Saunders, Goldenberg, & Gallimore, 2009). Difficulties in the domain of language and literacy are by nature incredibly complex, which stem in part from the wide variability that exists across each learner's profile of "skills, strategies, and dispositions that characterize" each student's struggle (Frankel, Pearson, & Nair, 2010, p. 221). We need PD's that allow teachers to wrestle with these complexities in meaningful ways so that these strategies find their way into teachers' practice.

Teachers also need to learn how to integrate in their instructional practices high levels of student engagement along with extra linguistic supports and tools that will help all of their students be able to access the curriculum and complete purposeful tasks. Moreover, they must have opportunities to learn how to engage in "cycles of inquiry" by analyzing data provided by their students in order to assess what they understand and where they need more support in order to maximize the quality of their instruction. Together, these practices, acquired through professional learning opportunities, will help move students forward in meeting the language and content goals. An ongoing question, however, is the degree to which MOOCs and the PD's that use these platforms can help our educators acquire the necessary knowledge and expertise to support these students.

MOOCs: A Means of Providing PD for Teachers

MOOCs represent the most recent manifestation of online learning options. They could be described as virtual venues, so to speak, that bring people together with the purpose of learning with an expert(s) whose primary job is to facilitate such learning (Liyanagunawardena, Adams, & Williams, 2013). They are often described as a means for providing opportunities to individuals from around the world to advance their own learning, acquire new skills/knowledge, and increase one's potential marketability with minimal costs involved (Johnson & Becker, 2014). Scholars have described MOOCs as consisting of two main categories: the xMOOC and cMOOC.

MOOC types. The xMOOC basically refers to a traditional, lecture-oriented pedagogical approach that is more behaviorist-oriented with high levels of enrollment up to 50 thousand students. Most assessments administered are entirely automated with less emphasis placed on facilitating social contact among participants. The predominant medium through which content is disseminated is through the video-lecture approach (Bayne & Ross, 2014) People from all over the world can enroll, there is no prerequisite formal educational level, and there is no fee for participating.

The cMOOC, on the other hand, is based more on principles of connectivisim. Downes (2008) and Siemens (2005) are credited with developing this framework, which in many ways, focused on developing online platforms that were more creative than the xMOOCs from a pedagogical perspective (Bayne & Ross, 2014). They assume that, when it comes to learning, the role of the teacher is still essential even though their role might shift relative to what it is within a typical classroom setting. As Bayne and Ross (2014) argue, however, this binary relationship is a false dichotomy at this point and has, therefore, become too simplistic of a model when considering the plethora of other MOOCs that are now being created with a growing need to clarify what constitutes an effective model (Bayne & Ross, 2014; Johnson & Becker, 2014).

Promising design features. Effective forms of online learning share many of the characteristics thought to be most effective in traditional, face-to-face forms of PD described earlier (Dede et al., 2009). A few examples worth highlighting are (a) the importance of collaboration, (b) structuring the curriculum around relevant issues, and (c) including multiple opportunities for practice (Kleiman & Wolf, 2015; Ronaghi, Saberi, & Trumbore, 2014). Dede et al. (2009), however, pointed out that differences also exist between these two modes of PD. In a face-to-face setting, for instance, a live lecture might be more effective than watching a lecture online. Dede et al. (2009), on the other hand, found in their multiple case study that fostering extended discussions might have had more room to flourish online than in a face-to-face environment. The basic take-away point is that the characteristics of effective PD likely change as a function of the environment in which the learning takes place.

At the same time, both learning platforms-- the traditional face-to-face vs. online blended learning- could not fully serve as a replacement for the other because both approaches have their merits. This latter point matters because some organizations (e.g., Understanding Language) seek to blend aspects of both modes, trying to take what works well from both approaches. The hybrid MOOC, the PD involved in this study, used a blended approach in this way. Teachers interfaced with the MOOC platform in a variety of ways, interacting online with other participants from all over the world, while also engaging in face-to-face live sessions with other colleagues from the same school district to collaborate and reinforce concepts from the MOOC and engage in project-based work that was intimately connected to their classrooms.

Unique advantages of hybrid models. The literature suggests that MOOCs have considerable potential in augmenting the quality and accessibility of more conventionally delivered PD opportunities for educators (Boling & Martin, 2005; Dede et al., 2009; Kleiman & Wolf, 2015). Since most teachers, when participating in PD activities, are working full-time and within significant budgetary constraints, MOOCs clearly have the potential to offer several unique advantages that are worth considering in more detail.

Many MOOCs try to offer a learning framework that is supportive of the diverse needs and interests of the participants (Boling & Martin, 2005; Brown & Green, 2003; Kellogg, 2014; Kleiman & Wolf, 2015). Often, they are composed of teams who ensure that participants are provided with up-to-date information and resources that may or may not be available at a local level for some of the participants. Also, while there are variations in how the assignments and submission protocols for work are organized, they are by and large flexible. Because of the sheer volume of participants, their busy work schedules, and their widespread living locations, educators can submit work, watch any of the course videos, and engage in collaborative activities, such as virtual discussions with their peers, in an asynchronous manner (Kleiman & Wolf, 2015). Once the facilitators post the assignments and/or discussion topics, the participants have the flexibility to "contribute to those topics, start new ones, comment on prior postings, and rate messages" (Kleiman & Wolf, 2015, p.21). These types of interactions are often helpful in that they are supportive of teachers' various learning styles (Dede et al., 2009). Teachers can sometimes view course material in an order that suits their individual needs or review parts of the course they found particularly helpful.

MOOCs also open up possibilities in which students can hear from the experts in the field about their specific focus and collaborate with other professionals from other places, thus fostering a wider and more supportive professional network. Ultimately, MOOCs eliminate the need for additional funds and protected time in order to participate. Like with any set of strengths, however, there are also weaknesses and some unanswered questions.

Areas of need. Despite the array of promising characteristics that many of the MOOCs offer when used as a vehicle for PD, there are many weaknesses that call out for closer analysis. Some researchers point out that creating opportunities for high quality interactions between students and teachers as well as among the students is sometimes challenging (Higgs, Miller, & Pearson, 2013; Johnson & Becker, 2014). Kellogg (2014) pointed out how many MOOC developers continue to struggle a great deal with improving the "low levels of participation and the poor quality of peer interactions" in order to "foster and sustain a robust learning community" (p. 7). This may be due in part to the fact that fostering interactions in an online environment is often implemented in the absence of contextual cues (e.g., facial expressions) that help us communicate meaning with others (Vrasidas & Zembylas, 2004). Also, because of the large quantity of enrolled participants in many of our MOOCs intended to provide PD, some have noted challenges associated with low motivation and limited accountability with the course objectives (Sheu, Bonk, & Kou, 2013). Others have been critical of the lack of individualization of learning due to the fact that many MOOC models rely on self-directed learning (Bali, 2014; Vivian, Falkner, & Falkner, 2014). This approach may lead many participants to report feeling overwhelmed, frustrated, and confused as to how to navigate the platform and decide how to focus their attention (Conole, 2015). Together, these areas of need may contribute to the chronic attrition rates reported by many researchers (Liyanagunawardena et al., 2013; Perna et al., 2014; Sheu et al., 2013), with many of the MOOCs unable to surpass the 10% mark (Liyanagunawardena et al., 2013).

While many domains related to MOOCs are in need of more research, such as program design, technical design, and participant interactions, measuring the degree of effectiveness as it impacts teacher learning is another line of inquiry about which we know little at this time (Dede et al., 2009). These lack of data leave us with much to learn about the degree to which teachers are actually learning the content as reflected in their articulated knowledge, practices, and dispositions.

Some efforts in measuring effectiveness have been made, but these studies, reminiscent of what we have witnessed with some of the more traditional approaches to PD (Guskey, 2000), primarily gather data from participant self-reports as to their level of satisfaction with the program. Researchers recognize this (Dede et al., 2009; Kleiman & Wolf, 2015) and make the argument that we need to use other outcome measures of data collection in order to examine teacher change-- measures "that are more objective to complement self-reports" (Dede et al., 2009, p. 8). Another area of need suggested by these authors involves diversifying the points in time at which assessments are conducted. To improve our understanding of what they are actually learning and how they apply their new knowledge and skills within the classroom require that we take measures more frequently across time.

My study aims to make such a contribution to these aforementioned areas of need by examining what knowledge, dispositions, and classroom practices teachers learn as a result of taking a hybrid MOOC on how to support diverse learners' language and communication development, especially for ELLs. The particular curriculum in this PD focuses on teaching educators how to create activities to use during designated ELD that facilitate purposeful and authentic communication and academic language development. As innovative as their curriculum seems to be, based on participant feedback from similar courses implemented in recent years, we still stand to gain valuable knowledge from using more measures to understand how effective this MOOC has been in advancing teacher knowledge of the content, their dispositions, and classroom practices.

The Critical Need for PD

Providing PD opportunities for teachers through a MOOC platform could not come at a more important time. As mentioned earlier, the demands placed on teachers continue to rise, such as through the advent of the CCSS. These standards raise the linguistic expectations, requiring students to master the set of language and reasoning skills required for discussions in the context of a classroom (Johnston, 2015). To use an example directly related to the focus of the PD, standards for listening and speaking require that students are able to "take part in a variety of rich, structured conversations-- as part of a whole class, in small groups, and with a partner-- built around important content in various domains" (CCSS Initiative, 2010, p.48 as cited by Juzwick et al., p.7). Further, they must be able build off of their peers' comments and express their own, showing an ability to take into account multiple perspectives (CCSS.ELA-Literacy.LS.6.1a-d).

The range of needs and fundamental demographics of our students are quickly changing as well, such as we see with the increasing linguistic complexity of our students (Goldenberg, 2011). Demographic data pertaining to the United States indicate that between pre-school and high school, ELLs number more than five million (Capps et al., 2005; National Clearinghouse for English Language Acquisition (NCELA), 2007). In California alone, over 25% of all students, 80% of whom speak Spanish as their primary language, are considered bilingual, which means they are able to communicate in their primary language as well as in English (García, Kleifgen, & Falchi, 2008). Other ELLs are often referred to as emergent bilinguals, which

means they "are limited in their English proficiency" (Goldenberg, 2011, p. 685), and they "speak a language other than English and are acquiring English in school" (García et al., 2008, p. 7). Overall, our academic standards have increased as the number of ELLs, an extremely diverse group linguistically, has grown.

There has been a persistent achievement gap between ELLs and their native English-speaking peers, although there is considerable variation within this group due not only to their proficiency levels in English, but also due to such factors as parental educational background and socioeconomic status (Goldenberg, 2011). Nevertheless, in comparison to EO students, many ELL's are often at a greater risk of experiencing difficulty in school when developing language and literacy skills in English (GarcÌa et al., 2008). One repercussion of this trend has been the chronic challenges pertaining to the accurate identification of learning disabilities among the ELL population. It is well known that we have difficulty with over- and under- diagnosis of ELLs with disabilities in large part because they tend to exhibit lower levels of academic achievement in the area of language and literacy relative to many monolingual students (August & Hakuta, 1997), which is an important criterion used in the identification process. Their tendency to have more difficulty in school is related to the inevitable burden of acquiring a new language and academic content simultaneously (Gibbons, 2002). To this day, however, differentiating whether or not an ELL is experiencing difficulty in school due to an underlying disability vs. learning a new language remains murky for many educators (Gargiulo & Metcalf, 2015). These rapid shifts and challenges are important to understand as we move forward in generating strategies that allow all students to be able to access, learn, and participate in the curriculum. To do this, we need to provide more opportunities for teachers to learn and receive support through PD opportunities, including the hybrid MOOC in this study.

Before moving forward, however, it is important to first discuss the role of the students who are inevitably impacted, for better or for worse, by their teachers' participation in any PD effort that aims to support their linguistic development. This is important because often our students have labels attached to them, and this can lead many to make erroneous assumptions about how to best support their learning. It is critical that teachers understand some of the complexities that help shape how we support ELLs and other diverse learners in our instruction.

ELLs and Students with Diverse Learning Needs

All students should receive the linguistic supports they need to excel. Teachers must strive to "eliminate disparities in educational opportunities among all students" (Banks et al., 2005, p. 233). The PD in this study represents an effort toward this end. In fact, the standard way of thinking about the ultimate goal of PD's in general has it that they are only as good as they positively impact the students they serve. The hybrid PD in this study is no different. An important question to ask is: Which students are likely to benefit from the content emphasized in this PD? On the one hand, this PD's mission centers, for good reason, on ELLs. On the other hand, a number of scholars have pointed out that the PD's instructional approaches toward learning seem to benefit not only ELLs, but also other diverse learners (Malloy & Gambrell, 2010; Zwiers, 2013, p. 201). Many have found an empirical basis supporting the claim that both ELLs as well as other diverse learners benefit from similar instructional approaches, although much more research remains to be done (Freeman & Freeman, 2008; Gargiulo & Metcalf, 2015; Haneda & Wells, 2008; Kong & Pearson, 2003; Lee, Quinn, & Valdés, 2013; Malloy & Gambrell, 2010; Proctor, Dalton, & Grisham, 2007).

What we know about ELLs and diverse learners. There seems to be some gaps in the literature about the degree of overlap between linguistic strategies that support ELLs vs. those

identified with a mild/moderate learning disability or other diverse learners who are experiencing difficulty in the domain of language and literacy. While we know some differences exist, such as the extra hurdle ELLs face in having to tackle the acquisition of a new language as well as academic content in the second language, diverse learners certainly struggle in the area of content and the academic registers of language as well (Freeman & Freeman, 2008). While ELLs benefit from higher levels of linguistic support at greater frequencies (Walqui, 2006), their rate of progress may also progress more quickly than those who are identified with a disability in this domain. In essence, though I concede that differences among all learners will inevitably exist, I still insist that the strategies known to support ELLs to overcome these linguistic hurdles are likely to benefit other diverse learners as well. This is true even when some students with special needs also require certain individualized accommodations or modifications, such as special seating arrangements, enlarged print, or extra opportunities to move around. The important take away is that our other diverse learners will still benefit from the extra linguistic supports shown to be effective with ELLs even if they require additional supports. Wharton-McDonald (2010) argues convincingly that our diverse learners have more in common with typically developing peers, and I would add ELLs, than differences. She adds that everyone needs strong instruction in the area of language and literacy that is well matched with their understandings at any given time. Finally, all students need purposeful instruction that is highly motivating such that they are involved and engaged in the learning process with an authentic desire to participate in the tasks at hand.

Although this issue concerning the degree of overlap between ELLs and diverse learners may seem trivial, it is in fact critical in terms of today's concern over how we work to close this language gap among all our students, especially since schools are increasingly turning toward more inclusive classroom models of learning (Gargiulo & Metcalf, 2015). If these approaches are effective with both ELLs and diverse learners, as I believe they are, then this could lead us toward including more staff with a Special Education background as well as other educators who work with diverse learners to participate in PD opportunities. It also may have implications for using a more inclusive model to support all learners who require more support.

The PD represents a model of instruction that is inclusive by its very nature because it supports ELLs and, based on my reading of the literature, other students with diverse learning needs who need extra support in the domain of language, communication, and literacy (Malloy & Gambrell, 2010). There is much overlap in the literature between these two populations in general. Noticing this similarity is important considering the long history of schools separating learners based on how they learn, what they demonstrate "knowing," and what and how they speak. Now that inclusion practices are becoming increasingly the norm rather than the exception, and our teachers are faced with the complex task of supporting both ELLs and other diverse learners meet the more demanding standards, they would benefit from being exposed to how these linguistic strategies actually service both populations. While witnessing an increase in the number of diverse learners in our general education classrooms may seem inconsequential or, for some unsupported or inexperienced teachers, an added burden, it is in fact a change that should be celebrated. This is an important phenomenon to discuss in some more detail as it helps contextualize on a systemic level the sub-par learning environments and pedagogical treatment that many ELLs and other diverse learners experienced for many years and, in some cases, even to this day. This discussion also helps us understand why so many of our teachers struggle so much in their efforts to support the diversity of student learning needs instructionally.

Social construction of disability. Inclusion practices are a natural and complementary part of a dialogic stance on learning and goes hand in hand with celebrating students' diversity. This movement emerged in part, however, out of the troubled history in which those who were identified as having a disability often got shuttled away from their peers to receive their education in a separate setting. Researchers have noted that in these environments, remedial programs, often using transmission style approaches to learning, reigned free, often mitigating the cognitive complexity of the activities with low-level uses of language that left little opportunity for students to develop their voice (Gibbons, 2002). There is frankly no way of knowing the social emotional and cognitive impact this deficit perspective has had on the lives and identities of so many students. It has attracted, no doubt, many scholars' attention, particularly regarding this legacy's impact on identity and disability (Johnston & Allington, 1991; Lipson & Wixson, 1986; McDermott, 2001; Mehan, 2000).

The nature of disability was often framed as an unchanging and deficit-oriented trait that "became" the individual associated with its label (Johnston & Allington, 1991; Lipson & Wixson, 1986). They, in turn, convincingly argued how our notions of disability were in fact socially constructed (Lipson & Wixon, 1986). They found that our labels of disability were highly context dependent in the sense that a student, for example, may have been labeled as having a reading disability in the context of an RSP classroom, but this label made little sense in other settings, such as at home when reading his favorite graphic novel, or playing soccer, or drawing. In this way, it was "not productive to talk about [a student's] difficulties in terms of deficit models because" anyone "is 'disabled' in some contexts and enabled in others" (Frankel, 2013, p.8).

One implication of this theory concerns our ongoing tendency to label students. While these categories by which we give labels (e.g., specific learning disability or ELL) are due in part to protecting the legal and educational rights of these more vulnerable student populations as well as how we organize and distribute educational funds, this compartmentalization seems to also extend into our classrooms and instructional practices in terms of how we provide supports to students. We often assume the types of supports that students with mild/moderate learning disabilities or other diverse learners need as being largely separate from what ELLs need. Yet, my view is that how we support both groups may share far more commonalities than they do differences, although more research is needed to support this claim.

Universal design of learning. One way to start to dismantle this social construction of (dis)ability and the practice of labeling is through considering the theory of Universal Design for Learning (UDL) (Meyer & Rose, 2000; Rose & Meyer, 2002). This theory posits that teachers and schools need to create an equitable playing field for all learners by creating and implementing a rich set of curricula that is sufficiently flexible to meet the diverse linguistic, cognitive, social, and academic needs of our whole student population (Meyer & Rose, 2000; Rose & Meyer, 2002). UDL principles also address the importance of implementing curricula that is flexible to the diverse needs and learning styles of students in how we provide instruction to students, how we get students to represent or demonstrate what they have learned, and how we engage our students in the activities themselves (Rose & Meyer, 2002). This approach lends itself towards providing all students with the necessary supports to be successful.

In these ways, the principles of UDL share many commonalities with the social, dialogical instructional approach toward language emphasized in the PD. The reason is because this pedagogical approach to language and communication development is predicated on being more flexible, differentiated, and responsive to students' needs, yet still based on high

expectations informed by the standards laid out in the CCSS (Juzwik et al., 2013). In the spirit of inclusive practices, UDL design principles, and focusing on how to best support all our diverse learners regardless of their label, we stand to benefit from learning more about the degree to which teachers believed the PD tools affected any of their other students who were also struggling in the domain of language and communication. Many researchers have rightly argued about the strong parallels that seem to exist between those strategies identified in the PD as being helpful for ELLs also being supportive for those students who learn in diverse ways. Therefore, we stand to profit from learning more about the degree of overlap that teachers believe there is between how all students benefited (or not) from the strategies and instructional approaches emphasized in the PD.

Before moving forward, however, it is important to first provide some of the theoretical underpinnings that inform the pedagogical practices and theories of language development that the participants are asked to learn, reflect upon, and implement, as they represent a marked and, according to some, more challenging shift from what many learned and were accustomed to doing in their classrooms previously (Juzwik et al., 2013). This is important as it helps to contextualize the nature of what I measure in the focal participants in my study.

Oral Language

Oral language plays an important role in a student's literacy and overall academic development (Lawrence & Snow, 2011). To appreciate the added complexities of learning English in school as a Second Language (L2), it is important to first understand what we mean by oral language and what factors influence its development when learning it as a First Language (L1). It is within this context that we can appreciate how this process contrasts with the acquisition of language, literacy, and other academic skills in an L2. This construct can be understood as a composite of word knowledge (i.e., vocabulary), expressive and receptive language, knowledge of syntax, and knowledge of concepts/ background knowledge, and it is strongly correlated with general reading ability (Wasik, Bond, & Hindman, 2006). Oral language also undergirds much of what is required when students take on the formidable challenge of acquiring the many academic skills they are expected to learn in school, such as learning to read (Pinkham & Neuman, 2012). Oral language, of course, does not develop in a vacuum nor does it advance along the same trajectory across students. Rather, it is heavily influenced in part by an array of cultural and linguistic factors, a topic that is timely when discussing ELLs and other diverse learners.

Second Language Acquisition and Schooling

The experiences of students vary tremendously depending on whether the language of schooling is their first or second language. While acquiring oral language skills in a first language is in many ways a mysterious and complex process, we do know that these students must learn a "hierarchical set of linguistic abilities that are all connected to an underlying system of background cultural knowledge" (Verhoeven, 2011, p. 662). Haneda and Wells (2008) provide a helpful example of this process. They encapsulated how this difference plays out when children, who share the same language as the school, enter for the first time. Prior to schooling, many of these children whose first language resembles the dominant school discourses have the luxury to learn many of the linguistic complexities at a natural pace, such that "by the time they start school, [many] already have a rich repertoire of language that is imbued with situated personal meanings" (Haneda & Wells, 2008, p. 115). In making this comment, these authors urge us to remember that while learning a primary language usually occurs along a trajectory in which language has time to develop before being expected to learn academic content, ELLs do

not have that same luxury of time as well as cultural and linguistic alignment between home and school (Espinosa, 2010; Gibbons, 2015). It is important to note that this lack of alignment also sometimes exists for those EO's whose dialect or, I would add, language-learning needs conflict with the language used in many of our schools. Heath (1983) highlighted and Zwiers (2013) reminded us, for instance, that many of these students must adjust to these linguistic and cultural differences within the classroom as well. These students' 'ways with words' often do not match those used in school as well as the many implied rules in how to interface with how classroom discourse is structured.

The acquisition of literacy skills in a second language share many similarities with what happens as we acquire a first language (L1). However, there are also important differences much of which still requires more research. We still lack, for example, a comprehensive theory of second language acquisition in large part due to the sheer diversity of factors that influence its growth (O'Grady, Archibald, Aronoff, & Rees-Miller, 2005). Nevertheless, we know that ELLs already have skills and knowledge to varying degrees in their L1, which changes the nature of literacy acquisition in comparison to those learning a language for the first time (Durgunoglu, 2002; Nagy, McClure, & Mir, 1997). While these individuals do not need to relearn all aspects of language a second time, they do need to relearn some of the "language specific devices of the new language" (Verhoeven, 2011, p. 662). For example, ELLs will need to relearn the labels given for most vocabulary terms, but not necessarily with decoding principles (Goldenberg, 2011). Goldenberg reminds us that not only is our understanding of the nature of this phenomenon incomplete, it is also complex in large part because this process of transfer or lack thereof does not occur automatically or equally across different literacy domains or even between individuals.

Acquiring the language of schooling is often a challenging process for many students. Acquiring English as an additional language is a challenging undertaking in the context of the U.S (Cummins, 2000; Francis, Lesaux, & August, 2006; Snow & Kim, 2007). For example, as mentioned above, many ELLs face the task of acquiring literacy skills in what is often a culturally unfamiliar environment and in a language that is new in terms of vocabulary knowledge, oral proficiency, orthography, and a variety of syntactic features (Tabors & Snow, 2001). Mastering this complex constellation of skills is not easy for many monolingual children either, let alone those for whom English is their second language. While ELLs face multiple challenges of having to develop basic language skills, academic knowledge, and literacy skills simultaneously, many diverse learners who are EO also tend to lag behind in the latter two areas as well and thus need extra support. This is not to be interpreted, however, as an argument to avert our attention away from monolingual students who are in need of extra linguistic support. Rather, we are wisely reminded that most EO's usually have "already acquired [much of] the core grammar…and the ability to use it in a range of familiar social situations," whereas ELLs are just beginning (Gibbons, 2002, p. 10).

Language Acquisition Challenges Among Diverse Learners

Other students who are not classified as ELL but who present difficulties with the acquisition of receptive and/or expressive language due to disability or other risk factors face similar, but also at times different challenges. Students identified with a developmental disability, for example, often face a diverse array of barriers to language learning. Some may struggle with engaging in meaningful and sustained peer interactions, but on a more basic level. They may have trouble with how to sustain an interaction or how to read or perform non-verbal cues with their partner to support communication. Being part of an inclusive classroom

environment is insufficient unto itself—teachers may need to play an active role in supporting their language development by adopting different instructional strategies depending on the particular goal, such as tapping into peer-mediated approaches to peer communication (Carter, Hughes, & Odom, 2007). These authors suggest that teachers, in this case, may need to provide support to students with a developmental disability by guiding typically developing students how to assume different roles in the social interaction, such as how to be a tutor, friend, or partner.

Students with an identified learning disability, language delay, or who are considered at-risk sometimes present unique challenges in the area of language that require additional support. Keeping in mind that this label represents an extremely diverse group of learners, some of these students have difficulty with limited oral language production, which often impacts their vocabulary and comprehension development, while others can also struggle with oral language comprehension (Kaiser, Roberts, & McLeod, 2011). Gargiulo and Metcalf (2015) described several challenges among students with diverse learning needs related to language development. Some have difficulty with the pragmatic fundamentals of how people communicate in a school setting, such as knowing when to stop and listen to a partner or in how to read another's body language. This population of learners may struggle with the pace of learning, so they often end up having trouble accessing the content. Other students, including those who are monolingual, may have undeveloped vocabulary for their age, difficulty with finding the "right" word as they converse, trouble recalling information, or are limited to an under-developed syntax in their oral production (Gargiulo & Metcalf, 2015). Some may also have trouble with answering questions that are posed as part of the classroom dialogue or peer conversation, while others may struggle with learned helplessness, a phenomenon in which a student is overly reliant on someone else to engage in or complete a task. Another common barrier, such as those students with an identified auditory processing deficit, may need an assortment of accommodations to help them access and participate in a language-based curriculum due to having difficulty with deciphering language with an abundance of complicated syntactical constructions or content-related vocabulary not yet mastered. Other students may have trouble with information recall and expressing ideas without having some built-in accommodations of support. While differences and overlap between these groups certainly exist, the important take away is that they all face different challenges, but still stand to benefit from extra help in acquiring academic language and communication skills, often using similar strategies that cut across whatever learning differences may exist (Short & Fitzsimmons, 2007).

How we understand and support the different developmental paths towards language acquisition and learning, and the pedagogical challenges they often present, find their roots in several theories (Cummins, 2000; Vygotsky, 1980; Walqui, 2006), all of which help frame the significant shift required in teachers' conceptual understanding of how our diverse students develop language most effectively as well as what pedagogical approaches are most useful in supporting their acquisition of language. A theory developed by Vygotsky, which has gained significant traction over the last several decades in education, has provided some essential guideposts in how to provide more effective instruction to all students.

Theoretical Bases of ELL Development

On a fundamental level, the three features emphasized in the PD and the approach towards language learning that it advocates are nested within Vygotsky's theory of language development (Vygotsky, 1962). He argues that a child actively constructs her own knowledge in the context of the social environment, but that the environment socially mediates such knowledge, especially by those adults/teachers with whom she interacts. Basically, the adult and

child are viewed as active participants, and any learning that takes place is inherently collaborative (Gibbons, 2002; Walqui, 2006). Moreover, the adult often acts "as a filter" by influencing which "ideas the student will learn" (Bodrova & Leong, 2007, p.9). This, in turn, influences not only *what* she thinks, but in *how* she approaches the process of thinking. Language development represents an important variable in cognitive development as it represents "an actual mechanism for thinking" (Bodrova & Leong, 2007, p.14). Basically, it characterizes the bridge between what is experienced and how it is processed cognitively. They also suggest that children are internally incorporating in various ways the language that the adults with whom they are working are using. The PD takes this into account with its emphasis on the teacher providing extra attention within classroom activities on the language structures they are trying to teach as well as that which the students are using to communicate. Discussions within the classroom, therefore, are a mechanism for learning content, and they also become part of the content itself. (Zwiers, 2013).

In the context of the hybrid MOOC, Vygotsky's theory provides a rationale for the PD's emphasis on couching language as "not just a means by which individuals can formulate ideas and communicate them…it is also a means for people to think and learn together" (Mercer, 2000, p. 4). This process works most effectively when students can develop their capacity for language through authentic and collaborative interactions, which also supports the constructivist notion that learning is a meaning-making process that students co-construct. These are essential skills to develop as they impact other areas of development as well, such as literacy and academic language (Zwiers & Crawford, 2011).

Dialogic Instruction

Dialogic instruction is one approach that seems to instantiate these fundamental Vygotskian principles. It represents a viable instructional approach to language learning that values not only the role of language as mediator, but also the critical role of student engagement in the learning process. This approach also informs many of the pedagogical practices and theories of language development that the participants are asked to learn, reflect upon, and implement, as they represent a more challenging shift from what many teachers learned and were accustomed to doing in their classrooms previously (Juzwik et al., 2013).

The logic of dialogic instruction. Dialogic instruction has emerged as a part of a systematic search for the most effective pedagogical approaches for *how* we foster a student's language and communication development other than providing an array of linguistic supports in order to encourage students' language production (Gibbons, 2015; Juzwik, Sherry, Caughlan, Heintz, & Borsheim-Black, 2012; Lee et al., 2013; Proctor et al., 2007; Saunders et al., 2009; Walqui, 2006). Dialogic instruction has been championed by many as filling this need. (Alexander, 2006; Haneda & Wells, 2008; Mercer, Dawes, & Staarman, 2009). Examining the phenomenon of using talking as a vehicle for learning finds many of its roots in the work of Bakhtin (2010), whose work inspired the term *dialogism*, which suggests that there is a dialogical relationship between language and thought. Nystrand sums up his perspective nicely in the introduction to the book by Juzwik et al. (2013):

> Discourse is continuously woven into a 'chain of speech communication' by one speaker's 'responsive position' relative to another. Discourse is dialogic not because the speakers take turns but rather because it is continuously structured by tension--indeed even conflict-- between the conversants, between self and other as one voice 'refracts' the other. It is precisely this tension-- this relationship between self and other, this juxtaposition of relative perspectives and struggle among competing voices--that for

> Bakhtin gives shape to all discourse and hence lies at the heart of understanding as a dynamic, sociocognitive event (pp. ix-x).

Nystrand et al. (1997) proposed that knowledge and understanding are shaped and transformed by the tension or conflict that is produced between speakers as they try to communicate, understand, and be understood, rather than as static phenomena that exist irrespective of the social context in which the discourse takes place. This approach is also a reciprocal process in the sense that both the teacher and students are trading and building off of each other's ideas, questions, or understandings about the content (Alexander, 2006; Juzwik et al., 2012; Nystrand et al., 1997). Approaching instruction through a dialogic stance essentially enhances everyone's learning, as meaning is deepened through the process of negotiation in the classroom (Nystrand et al., 1997).

Applied in an educational context, Juzwik et al. (2013) proposed that dialogic teaching offers a broad instructional approach in which "students [engage] with frequent and sustained opportunities to engage in learning talk. *Learning talk* refers to student talk that actively stimulates learning…" (p.5). These authors consolidated the work of a number of scholars in this field to generate five primary characteristics that encapsulate this approach (Alexander, 2006; Britton, 1990; Matusov, 2009; Nystrand et al., 1997). First, it should integrate purposeful dialogue, such as adding to another's ideas. Second, the dialogue should be reciprocal and purposeful because, through the exchange of ideas, the teacher and students build off each other to create new meaning. Third, the dialogue is connected to academic goals. Fourth, the dialogue is instantiated either through whole class or small groups. Finally, a classroom culture fosters a sense of safety among the students such that they feel comfortable taking risks "without fear of getting the answer wrong" (Juzwik et al., 2013, p.5).

Learning academic language through a dialogic instructional approach means "not only respecting and responding to what students say (the content of their talk), but also valuing *how* they speak"(Juzwik et al., 2013, p. 31). They argue that teachers need to value more than just his/her own way of using language to speak if they are to entice students to engage in purposeful communication practices. They have to also value the ways in which the students themselves naturally speak. Anyone familiar with this model agrees with this logic, but it also raises the challenging issue of how to instruct teachers (and ourselves) to strike the right balance between teaching students the linguistic structures used in a formal schooling context and their own register or natural language. More research is needed in this area. In addition, there are other challenges associated with a dialogic approach toward learning a topic to which we now turn.

Challenges to dialogism. Upon first glance, it sounds like a tall order to support teachers, many of whom are more likely to be accustomed to using more triadic forms of dialogue, in adopting these characteristics of language instruction. I believe Haneda and Wells (2008) are correct when they suggested that most formal teaching of additional languages focus on the mastery of language form at the exclusion of using it in authentic contexts. These criteria set forth above seem even more daunting, as it requires teacher change on several levels. In fact, many have found that more transmission-based approaches to learning are more commonly observed than social views of learning, such as dialogic instruction. For example, some research has shown that classroom talk is typically structured in a more monologic style of discourse, such as recitation (e.g., Nystrand, 1997; Applebee et al., 2003) "in which the teacher does most of the talking, and when students speak, it is to test their ability to recall the 'right answers'"(Juzwik et al., 2012, p. 3). In other words, inspiring and supporting teachers to change

is a challenge, as these practices are complicated, nuanced, and take a long time for both students and teachers to adopt.

The importance of balance. These forms of discourse patterns described above are not necessarily mutually exclusive (Haneda & Wells, 2008; Juzwik et al., 2012; Zwiers, 2013). Knowledge is most effectively constructed through verbal engagement generated by multiple students (Cazden, 2001), which in turn helps them "transition from 'everyday' to scientific' concepts and master the modes of language use associated with schooling…" (Juzwik et al., 2013, p. 114). These interactions often weave between dialogic and monologic depending on the goals of the lesson. In cases where a teacher wants to communicate a specific message (Haneda & Wells, 2008), a more monologic approach may be more appropriate even though this is associated with less student talking and lower cognitive demands.

One of the strengths of this theory is that it allows for multiple ways in which to structure discourse practices within a classroom (Zwiers, 2013). Most researchers agree that language development is still optimized when they have the ability to engage in dialogic interactions, as it has shown to be beneficial for ELLs and other diverse learners for many reasons, such as creating more opportunities for them to develop proficiency in both academic and social genres (Purcell-Gates, Duke, & Martineau, 2007). What Haneda and Wells (2008) clarify as being most important is in the frequency of opportunities that one has to engage in dialogic forms of interaction. In this way, many argue that teachers need be sensitized to the fact that dialogic instruction promotes language development most effectively, but monologic instructional approaches also have a valid place in our classrooms. Some researchers familiar with this field add the important caveat, however, that the latter approach is most effective when embedded within a meaningful context and discussed in short segments of time.

Trends in the research on dialogism. Few teachers implement a more dialogical instructional approach for two reasons (Gibbons, 2002; Haneda & Wells, 2008; Juzwik et al., 2012; Zwiers & Crawford, 2011). First, it is sometimes challenging to see changes occur among the students quickly. Second, the craft requires one to learn and implement a very challenging set of skills. Yet, the research that has been conducted into measuring its impact on student achievement has shown some positive results. Nystrand (Juzwik et al., 2012, p. 3), Nystrand & Gamoran (1991) and Juzwik et al. (2013), argue that a robust correlation between the implementation of a dialogic instructional approach and students' achievement gains has been shown in different literacy skills and engagement levels. For example, one study with middle and high school students examined the relationship between literacy achievement and an instructional model that emphasized a discussion-based approach to learning and its impact on their understanding. They found that using a discussion-based approach showed greater gains with being able to internalize the knowledge of the content than when that approach was not used.

Wells & Arauz (2006) also found positive results in using a dialogical instructional approach. They conducted an action research project where they met with a group of teachers regularly to discuss their projects and findings. They found that in each case when assessing these teachers at the end and comparing those results with their beginning assessments, they found an increase in dialogic interaction (Wells & Arauz, 2006). Interestingly, they also found that for authentic dialogue to have taken place among the students, many of whom were learning English as a second language, there was a corresponding high level of student engagement in the activity, as evidenced by their being motivated to express their opinions and that they felt their positions mattered (Haneda & Wells, 2008).

Because many of these studies focused on older students, it is less clear that the same conclusions would apply to elementary level teachers involved in ongoing PD to support instruction during designated ELD. There is encouraging evidence, however, that these instructional approaches would also work with students at the elementary level. For example, one study suggests that the instructional approach towards language and communication (i.e., dialogic approach to instruction) benefited not only 4th and 5th grade ELLs, but also other diverse learners (Kong & Pearson, 2003). Overall, these findings are quite relevant as language growth is maximized when younger students can in engage in dialogic forms of interaction as well. Assuming these claims that using a dialogic instructional approach enhances students' understanding are valid, and I think they are, it is of the utmost importance that we support teachers in learning how to provide frequent opportunities for students to engage in dialogic interaction in the language of instruction with peers as well as teachers (1997). Gibbons (2015) and Zwiers (2014) rightly cautions us that it is critical that any dialogical approach toward instruction also be accompanied by substantial levels of linguistic support as discussed earlier. One without the other, particularly with ELLs and other diverse learners, will fall short of providing them with the wrap-around supports they need.

The theories described in this section provided a framework for the PD's primary focus, which was to help teachers be able implement activities that supported students' purposeful communication development. A dialogic stance toward instruction as well as providing high levels of linguistic support are central to this study because they provide one of the theoretical frameworks and justifications underscoring the types of teacher change the hybrid PD was trying to invoke. This is important because it is still common to witness instructional approaches that fail to integrate language-learning and grade-level academic content among many teachers, which often lead to an array of problems.

The Relationship between Language and Academic Content

One pervasive problem in our schools that has had a debilitating effect on second language learning concerns the ineffective pedagogical approach that many teachers have used in which they erroneously assume that ELLs need to acquire a certain level of language proficiency before they can access the academic content of their typically developing peers (Gibbons, 2015; Saunders et al., 2009; Stoddart, Pinal, Latzke, & Canaday, 2002). Saunders et al. (2009) pointed out that many teachers have a tendency to focus on lower-level skills and factual information instead of more cognitively challenging content. Too often, these assumptions have led staff to relocate ELLs within remedial classroom settings and in teaching academic content below their ability (McIntyre, Li, & Edwards, 2010).

There are potential negative repercussions for ELLs who are the recipients of this approach (Gibbons, 2015; Lee et al., 2013; Moll, Amanti, Neff, & Gonzalez, 1992; Proctor et al., 2007). Some implications of separating grade-level academic content and language often means that ELLs will fall further behind those peers who do have access to grade level content, frequently causing them to be diverted down a remedial path. Stoddart et al. (2002) argued that this seems inherently unjust as research has shown that it takes about 7 years for students to acquire academic proficiency even within a supportive instructional environment, such as an immersion bilingual program (Cummins, 2000; Saunders et al., 2009). In this context, we are more likely to see a widening of the achievement gap, which then often leads to over-identification of ELLs for Special Education services (Gargiulo & Metcalf, 2015; Stoddart et al., 2002; Sullivan, 2011).

There is also the risk of under-identification of students, particularly at the primary level in the case of ELLs (Sullivan, 2011). This author points out that many teachers struggle with differentiating between linguistic difference from disability with ELLs and students identified with a learning disability (Klingner, Artiles, & Barletta, 2006). The process of language acquisition can frequently be confounded with difficulties in learning (Artiles & Klingner, 2006; Sullivan, 2011). As a result, many teachers, with the intention of doing what they think is best for the student, will not pursue getting some students evaluated under the assumption that the student simply needs more time in gaining increased English proficiency due to the challenges inherent in acquiring multiple languages rather than an underlying language disability (Limbos & Geva, 2001; Sullivan, 2011).

ELLs and other diverse learners represent a heterogeneous group, and the difficulties in teasing language acquisition apart from disability are often very challenging, especially when ineffective instructional practices, such as those described above, are the norm. Our teachers, therefore, might benefit from learning how to use more effective instructional tools in implementing high quality, differentiated instruction that blends in authentic ways language support and grade level content. This, with more authentic forms of formative assessment, are instrumental in helping all students' literacy development in English (Lenski, Ehlers-Zavala, Daniel, & Sun-Irminger, 2006). To help mitigate some of the negative repercussions described above, many researchers have argued in favor of integrating the teaching of academic content areas with language instruction (Lee et al., 2013; Pearson, Moje, & Greenleaf, 2010; Scarcella, 2003; Snow, 2001; Stoddart et al., 2002). If the many researchers who have argued in favor of integrating the teaching of academic content areas with language instruction are right, as I think they are, then we need to reassess how we can provide more effective support to avoid these repercussions. The PD was designed to ameliorate some of these ongoing systemic problems by training teachers how to turn the development of language into a meaning-making, output-driven process embedded in authentic and purposeful content.

Teaching language and academic content concurrently may seem, on the surface, counter intuitive. However, there is much empirical support suggesting that as long as teachers implement a social and interactive approach to instruction and place significant attention and provide explicit support toward language (e.g., frequent scaffolds), students can flourish in such an environment (Gibbons, 2002; Lee et al., 2013; Walqui, 2006). To do this effectively, ELLs and other diverse learners need embedded scaffolds and instructional supports to access the content and understand the written or oral texts used as a medium for learning. Students, for instance, will likely use imperfect syntax or rely on using their first language in some of these circumstances (Lee et al., 2013). Other diverse learners, for example, may benefit from other types of timing, visual or auditory supports as well, such as extended time, frequent breaks, or visual cues (Gargiulo & Metcalf, 2015). Educators will also need to provide differentiated scaffolding for ELLs and other diverse learners, such as having them work in pairs or providing them with one or more sentences up front to support task completion. Even with such differentiation taking place, however, the outcomes are the same for all students except for the fact that some receive different amounts of scaffolding (Gibbons, 2015).

There is general agreement that the more teachers are able to provide the necessary supports for diverse learners and ELLs in order to practice using language in new, constructive, and purposeful ways with their peers, the more language and content they will learn (Gargiulo & Metcalf, 2015; Lee et al., 2013). Also, when appropriate supports are in place, all students may be "capable of learning subjects such as science through their emerging language and of

comprehending and carrying out sophisticated language functions (e.g., arguing from evidence, providing explanations) using less-than-perfect English (Lee et al., 2013, p.5). Ultimately, what is at stake here is that this approach, when implemented effectively, stands to benefit all the students, including those with identified learning disabilities, ELLs, and typically developing students. However, these solutions are bereft of much promise without also addressing the equally large problem of helping our teachers develop more effective pedagogical approaches toward language instruction when it comes to supporting our ELLs' and other diverse learners' language and communication development.

The hybrid MOOC, the PD that is the focus of this study, represents an attempt to address this issue of how to effectively support teachers in putting these pedagogical principles into practice in the context of designated ELD. To do this, three underlying features were emphasized throughout all of the modules all of which tried to incorporate what we understand regarding how to optimize language-learning for students.

Features of the Hybrid PD

A hybrid MOOC is only as good as the quality and organization of its content and activities. The fundamental premise in this hybrid MOOC on designated ELD, whose chief aim was in supporting ELLs' communication and language development, was that students develop language ability when it is learned in action (Lee et al., 2013). Moreover, its developers posit that ELLs' degree of proficiency in English can develop concurrently as well as more effectively while learning new academic content in the classroom. To do this, the MOOC emphasized three principles with this notion in mind: (a) supporting students in using language by integrating it with meaningful content as well as increasing the explicit attention in how it is used, (b) activities need to embed a useful and engaging purpose, and (c) activities should contain an information gap that creates the conditions in which some of the students are lacking information that they want or need to get (presumably with high motivation). Taken together, these features have a symbiotic relationship, with each relying on the other to optimize conditions in which language is most effectively acquired. A brief discussion about each of these three features seems warranted in order to highlight and contextualize what teachers were asked to think about and put into practice throughout the PD.

Explicit attention to language. To learn language, particularly the academic oriented language practiced in our schools, several factors must be present. These include creating an environment that invites, welcomes, and facilitates meaningful discourse practices, creating opportunities for students to practice using language in purposeful and authentic ways that also meets academic objectives, and to have extra instruction and support in learning the structures, vocabulary, and other areas of language (Zwiers & Crawford, 2011) . Implicit in this statement is that students do not learn this skill independently. Empirical evidence suggests that extra and explicit linguistic support from the teacher is needed to process, negotiate, and produce academic oriented input (Gibbons, 2002; Zwiers, 2013). To maximize language learning, three components were critical to integrate within any instruction: comprehensible input, numerous opportunities to produce language, and the effective use of scaffolds.

Comprehensible input. Learning language requires that we have access to comprehensible input (Krashen, 1985) whether we are speaking of a young child at the store buying an item or an ELL walking into their kindergarten class without speaking any English. It stands to reason, therefore, that to make the content and curriculum comprehensible requires the use of extra supports, especially when working with academic forms of language. Accordingly, teachers need to explicitly teach these tools and embed them within their lessons, using multiple

modalities, such as speaking, conversing, writing, and reading through which to wrestle with practicing language. Zwiers (2013) rightly argues in favor of the need to contextualize language in the classroom. He claims that when students, most of whom come to school speaking different first languages and/or possess different levels of background and vocabulary knowledge, have to access content that is beyond their immediate grasp, the teacher needs to account for these gaps in order to create the conditions for dialogue to occur.

Opportunities to produce language. Much of the language in our schools, especially the more abstract concepts, is taught in a decontextualized manner (Freeman & Freeman, 2008; McKeon, 1994; Stoddart et al., 2002). In other words, much of the content and language are communicated through auditory channels, such as listening, without also tapping into other modalities of learning like visual supports. However, we know that this modality by itself is insufficient, particularly for those learners who need more support than what is typically provided (Moje, 2007). Attention needs to be placed on both listening and speaking modalities as well as reading and writing because listening and reading lends itself to focusing on the meaning rather than the grammar and syntax required to communicate (Zwiers, 2013). Teachers must, therefore, get support in learning how to effectively make the input not only comprehensible, but also create more opportunities for students to *produce* language in ways that open up possibilities for meeting many of the demands placed on them in school.

Scaffolding. This metaphor, originally created by Wood, Bruner, and Ross (1976), was described as "the steps taken to reduce the degrees of freedom in carrying out some tasks so that the child can concentrate on the difficult skill she is in the process of acquiring" (p.19). In the context of a classroom, however, others have described the term more metaphorically to refer to a teacher providing a temporary, although critical, extra layer of support to make it possible for students to learn the new skills or conceptual understanding that the teacher has planned (Gibbons, 2015; Walqui, 2006; Zwiers, 2014). Through regular opportunities to socially interact and engage with peers in authentic ways about meaningful topics, students often acquire language more quickly when teachers also provide extra and explicit attention and support in how to think and process linguistic information through scaffolding techniques, such as modeling (e.g., think alouds or rephrasing) (Walqui, 2006). This process, to be supportive in the long run, must also foster student independence through a gradual release of responsibility in which the scaffold is slowly reduced and eventually taken away.

In the context of the PD, these techniques are key to making the more complex and challenging content and language structures within closer reach to the students, so that they, too, can develop and strengthen their identities as speakers (Kramsch, 1995; Walqui, 2006). Kramsch (2000) further noted that getting students to exercise their voice required practice and support, but it could be done in any modality of language use, using an array of semiotic devices to get them to use their own words to help make the text (in whatever form) make more sense to them. The ultimate goal, in the end, is to move away from the notion that what is viewed as important is the relationship between the teacher and each individual student to a dynamic in which each student becomes a significant part of the learning environment, where every student's contribution is taken as a resource for learning (Cazden, 2001).

This raises an important point about how we can work on a practical level towards achieving this goal. Part of the answer lies in enhancing the quality in which scaffolding is used in the context of a classroom, a point on which the PD focused in various ways. Mariani (1997), as illustrated by Gibbons (2015), clarified this nicely (see Figure 1.1). She found that language was supported most effectively when it was integrated within a challenging and highly engaging

context that was also organized to provide high levels of linguistic support. Figure 1.1 is important because it helps to represent the variation in quality that can exist in the degree of challenging content as well as how much or little linguistic attention and support is integrated.

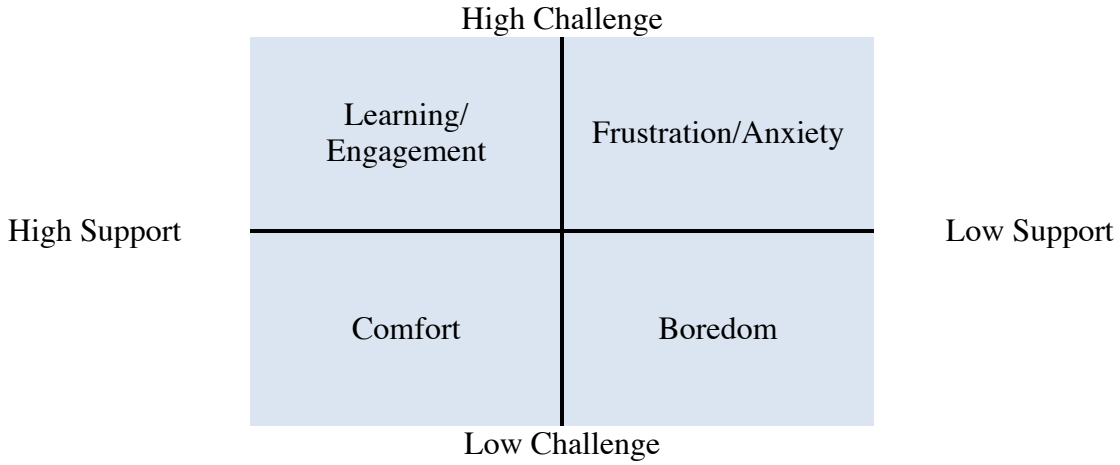


Figure 1.1. Four zones of teaching and learning, adapted from Mariani, L. (1997). Teacher support and teacher challenge in promoting learner autonomy. *Perspectives: A Journal of TESOL Italy, 23*(2). and Gibbons, P. (2015). *Scaffolding language, scaffolding learning*. Portsmouth, NH: Heinemann

The vertical axis, labeled "high challenge" at the top and "low challenge" at the bottom, depict how intellectually challenging the activity is. The horizontal axis, labeled "high support" on the left side and "low support" on the right, depict the level of scaffolding supports. Each quadrant corresponds to different types of classroom environments (Gibbons, 2015, p. 18). Studies have shown, perhaps unsurprisingly, that when an activity is a high challenge with high support, the students tend to benefit the most (Gibbons, 2002; Walqui, 2006).

In general, my discussion of scaffolds is in fact addressing the larger matter of how we support ELLs and other diverse learners so that they have an opportunity to develop their voice and, simultaneously, the language used in our schools. Because ELLs and other learners struggling to read have the burden of having to accumulate a plethora of linguistic information within a short period of time, and these demands only continue to grow, providing them with activities that provide an extra focus on language is critical. When teachers are taught how to provide explicit linguistic scaffolds, comprehensible input, and getting students to use language more authentically and frequently, "language cannot stand apart from content learning; rather, language [is] acquired through content learning just as content may be learned through language" (Met, 1994, p. 181). To support language and communication development in our schools, we need to provide an array of linguistic supports to make the language comprehensible and accessible such that students are able to latch onto and process the content through listening, reading, writing, speaking, or conversing.

Engagement. There is a rich empirical basis pointing towards the importance of student engagement and its impact on student learning (Wharton-McDonald, 2010; Verhoeven & Snow, 2001; Zwiers, 2013). Guthrie and Davis (2003) as well as Meltzer and Hamann (2004) have demonstrated how critical it is that we connect the content of learning to the lives of students, as this helps transform what could be 'boring' activities into more meaningful experiences and thus, more educational. Guthrie and Davis's work (2003), some of which finds support from the

dialogic stance toward language learning (Bakhtin, 2010), argue that in addition to creating an environment that is inclusive and welcoming, teachers also need to implement activities that promote sustained and purposeful interactions.

The PD positioned engagement as a quality that accounted for the degree to which a lesson was useful and meaningful. Zwiers (2013) argued that when planning a lesson, there was no reason to spend time having students work on activities that were engaging if it bore little relevance to skills they would need or be expected to use in the future. By extension, it would also make little sense to implement an activity that incorporated skills that they would need for school, but was implemented in such a way that it was perceived as meaningless to the students. Several studies have demonstrated the importance of engagement in learning and the importance of building language-based activities that have real-life purposes embedded (Duke, Purcell-Gates, Hall, & Tower, 2006; Freeman & Freeman, 2008; Purcell-Gates et al., 2007). One strategy, which I discuss next, that teachers can use to foster student engagement, is to integrate an information gap within the lesson.

Information gap. Infusing an information gap within the lesson is one concrete mechanism to make a lesson both useful and engaging (Lee et al., 2013; Zwiers, 2013). Guthrie and Davis (2003) worked out a related model of engagement in which they claim that students tend to be motivated and engaged if the lesson taps into their interests. The point of this feature is to foster student engagement by enticing them to want to get information that they do not yet have, but need. Zwiers (2013) later expanded on this feature, arguing that it also met the four criteria for achieving a successful speaking activity set out by Ur (1999), consisting of high volumes of student talk, equal turns at talking, being motivated, and using language structures that are accessible to those involved in the activity. He also posed this feature as a viable alternative to triadic dialogue structures, in which a teacher initiates the dialogue, usually with a display question, after which the student responds, and the teacher evaluates or reflects upon the response (Zwiers, 2007).

The information gap disrupts this chain by inviting more speakers into the interaction, negotiating a more spontaneous and authentic interchange in which the teacher is not necessarily controlling who is speaking and what is being said. Haneda and Wells (2008) also describe the importance of integrating and fostering incentives within a lesson, as this augments the overall learning experience. It creates "opportunities for meaningful interaction about the information and experience gained in the process" (p.131). In essence, the information gap helps to make an activity more engaging, purposeful, and it opens doors for using language in more authentic contexts.

Some additional questions emerge when considering how all of these insights from the literature relate to this study include: (a) In what ways should we expect teachers to change given the complexity of what we are asking them to learn and implement? (c) How long might it take? (d) How much does the level of change depend on their pre-existing levels of expertise in this content domain? Because this study aims to capture how teachers shift in their beliefs, understanding and practices as a result of their participation, we now explore some of the models that help situate the notion of teacher knowledge and how it may change in certain ways depending on where each individual falls at any given point in their development.

Development Model of Content Knowledge for Teaching

A variety of models and propositions have been created over the years to help us understand and explain the nature of how teachers' knowledge, of which their practices are a part, varies and evolves over time, often along a trajectory of increasing sophistication and

expertise (Berliner, 1988, 1994; Dreyfus, Dreyfus, & Athanasiou, 2000; Feiman-Nemser, 1983; Glaser, 1985; Snow et al., 2005). This is important in part because it helps us understand the construct of teacher quality and how PD's can help to expand these positive qualities in order to support student achievement (Merriman, 2014).

A model is still extremely useful for my purposes because it helps us understand and contextualize what some of the effects of the PD on teacher knowledge and practice are regardless of where they fall on the continuum of understanding within this pedagogical domain. Because inservice PD attracts a plethora of educators with different levels in their sophistication of understanding, I wanted a model that would be able to differentiate any change occurring among more novice teachers as well as those who have more expertise in the subject matter.

Background. Knowledge can be roughly divided between declarative and procedural types (Hattie and Yates, 2013). *Declarative knowledge* is a form of knowledge "that could potentially be expressed through words" (p.126), or as Snow et al. (2005) added, it is knowledge that "is an inadequate basis for good practice" (p.8). *Procedural knowledge*, on the other hand, is essentially expressed through actions (Hattie & Yates, 2013). Currently, the research has shown that those PD's which focus on both types of knowledge (i.e., content and content knowledge for teaching) are more effective than those that focus on just one (Merriman, 2014). You would think that this would have always been the case with PD's, but as it turns out, we have a history of dividing our knowledge between content and pedagogical knowledge until the 1980's (Snow et al., 2005).

Shulman (1986) developed the phrase *pedagogical content knowledge* as a way to bridge previous models' separation of the content that teachers need of a particular domain from the knowledge they need to teach it in an understandable manner. Since then, a variety of models have emerged to describe development along different phases or stages. I use the definitions of 'stages' and 'phases' provided by Snow et al. (2005). *Stages* refer to the depiction of changes in knowledge occurring along a continuum of expertise, whereas *phase* models are represented as change occurring along a chronological continuum. Two of the more prominent researchers credited with propelling the field closer to its current state, according to Snow et al. (2005) was in the work by Berliner (Berliner, 1988) and Feiman-Nemser (1983). These various models that have been developed over the years tend to focus on unpacking the continuum of procedural knowledge, such as we see with Berliner's 5-stage model (1994) of expertise in which teachers move along a continuum from novice, being competent, to being an expert. While the latter model is an extremely complex construct, one drawback in my case is that this framework depicts a continuum of procedural knowledge described in a more abstract manner, which in the context of this study, was not ideal as these teachers were potentially going to be exposed to brand new content which, in this case, would require declarative knowledge to be a needed component within a model of teacher knowledge. Glaser (1985) and Berliner (1994) also offer a series of propositions that characterize the behaviors of teachers who are considered experts (an elusive construct as well) and the sophisticated ways in which they respond to different events or challenges in the classroom. These propositions seem to focus more on what expertise "looks like" once somebody has arrived, but dedicated less of a focus on an equivalent description of the range of more novice practices.

Model informing this study. Snow et al. (2005) offer a model that attempts to combine aspects of several models that, together, capture the nuanced, developmental nature of teacher knowledge. These authors synthesized the models of Berliner (1994) and Feiman-Nemser (1983), among others, borrowing aspects of the stage and phase models as well in order to

account for the fact that "as teachers gain experience (and receive appropriate education), their knowledge base changes along" particular paths in an extended process that "develops over time and is marked by increasing sophistication of and control over a complex and multifaceted knowledge base" (p. 206). Unlike the other models, it is my view that this model is more sensitive to the different levels of knowledge among those who are still moving through the more novice stages of development. One commonality that all of these different models have in common, however, is that changes and advancement in procedural knowledge are both very gradual and require considerable practice over time, with much feedback required to move towards a more sophisticated and reflective level of knowledge (Hattie & Yates, 2013). It is important to note that these authors operationalize knowledge to include both the understanding of concepts as well as teacher practices, both of which are in support of the components described in the model previously.

Developmental path of teacher learning. In order of increasing complexity, Snow et al. (2005) proposed that the components consist of (a) declarative knowledge, (b) situated, can-do procedural knowledge, (c) stable procedural knowledge, (d) expert, adaptive knowledge, and (e) reflective, organized, and analyzed knowledge. Declarative knowledge is described as consisting of much of what a pre-service teacher is engaged in doing when earning a credential, such as learning about theories, development or about what one anticipates doing in an imagined scenario. The magnitude of this knowledge relative to the other types tends to be larger for beginning teachers than those who are more experienced (see Figure 1.2). However, it is also something that teachers continually amass over time, but the proportion of this relative to the other knowledge changes as they gain more experience.

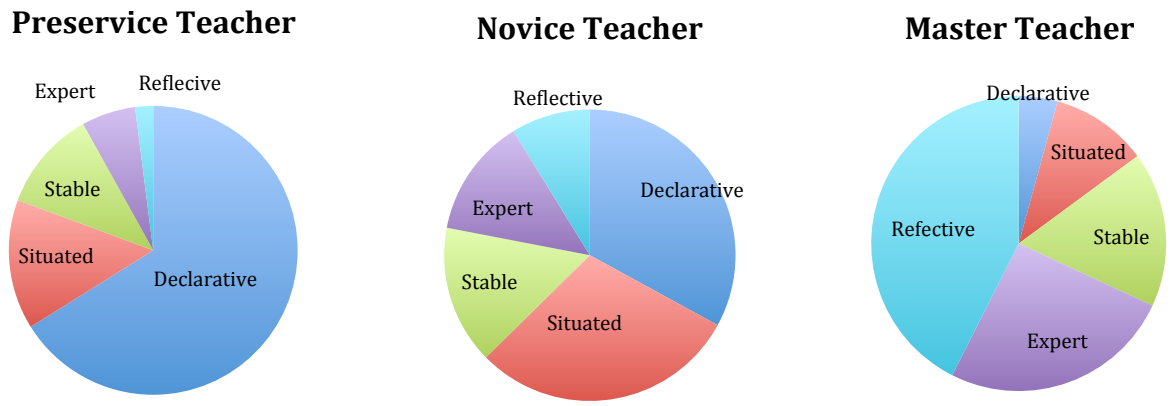


Figure 1.2. Knowledge Representation at Three Points of a Teacher's Career. Retrieved from Snow, C., Griffin, P., & Burns, M. S. (2005). *Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass.

Acquisition of declarative knowledge is an insufficient index of one's ability to put into practice the concepts (Hattie & Yates, 2013; Snow et al., 2005). In other words, knowing about something is different from doing it—thus, it is a more superficial level of understanding. Situation, can-do procedural knowledge, however, is more complex in that it constitutes just enough knowledge that one can put it into practice, but only within a simple set of circumstances. For example, the authors describe how a teacher demonstrates this level of

understanding when they can successfully apply their newfound knowledge within a fairly simple, straightforward set of circumstances. This teacher could implement a new strategy to a small group of students none of whom struggle with the content or have any unexpected needs or issues.

Stable procedural knowledge, on the other hand, applies to those teachers who can implement planned instruction, assess students' learning "and adapt instruction within the limits of 'normal practice'" (p.8). However, they may have trouble if one of the students in the class experiences difficulty in the lesson due to a language barrier or has an identified learning disability.

Expert, adaptive knowledge applies to those teachers who have more experience in general and are able to recognize and respond to unexpected challenges as well as seek innovative solutions. They are able, for instance, to better gauge which aspects of their activity is not working for those students who are experiencing more difficulty and, as a result, make the necessary changes to make the content more accessible. Such teachers could also supervise more novice teachers.

Finally, the reflective, organized, analyzed knowledge pertains to those master teachers with enough experience to be able to synthesize, compare, and integrate that which she is learning for the first time along with what she had learned previously. These authors point out the importance in using these levels as "points on a trajectory during which knowledge becomes increasingly differentiated and subject to analysis" as opposed to separate "stages" of development (p. 9). These components provide guidance in framing the data I collect on teacher learning as they process and implement the new content from the PD.

This is a strong model because it attempts to provide a more comprehensive framework for how to think about teacher knowledge in a *progressively differentiated* manner, which "refers to a process of development in which the capacities being used at any point are analyzed and elaborated, in response to evidence that they fall short"(p.6). In other words, these researchers try to account for the natural variation in knowledge among teachers; that what constitutes a progression in development for one may look different with another depending on their prior knowledge and experience. Also, knowledge acquired at one stage does not "disappear" in the future, but instead, gets elaborated upon and reorganized, becoming more complex, differentiated knowledge. Snow et al. (2005) gave the example of when a teacher, early in her career, may exhibit the ability to follow a specific curriculum in her classroom. This instance would represent growth, although in a less mature form of knowledge, such as situated, can-do or stable procedural knowledge.

Over time, this same teacher demonstrates being able to differentiate aspects of the instruction from this same curriculum that do not accommodate to some of her diverse learners' linguistic needs. As a result, she develops additional strategies to support them. In this case, her initial knowledge and understanding still exist as it always has, but it morphed into a more mature, differentiated, and elaborated understanding of knowledge. The original knowledge still existed, but it was buried deeper within her knowledge structures (Snow et al., 2005). Granted, from a measurement perspective, capturing these nuanced data seem unlikely, but this framework still addresses the larger matter of being able to understand what part of a trajectory a teacher may be working through at any given moment based on their observable behaviors.

One might still be able to draw inferences about a teacher's actions, such as their ability to identify problems or respond in improvised ways to unexpected events, assuming one uses multiple measures at different points in time for a sufficient duration, even without the

background knowledge of how they were implementing a curriculum in the past. Snow et al. (2005) illustrates how this knowledge distribution varies depending on where a teacher's level of experience lies (see Figure 1.2). As the authors rightly point out, even though declarative types of knowledge are less representative of those teachers with more expertise, that should not be interpreted to mean that it has disappeared. Rather it is "still a part of the more mature forms, perhaps providing a foundation that lies hidden but accessible beneath the surface" (p.210).

As I have tried to demonstrate in this review, the types of knowledge that teachers who are participating in the PD are wrestling with are relatively complex and challenging. Some scholars have noted that even experienced teachers have difficulty and lack expertise with the pedagogical practices designed to support ELLs and other diverse learners (Juzwik, 2012; Stoddart, 2002; Walqui, 2006). Thus, a teacher's experience teaching is not necessarily commensurate with where they might fall on the developmental model of teacher learning developed by Snow et al. (2005). For this reason, this model, showcasing increasing levels of sophistication of teacher knowledge, is extremely useful to address this issue because it sheds insight on how different teachers may respond differently to new content as indexed by articulated understanding and practices based on where they fall along this continuum within this domain. It also provides a helpful framework for detecting changes in their knowledge over time. In sum, teachers who participate in ongoing PD come with varying levels of knowledge and expertise about the content. It is helpful to use a model that can account for this variability, as it is important to see how teachers change due to their participation in ongoing professional learning experiences. In other words, we need to examine these data through a lens sufficiently sensitive to capture what more novice teachers might be learning as well as those with a wealth of experience and knowledge about the content.

Purpose of this Study

There are increasing numbers of ELLs and students with other diverse learning needs in our schools, and many of them come in need of teacher support to acquire the linguistic skills necessary to achieve the many academic milestones. As shown in the review of the literature, the most effective means for supporting students' academic language development is through the dual process of providing high levels of linguistic supports using challenging and meaningful content as well as a social, dialogic approach toward language-learning in which students are active participants in the learning process. However these sorts of practice are not widely used by teachers in practice (Juzwik et al., 2013). For this reason, there is a great need for high quality PD to support teachers in being able to effectively support ELLs as well as other diverse learners.

One theme running through the literature on PD for teachers examines what aspects of the curriculum are most useful for supporting teachers in their practice (Dillon, O'Brien, & Sato, 2011). However, as these authors point out, relatively few studies in the area of language and literacy use multiple measures in examining the impact of PD's on teacher practices, such as direct observations. Moreover, there is even less research examining the impact of PDs on teacher knowledge and practices that use a MOOC platform. Much of the research has focused on levels of participant engagement as opposed to what teachers are learning and how that translates into practice (Reich, 2015). Multiple measures are ideal when studying teacher professional learning, as this is a complicated and elusive construct. The purpose of this study, therefore, was to use multiple measures to explore how seven teachers' understandings, beliefs, and practices changed over time as a result of their participation in a hybrid MOOC. I focused

on investigating the teachers' integration of strategies emphasized in the PD that promoted students' academic language development in English from October 2015, to the beginning of February 2016.

I take on this challenge by focusing on 3 research questions:

1) How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize a useful and engaging purpose in order to promote the development of students' academic language and communication development in English?
2) How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize an information gap in order to promote the development of students' academic language and communication development in English?
3) How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that promote the development of students' academic language and communication development in English?

CHAPTER TWO: METHODS

While researchers have identified characteristics of PD that are worth incorporating (Guskey, 2000; Wei et al. 2010), many still fall short of meeting the needs of teachers. Hybrid MOOCs, an adaptive and multidimensional form of PD, is a new and promising approach that is scalable, affordable, and can be adapted to meet the specific needs of teachers. However, we still understand relatively little about the types or levels of impact hybrid MOOCs have on teacher knowledge, beliefs, and practice. This is partly because teacher learning is an elusive construct at best, and so we must tap into this construct from as many angles as possible. Also, most of the studies focusing on MOOC platforms have relied primarily on self-report measures, such as surveys, which are insufficient other than to gauge participants' reactions to the medium rather than growth in one of the dimensions of learning (Desimone et al., 2002). Therefore, we need to learn whether or not teachers are developing a deeper conceptual understanding of the content since research has shown that without depth, the application of knowledge in the classroom is less likely to occur (Guskey, 2000). One solution is to use multiple measures to explore these constructs of learning in a substantive manner to examine teacher uptake of the content.

In this study, I addressed the need for more research that seeks to understand how teachers change in their knowledge, beliefs, and practices as a result of their participation in a hybrid-MOOC. Moreover, by focusing on one small group of teachers, who vary along the dimension of how much knowledge of ELL pedagogy they brought to the MOOC, I examined how this variability affected how teachers processed and implemented each of the three primary features that made up the content of the PD, as well as how these understandings evolved throughout the course of the study.

Research Design

Measuring teacher learning is challenging, and ideally, should involve the use of research designs that can capture the many dimensions of learning that take place (Dillon et al., 2011; Guskey, 2000). Part of the reason for the challenge is due to different levels of "knowing" that teachers experience over time, as well as varying methods for measuring such growth (Berliner, 1994; Snow et al., 2005). In other words, as Snow et al. (2005) suggest, a teacher who is learning a new concept is acquiring declarative knowledge, which is when a teacher might learn about something, but is unable to apply this knowledge in practice. Over time in ideal circumstances, however, this level of knowledge deepens, and the teacher can apply this knowledge in practice, but only within a predictable context. With continued practice and reflection over time, their level of knowledge deepens further, fostering a more complex understanding of the material that can be applied with increasing flexibility depending on the circumstances or needs of the students, such as how to support those who require additional support to access the curriculum. To capture the complexity of teacher knowledge in this study required the use of more than one data source in order to get a closer and more accurate sense of the extent to which teachers had learned and put into practice new knowledge.

I employed a qualitative research design in order to examine in a nuanced manner how teachers processed the content conceptually as well as in their practices. I used a multiple, embedded case study approach because it allowed me to investigate what the teachers were learning across different levels of analysis (Duff, 2008; Scholz & Tietje, 2002; Yin, 2003). This method helped me better understand how different teachers were responding to the content of the

hybrid MOOC because it allowed me to examine in fine detail how teachers processed the material on a cognitive level (i.e., as indexed by their articulation of concepts, how they integrated these ideas into their planning of the lesson I observed as well as in their work assignments). Both within and across cases, this design permitted me to examine how teacher perceptions of the PD content were understood and interpreted across a diverse set of classroom contexts, students, and professional experiences. It also enabled me to analyze the extent to which the teachers' conceptual understandings and beliefs were expressed in practice across different classroom contexts (e.g., ELL proficiency levels, cultural background, grade level, etc.) and levels of teaching experience and content expertise. To put it differently, it was an opportunity to capture how teachers' internalization of new conceptual understandings intersected with their subsequent practice with students.

Investigating how this PD impacted the learning of different teachers was an important step in learning how to accommodate the diversity of professional knowledge and experience in the classroom, especially as the growing number of ELLs and other diverse learners in our schools have represented a wide array of linguistic, educational, and cultural backgrounds that require skilled instruction. This research design also supported our growing understanding of what teachers were actually learning in the hybrid PD, taking into account their different levels of experience and expertise working with students from diverse linguistic backgrounds.

Context of Study

I conducted my study in seven different classrooms across five different schools in the San Francisco Bay Area. The following section introduces the context in which the PD was created and implemented.

Stanford's *Understanding Language Institute* & Bay Area Unified School District

The hybrid MOOC/ PD on which this study is focused was the result of a joint effort across different organizations. The PD was created and implemented by Stanford's Understanding Language (UL)— and Stanford Center for Assessment, Learning and Equity (SCALE) initiative. UL has focused extensively in the last five years on creating and implementing *Massive Open Online Courses* (MOOCs) with emphasis in providing PD's for teachers using a combination of regular and sometimes hybrid MOOCs. Their underlying focus is on language, and the importance of foregrounding its role in the teaching and learning of academic content, particularly with how to more effectively support English Language Learners' (ELLs) in the classroom.

UL strives to help teachers better understand how to support ELLs in mastering the set of language and reasoning skills required in the context of a classroom and recently enforced by the Common Core State Standards (CCSS) (Johnston, 2015). One way they do this is by shifting how teachers conceptualize the process of language learning. Rather than approaching language instruction as a process of acquiring a set of rules or basic functions (e.g., how to ask for directions), they emphasize the need to integrate language learning with classroom content. They also help teachers learn how to plan for instruction that prioritizes meaningful classroom experiences and opportunities for authentic interactions with both the teacher and among the students. They strive to accomplish these goals by offering PD through a mixture of digital spaces and, in the case of this specific PD, supplemented with local live sessions as well (i.e., the hybrid component).

In general, MOOCs are online courses with monthly sessions that generally include readings to supplement the content objectives, watching videos and screencasts, and completing assignments that focus on gathering classroom evidence and reflecting on it. These types of digital learning spaces are a relatively new and promising method for supporting teachers' professional knowledge, most of whom operate under hectic and busy schedules. MOOCs and their hybrid versions represent an increasingly effective tool for providing support to all teachers regardless of their geographic placement or financial circumstances. They have had no cost to the enrollees and are open to anyone in the world with a working Internet connection.

Structure and Organization of MOOC/ Hybrid Model on Designated ELD

Beginning in Fall 2015, I worked on a collaborative project with one of the teams of researchers from UL-SCALE providing PD to teachers, administrative staff, and coaches on how to support more effective communicative practices in the service of learning academic content in the classroom. The first half of the PD (October-February) focused on instructional practices in a designated English Language Development (ELD) setting, while the second half (February-May 2016) shifted the focus to an integrated ELD environment (i.e., other content areas). This study focused only on the hybrid MOOC/ PD related to designated ELD, which was titled "Using Communication- Focused Activities in Designated English Language Development Lessons." The term 'designated' refers to the 30-minute period of instruction focusing on ELD that schools are legally mandated to provide to those students who are identified as being an ELL.

The main purpose of the PD was "to build district and site capacity to improve the practices that teachers use to develop English (especially academic English)" (Final Report by SFUSD/UL—SCALE, p.1). Another goal was to instruct teachers in how to create authentic and engaging activities with extra linguistic supports that focused on fostering purposeful communication and language learning in English. To bolster increased teacher expertise, it was important to provide effective and relevant professional learning opportunities with emphasis on assisting them in meeting the new ELD standards and other supporting documents that challenged school districts to find innovative ways to clarify and support the most effective instructional practices for teaching English.

While any teacher in the country was welcome to take the MOOC independent of where they worked or in what professional capacity, UL also included a hybrid component that integrated live sessions as a supplement to the regular MOOC designed for participants from one Bay Area school district. To do this, UL received non-federal funding to partner with one urban public school district in the Bay Area starting in the fall of 2015 to provide ongoing PD to interested teachers using this multifaceted hybrid MOOC model. It operated within the same curriculum and course requirements as provided in the general MOOC described above. However, in addition, these teachers participated in a series of four live sessions, which took place at a district site approximately once a month after school during which they collaborated with each other and reinforced the content within the MOOC.

The MOOC on which this study is based, with new online sessions approximately once a month, showed models and delivered information that participants needed to try out in their classroom settings. They were also asked to complete work assignments for each of the five MOOC sessions and reflect on new practices. Each of the five sessions of the MOOC had screencasts as well as videos on designing and teaching lessons with a particular communication-

grounded focus spanning five domains: listening, speaking, reading, writing, and conversation. For each session, participants were encouraged to complete a variety of assignments ranging from reading texts (optional in this case), watching videos and screencasts, and completing assignments during which they experimented with some of the strategies in their own classrooms and reflected on them. The contents for each session were made available in chronological order, thus requiring participants to complete one session before completing the next one. While the work for each session was self-paced, teacher participants were required to complete any given session within a certain period of time, usually between 2-3 weeks at which point they submitted their work and moved to the next session in a linear fashion.

The objectives for this particular MOOC on Designated ELD set out to provide support in how to create activities focused on enhancing more authentic communication among students. The UL team that created and implemented the MOOC/PD did this, first and foremost, by zooming in on the three essential features that should be interwoven within any classroom activity that focuses on authentic language related to academic content: making sure the purpose underlying the lesson is useful and engaging, including an information gap within the activity, and ensuring that there is extra emphasis placed on how language is used within the context of the activity. The three features, taken from the description used in the MOOC curriculum, were described in session one in the following way: A *useful and engaging purpose* is when "students use language to do something meaningful and engaging, beyond just answering questions or getting points. The activity or something similar to it, prepares students to use language for academic purposes." The *information gap*, on the other hand, is when "students get or give information that they want, need, and don't have." Finally, integrating an *attention to language* is when "there's extra teaching and assessment focused on how language is used. This includes structuring interactions, modelling, practicing, giving feedback, and, or scaffolding. It might even include the strategic development of grammar and vocabulary, that helps students to communicate" (Screencast from Session One from the MOOC).

To do this, participants learned how to use a rubric called the Communicativeness Design and Observation Tool (CDOT), which was used to design and reflect on the activities they implemented during designated ELD (see Appendix A). This tool was utilized in all five sessions as well as in their assignments. It had two main parts. Part A focused on the level of purposeful communication that the teacher designed and/or adapted for their activity, which consisted of the three most important features described above. Part B, on the other hand, helped the teacher be able to observe their students during the lesson as well as evaluate the quality of the lesson or activity based on those three features. The CDOT tool and the three features were contextualized and emphasized across each of the five sessions of the MOOC, with each lasting approximately one month. The five sessions were implemented in the following order: (1) focused listening and watching (course overview as well), (2) communication-focused speaking, (3) communication-focused reading and viewing (4) communication-focused writing and (5) communication-focused conversation.

Using the language from the syllabus, the module on listening and watching sought to provide participants with an overall sense of the course and a rationale for teaching through communication. Furthermore, in addition to understanding the skills that make up effective listening, they wanted participants to see and create listening activities that were focused on communication. In session two, communication-focused speaking, the objectives were three-

fold: to understand the elements of an effectively communicated oral message, to see and create activities that required students to communicate in authentic ways, and to learn how to assess and provide feedback to students on their speaking skills. In session three, focusing on communication-focused reading and viewing, the objectives centered on understanding the reading comprehension processes, how language-learners typically improve their academic reading, and developing lessons and activities that focused on purposeful communication beyond just complying with teacher directives. The fourth session on communication-focused writing sought to teach participants the features of clear and strong writing within ELD settings, to reflect on different ways to scaffold writing with a focus on communication, and to design lessons that weaved other skills (e.g., reading, listening, speaking) to support writing through communication. The goals of the final session were to understand the key elements and skills necessary for effective conversations, to design activities that developed students' conversation skills across disciplines, and to formatively assess students' conversations and provide feedback.

Setting and Participants

The hybrid PD took place within one district in the Bay Area, which is one of several school districts (e.g., Los Angeles Unified School District and Seattle Public Schools) with whom UL has developed a partnership to provide hybrid models of MOOCs as a form of PD that aim to improve teacher practices in the area of English Language Development (ELD). One of the underlying goals of this collaborative partnership was to build district and site capacity to help teachers develop more effective instructional practices within both integrated and designated settings that support the language development of ELLs with emphasis on academic language development. To do this, UL teamed up with Multilingual Pathways, a department within this school district designed to support linguistically diverse learners, to co-develop and implement the hybrid MOOC/PD. One of the goals in working together was to strengthen the relationships between the administrators from the district and researchers from UL. Through networking, sharing research findings, and cultivating relationships between institutions, they aimed to deepen future collaborative efforts between researchers and district administrators in supporting teachers who service our linguistically diverse learners.

Within this hybrid MOOC setting, there were approximately 50 teachers from the district who were recruited and enrolled. Of these, there were 7 focal participants who had agreed to participate in my study (see Table 2.1).

Table 2.1

Teacher and Student Demographics

	Marina	Adaline	Louisa	Charlotte	Abel	Francesca	Erin
Grade level	2nd	3rd	5th	3rd	4th	4th	3rd-5th
Years as a Teacher	6	8	12	5	13	14	15
Category of Domain Knowledge	Novice	Novice	Novice	Novice	Expert	Expert	Expert
# of Students in ELD	15	20	18	20	20	13	3-5
CELDT level of Students	Early & Intermediate mixed	16 intermediate 4 early adv.	16 Beginner 2 early-inter	Mixed levels	16 inter. 3 early adv.	5 early inter 8 intermediate	Mixed levels
Most Common L1 Among Students	Chinese	Chinese	Chinese	Spanish and Chinese	Spanish	Spanish	Mixed
Teacher Role	General Education	General Education	General Education Bilingual	General Education	General Education/ Literacy Specialist	General Education/ Teacher Literacy Coach	RTI and ELD Teacher

Despite this limited pool, the focal group represented a relatively diverse cross-section of teachers in terms of ethnicity, the number of students with special needs in their classes, and in their professional experience in the field both as a general educator as well as instructor of ELLs. Moreover, these seven focal participants all worked in the same school district, although they did not all work at the same school site.

This group met various criteria for inclusion in the study. First and foremost, they were willing to participate in the project. Second, they met the additional shared attributes below:

- Obtained a teacher credential.
- Worked at the elementary level.
- Worked in a public school.
- Taught Designated ELD at their school site.
- Had students identified either as ELL and/or identified as having mild/moderate special needs.
- Had *at least one-year of experience* working with ELLs and/or students with diverse and special needs (e.g., those identified as having a mild/moderate language and/or learning disability).

The following showcases these teachers' backgrounds in order to provide some context of their school site, organization of designated ELD instruction, and the population of students with whom they worked.

Marina

Marina is Chinese American, and the majority of her students spoke Mandarin or Cantonese. At this site, designated ELD was organized by consolidating all ELLs from each grade level into one classroom during the 30-minute period, and it was taught by one of the teachers at that corresponding grade level. There was a total of two classrooms at the school participating in designated ELD at the time of this study, with each group consisting of a different proficiency level based on the California English Language Development Test (CELDT). In her situation, this configuration meant that she taught her 2nd grade designated ELD class at the start of each day from 8-8:30. In addition to ELLs, she also worked with two non-ELLs, one of whom had more severe language issues and used a wheel chair for mobility. While not classified as ELL, they were identified as needing extra support in the areas of language and communication. Her room was configured by a series of six groups of clustered desks, with about 4-5 desks per cluster. Students typically started the class sitting on the rug and then worked at their desks for the remainder of the period.

Adaline

Adaline is Caucasian American and worked at the same school site as Marina (described earlier). Similar to her colleague, there was one designated ELD class at her grade level. Therefore, during designated ELD, she not only worked with students from her own 3rd grade classroom, but also other 3rd grade students classified as being ELL from other classrooms. She received the Cross-cultural Language and Academic Development certificate (CLAD) and had worked for several years with the California Reading Literature Project (CLRP). At the same time, she received little curricular support in the area of ELD as a teacher, and for the last several years, she had been accustomed to approaching designated ELD with a focus on the formal features of language, such as grammar. Additionally, she and her grade level colleagues spent whatever available time they had to work collaboratively on other content areas outside of ELD. With designated ELD being historically ranked as a low priority, she expressed a strong desire to learn more about how to better support the language and communication development of ELLs and other students with diverse learning needs. Her classroom was organized into about five clusters of desks, each containing about four students.

Francesca

Francesca identifies as Latina and was working at the same site as the focal teacher, Abel. These two worked collaboratively by splitting the ELLs into two groups for designated ELD, with each teaching one group for 30 minutes at the end of the school day. Francesca supported the smaller, but less proficient group of approximately 13 students, six of whom had IEPs. Francesca's group was partially composed of students who were more oppositionally defiant or disengaged with learning. In each of the observations, Francesca worked with another paraprofessional. For the second observation, she also had the assistance of another credentialed teacher for about half of the 30-minute period. According to Francesca, this extra support was due to the intensive set of behavioral and academic needs of 4-5 of the male students in the group. Due to IRB requirements, I did not have permission to identify or analyze who these six students with IEPs were. Her 4th grade classroom was organized into about 3-4 groups or

clusters of desks, each with about four students. Francesca had been extremely committed to working with and supporting ELLs' for several years and was CLAD certified. Recently, she agreed to take on the additional responsibility, along with the other 4th grade teacher, of providing their own PD in the area of ELD to share what she was learning with the other teachers in her school.

Abel

Abel is Caucasian American and worked collaboratively with Francesca, as they both worked at the same school site. She was no stranger to ELD instructional practice. She was also CLAD certified and, as mentioned above, had most recently taken on the added responsibilities of providing PD to teachers at her school site together with Francesca. She expressed familiarity with many of the arguments, strategies, and approaches associated with second language learning and how to support ELLs' in the classroom. She had also mentioned that she had read much of Jeff Zwier's published work, who was the primary creator and facilitator of this study's PD and live sessions. Her 4th grade classroom was organized in a similar manner, with approximately 5 groups of clustered desks, each of which was comprised of about 4 students.

Louisa

Louisa is Chinese American working at an elementary school designed with the expressed purpose of transitioning students who have recently moved to the United States primarily from China with Mandarin being their predominant first language. With English as her second language, she was intimately aware of much of what the students experienced as they worked to acquire proficiency and literacy skills in English. Her school site worked to mitigate not only the linguistic challenges of the newly arrived students, but also the social and cultural transitions they were experiencing. Moreover, all of the students enrolled at her school only attended for that academic year before moving to a more standard school site within the district. She, therefore, felt it was her responsibility to provide them with the necessary "survival skills" required to thrive in a largely English-only classroom environment. At the start of data collection, some of her students had only recently arrived. The students I observed also had Louisa as their teacher for the whole day, and they received approximately 90% of their instruction in English, with the remainder 10% in Chinese. Her 5th grade classroom was organized with approximately six groups of clustered desks, each of which was comprised of between 4-6 students.

Erin

Erin is Caucasian American and spent the majority of her career as a general education teacher at the elementary level before working at her current position as an RTI specialist in a K-5 urban elementary school. She provided pull-out support not only to those students identified as being at-risk in the area of literacy, but she also was responsible for teaching designated ELD to those who were identified as ELL or who needed extra support across all grade levels in a pull-out capacity. Working with small groups during designated ELD of 3-4 students per group across grade levels, I chose to observe the mid- to upper- elementary age group (3rd -4th grades) as it paralleled the age ranges of the other participants I followed. The group I followed spoke a mix of Hindu and Spanish, and two had been identified as having mild/moderate learning disability. At the time of data collection, she had been working with this group providing designated ELD support for the last three years, but the group had recently decreased in size

because many had exited from the CELDT assessment and were no longer classified as ELL. Her classroom was organized using one large horseshoe shaped table.

Charlotte

Charlotte is Chinese-American and at the time of this study was working in an urban public school located in a neighborhood with a demographic that is predominantly Asian. At her site, designated ELD was organized and provided by each teacher independently. The 3rd grade staff decided collectively to align their designated ELD instruction with the ELA curriculum by relying on the grade level language standards to determine the ELD curriculum. The staff for each grade level got together about every six weeks before the start of the next "spiral unit" (i.e., language-arts related curriculum) to collaborate with one another about general ELD plans and to solicit the support of their literacy coach if/when needed. During her designated ELD period, she provided instruction to her whole 3rd grade class, including both English-Only (EO's) students and ELLs. There were at least three EO's whom she identified as having diverse learning needs in the area of language and communication, although none of her students had been identified as having any disabilities. She expressed an interest in participating in the hybrid PD as well as this study due to her interests in receiving some coaching support as well as increasing her understanding about how to effectively support ELLs in English. Her classroom was organized with approximately six groups of clustered desks, each of which was comprised of between 4-6 students.

Data Sources

This embedded case-study design allowed me to approach my research questions at different levels of analysis to reach a more nuanced understanding of what teachers were learning. Several types of data were collected concurrently (Creswell, 2013) and then triangulated during the interpretation stage by comparing each set of findings "for corroboration and validation purposes" (Creswell & Clark, 2011, p. 77). In this study, data sources fell into five primary categories: interviews, observations, artifacts, surveys, and teacher work assignments (see Table 2.2).

Table 2.2.

Study Instruments

Instrument	Type of Data	Description	Item Examples
Work Assignments N= 11	Qualitative	5 work assignment submissions per focal teacher Peer reviews of work assignments	Work assignments: Teachers instructed to create activity aligned with the specific session using content of MOOC as their guide
Interviews N=20	Qualitative	20 interviews with focal teachers (1 interview each during data collection phase one, two, and three) ~800 minutes of audio data Researcher designed semi-structured interview	*Pre-interview question:* How did you plan to address the creation of an information gap (i.e., create a situation in which students needed to get or clarify information they needed and didn't have at that time)? *Post-interview question:* When reflecting on what learned in the course, describe what you found to be helpful.
Surveys N=9	Qualitative	Up to 14 pre- and post- surveys with embedded assessments focusing on teacher knowledge (using online MOOC platform) 4 optional anonymous live session mini-surveys session— ~115 total	*Example of question:* " How well prepared do you currently feel about planning and implementing ELD lessons?"
Observations N=20	Qualitative	20 classroom observations (3 observations each during data collection phase one, two, and three with the exception of the first observation with Francesca) Approximately 11.5 hours of selectively transcribed audio data from focal teachers' classrooms during Designated ELD	*Categories include:* teacher modeling, attention to language, information gap, student and teacher talk, instructional approaches related to purposeful communication, scaffolding strategies, etc..
Social Validity Survey	Qualitative	These items are embedded within the survey, interviews, and session overviews. Purpose is to evaluate teacher views regarding how relevant and helpful the MOOC is to supporting their instruction as well as recommendations on how to improve the course.	*Example item from interview:* To what extent did this MOOC provide you with tools that will help you support those students who either struggle with language or have a learning disability?
MOOC Curriculum	Qualitative	Course curriculum coded for content and concepts reviewed. This source was used to triangulate with other data sources to see the extent to which the content was internalized, processed, or understood by each focal participant as well as put into practice.	Content includes screencasts, power points, and/or videos, used in the MOOC course.

Interviews

I conducted a total of 3 semi-structured interviews, one after each of the 3 classroom observations. These interviews took place approximately at the beginning, middle, and end of the study.

Content and purpose. In the interviews, I asked each participant how they planned to incorporate the 3 primary features that were the focus of the PD and of the lesson observed for that day, hoping to see any changes in their views as well as their understanding of them. Depending on their response, I then asked follow-up questions to those responses within the same interview. As the literature shows, any study that tries to capture changes in teacher

knowledge or practice as a result of participating in a PD will usually detect changes in a teacher's articulation of their own understanding as well (Guskey, 2000).

An important piece that I wanted to capture through the multiple interviews was to detect any changes over time in what the participants considered important in their planning process for the lesson observed. For instance, to what degree did integrating an information gap, an increased attention to language, opportunities for student dialogue, or fostering a deeper, underlying purpose come into play in the first classroom observation? How did their application of these strategies interface with other diverse learners? How did their understandings of these concepts and strategies evolve, if at all, over time? I also wanted to see the degree to which their reflections about these concepts paralleled what I observed in their practices.

For the first 2 of 3 interviews, I asked participants to reflect on the lesson I witnessed, their interpretations of some of the discourse and interactions that took place among those students with whom the teacher interacted, and follow-up questions pertaining to those students whom they perceived as having more diverse learning styles. Any of these follow up questions I asked invited them to reflect on some of the ways in which the lesson specifically supported ELLs and children with mild/moderate disabilities or who needed more support.

The central goals for the first and second interviews were to learn more about their current states of knowledge and understanding of how to plan for and support purposeful student communication in the classroom during designated ELD. Furthermore, I asked questions that encouraged them to reflect on how they strived to support ELLs and other diverse learners in effectively using academic oral language in the classroom. I also hoped to learn more about what motivated them to take the MOOC and what they hoped to learn.

In the third interview, in addition to the goals described above for the first and second interviews, I asked questions geared towards what they had learned and what they found to be particularly helpful as a result of taking the MOOC. I also asked about areas in which they felt were neglected, and how they could see it be improved. Questions also tapped into the extent to which they believed the course provided them with tools to support those students with diverse learning needs.

It was strategic to conduct the interviews and classroom observations in conjunction with each other not only due to time constraints of the teachers and limited resources, but also because of the time-sensitive opportunity I had to ask follow-up questions regarding particular observations I made for purposes of clarification and/or a deeper, more nuanced explanation. It is important to note that I strove to create a semi-structured interview protocol that was both consistent across the teacher participants as well as open to unexpected turns in the conversation. I wanted to remain open to what the teachers had to say which, as the literature has amply showed over time I could not predict ahead of time (Glesne & Peshkin, 1992).

Methods. I interviewed six of my seven focal teachers a total of three times after each classroom observation (see Appendix B for the interview protocol). I interviewed the seventh teacher, Francesca, only twice because she did not respond to my requests to arrange a time for the first observation. When I connected with her eventually, she apologized and explained that she had been too busy at the time to accommodate my visit, but she was then available and interested in participating in the study. I included the data for Francesca's two interviews for a total of 20 interviews across focal participants because all of these data helped me analyze all three of the research questions. The interviews were audio recorded and took place once during

the beginning phase of data collection in October (phase one), once during the mid-way phase around late November/early December (phase two), and once in late January/ early February of 2016 (phase three). All teacher interviews lasted between 35 and 50 minutes each and took place, with the exception of one, in person inside their classroom after the observation conducted earlier that same day. Due to time constraints, the one outlier interview took place using Skype later in the evening, but still on the same day as that observation.

After each interview, I performed a rough, more cursory transcription by listening to the audio recording and taking note of anything unusual or interesting. I initially listened to the audio of an interview was to see if there were any significant disparities between what we discussed and what I observed in the classroom. Formal transcription took place in piecemeal as time permitted due to limited time. I chose to follow a transcription process that captured verbatim what was vocalized to the best of my ability, while omitting off-topic or repetitive information.

Classroom Observations

I conducted a total of 3 classroom observations, which took place approximately at the beginning, middle, and end of the study.

Content and purpose. My goal in conducting observations was to measure teacher professional knowledge in an indirect manner based on the presumption that their actions might reflect or be a manifestation of that which they have internalized and learned as a result of completing the MOOC. In regards to measuring changes in teacher practices, however, the observations represented a more direct measure of this development. Observing the teachers in the classroom generated data that provided a glimpse of each teacher's level of understanding beyond that which could be captured through any work assignment, survey, or interview. Thus, the primary goal of these observations was to try and capture possible themes or changes in their practices or strategies that emerged over time.

Each observation protocol was designed with three columns and endless rows (see Appendix C) to help with basic organization. The left side was for recording the time between each in-class transition. For example, a teacher might model to the class how to perform a task. Once she finished, the students transitioned by engaging in a peer-based task. In this case, I would document this change in action or activity by starting a new row and documenting the time at which this started. This helped me later in estimating the time that teachers spent implementing certain participatory structures and the time dedicated to students using language.

Methods. I implemented and audio recorded direct, semi-structured classroom observations with each of the seven teachers across the three phases of data collection for a total of three observations for six out of the seven teachers. As mentioned above, one exception occurred with Francesca, whom I observed in the mid- and post- phases of data collection.

Each observation took place in the teacher's classroom during designated ELD period, which lasted approximately 30 minutes with the exception of Louisa, whose instructional period ran for 60 minutes per observation. In her case, I observed the full 60-minute period in each phase of data collection. Because each school at which my focal teachers worked used different strategies and instructional times for implementing designated ELD, my observations took place at various hours of the school day, ranging from the start to the very end of the day. While the time slot across the teachers was individualized, I was able to schedule the frequency of my visits to occur within seven days of each other within each phase.

I took extensive field notes using my lap top computer during the observation, trying to capture as much dialogue, non-verbal communication (e.g., location within classroom, facial expressions, eye gaze, body posture, and so on), and chronological recounting of events taking place. Although I grant that typing on a keyboard carries some potential to distract the natural environment, I would have been unable to capture nearly as much data writing by hand. I also included within the protocol a couple of bullet point reminders of what my overall research interests were should I need them in the moment, a scaffold which I almost never used (see Appendix C).

After each observation, I reviewed and filled in some of the gaps in the thread of the lesson, as I may not have always had the time during the actual observation to connect documented actions with the overarching specifics pertaining to the lesson. For instance, sometimes in writing about a verbal interaction between the teacher and some students, I may not have written what the task was for the whole group. I also "cleaned up" any significant typos and anything else that occurred to me. Finally, I reviewed the notes, either the same day or the following morning, using the audio recording to help supplement my field notes. Additionally, in the first two phases of data collection, within 2-3 days after each observation, I used my field notes to complete two researcher-created protocols that the UL team developed in previous studies. I used these protocols to help process my initial impressions and beginning analyses. While I approached the field notes with the goal of capturing everything I could to allow for the possibility of detecting unexpected themes over time, I also wanted a chance to view these data through a lens that focused on some of the primary content goals within the MOOC curriculum (e.g., the three features that teachers should try to integrate into their activities). After the second phase, however, I discontinued this practice as I found it to be less helpful than I anticipated.

In the second and third phases of the classroom observations, I sometimes asked 1-3 random pairs of students who were working together 1-2 open-ended questions pertaining to the specific task they were doing. I either asked what they were working on and/or what they thought their teacher was hoping they would learn from the task. At least half the time, however, I did not see an opportunity to ask them, as I did not want to disrupt their work in progress and potentially be disruptive to their efforts in completing the task.

Artifacts

I obtained a variety of artifacts related to the lessons that each focal teacher implemented. I wanted to record the pertinent visuals, scaffolds, or anonymous student work related to the activity that the teacher planned and was putting into practice. In addition to the audio recordings, these data enriched the observations over time. It was sometimes helpful to refer to these documents as I reviewed and analyzed the observations.

I collected a variety of artifacts during each of the three phases of data collection in the form of photographs of visuals created by the participant (i.e., the teacher) and/or anonymous student work samples related to the classroom activity that I observed. Most of my photos, however, centered on the artifacts that the teacher used and/or created as part of her lesson. I photographed items such as an empty classroom to see desk arrangements and overall organization, visual-aids created by the teacher that they used during their instruction to support the lesson's objectives, a blank copy of a graphic organizer/worksheet that the teacher gave students to complete, or semi-permanent visuals posted on the classroom walls depicting a focus on language-learning, such as word walls, sentence starters, or other language-oriented scaffolds.

The student artifacts did not contain any identifiable information from or about students. For example, photographs of student work consisted of items like completed graphic organizers, worksheets, or written responses related to the activity observed in designated ELD. When possible, I tried to include an example of student work identified by the teacher as someone requiring more support, identified with a disability, or identified as typically developing. These work samples were exclusively related to that day's activity. Any photographs of student work were limited to those students whose parents who signed a parent consent form provided by the Stanford team, but all work remained anonymous.

Typically, I took these photographs immediately following the observation. In cases when classroom instruction transitioned to another content area immediately, I waited to take photographs until after the interview later that same day to minimize disruption. I also got verbal permission from the teacher each time before taking any photos. In the case of student work samples, I made sure that a parental permission form had been signed even though the work was photographed anonymously. I made decisions about what to photograph based on how central it seemed to that day's activity. In those cases when something was not used or referred to, but still seemed to have a direct link to the activity, I would also take a photograph of it.

The reason I collected various artifacts while conducting classroom observations was to be able to enrich subsequent analysis rather than trying to handwrite a description of these visuals into my field notes. Another purpose of collecting these artifacts was to use them to support triangulation of data in subsequent analysis relating back to teacher knowledge and practice. Across all of the seven teachers I followed, I collected approximately 114 photographs.

Surveys

Throughout the course of my study, I administered a total of three types of surveys to the focal participants: one pre-survey, one post-survey, and a mini-survey after each live session.

Pre-survey. In the first phase, I encouraged teachers who were part of the hybrid MOOC as well as my focal participants of which they were a part to complete the pre-survey. This was given through Qualtrics in early October as part of the MOOC (taken within the MOOC platform online). The pre-survey included about 11 pre-assessment items related to their knowledge and understanding of the PD content (i.e., effective ELD and communicative practices), teaching experiences, their level of experience working with linguistically diverse student populations, and other demographic information. These participants had the opportunity, though were not required, to complete the pre-survey at the start of the course.

Teacher knowledge was assessed in the pre-and post- surveys by asking a mixture of closed and open response items, a few of which were invitations to elaborate upon the close-ended item they answered immediately beforehand. These items were positioned as the first items to answer on the survey (see Appendix D to view the pre-survey).

Post-survey. In the third phase, I administered a post-survey given through Qualtrics at the end of the PD as part of the MOOC (taken within the MOOC platform) to the same people, and the UL team and I encouraged everyone to complete it in early February. My analysis focused exclusively on the identical 11 assessment items that were used in the pre-survey, which focused on participants' content knowledge and skills related to ELD and communicative practices. The assessment items were identical in the pre- and post- surveys in order to have a point of comparison for seeing if I could detect any shifts in their responses. Analyses were made and used as a source for triangulation with the other data sources. We also added a few

items that asked about what they believed were some of the strengths and weaknesses of the PD. We estimated that it should have taken them between 15-20 minutes to complete. In all, I obtained approximately 9 pre- and post- MOOC surveys. All seven teachers completed the pre-survey, and only two completed parts of the post-survey (See Appendix E to view the post-survey).

Mini-survey. In each of the live sessions, the UL team and I also administered a brief anonymous mini-survey in person at the end in order to get all 50 participants' feedback about the session. They took approximately 10 minutes to complete, and they were filled out at the PD site location. These surveys were designed as a formative assessment tool to gauge what they learned in the session and what aspects they found most or least helpful. There were also questions getting them to reflect on the degree to which the content of the session might be applied to students who required more support in the area of communication, such as those with a disability. In all, I obtained approximately 115 live session surveys. While the 7 focal participants completed these surveys, I was unable to match the survey with each of these teachers. I requested, however, that the 7 teachers provide an asterisk on top of the mini survey, but not their names as these surveys were presented to the group as being anonymous and, for this reason, it did not seem appropriate to make an exception for this group. There were no meaningful differences between those surveys with the asterisk and the others. The purpose of these data was to get a general sense of how the 50 teachers who were taking the hybrid MOOC/ PD were reacting to the course content.

Work Assignments

In addition to interviewing and observing each focal participant, all of them were asked to complete five work assignments corresponding with each of the 5 sessions of the MOOC curriculum. In each of the five sessions making up the MOOC, these assignments focused on encouraging teachers to adapt what they learned from the pertinent session (e.g., listening) of the MOOC/ PD and create an activity to implement in their own classrooms during designated ELD. These assignments were intended to help explain the first research question regarding any changes observed in teacher knowledge as a result of participating in this MOOC/ PD.

Each assignment was almost identical in respect to what they were asked to do, which was to create or adapt a communicative-based activity and implement it in their classroom. To do this, they were asked to integrate the 3 primary features in each of the 5 assignments (i.e., engagement, information gap, and attention to language). They also used the CDOT tool to help guide them in designing, collecting evidence related to the task, and reflecting upon the activity (See Appendix A to view this document). When completed, they posted their assignment onto the MOOC platform digitally. Each person was also requested to evaluate 3 submissions of another person's work assignment using a rubric provided on the MOOC platform. This way, everyone who submitted a work assignment received feedback from other members enrolled in the MOOC. The work assignments differed from one another, however, in terms of what specific type of communicative task they were asked to emphasize in the activity (i.e., listening, speaking/ oral output, reading/visual literacy, writing, and focused conversation). Thus, they were asked to create and implement a listening-based activity for assignment one, a speaking-based activity for assignment two, a reading- or visual-based task for assignment three, a writing-based activity for assignment four, and a conversation-based task for assignment five.

One way I gauged any shifts in the professional knowledge of teachers was to examine the evolution in the degree of alignment between PD content and their written activity plan. While we might not be able to figure out the exact mechanisms within the MOOC that fueled any shifts in understanding, it would at least give us a sense that something within the MOOC was working well. The intention of this measure, therefore, was to capture changes in teacher knowledge of the content by examining the evolution of what teachers produced with a focus on the three features that teachers were encouraged to consider throughout each of the five sessions. Additionally, as described above, any work assignment that was submitted by a participant was reviewed by up to three other individuals enrolled in the MOOC. These data were also fruitful in my analyses as they provided another point of comparison, a source of triangulation, with the other data sources. Comparing the evaluation of the focal teachers' work assignments with what I observed in the classroom along with their articulation of the content was very helpful in many cases. In all, the focal participants submitted a total of 11 out of 35 total assignments (see Table 2.3 for details).

Table 2.3

Work Assignment Completion Rate Across Teachers

Teacher Name	*Work Assign. 1	Work Assign. 2	Work Assign. 3	Work Assign. 4	Work Assign. 5
Marina	Yes	No	Yes	No	No
Adaline	Yes	No	No	No	No
Louisa	Yes	Yes	No	No	No
Charlotte	No	No	No	No	No
Abel	Yes	No	No	No	No
Francesca	Yes	No	No	No	No
Erin	Yes	Yes	Yes	No	Yes
Total per Assign.	6 of 7	2 of 7	2 of 7	0 of 7	1 of 7

Note: * "Yes" indicates they submitted a work assignment.

MOOC Curriculum

I examined the five sessions of the MOOC, such as the screencasts and video transcripts, and I coded them for the different types of content that was covered. I then used these codes for purposes of triangulation with the other data points in my analysis.

MOOC Analytics

Finally, one function of MOOC analytics is to track the extent to which MOOC participants interface with the online MOOC curriculum, such as screencasts and videos. In this study, I used MOOC analytics in two capacities both of which served as a way to check the validity of some of my claims, but not as a source of triangulation. First, I tracked whether or not my focal participants submitted the work assignments they were asked to complete. Second, I accessed data that tracked how much of each of the 5 online modules in the MOOC the focal participants started and finished. These data were helpful because if a teacher, for example,

exhibited significant change in their practice with the information gap, accessing how much time they spent interfacing with the online modules would give me a sense of their effort and engagement in the course. The same logic applies to those who exhibited milder changes. While illuminating, they still provided a partial picture of their overall effort in this study since my participants also participated consistently in the live PD sessions.

Data Procedures

I systematically followed a variety of procedures to collect data over time and recruit participants. Table 2.4 below details when each of the data sources was collected between October and February of my study, which corresponded with the duration of the hybrid MOOC on designated ELD. Our recruitment procedures happened in two phases. The first phase focused on the recruitment of those teachers, administrators, and coaches from the Bay Area school district who participated in the hybrid MOOC/ PD. The second phase detailed my recruitment of the 7 teachers I followed, each of whom was selected from the first phase of recruitment.

Phases of Data Collection

In order to address my research questions, I decided to collect data in three primary phases (see Table 2.4 on data collection phases). The first phase occurred in the month of October 2015, which involved the recruitment of participants as well as the beginning of data collection for each of the 7 focal teachers.

Table 2.4

Data Collection Phase

Phase	Dates	Description
Phase 1	October 2015	*Initial Data Collection* • MOOC Pre-Survey (1 of 1) • Observation of Live Session #1 • Anonymous Live Session Mini-Survey • Teacher Observation (1 of 3) • Field Notes (live session & Observation) • Teacher Interview (1 of 3) • Audio Recordings (obs., interview, Live Session) • Classroom Artifacts
Phase 2	November 2015-Dec. 2015	*Targeted Data Collection* • Observation of Live Session #2 • Anonymous Live Session Surveys #2 &3 • Teacher Observation (2 of 3) • Field Notes (live session & Observation) • Teacher Interview (2 of 3) • Audio Recordings (obs., interview, Live Session) • Classroom Artifacts
Phase 3	January 2016- February 2016	*Targeted and Final Data Collection* • MOOC Post-Survey (1 of 1) • Observation of Live Session #4-5 • Anonymous Live Session Mini-Survey (2) • Teacher Observation (3 of 3) • Field Notes (live session & Observation) • Teacher Interview (3 of 3) • Audio Recordings (obs., interview, Live Session) • Classroom Artifacts

At the first live session, I encouraged all 50 teachers to complete the brief mini-survey at the end of the meeting as well as complete the anonymous pre-survey embedded within the MOOC online platform. About a week and a half later, after securing the 7 focal teachers, I began data collection in each of their classrooms. During this time, I observed and audio recorded the focal teachers during designated ELD as well as conducted the first teacher interview. I offered each teacher with lunch of their choice, which was possible since the interviews always took place later in the day. Additionally, I took photos of artifacts in the classrooms, consisting of anonymous student work samples, but mostly visuals used by the teacher to support the activity that I observed. The purpose of this phase was to establish whom the participants were going to be and to get an initial sense of how teachers viewed, understood, and put into practice the primary concepts emphasized in the PD.

In the second phase from mid-November through December 2015, I continued targeted data collection for each of my participants. During this phase, I repeated the same procedures with the same data sources described above as I did during the first phase with the exception of completing the pre-survey for the course. Focal participants attended the next two live PD sessions and completed a follow-up survey addressing the content in each of these sessions, although I could not trace the mini-surveys directly to my participants. The purpose of this phase was to track any changes in teacher views, understandings, or in their practices related to the primary objectives of the PD. This phase was also an opportunity to formatively assess each of the data sources and make any minor adjustments.

In the third phase of data collection from January to the beginning of February of 2016, I continued with targeted data collection with each of my focal participants and wrapped up the data collection process. During this time, I observed and audio recorded my focal teachers in their classrooms as well as in the interview for the third and final time. I also audio recorded and observed the last live PD session and administered an anonymous survey related to that session. I also encouraged all teachers at the live PD session, including my focal participants, to complete the post-survey located online within the MOOC platform. In this phase, I also tracked the focal teachers' work assignment submissions as well as the feedback on these work assignments provided by the other participants in the MOOC. The purpose was to capture any potential changes in the focal teachers' views, understandings of the PD content, and practice in the classroom setting.

Recruitment of Teachers for Hybrid PD

Prior to the PD, representatives of the UL team met with staff from the Multilingual Department in the school district to devise a plan of how to work collaboratively to recruit educators within the district with a focus on those who supported and worked with ELLs on a daily basis. During this recruitment phase, priority was given to those who provided instructional support in English during the mandated 30-minute period of designated ELD.

Key staff from this department in the school district determined which school sites were selected to recruit teachers based on their desire to participate and their associated needs regarding ELLs. District leaders, including members from the Curriculum and Instruction Division and LEAD from the district, helped select and accept the participants for the hybrid MOOC. Schools with a significant EL achievement gap (based on available assessments and reclassification rates) were proactively recruited and prioritized in the selection process. For

overall PD participation rates, the school district and UL recruited approximately 15 schools and a mix of 50 teachers, administrators, and coaches.

After personnel from the district determined which general education teachers, administrators, and coaches were going to participate in the hybrid MOOC PD, they attended a live overview and learning session run by the UL team in the beginning of October (i.e., session one of the PD) to describe the year-long project and to prepare participants for the first month of the PD. During the first live session meeting, I also spent about 2-3 minutes describing my project to all of the teachers in attendance and sought volunteers who were willing to participate in my project at the same time (i.e., using a purposeful sampling procedure).

Recruiting Focal Teachers

My first opportunity to recruit participants was during the first live session. When I stood up to speak with the audience of potential participants, I emphasized the project's overarching goals and to convince them of my non-threatening role in order to dispel the aforementioned sentiments that many teachers may have felt. I did this by positioning myself (and my colleagues from UL) as someone learning from them, as them helping us to ultimately improve our program, rather than a more traditional dynamic in which they are positioned to learn from or be evaluated by the researchers and/or the involved staff from the district.

While I clarified that their participation was optional at all times, I explained that my underlying purpose in recruiting teachers was to examine the degree to which the MOOC platform provided effective professional development in the area of designated ELD by examining any changes in their practice or knowledge. I also told them I wanted to better understand what parts of the MOOC they valued, considered helpful in their practice, and what components could be improved. Finally, I expressed wanting to learn more about what aspects of the PD were helpful when working with other diverse learners who were needing more support with language. Finally, district staff and the UL team (myself included) offered to those willing to participate in the study extra professional support from the UL team by answering any questions or concerns they had related to the hybrid MOOC/ PD or classroom observation.

It is, of course, difficult to discern how the teachers interpreted this message, but we ended up having several teachers express some initial interest. By positioning myself as wanting to be supportive to their needs and interests as well as reframing the researcher-teacher dynamic as one in which the researcher was learning from, relying on, and "needing" them, my intent was to mitigate the traditional dynamic in which the researcher is poised as an evaluator.

To maintain the confidentiality of interested participant volunteers and due to significant time constraints at the initial live session, I passed around several clipboards with a sheet attached to each, asking them to provide essential information to help me in the selection process (see Table 2.5).

Table 2.5

Initial Data Requested from Interested Participants

Name of Teacher	Grade Level	Approximate #'s of ELLs at Different Proficiency Levels in your ELD Class B_____ EI_____ I_____ EA_____ A/EO_____	Name of School	E-mail Address

Note: B= Beginning, EI= Early Intermediate, I= Intermediate, EA= Early Advanced, A/EO= Advanced/ English-Only

I also asked potential volunteers who were interested in learning more about the project to feel free to either approach me after the session or contact me via e-mail directly. Involved staff from the school district announced that they had a modest number of additional funds ($100) to offer to those teachers who were willing to be observed and interviewed. This message was communicated in person by other PD staff during the first live session to everyone attending and after I introduced myself and the research study.

After I collated the names and contact information of potentially interested teachers and determined who met the inclusion criteria, I wrote them an e-mail sharing what level of commitment would be involved and asked them for additional information to help with narrowing the selection process. Specifically, in this correspondence, I wanted to confirm if they (a) taught designated ELD, (b) had students with special needs in the class, (c) if they were a Special Education teacher, and (d) if they worked with anyone from their site who was enrolled in the hybrid PD who might be interested in joining the study.

At this point, to select the focal participants for my study, I used qualitative purposeful sampling procedures (Creswell, 2013). Of the 14 teachers and 4 literacy coaches who expressed initial interest at the first live session, about 9 teachers and 2 literacy coaches returned my follow-up emails. Of these 11 remaining, some either did not teach designated ELD on a daily basis, or they simply lost interest.

Researcher Role

I worked both as a team member for UL contributing to the design of the MOOC curriculum, creation of the observation protocols, pre- and post-surveys, and interview protocols. Thus, I played the classical role of the participant-observer often referred to in the ethnographic research literature (Patton, 2002). I also had the dual role of collecting data for UL as well as my own dissertation during the PD that focused on designated ELD. The data I collected and analyzed came from this larger project in which I examined the extent to which the course objectives of the PD were effective in making a meaningful impact on the knowledge, dispositions, and classroom practices of the participating focal teachers. In this section I discuss my role as a researcher in how I positioned myself as a researcher in the study when I observed and interviewed the focal teachers in the classroom.

Role as Researcher in the Classroom and Live Sessions

My position as an observer in the classroom was generally that of a participant-observer, verging more on the continuum of 'observer' than participant. Patton (2002) pointed out that there is a great deal of variation along this continuum, and indeed, my position, while more on the end of being an observer, evolved over time. Throughout all three observations, I worked hard to maintain a similar pattern of participation and observation as both a non-student and non-teacher. At all times, I attempted to remain on the periphery with participation. My preference for establishing this role was in large part because I knew that my presence as an observer was going to be very short—a total of only 1.5 hours over the course of the whole semester (For Louisa, it was about 3 hours total).

In the first observation, the teachers introduced the students to me and explained that I was there to learn more about what they are doing during designated ELD. I introduced myself as well, and reiterated a similar sentiment. I did not share a great deal about my background or articulated intentions to work with any of them. I also positioned myself physically within the classroom to be away from the instruction and a little outside of where the students and teachers were working. For example, as often happened, when classes began with students sitting together on the rug, I would situate myself at one of the cluster of tables outside of the group, but still close enough to hear what they were saying. In other words, I made more of an effort not to be noticeable because I did not want students to view me as another teacher, as this would potentially change the classroom dynamic more than I intended. However, I would also sometimes alert students to my presence as an observer when I positioned the audio recorder in closer proximity to where the teacher was providing instruction.

About mid-way through the PD, however, after meeting with the UL team and assessing my initial impressions from the observations, live sessions, and interviews, I decided to alter my role as a researcher slightly. The team and I noticed that it would be potentially helpful to ask a few of the student pairs during peer-group tasks what it was that they were working on at that moment and why they thought their teacher was having them work on that particular task or activity. My intention was to get a better sense of student perceptions about the degree to which they viewed the tasks as useful, how engaged they, and any signs of metacognitive awareness of the attention given to language in the activity. I limited these basic questions to tasks requiring students to work with other peers, and I would circulate to different groups and ask them questions like: What are you working on right now? Why do you think your teacher wants you to do_____? What is your teacher hoping you will learn?

This practice did alter my role as a researcher in the classroom to a limited extent because now I was interacting with them for a small portion of the class, whereas before I remained on the perimeter for the whole duration. This slight change in role did have a few minor complications. For example, one of the more novice teachers (Charlotte) may have been a little uncomfortable at times when I interacted with them. This inference came from the fact that she frequently came over to where I was and listened to what we were discussing, often inserting herself as another participant in the conversation. While I asked her ahead of time if this would be okay to do and was comfortable with her knowing the content of any of these interactions, her presence in this case could have influenced how the students responded.

Also, some of the students in other classes seemed very shy or had trouble understanding what I was asking them due to a language barrier and thus did not respond. Perhaps my change in roles surprised them, and they needed more time to get to know me. There were also instances

throughout all of the observations during which students would try and get my attention to start a dialogue. In these moments, I tried my utmost to react in a way that was responsive to the student so that he did not feel like I was ignoring them, but at the same time, to minimize the possibility that the dialogue would continue. Since I was not a part of the regular classroom culture, I wanted to minimize my role in the activities. My effort to position myself in these ways grew easier over time, such that by the last observation the students seemed to recognize me, knew I was uninvolved and relatively "uninteresting" and, therefore, seemed to pay little attention to my presence.

Data Analysis

In my analysis of these data, I started by focusing on transcribing my interviews and classroom observations, using the audio recordings and field notes as my guide. I then uploaded all of my observational field notes and transcripts of interviews to Nvivo, a qualitative data analysis software program. Using this software, I began the first-cycle coding process (Saldana, 2009) by reading through the data from the interviews and observations, focusing on one teacher and research question at a time. I relied primarily on the classroom observations and teacher interviews for analysis, but also incorporated participant work assignments, MOOC analytics, survey items, and classroom artifacts as sources of triangulation. Because I was interested in analyzing within-teacher trends and change, I employed a similar process of analysis for each research question, focusing on one teacher at a time.

Coding Method

Coding was both deductive and inductive. I started with a provisional list of three basic parent codes (Saldana, 2009), which consisted of (a) attention to language, (b) information gap, and (c) engagement. For each research question, I engaged in simultaneous coding strategies by employing descriptive coding strategies to document and categorize what each teacher articulated or did that related to each feature emphasized in the PD/ MOOC. I also used in vivo coding strategies (Miles & Huberman, 1994; Saldana, 2009) in order to ground the coding in the actual language used by the focal teachers. Throughout this initial first cycle of coding, I focused my analysis on teacher uptake of the three features (i.e., engagement, information gap, and an attention to language) as these represented the primary threads through which each of the modules from the hybrid PD were taught. Additionally, I tried to identify any instructional strategies employed by the teacher to support student learning (e.g., spontaneous questions, observable accommodations) as well as any instances in which these data might relate to (a) the teacher's knowledge, (b) their instructional practices in the classroom, and (c) their dispositions related to the PD content. I then developed subsets of codes for each research question that emerged from the data inductively for the most part.

Triangulation

For each teacher, I triangulated the interviews and classroom observations with each other as well as with other data sources using the constant comparative method with each research question (see Table 2.6). However, sometimes these other data sources were limited due to incomplete data. Nevertheless, I wanted to take advantage of the multiple data sources when possible, as they created points of comparison between how they processed concepts from the PD and their views about how to support language and communication development with their implementation of the content in practice.

Table 2.6

Data Sources for Coding

	Obs.	IV	Pre	Post	W.A	Mini	Artifacts
			RESEARCH QUESTION 1				
ATTENTION TO LANGUAGE							
Teacher Knowledge		x	x	x	x		
Teacher Practice	x						
Form vs. Function	x	x	x	x	x		
Teacher Supports for Students	x						
Scaffolds	x						x
Modeling	x						
Teacher-only	x				x		
Teacher-student	x						
Student-student	x						
Improvised	x						
Planned	x	x	x	x	x		x
Opportunities for oral output	x				x		
Peer-based activity	x						
Teacher Disposition		x	x	x		x	
Diverse learners		x	x	x		x	
Instructional Supports		x	x	x			
			RESEARCH QUESTION 2				
INFORAMATION GAP (IG)							
Teacher Knowledge		x	x	x	x		
Struggle		x	x	x	x	x	
Teacher Practice	x						
Structural component	x				x		
Text-student	x				x		
Teacher-student	x				x		
Student-student	x				x		
Motivational component	x						
Teacher Disposition		x	x	x		x	
			RESEARCH QUESTION 3				
ENGAGEMENT (ENG.)							
Teacher Knowledge		x	x	x	x		
Teacher Practice	x						
Student focus	x				x		
Student effort to communicate	x						
Types of classroom talk	x						
High interest topics	x				x		
Deeper underlying Purpose	x						
Student feedback	x						
Teacher Disposition		x	x	x		x	
Integrating ENG. feature		x	x	x		x	
Role of ENG. in high-quality ins		x	x	x		x	
Diverse Learners & ENG.		X				x	

Note: Obs.= Observation, IV= Interview, Pre = Pre-survey, Post = Post-Survey, W.A. = Work Assignment, Mini = Mini-survey from live sessions

Data Analysis for Research Question 1

How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize a useful and engaging purpose in order to

promote the development of students' academic language and communication development in English?

My analyses for the first research question primarily relied on field notes and audio recordings of the classroom observations as well as the interviews with each focal teacher across each phase of data collection.

Coding method. After engaging in several rounds of first cycle coding, various themes emerged (see Table 2.6). In the second cycle of data analysis (Saldana, 2009), I employed pattern coding to deepen and expand my understanding of the collected data in order to develop more nuanced categories regarding teacher understandings, beliefs, and practices related to engagement.

I then explored these sub-codes further by creating within-case displays to identify more nuanced patterns for each sub-code. For example, the prominent sub-codes that emerged from the different dimensions of teacher practice as it related to engagement were the following: (a) student focus, (b) student effort to communicate, (c) types of classroom talk, (d) high interest topics, (e) deeper underlying purpose, and (f) student feedback. To explore teacher beliefs about the principle of engagement, I created the following sub codes related to the category titled *teacher dispositions:* (a) integrating the engagement feature (b) the role of engagement in high-quality instruction, and (c) diverse learners and engagement. I then looked for both trends as well as changes within each teacher over time with these more focused sub-codes.

As I compiled these more nuanced codes that captured trends and changes over time in teachers' understandings, practices, and beliefs in respect to engagement and its role in fostering language and communication development in English, I created additional within-case displays to compare these trends in engagement with the data analyses conducted with the other two features emphasized in the PD (i.e., language and the information gap). I was able to explore the degree to which there were patterns running across the three features emphasized in the PD for each teacher.

Finally, after reviewing these trends, I then created cross-case displays to compare these data related to engagement across all 7 focal teachers. Through this analysis, I was able to draw connections between the different teachers' relative level of expertise in the content area and the degree and types of change I observed in their knowledge, beliefs, and practices over time.

Triangulation. Besides the extremely rich data garnered from the observations and interviews and the triangulation that I conducted between them, I also used several other data sources to triangulate the trends and changes with the engagement feature. The work assignment submissions were used to triangulate different dimensions of teachers' knowledge or understanding of engagement. For example, when teachers expressed that the engagement feature was a critical instructional component to language learning, I analyzed their work assignments to gauge the degree to which this understanding was represented in their lesson plan. In cases where teachers discussed the importance of maximizing student talk, one of the proxies of engagement, I examined the work assignments to see if this understanding was incorporated in a similar or different manner. Work assignments were also helpful sources of triangulation when analyzing how the teachers structured the students' discourse practices during the observation to see if there were similar patterns.

The pre-and post- surveys were helpful sources of triangulation when examining trends and changes in teacher knowledge and beliefs. For example, I used some of the self-report items

about how knowledgeable they felt regarding how to effectively support their students' language development with what they expressed in the interviews and demonstrated in practice.

When teachers expressed how challenging, yet important they believed this feature was for supporting their language development, the live surveys (and pre- and post-surveys) was a useful source of triangulation. While they were anonymous, they did provide a window into how the whole group of approximately 50 teachers viewed the features of engagement, which turned out to parallel this sentiment expressed by the focal participants.

Data Analysis for Research Question 2

How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize an information gap in order to promote the development of students' academic language and communication development in English?

My analyses for the second research question primarily relied on field notes and audio recordings of the classroom observations as well as the interviews with each focal teacher across each phase of data collection.

Coding method. After engaging in several rounds of first cycle coding, various themes emerged (see Table 2.6). In the second cycle of data analysis (Saldana, 2009), I employed pattern coding to deepen and expand my understanding of the collected data in order to develop more nuanced categories regarding teacher understandings, beliefs, and practices related to the information gap. I explored these sub-codes further by creating within-case displays to identify more nuanced patterns for each sub-code. For instance, as Table 2.6 illustrates, I generated the following sub codes that intersected with knowledge, practice, and dispositions: (a) structural component, (b) motivational component, and (c) teacher struggle. I then created more focused sub codes related to teacher practice for *structural component*, consisting of (a) text-student, (b) teacher-student, and (c) student-student. I then looked for both trends as well as changes within each teacher over time with these more focused sub-codes.

As I compiled these more nuanced codes that captured trends and changes over time in teachers' understandings, practices, and beliefs in respect to the information gap and its role in fostering language and communication development in English, I created additional within-case displays to compare these trends with the information gap with the data analyses conducted with the other two features emphasized in the PD (i.e., engagement and language). I was able to explore the degree to which there were patterns running across the three features emphasized in the PD for each teacher.

Finally, after reviewing these trends, I then created cross-case displays to compare these data related to the information gap across all 7 focal teachers. Through this analysis, I was able to draw connections between the different teachers' relative level of expertise in the content area and the degree and types of change I observed in their knowledge, beliefs, and practices over time.

Triangulation. In addition to comparing the data from the interviews and observations, I used a variety of other data sources for purposes of triangulation. For example, to better understand the nature of teachers' understanding of this concept, I triangulated the interview data with their work assignment submissions to compare what type of information gap, if any, they integrated into their lesson. I also relied on the assessment items embedded within the MOOC surveys (pre- and post-), which contained classroom-based scenarios some of which asked them to evaluate this feature. For those who completed the post-survey, these were used to triangulate

trends and shifts in teachers' beliefs about the role and utility of the information gap. These sources were also used to triangulate any changes in teacher practice or knowledge gained from the interviews and observations. Finally, the live surveys were used to triangulate some of data about teacher beliefs pertaining to the information gap, as these provided a more general snapshot of all of the teachers' beliefs regarding the 3 features emphasized in the MOOC/PD who were participating in the hybrid PD.

Data Analysis for Research Question 3

How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that promote the development of students' academic language and communication development in English?

My analyses for the third research question primarily relied on field notes and audio recordings of the classroom observations as well as the interviews with each focal teacher across the 3 phases of data collection.

Coding method. After engaging in several rounds of first cycle coding, various themes emerged (see Table 2.6). In the second cycle of data analysis (Saldana, 2009), I employed pattern coding to deepen and expand my understanding of the collected data in order to develop more nuanced categories regarding teacher understandings, beliefs, and practices related to supporting their students linguistically.

I then explored these sub-codes further by creating additional within-case displays to identify more nuanced patterns for each sub-code. For example, the prominent sub-codes that emerged from the larger code titled *teacher supports for students* were (a) scaffolds, (b) modeling, (c) opportunities for oral output, and (d) the peer-based activity they designed and implemented. To generate the more nuanced patterns, I analyzed, for instance, the sub-code, *scaffolds*, by comparing teachers' articulation or beliefs from the interviews with what they demonstrated in practice, and I tracked these data over the 3 phases of data collection. To use another example of a sub-code, *modeling*, I developed more focused codes of this category, creating (a) teacher-only, (b) teacher-student, and (c) student-student sub-codes as well as the types of planned vs. improvised modeling the teachers implemented. I then looked for both trends as well as changes within each teacher over time with these more focused sub-codes (i.e., *scaffolds, modeling, opportunities for oral output,* and *peer-based activities*).

As I compiled these more nuanced codes that captured how teachers' understandings, practices, and beliefs changed over time in respect to supporting students' academic language and communication development in English, I created additional within-case displays to compare these trends in language with the data analyses conducted with the other two features emphasized in the PD (i.e., engagement and the information gap). I was able to explore the degree to which there were patterns running across the three features emphasized in the PD for each teacher.

Finally, after reviewing these trends, I then created cross-case displays to compare these data related to language across all 7 focal teachers. Through this analysis, I was able to draw connections between the different teachers' relative level of expertise in the content area and the degree and types of change I observed in their knowledge, beliefs, and practices over time.

Triangulation. I used a variety of data sources for purposes of triangulation. For example, the MOOC survey assessment items helped me gauge the teachers' level of understanding of the content, specifically how they conceptualized integrating language in their instruction by analyzing their responses about classroom based scenarios. Moreover, I compared

items from the surveys that captured their beliefs about how knowledgeable and prepared they felt about supporting their students' language development. For example, one close-ended question asked: "How knowledgeable do you currently feel about what instructional approaches are effective in supporting students' language with a focus on communication?" The participants used a sliding Likert-scale to answer with five possible answers ranging from "not very knowledgeable" to "extremely knowledgeable." I triangulated this type of item with what they articulated in the interviews and demonstrated in their practice.

I tried to triangulate themes with the work assignments they submitted to see if they focused on similar areas or if any changes could be detected over time. I also explored if their articulated understandings of language and their demonstrations in practice paralleled the attention they gave to language in their work assignments. It was also helpful to triangulate these data with some of the artifacts, such as the visuals posted on the wall or the graphic organizers the teacher used, as a source of triangulation to help me capture another dimension of linguistic supports that were planned ahead of time and used by the teacher to help students access the content. Finally, I also examined some of the MOOC analytics to triangulate with any changes or lack thereof that I noticed occurring with any of the teachers since it represented one indicator for how much time, if any, they spent engaging with each of the modules in the MOOC.

Trustworthiness

While I was the primary collector of data, there was one other collaborator from the UL Stanford team who participated in some of the data collection procedures described in this protocol. This person, who was listed on the IRB protocol for Stanford University, joined me for 4 of the classroom observations during which we wrote field notes for purposes of establishing inter-rater reliability. She also participated in one of the follow-up interviews during the first round of data collection.

As a way to ensure attention towards internal validity and inter-rater reliability of my analyses, I performed a variety of precautions. First, I consistently triangulated my findings with other data sources to gauge whether there was evidence that supported or pulled into doubt the findings. The interviews and observations were the primary sources from which analyses were drawn. I then triangulated the findings from these two primary sources with teachers' work assignment submissions, the MOOC surveys, field notes and surveys gathered from the each of the live sessions, the MOOC curriculum, and the analytics indicating whether or not each teacher completed (i.e., watched) each of the online components of the MOOC course.

Second, during the data collection process, I met regularly about every couple of weeks or so with the UL team, which consisted of seasoned researchers with more experience than myself, to share my initial findings, their feedback on trends within the data, challenges in the field, and to formatively assess how the PD itself was progressing based on participant feedback from the live sessions and/or the work assignment submissions (not limited to my focal participants, but to the hybrid MOOC group of educators as well as singleton individuals enrolled in just the MOOC). I also shared and received feedback from this group about some of my initial analyses from my own field note reflections or annotations that I wrote while processing the data.

Third, I worked with my research group on several occasions at UC-Berkeley in the early stages of coding the data. I provided them with segments of my observations and interviews in

order to get others' input on how they interpreted sections of the data. Each person would code a segment independently and then re-group to share our findings. These were extremely illuminating sessions that helped strengthen my coding approach.

Fourth, in order to attend to inter-rater reliability with the observations, a seasoned researcher from the UL team joined me, as mentioned above, for 4 of the 19 classroom observations during which she wrote her own field notes using the same protocols as myself. Afterward, in order to ensure that there was sufficient overlap in the phenomena we were capturing, we did the two following exercises. First, we compared field notes to see the degree to which there was overlap in how we interpreted classroom events and other phenomena. Second, we then used our field notes to complete a separate researcher-created protocol that required us to assess the degree to which the particular focal teacher addressed the primary content of the PD during that observation (i.e., the three features-- useful and engaging purpose, information gap, and attention to language). We completed this document separately and then compared our answers. We found that we reached agreement across at least 80% of the items for each observation. For those items in which we responded differently, in almost every case, after discussing it with each other, we came to the conclusion that we agreed with each other about the specific discrepancy.

Finally, I also had the opportunity to perform inter-rater reliability with a researcher from the UL team during the coding process. After I had entered the stage of creating more detailed sub-codes with the interviews and observations, we each analyzed and coded one of the observations and interviews, using the same codes in order to see how much overlap there was in how we coded. We found that we coded similarly for at least 80% of each data source. For any instance in which someone coded something that the other had not, we discussed our rationale and in over 90% of cases were in agreement about that particular coding decision.

CHAPTER THREE: SHIFTS IN TEACHER KNOWLEDGE, BELIEFS AND PRACTICES RELATED TO THE PRINCIPLE OF ENGAGEMENT

In this chapter, I analyze the changes and trends in how teachers promote and integrate a useful and engaging purpose within their activities during designated ELD to help answer the following research question: *How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize the principle of engagement in order to promote the development of students' academic language and communication development in English?* To do this, I rely on several data sources: classroom observations, interviews, pre- and post-MOOC surveys, live session surveys, and work assignments submitted by the focal teachers, plus any feedback they received from other participants enrolled in the course.

Engagement

I have organized the chapter into the following sections: (a) a description of how the principle of engagement was presented in the Massive Open Online Course (MOOC), (b) two case studies that highlight teachers' experiences, emphasizing how each processed, internalized, and put into practice this particular principle from the PD, and (c) analyses of trends spanning across the 7 focal teachers pertaining to the principle of engagement. Through these two analytical lenses, two case studies and an analysis of trends across all teachers, I explore patterns of teacher beliefs, knowledge, and practices across the three phases of data collection.

3 Primary Features in the PD

The primary objectives of the Professional Development (PD) were to provide support to teachers, administrative staff, and/or coaches about how to create or adapt classroom-based activities during designated English Language Development (ELD), a legally mandated 30-minute period during which ELLs receive instruction to support their language development in English. In this context, the PD focused on creating activities that enhanced more authentic communication practices among ELLs by zooming in on the three essential features that focused on supporting language and communication development. These consisted of (a) making sure the students were using language for academic purposes to do something meaningful and engaging (i.e., the focus of this chapter), (b) orchestrating an information gap within the activity in which students find that they need or want information that they do not yet have (i.e., focus in chapter 3) to motivate communication between students, and (c) ensuring that there is extra instructional attention placed on *how* language is used and in providing support to help students communicate for academic purposes (i.e., focus in chapter 4).

Engagement and Language in the PD

The PD emphasized that effective language activity in a classroom context needed to be engaging and purposeful, on the assumption that these characteristics are what motivate us to push ourselves to use language (Zwiers, 2011). This PD scaffolded how to conceptualize and create meaningful and purposeful activities that helped teachers (a) incorporate linguistic skills needed across disciplines (b) understand the importance of integrating a deeper, underlying purpose for assigned tasks, and (c) implement activities in which students yearn to talk and listen in order to accomplish something they cared about.

The PD, in other words, focused on a functional view of language as opposed to the historically more common structural approach in which teachers emphasize *language form*. This latter term refers to the array of rules having to do with pronunciation, correct grammatical syntax, or vocabulary acquisition taught in a manner with little context and content (Smarter Balance Assessment Consortium module curriculum, 2014). In the context of the MOOC, teachers were asked to make a clear distinction between language function and language form when they designed their activities, and to highlight and develop instruction focused primarily on language function as a means to prepare students to use academic language in a meaningful and purposeful context.

How Engagement was Conceptualized and Scaffolded

Formal features of language were still considered an integral component of language learning for everyone, including monolinguals and linguistically diverse learners. However, rather than teaching these skills out of context, the PD materials emphasized being strategic in how to provide vocabulary and grammatical instruction by integrating it within meaningful content (CDOT Tool, MOOC curriculum). In short, using a particular language form became a tool for achieving a communication need motivated by the task or activity students were trying to accomplish. For example, the PD materials illustrated how to improve an activity in which students looked at pictures to learn about the imperfect tense. To make it more communicative and meaningful for students, the PD materials presented different options, such as having the students bring in their own pictures and create a photo gallery for a time capsule.

Multiple language development activities were illustrated across each session to demonstrate how to integrate the feature of engagement, often in ways that accounted for different oral proficiency and grade levels. I found that the definition and rationale were mentioned at least seven times, and an array of activities was presented in which the engagement feature was explicitly discussed in at least 15 instances. I coded a variety of examples of how to integrate the engagement principle in different types of activities, such as (a) creating a purpose behind a class wide reading in which students would take a position in support of one group or another about an event or controversial topic; (b) creating a poster, web page, or presentation; (c) having each student use gestures and physical movements to signal each idea they were either hearing or communicating (e.g., holding a finger up for each point being made). Appendix F is an example of a typical activity demonstrated in the MOOC.

Two recurring pedagogical approaches were used to help participants process this feature. First, the PD described an activity in varying degrees of depth followed by asking the viewer to determine whether it was a strong or weak example of an engaging activity. In cases where it was feeble, direct feedback was provided on how it could be improved. Second, an activity was presented and then explicitly analyzed to identify each of the three features.

Other pedagogical approaches were used as well to support teacher learning. First, in the spirit of incorporating active learning strategies, teachers collaborated during each of the live sessions to discuss key concepts about ELD development and pedagogy as a way to process and reframe the content. At each live session, they also engaged in several role-playing scenarios during which they experimented with new strategies presented in the PD and co-constructed new activities with other colleagues that they could then use in their own classrooms. Second, they created or adapted an activity each month, incorporating the linguistic and pedagogical principles emphasized in the MOOC, and then implemented it in their classroom. After, they reflected on

the experience and integrated their account into the assignment. Moreover, they applied their newfound knowledge of the content by evaluating other participants' work assignment submissions (either hybrid or singleton participants), offering an opportunity to collaborate and support other teachers working toward similar professional goals.

Case Studies of Two Teachers

To gain an emic (insider) perspective on the MOOC experience, I analyze two teachers' journeys through the PD with a focus on how they processed and experienced the feature of engagement as depicted in the MOOC. One teacher exemplified more changes over time i.e., Charlotte), while the other encountered less movement in her practices, beliefs, and understandings (i.e., Louisa). Each journey contains valuable insights from which we can learn in order to better understand how to support the many teachers who are working within these new standards to support our students' language and communication development.

Louisa's Journey

Louisa is a 12-year veteran teacher working in a diverse *transitional* classroom setting. She was faced with the task of helping newly arrived immigrants in the 4th and 5th grades, primarily from China, transition into U.S. public schools, so most of her students had minimal English. She worked with each of her students during their initial year of schooling in this country. After that year of transition, each student was placed in another classroom, that while within the school district, did not have the cultural and linguistic support that her school is designed to provide. In interviews, she reported that it was her responsibility to prepare these students for a "regular" classroom with English as the dominant language of instruction. She had to squeeze as much English as possible into the minds of her students within at most one academic year, so they could navigate the linguistic demands of a mainstream classroom.

Louisa felt that a common source of struggle among most of her students was their lack of oral proficiency in English. Data from the observations supported this view. It was clear after the first observation that most, if not all, of her students struggled tremendously with articulating and comprehending English, especially when the language was communicated orally. In contrast, their comprehension of written language, while still far below grade level, exhibited some more variability across students. She shared that a large part of her motivation in signing up to participate in the PD course was to absorb as much information as possible about how to support the development of her students' growth in English communication. She specifically indicated in the pre-survey that she was hoping to learn "more strategies to help them."

Louisa's understanding of engagement. Interviews with Louisa revealed what she believed were some of the necessary ingredients needed in order for her students to show high levels of engagement. In the first interview, she stated that one of the keys in helping to improve her students' level of engagement was to create experiential educational activities. She reasoned that activities in which students applied their knowledge to real-world circumstances seemed to have the most positive impact on their motivation to learn.

She shared an example in the first interview. She described an activity that was highly engaging for her students, which was a field trip that they took to a local restaurant prior to this PD (not observed by me). Prior to the visit, the students had practiced some English vocabulary related to how to order food. In this case, they had to enter a line at this restaurant and order from the cashier, who happened to only speak in English. This instance in which language

function was the dominant pedagogical strategy seemed to work effectively—that and maybe wanting some French fries! Despite this awareness about the importance of making a language-based activity engaging and purposeful, she noted that it was impractical to create experiential activities, ones in which the all-important information gap was in play, with consistency. There were simply too many logistical hurdles to overcome in doing field trips, such as parental consent requirements and limited time/resources.

This belief in engagement was illustrated in the first work assignment she completed. She submitted a lesson in which her students practiced communicating about basic items found in a cafeteria, but this exercise occurred in her classroom, and the interactions were heavily scripted, a topic not missed by some of her peer reviewers. She acknowledged in this assignment that one way in which to improve the activity was to have them actually go to their school's cafeteria to practice the array of nouns and adjectives associated with this domain.

She noted additional obstacles to overcome when creating activities that fit the definition of 'engaging' emphasized in the PD. These related to a dissonance between her conceptual view of how a second language is most effectively acquired and the viewpoint of the PD. For example, she explained that it was hard to devise highly engaging activities with her group of students due to their low levels of oral proficiency in English. In fact, she believed that it was necessary for her students to achieve a foundation in various structural forms of English (e.g., sufficient knowledge of pronouns or vocabulary) before being able to successfully implement classroom activities that were highly engaging and purposeful (First Interview, 10/19/15). In this respect, low proficiency and engaging activities were mutually exclusive. Moreover, it revealed a kind of "structure before function" preference in her approach to pedagogy.

Translating concepts into practice. Louisa exhibited some subtle shifts in her sensitivity to and practice of scaffolding engagement into her lessons in the course of the PD. By the last interview, she acknowledged that the activities she planned did not seem to be all that engaging for her students, although my observational field notes suggested that many of them were slightly more engaged in the activity in comparison to the first two classroom visits. These data contain multiple references to an apparent lack of engagement on part of the students as they completed and participated in overly scripted tasks, and she was well aware of this phenomenon. For instance, she described what she felt was a typical interaction that she had observed many of her students doing over time. Imagining that she was a student, she said, "It's more like, 'Oh you're done. Okay, my turn and I'll do that sentence frame.' It's not an actual conversation, conversation. But I guess it's hard for them to do that because they don't know how to manipulate the language enough to do it on their own" (Third Interview, 1/20/16). She went on to describe how she needed to intervene with several of the students due to their low engagement/ on-task behaviors as evidenced by the dearth of effort they put forth in speaking with each other. For instance, she remarked in the second interview how she had to go and work with one of the small groups assigned to have a discussion with each other because she noticed that none of them were actually engaged in any dialogue, let alone communication with an academic focus.

Trends. These sentiments were corroborated in the three classroom observations I conducted, although there were a few discrepancies, which I describe shortly. A fairly typical example of her early engagement practice took place when the students were playing bingo, which involved practicing some target vocabulary associated with school jobs. A girl and boy volunteered to go to the front of the class where the overhead projector was located in order to

ask each other questions. However, when the girl, using language frames to articulate the questions, was asking the boy about school jobs, he responded in a monotone voice without actually looking up at her. Instead, he also relied on a sentence frame that was visually present on the overhead. Interestingly, the girl asking the questions stared at her language frames, making no eye contact with the boy with whom she was talking. They were 'going through the motions' as the expression often goes, devoid of certain spontaneity typical of an authentic conversation, such as using more language than what is required to be understood or making a concerted effort to listen and communicate by asking follow-up questions or making comments that add to the previous comment. Compliance, not engagement, better explains these behaviors. Of course, in the big picture, this may be a necessary stage of development along the pathway to more natural, authentic, and engaged conversations related to the goal of the language activity rather than its structural procedures.

Part of what vexed Louisa about the lack of student engagement during these activities was the degree to which they were just trying to finish the task without any concern or interest in genuinely talking. This was corroborated several times in the observations. For instance, towards the end of the third observation, the teacher asked a small group of students working together if they just copied each other's answers, which it appeared that they had based on my own field notes. Seeming frustrated, she asked them: "How are you going to learn English if you just copy? Remember, we're learning words to describe animals" (Third Observation, 1/20/16).

Another example took place when Louisa paired up the students during the second observation. After asking the whole group a question about school jobs, she requested that each of them share answers with a partner. However, instead of telling their partner, the whole class provided an answer chorally, responding in unison. Shortly thereafter, she asked the group: "What is something you need to be able to do to be a door monitor? Turn to your partner and tell them." At this point, I observed Jimmy, who was sitting very close to me. He was sharing with his partner, a girl wearing an orange sweatshirt, his response. However, this girl was also sharing her response with him at the same time, speaking subvocally. Neither student was making eye contact with each other nor did they seem to notice (or mind) that the other was speaking. These instances typify the majority of the dialogue that I observed across all of the observations from the beginning to the end of the course.

Over-scripted with language frames. Another pattern that arose from my analysis of classroom observations was in the use of language frames to support all of the interactions that the students had to support the classroom activities. *Language frames***,** typically visual illustrations that model for a student how to frame what to say in a way that uses correct syntactical structures and specific vocabulary terms, are intended to be springboards to articulate their thoughts. Ideally, they are supposed to serve as a scaffold for supporting dialogue in a way that honors the student's input, but within a standardized and, in this case, academic syntax. Louisa acknowledged in the third interview that she had reservations about these frames because, similar to my observations, the students seemed overly reliant on them to the point that it stunted the conversations she was trying to get them to have. Louisa described in the last interview that to use them in her lessons was something she had to do in part because there was no alternative due to her students' low levels of oral proficiency. On the one hand, she voiced her concern that her students were too dependent on them and, as a result, made their conversations inauthentic. She encapsulated her conundrum when she stated, "But then if I don't have [the language

frames] up, then some of them can't even answer." Again, Louisa was disappointed that so much teacher scaffolding was required to achieve even a modest performance on the part of her students.

These concerns were corroborated in several instances in each of my observations. Over 75% of the students (N=~15) tended to rely on these language frames for the whole conversation. For instance, in the first observation, several students read from the frame located on their handout to their partner, "What are you going to be for Halloween?" The partner would then provide a response using a different frame.

Another example that typifies the impact that overly scripted lessons had on students' engagement levels took place in the second observation during which the class was discussing the topic of school jobs. The teacher asked two students, a boy and girl, to come up to the front of the class to practice how to respond to some of these job-related questions, in this case what their school expected from a door monitor. There were about three language frames located on the overhead, but because the boy was not sure which language frame represented the appropriate response, he remained quiet. The teacher, after waiting about 5 seconds, pointed to the frame he should use. The student then just read the phone numbers on the frame, but left out the syntactical phrasing surrounding it. Some students snickered at this, but Louisa ignored them and modeled how to say it and then moved on to another set of students. This segment highlights the debilitating impact on students' communication when an activity is over scripted and emphasizes the formal features of language that are largely devoid of meaningful content.

Louisa hypothesized that part of her struggle in providing engaging scaffolds could be explained by the differences in the cultures of language learning between the schools in China vs. the U.S. She reflected that her students were accustomed to demonstrating compliance over engagement. She said, "Like in Chin[ese classrooms], they don't actually have conversations. It's probably just sitting there, and the teacher talks, and I'm writing it" (Third Interview, 1/20/16). She explained that even if she were to try these activities from the PD, but speak in Chinese, her students would still have difficulty due to these cultural and pedagogical differences.

Fostering an underlying purpose in the activities. Louisa also struggled with fostering a deeper, underlying purpose in her lessons (i.e., students going above and beyond the teacher's expectations in their communication with another student). In the case of integrating a deeper, underlying purpose within the ELD activity, I did not observe changes across time nor were there any instances in which she communicated a larger goal to the class. The only instance in which she mentioned this feature was in the third interview during which she described the lesson on teaching vocabulary associated with animals at the zoo. She said that the underlying purpose of this activity was a result of a future trip that she was going to have them take to the zoo a few months in the future.

Regarding her interest in improving her students' basic engagement levels, when measured by the effort they put into communicating, their focus on the tasks, their use of more language than what is expected, and their metacognitive awareness about why they are asked to work on a given task, she struggled throughout the data collection process to instill these characteristics among her students. In the second interview, she acknowledged that her students enjoyed talking with each other, usually in their first language, but "only on their own terms." She struggled to create a bridge between this type of talking and the activities she implemented.

When asked, she explained why she thought she was experiencing so much trouble. While she desired the more engaging activities during which students worked with a deeper, underlying purpose, Louisa felt this was out of reach so long as her students were unable to read in English and lacked the fundamental vocabulary levels necessary for engaging in conversations and interactions. She stated in the second interview that her students would not be engaged in the activities or tasks if they could not read with sufficient fluency. She explicitly stated in the first interview that she had to first equip them with enough basic vocabulary before she could create and implement more meaningful activities. Similar to her position that students needed a foundation in oral proficiency before implementing more engaging activities, Louisa seemed to view the acquisition of language and, most particularly, literacy skills as a pre-requisite to activities focusing on rich, meaningful content.

Translated to the classroom, Louisa often organized her activities with these assumptions about language development in mind. In the second round of observations, for example, she focused on teaching them words like their surname, address, and telephone number as part of the school jobs activity. She struggled internally, according to her, because she was confident that this was perceived as monotonous to her students. And yet, going on a field trip everyday was also not realistic nor was it necessarily the best forum in which to teach her students these foundational skills in English. She wished at one point in the interview that the PD would provide some golden solution that would quickly provide her students with these foundational skills in English. Louisa was struggling to incorporate this new knowledge from the PD with her previous understandings of language and communication development, trying to keep both, but finding that to be an impossible undertaking.

This was the conundrum that challenged her over time and part of the reason why she was interested in attending the PD. On the one hand, it seemed to be her professional conviction that to acquire English most effectively, it was best practice to focus her pedagogical strategies on acquisition of the language form structures, but she seemed interested in the ideas and practices from the PD: using the principles of language function as an important part of the curriculum as well. The data from the interviews, and corroborated in the observations, suggest that she placed much importance on fostering student dialogue and conversation, but as a vehicle for teaching the formal features of language. The latter was foregrounded as opposed to the background. With her goals remaining centered on vocabulary and syntax, she seemed to try and integrate some of these other principles emphasized in the PD—i.e., how to get the kids to have "real" conversations with each other in ways that were engaging and authentic since this was an ongoing challenge she recognized in her own practice.

Shifts in Louisa's knowledge and practice. By the third interview, Louisa considered the potential positive outcomes of letting the students do activities in their first language until they mastered the routines and expectations at which point they would communicate in English. However, she doubted that this would make much of a difference due to the larger cultural differences noted earlier between the pedagogical styles that her students experienced in China vs. those she was trying from the MOOC.

Nevertheless, she never seemed to give up on trying to integrate what she was learning in the PD. In fact, the data confirm that she experienced some subtle change, decidedly modest, in both the final observation and interview. For instance, evidence from the interview suggests that Louisa began to believe that she was starting to have more success with engaging students in

language-based activities geared towards authentic communication practices. She articulated that they seemed more engaged with the last activity because she implemented the information gap more successfully. In fact, my field notes captured the fact that this feature played a more integral role in this lesson than the previous two observations based on the number and duration of activities she implemented that involved an information gap. She also suspected that her inclusion of questions that encouraged them to ask 'why' after their partner provided a response may have had a positive impact, as did her decision to have them not use language frames when interacting with their partner. In this scenario, she instructed each pair to pick an animal from the chart and keep it a secret. Their partner then had to ask three questions, essentially crafting educated guesses about what animal they picked, using some of the language that they learned earlier, such as specific adjectives to describe a giraffe, lion, or another animal. She said, "I think they liked that they had to guess each other's animals." She went on to add, "It seemed like they enjoyed doing that. So I guess maybe they are more engaged." It is, of course, hard to infer with certainty why this change occurred or even how sustaining this change may have ended up being. The finding in this case has more to do with a shift in the teacher's thinking about the MOOC's concept related to engagement than it is about significant change in practice.

Reconsidering beliefs. Louisa seemed to reconsider, however modestly, her beliefs about how to use language frames in supporting language development. In the past, she felt like they were essential in order to help her students gain access to the curriculum. Yet, in the last interview she seemed to reconsider this view when she expressed how she could see some positive effects in their interactions as a result of taking them away during the partner work. She believed that their absence correlated with a more successful lesson if we take as evidence an increase in student engagement and length of interactions. This was corroborated when reviewing the evidence in my field notes. There were over five instances in which I noted that it seemed like a larger percentage of her students were showing signs of higher engagement during this same period, although similar behaviors as observed in the previous observations returned shortly after this peer group work. She may have held doubts about the relative contribution of the language frames, but clearly saw them as necessary.

At the same time, by the last observation, she took them away and liked the results. It must be noted, however, that these positive results that she expressed must be tempered with what I noted in the observations. While I observed students who seemed to be more engaged at times in their interactions in my last set of field notes, I also raised concerns that I mentioned in the first two observations having to do with their overall reliance on language frames throughout their interactions. In summary, these data confirm that Louisa struggled to incorporate many of the objectives in her practice. However, she also showed evidence of reconsidering her previous assumptions about how students acquire language most effectively, calling into question what kind of working resolution, if any, she reached beyond the scope of this study's time frame.

Charlotte's Journey

Charlotte, more than any other focal teacher, exhibited clear shifts in both her understanding of and beliefs about how to integrate a useful and engaging purpose as well as how to implement it more effectively in the classroom. She showed multiple positive shifts, such as her views about what to prioritize in her planning of ELD activities and in creating more opportunities for students to use, wrestle with, and practice more purposeful communication using academic language. What follows is a chronological account of how her perceptions,

integration, and implementation of this feature evolved across the three phases of data collection, with evidence suggesting that the most change occurred between phases two and three.

Charlotte's understanding of engagement. Charlotte's beliefs and understanding about the engagement feature were emerging at the start of the PD. Data suggest that it was a relatively new concept, at least in the context of creating activities that optimized students' language and communication development. Both the interview and pre-survey corroborated this finding. For instance, I found that she rated herself in either the lowest or second lowest categories across the 3 items (using a 5-point Likert scale) that asked teachers to assess their own pedagogical knowledge and instructional preparation levels. In one of the open-ended items as well as the interview, she also indicated that trying to integrate a useful and engaging purpose within an activity was very difficult to do. In fact, she felt like she was unable to both prioritize the engagement feature and align it to language standards (she did not clarify which standards) simultaneously. Instead, it was easier to limit her focus to aligning the lesson with language standards because in many cases "finding the bigger picture [was] a lot more work" (Charlotte interview, 12-08-15).

Translating concepts into practice. Perhaps unsurprisingly, therefore, the first and second observations showed that Charlotte placed little priority on maximizing student engagement in using language in purposeful ways. Instead, she had her students work "for the sake of the activity" (Charlotte first interview, 10-13-15). She later acknowledged, however, that she was still trying to make this shift in practice, though integrating the "purposefulness element" of the activities was difficult for her.

Data indicate that many of her students did not respond to these efforts. In the second observation, for example, I visited various dyads of students working together on a task. I wanted to assess the degree to which they could articulate how the activity was helping them build knowledge and/or skills for an authentic purpose, as this was one criterion I used for measuring engagement (see Figure 3.2 for a list of the other criteria). I asked about eight groups what they were asked to do, why they were doing it, and what they thought their teacher was hoping they would learn from it. Many of them remained quiet, shrugged their shoulders, or were able to describe just surface level features of the tasks, but nobody expressed why they were working on it or what they thought Charlotte was hoping they would learn. Typical examples of student comments included, "Because…I don't know!" and, "Because we do that in writer's workshop."

One exception to this trend was that Charlotte expressed in the first interview after the observation that she had been successful in integrating the engagement feature. When I asked her to elaborate since I noticed a discrepancy in my own field notes, she only described how this feature was integrated effectively by having the more proficient students help the less proficient students with their writing pieces. When I juxtaposed this more confident belief with what I observed earlier, these data seemed to contradict each other because I found that they exhibited very low engagement levels during that part of the activity. Moreover, when I examined the data from the second phase, she continued to articulate how the engagement feature was very challenging, which was consistent with what I found in that observation as well. These trends of struggle with this feature were clearly illustrated in the first two phases of data collection, a topic to which I now explore in more detail, as these data contrast with the notable changes by the last phase.

Trends. Charlotte's intention to integrate the engagement feature appeared to be difficult for the first two phases. The data show that this may have been in part because she expressed having different priorities for what she wanted to emphasize in her instruction (e.g., achieving activity completion and assessing content accuracy).

The first observation encapsulates the nature of this struggle. She explained that the primary objectives of the activity were twofold: to finish a final draft of the students' writing pieces in about three days and to have those students identified as ELLs practice reading their story aloud so that their partner, a non-ELL, could provide them with feedback that was constructive and "positive." To complete a draft, Charlotte said they needed to learn how to provide edits to their peer's work. To do this, she focused on showing them an anchor chart for the lesson consisting of language frames for what to say and by providing a modeling session during which she pretended to be a student in order to demonstrate how their peer writing session should work.

Low student engagement. I found numerous instances in which the majority of students did not exhibit many of the criteria of engagement as discussed in the PD. For instance, students did not appear to "maintain their communication… using more language than expected or required" nor did they make inquiries about how to "best communicate" their ideas (CDOT document from MOOC curriculum). When students were talking with a peer at the end of the period, there was also no evidence of those signature features of productive talk, such as making an effort to extend their dialogue by making additional comments or making an effort to communicate by asking clarifying or follow-up questions. Instead, they appeared listless and quiet, exhibiting minimal engagement as evidenced by the lack of spontaneous turns in talk that took place, paucity of laughter and natural fluctuations in their intonations, or facial expressions.

Quantity and quality of student talk. Equally telling, however, were the high frequency of teacher talk and the corresponding lack of time for students to communicate purposefully with each other. In fact, Charlotte acknowledged this later in the interview. She commented how she felt obliged to talk so much in order to get to the point in her activity where the students could work with each other "to use language in purposeful ways" (Interview, 10/13/15). Even in the time during which she was not the primary speaker, the activity did not seem to prioritize purposeful communication. This was highlighted most clearly when she asked students to spend 7 minutes of the class reading their own writing with no explicit purpose or objective established ahead of time in preparation for the peer editing sessions. She told them that if they finished early, they were to reread their piece again. Moreover, I observed that students were reading their writing silently with no evidence of other proxies of engagement like subvocal reading or using their finger to follow along as they read.

There was little evidence that Charlotte attempted to increase not only the quantity of student talk, but also the opportunity to exercise some choice over what and how they discussed content. A typical example of this dynamic took place when she modeled how to provide feedback about someone's writing. Almost all of the students were quiet, and only two raised their hands to participate in this mini-session. These students basically read some text on the overhead followed by answering rhetorical, display types of questions using an Initiation, Response, Evaluation (IRE) format. In these moments, she required her students to utilize the language frames projected on the overhead in their response. Sometimes, she would evaluate the student's use of syntax like, "It has to be 'It's funny because' because it's present tense" (field

notes, 10/13/15). These high levels of teacher influence over what and how the students communicated may have played a role in reducing student engagement and authentic discourse. Interestingly, Charlotte acknowledged how quiet the students were and mentioned how the students "did not have much to say," but offered no additional reflection about the matter.

Deeper underlying purpose. While Charlotte had considered the underlying purpose of the activity internally as evidenced by data from the interview, she provided no indication of making it explicit to the students. This was most apparent in the latter half of the activity. Not only were students asked to read their own writing without any deeper, underlying purpose established, but the non-ELLs had to do the same even though nobody was going to provide them with feedback later. Thus, the absence of an underlying purpose and the lack of opportunity for purposeful communication paralleled the other evidence that indicated low levels of student engagement.

Shifts in Charlotte's knowledge and practice. By the third phase of data collection, Charlotte exhibited a major turn-around both in her understanding and practice. For example, she exhibited a clear shift in her priorities when planning the activity. In the interview, she acknowledged the fact that she "let go" of thinking only about the content standards when planning a lesson, and rationalized this absence with the fact that they were doing something that had a more genuine purpose. Perhaps this represents a shift in her perspective about what requires more attention when planning: ensuring student acquisition of content vs. maximizing purposeful communication and student engagement.

It is possible that she continued to believe that integrating content standards and infusing a useful and engaging purpose concurrently were mutually exclusive. However, the evidence from the interviews clearly showed that she seemed more convinced of the merits underlying the engagement feature than before. For example, she discussed how she now cared most about implementing an activity that students would find sufficiently engaging, such that they would want to interact and communicate more purposefully with their peers. She also felt more successful with integrating a deeper, underlying purpose within the activity. When asked to elaborate, she pointed out that she learned how important the engagement element was in promoting authentic dialogue by comparing this last lesson with many of her previous lessons. She described how engagement was often lower whenever she picked a topic that the students did not find interesting or when it missed the element of an information gap. She also indicated that she had learned the value in listening to her students' feedback about what they liked to do in classroom activities. She said that conferring with them really helped her to realize the importance of remaining open to the interests of her students.

Using the last observation as a case in point, Charlotte linked her students' engagement levels, which were noticeably higher, with this process of realigning her perspective that she described in the interview. She demonstrated several changes relative to the previous two observations. In this lesson, she had students practice using language with each other in a more meaningful way pertaining to directions. She explained and invited discussion with students about why they thought being able to provide and/or understand directions that are being given was important to be able to do. My field notes support her assertion that the students were engaged in more purposeful dialogue when she reflected in the interview that there was "definitely more real life purpose with today's lesson." My field notes support this perspective when engagement is measured in the following ways. First, there was an increased frequency in

students raising their hands to participate to offer their perspective on this issue, which illustrates a more concerted effort to communicate. Second, student to student talk increased and teacher to student talk decreased. Third, I found several instances in which students used more language than what was required as they worked to understand the directions that their peer was giving. Fourth, Charlotte explicitly stated an underlying practical purpose of the activity about the importance of being able to provide and receive directions in daily life during a whole group discussion. Finally, I got more in depth feedback from three of the students about the underlying purpose of the activity, which paralleled the finding that she implemented a much more engaging and meaningful activity.

Some students still explained the surface features of the actual activity, but two others had a more nuanced reply when they described why Charlotte wanted them to work on the map activity. One said it was an important activity because "when we grow up we will be able to use a map" and another said, "it's important to know how to give directions and follow directions on [a] map in case we get lost sometime" (Third observation with Charlotte, 2/4/16). In other words, while no student explained the linguistic features that their teacher hoped they would learn, they showed evidence of making progress in being able to see the underlying purpose of why the activity was meaningful.

While I am unable to find evidence from other data sources besides the interviews and observations, the data that I do have confirm that Charlotte changed her beliefs and practices as a result of her participation in the PD. Without a post-survey or the completion of the work assignments, it is hard to gauge what exactly sparked these shifts in her practice. We can be sure, however, that without her participation in the MOOC, the probability of her changing her beliefs about the role of engagement and initiating effort to implement new activities would have been unlikely. Next, I describe some of the prominent trends observed across all of the focal teachers, focusing on their knowledge, beliefs, and practices of the content emphasized in the PD.

Trends Across Focal Teachers

As a reminder, the concept of engagement in this study means creating or adapting activities geared toward designated ELD for which "students use language to do something meaningful and engaging, beyond just answering questions or getting points." (Designated MOOC ELD course, 2015). Getting the students authentically engaged in activities that fostered purposeful communication using academic language was the goal. Because these data showed that it was possible to observe an activity that met the criteria of being meaningful without necessarily meeting the criteria of using language for academic purposes (and vice versa), I divided engagement into two constructs. The engagement feature is conceptualized as the degree to which an activity is a) meaningful and b) prepares or supports students to use language for academic purposes (see Figure 3.1.)

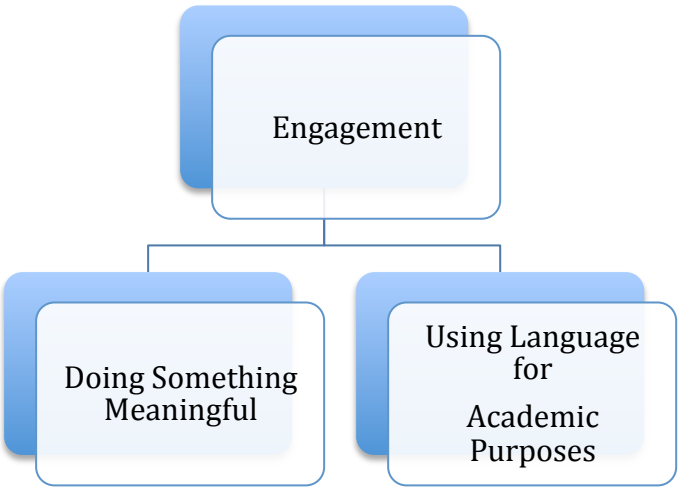


Figure 3.1. Breakdown of Engagement Feature

I used several criteria as evidence of trends and any change in teachers' understanding and practices (many of which were emphasized in the PD) of the meaningfulness construct (see Figure 3.2). They include (a) students' feedback about the degree to which they understood how the activity was serving a deeper, underlying purpose (e.g., to learn how to argue a point, prepare for a class wide debate, making a cake, publish a paper within the school, etc.); (b) students' degree of focus on the task; (c) students' using more language than expected or necessary; (d) their effort in communicating and understanding others (e.g., tone of voice, rephrasing, multiple turns talking, spontaneous dialogue, facial expressions, eye gaze, gestures, prosody, etc.); (e) the teacher's intention in integrating this feature explicitly in the activity (e.g., discussing larger purpose with the group); (f) using high-interest topics as the activity.

With the academic language construct, I used the following criteria as evidence; (a) creating time for students to practice using language (i.e., quantity); (b) opportunities for students to exercise some choice in what and how they discuss the topic of focus; (c) creation of activities that support language-rich interactions.

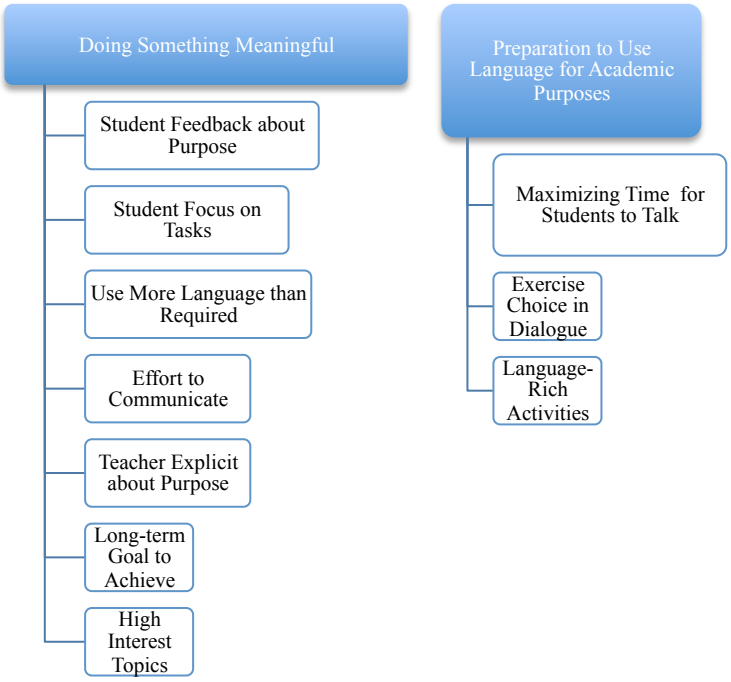


Figure 3.2. Criteria Used for Evidence of Engagement

Effects of the PD on Teacher Beliefs and Understanding

These data confirmed far more commonalities than differences in the focal teachers' beliefs about this feature's relative importance when supporting all students' language and communication development. In my analysis of these data, I found three primary trends that illustrated the types of knowledge and beliefs about engagement expressed by the focal teachers (see Figure 3.3). First, all of them shared similar sentiments about how challenging this concept was to integrate in practice. Second, they believed that engagement played a critical role in creating effective activities that supported students' communication and academic language development. Finally, some of the focal teachers exhibited changes in their beliefs and understanding of engagement by the end of the PD.

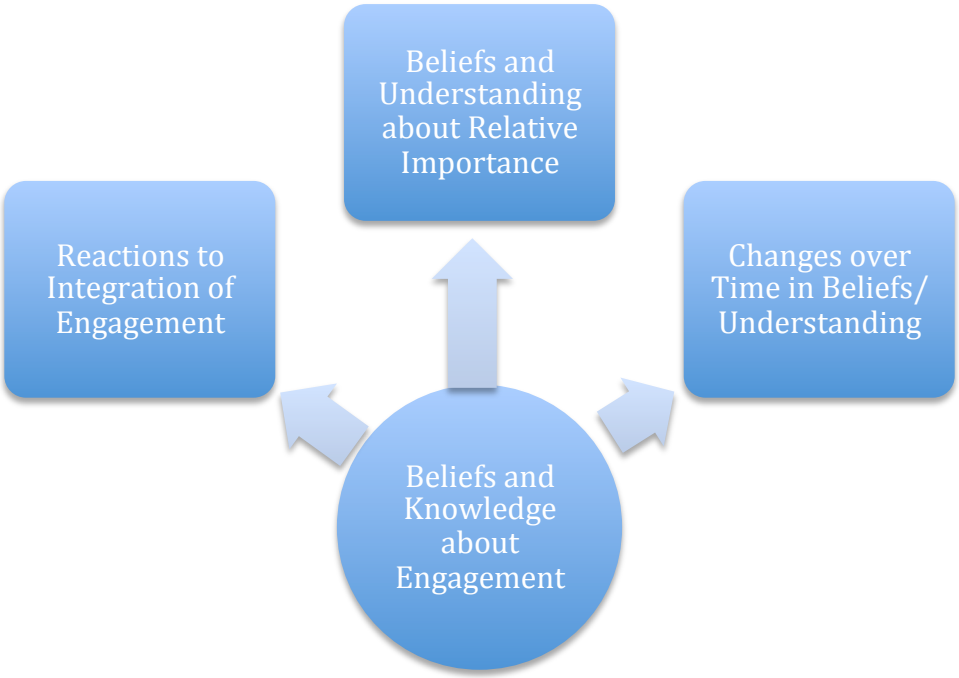


Figure 3.3. Primary Findings Related to Teacher Beliefs and Knowledge

Reactions to integration of engagement. All focal teachers expressed in the interviews that implementing an activity in which students were authentically engaged was the most difficult of all features (see Table 3.1 for teachers' specific beliefs about engagement). Interestingly, the three more expert teachers (i.e., METs) in this domain—Francesca, Abel, and Erin—believed it was the most challenging to implement even though, based on the observation data, they exhibited evidence to the contrary. The observation data verified that they were able to implement activities that met many of the criteria for both the meaningfulness and the academic language criteria (see Figure 3.2). Yet, the pre-survey and interviews indicated that they felt less confident with certain aspects of engagement.

Table 3.1.

Beliefs and Understanding about Principle of Engagement

Teacher Name	Reactions to Engagement	Beliefs about Relative Importance of Engagement	Shifts in their Beliefs and Knowledge
Abel	Hardest feature to implement, especially when also trying to use academic language	Essential to plan for it Very important	No observed changes
Francesca	Hardest feature to implement Particularly challenging with students with diverse learning needs	Feature is "half the battle" in creating effective activity Essential to plan for it Believes it is very important	She thinks more about the feature because of the PD
Erin	Hardest Feature to implement Struggled with integration because she worked with small group	Believes it is most important feature	Expressed that she figured out how to integrate feature in her context by phase 3
Louisa	Difficult to Implement with students with low oral proficiency	Believes it was very important feature	Little change observed
Charlotte	Very hard to implement. Used to creating tasks without any meaningful purpose attached.	Prioritized activity completion over engagement at start	Expressed support for feature Changed position about activity completion. Engagement her primary focus in planning Plans for this feature now Feels her students starting to like Designated ELD more after 2 months of PD
Adaline	Hardest Feature to Implement, but with no elaboration	Expressed having low knowledge and experience, but desired learning more Limited statement about it being very important	Thinks more about this feature because of the PD Plans for integration of feature now
Marina	Emerging Understanding—had difficulty discussing topic	Did not state explicit belief about relative importance until later phase of data collection	Little change observed

With the pre-survey, as illustrated in Table 3.2, the METs were asked to rate themselves on 3 items that measured how knowledgeable they felt about what instructional approaches were

effective and how to provide effective supports during ELD (see Table 3.2). It also asked how well prepared they felt with planning and implementing ELD lessons. Paralleling what they said in the interviews, the teachers judged themselves fairly critically in these pre-survey items with ratings that ranged between 2 and 3 on a scale of 1 to 5. By demonstrating this high level of self-critique, these data indirectly support my finding regarding how difficult they believed this feature was to implement in general.

Table 3.2

Pre-Survey Knowledge and Belief Items

Teacher Groups	Score Range from Self-Reported Items	References to Engagement from Open-Ended Item about Water Cycle Lesson
METs	*How knowledgeable do you currently feel about what instructional approaches are effective in supporting your students* 2, 3, 2 *How well prepared do you currently feel about planning and implementing ELD lessons?* 2, 2, 1 *How knowledgeable do you currently feel about providing effective supports?* 3, 2, 2	"I would make this activity more engaging by asking children to think of a time they'd seen water disappear or provide an experiment in which students could witness water disappearing. Alternately I would have students talk about experiences they had with water and where the water comes from…" "They have no authentic purpose for speaking. I would make them a reason to talk. Maybe tell them to that they will need to explain evaporation to ta 3rd grader and have them practice how they will do that with a partner."
MNTs	*How knowledgeable do you currently feel about what instructional approaches are effective in supporting your students* 2, 3, 2, 3 *How well prepared do you currently feel about planning and implementing ELD lessons?* 1, 2, 2, 2 *How knowledgeable do you currently feel about providing effective supports?* 2, 3, 3, 2	"I would probably have them talk throughout the text as opposed to just the end. After that, I'm not sure what I would do." "Use different sentence frames that help students break down the processes of the water cycle…"

Note: 1= Not very knowledgeable (prepared). 2= Somewhat knowledgeable (prepared). 3= Knowledgeable (prepared). 4= Very knowledgeable (prepared). 5= Extremely knowledgeable (prepared)

In the interviews, as mentioned earlier, all of the METs expressed that implementing the engagement principle was difficult, especially when working with students who had more diverse learning needs. Francesca's reflections encapsulate this point clearly. Working mostly with dual-identified students (i.e., ELLs and with mild/moderate learning disabilities), she tried to honor its inclusion within her activities. However, she expressed in the interview feeling disingenuous at times because she could not always follow through with connecting her lesson to a larger goal or project, such as taking a trip somewhere in the future. She also expressed struggling more than she was accustomed to doing because her students' engagement levels were

very low, making it "really, really, really rough in the beginning" to get them to focus on tasks and put forth effort to communicate (Third Interview, 1/28/16). At the same time, she pointed out that while their rate of progress was slower than more typically developing ELLs, she eventually sensed some improvement in these students' engagement levels due in large part to prioritizing this feature (Third interview, 1/28/16), which was corroborated in the observation data.

The more novice teachers (MNTs) in this domain (i.e., Charlotte, Louisa, Adaline, and Marina), similar to those with more expertise discussed above, believed this feature was very hard to implement. This general sentiment was also reflected indirectly in their responses in the pre-survey. Similar to the METs described earlier, out of 3 items in which they rated how knowledgeable and prepared they felt in supporting students during ELD, they scored themselves between 1 and 3 on a scale from 1 to 5 (see Table 3.2).

Moreover, in the interviews, the four MNTs diverged from those with more expertise in that they seemed either to struggle with discussing their views about the concept (e.g., Marina) or to express difficulty putting this concept into practice, with little elaboration about why (See table 3.1 for details of each teacher's beliefs and understanding). Charlotte, for example, admitted to having a hard time integrating aspects of this feature (e.g., getting her students to use more language than required and in instilling a deeper underlying purpose) because she was still accustomed to having them do tasks "for the sake of the activity." She said, "I am trying, but it's still hard for me" (Second interview, 12/08/15). One exception, as I described earlier in the case study, was with Louisa, who experienced some cognitive dissonance with engagement. She believed her students first needed to acquire a deeper foundation in English oral proficiency as well as acquisition of more formal features of language before they could benefit from activities that prioritized authentic engagement.

Beliefs and understandings about relative importance. These data showed that five of the seven focal teachers explicitly mentioned that instilling a useful and engaging purpose within an activity was an extremely important feature (see Table 3.2). Teachers said things like, "This feature was the most important," "[it]…resonated with me the most…" and "I think about this piece much more because of the PD even though it is hard to do."

Erin, Francesca, and Abel, those teachers with more experience and expertise in this domain, were the only teachers that commented in the first interviews how it played one of the most prominent roles in their planning for ELD activities. They added that fostering engagement was essential not only for monolingual students, but also for any student who struggled in the area of language. Francesca expressed, for instance, that integrating this feature was at least "half the battle" in creating an effective activity, especially since those with IEP's participating in designated ELD tended to have less developed language skills and lower levels of engagement. The pre-survey data corroborated these beliefs indirectly (see Table 3.2). Each teacher included in at least one of her responses some explicit attention to this feature's importance, such as Abel's comment to one of the scenarios when she wrote, "Students are only talking because the teacher assigned it to them. They have no authentic purpose for speaking. I would make them a reason to talk…" (Pre-Survey response).

While the other four MNTs—Charlotte, Louisa, Adaline, and Marina—did not express opposing viewpoints in the interviews, they also did not articulate the above sentiment with the same level of nuance. Half of this group—Louisa and Adaline—believed that it was very important, but provided little additional detail or explanation. Adaline, for instance, shared only

how this domain was an area she needed and wanted to learn more about and that she really enjoyed the learning process. The other two MNTs—Marina and Charlotte-- did not express in the interviews that it was a high priority in their planning explicitly until either the second or third phase of data collection. The pre-surveys also corroborated that this group placed less priority on the relative value of engagement compared to those with more expertise in that none addressed this feature directly in any of the items that requested participant feedback. Teacher responses about the pre-survey item pertaining to the water cycle lesson are used to highlight this trend (see Table 3.2).

When triangulating the mini-surveys, which were brief anonymous surveys that all teachers completed at the end of each face-to-face PD live meeting to elicit feedback about what content they found new, repetitive, applicable, and potentially helpful, with the interviews, I found indirect corroboration of these trends in that several other teachers participating in the hybrid PD also believed that the principle of engagement was very important. Evidence was indirect because these surveys did not ask teachers specifically to reflect on each of the three features like the interviews. Rather, it only asked what aspects of the live session they found to be helpful. I found that approximately 15 attendees indicated in the latter two live-session surveys that they found this feature to be really helpful, with another four indicating that they found this feature to be the most important.

These data from the larger hybrid PD group verify that these sentiments were not confined to the small focal group, but instead, were felt by over half of the larger group attending the live sessions of the PD. While we do not have any data that illustrate the nuance of this larger group's beliefs regarding engagement, we know that the majority felt it was important and helpful.

Additional difference in teacher knowledge. The evidence from the work assignment submissions, in which teachers documented an activity they implemented, suggests that there were some differences in these teachers' knowledge of engagement. Those METs submitted activities that accounted for the feature of engagement more thoroughly than those teachers with understandings that were emerging. The comparison of the following examples encapsulates most clearly this trend between the groups.

A typical activity among those with more expertise was one in which the students had to research their school's homework policy in response to their principal's decision to change the policy due to parents' complaints. The principal wanted to hear the students' views about the matter, so they had to generate reasons to support their position in preparation for a debate. In contrast, a typical activity of one of the MNTs required the students to choose a favorite family member and give three reasons why, followed by choosing their favorite friend with three supporting reasons. One of the peer evaluators, in fact, critiqued this latter activity, as it did not seem interactive or engaging for students. She asked, "What real life appeal was there? Next time design your lesson around a topic of high interest for your students" (MOOC Assignment One). In making this comment, this peer evaluator corroborated the lack of explicit purpose underlying the activity as well as any long-term goal. In short, the challenges in creating engaging activities emerged not only in my observations, but also in the initial work assignments these two groups of teachers produced.

Changes over time in beliefs and understanding. While Marina, Louisa,

and Abel did not explicitly illustrate any detectable changes in their articulated beliefs and knowledge, Francesca, Erin, Charlotte, and Adaline did express that they thought much more about how to integrate this feature into their planning because of the PD (see Table 3.1). Francesca and Erin, for instance, whose practices of this feature were found consistently strong across the three phases of data collection, reiterated how critical a role it played in making an activity effective, while Charlotte (highlighted in the case study earlier) and Adaline exhibited these beliefs and understanding in different ways by the end of data collection. Adaline, for instance, commented at the end how the engagement feature "resonated with her more than the other features" (Interview Three, 1/21/16). Unfortunately, Francesca and Adaline only completed the pre-survey and work assignment, while Charlotte completed just the pre-survey, thereby making it difficult to corroborate their self-reflections using other data sources (see Table 3.3). One exception, however, was with Erin.

Table 3.3

Completion of Other Data Sources

Focal Teachers	Pre-Survey	Post-Survey	Work Assignments
*Erin	Yes	Yes	4 of 5
*Francesca	Yes	No	1 of 5
Abel	Yes	No	1 of 5
*Adaline	Yes	No	1 of 5
*Charlotte	Yes	No	0 of 5
Marina	Yes	No	1 of 5
Louisa	Yes	No	2 of 5

Note: * indicates showing evidence of change in beliefs and understanding

Erin, as mentioned earlier, initially struggled with the engagement feature not because she lacked a nuanced conceptual understanding. Rather, she had trouble in figuring out how to apply the engagement feature in her setting because she worked with a very small group of 3-5 students requiring more support in a Response to Intervention (RTI) setting for only 30 minutes per day. She initially thought this feature would be easier to implement as a general education teacher since they worked with their students throughout the day and across different content areas. For this reason, she struggled to figure out how to integrate a deeper, underlying purpose into her activities in a way that students would find meaningful.

These data confirm, however, that she changed her view by the middle and last phases of data collection as evidenced by her reflections in the interviews, her later work assignments, and

integrating these goals into her activities. For example, in the first observation, she did not include a deeper, underlying purpose to the activity. In the next two observations, however, she implemented activities containing a longer-term goal that seemed meaningful to her students, such as collecting evidence from texts to make a cake and in writing their own story containing the structural elements of a fairytale.

This change was also corroborated in one of her later work assignment submissions in which she described a high-interest activity that paralleled the students' elections at their school. She reflected that her students found this activity meaningful based on their focus levels on the task as well as the effort they demonstrated in participating, as part of the lesson required them to discuss and create graphs related to the school's election. She wrote in her reflection, "I observed that students who are usually most comfortable giving nonverbal responses pushed themselves to use more language and express themselves in a word, phrase or even in a complete sentence" (Work Assignment from Erin).

Impact of engagement on students with diverse learning needs. Some of the teachers noticed that the engagement feature was particularly supportive of some of their students who had more diverse learning needs. Erin, Francesca, and Abel (i.e., those with more expertise), and Adaline remarked, for instance, that the PD's strategies on engagement were approaches they tried to integrate with all of their students across the different content areas, as they represented just "good teaching techniques" (Third Interview with Abel, 1/27/16). Adaline commented, "…they're pretty much good strategies for ELLs and for students…who are having a hard time…[and] extendable for higher students too" (Interview Two, 12/10/15). These comments revealed a minimization of differences between these two groups of learners in the utility of these strategies.

Erin and Francesca, two METs, were more specific about the positive impact of engagement. They believed that their students with diverse learning needs were, in fact, exhibiting higher levels of engagement in these activities by the end of the PD. Erin, for instance, remarked how one of her students, Marcos, seemed "much more engaged… [as evidenced by] producing more work, [being] more engaged, [and] calmer" (Third Interview, 1/25/16). Abel and Francesca also observed that while they appreciated the positive impact these strategies seemed to be having, these students' rates of progress were still slower than the more typically developing ELLs. Thus, they still found themselves needing more help in the classroom to support these students in the activities to maintain their engagement in the activity. In point of fact, I found strong evidence of higher student engagement in the last observation, in comparison to the first observation, when she had an additional credentialed teacher supporting students with diverse learning needs. These findings suggest that even with teachers who have more expertise in this domain, having some extra support in the classroom may be necessary to maintain these students' engagement in the activity.

Effects of PD on the Practice of METs

As a reminder, all of the focal teachers demonstrated similar reactions to the ongoing challenges associated with integrating the engagement feature effectively. Despite these commonalities, the observation data illuminated more differences in how effectively these teachers implemented this feature in practice. From the first observation, these data show that the three METs tended to be more effective in implementing activities that integrated the engagement feature than the MNTs, at least as indexed by their scores on the engagement criteria

(i.e., doing something meaningful and preparation to use language for academic purposes). In contrast, the MNTs—i.e., Louisa, Adaline, Marina, and Charlotte—showed consistent evidence of struggling more in their implementation of both aspects of engagement (i.e., doing something meaningful and preparation to use language for academic purposes), especially in the first two observations. For this reason, I explain these findings in more detail by describing the effects on both of these groups.

Those METs by and large exhibited mild change over the three phases of data collection in their implementation of the engagement feature. A few exceptions were evident: (a) the case of Erin's journey described earlier and (b) a subtle increase in the time these teachers dedicated for students to talk (see Tables 3.4, 3.5, and 3.6 for details with each MET). Of equal importance, however, was the finding that they also showed evidence of being effective in implementing activities that most students found meaningful from the beginning of data collection, when measured by the criteria outlined earlier (see Figure 3.2)

Table 3.4

Types of Talk in Erin's Classroom

Observation Phases	T-O Talk	TWG Talk	T-S & S-S Talk	Miscellaneous	Approximate Minutes of Class
Observation 1	8 min	N/A	15 min	2 min	25 min
Observation 2	10 min	N/A	12 min	3 min	25 min
Observation 3	3 min	N/A	19 min	3 min	25 min
Totals	21 of 75 min.	N/A	46 of 75 min	8 of 75 min	75 min

Note: N/A refers to absence of TWG talk because she only had 3-4 students in her group.

Table 3.5

Types of Talk in Francesca's Classroom

Observation Phases	T-O Talk	TWG Talk	T-S & S-S Talk	Miscellaneous	Approximate Minutes of Class
Observation 1	N/A	N/A	N/A	N/A	N/A
Observation 2	2 min	8 min	12 min	3 min	25 min
Observation 3	2 min	4 min	22 min	0 min	28 min
Totals	4 min.	12 min.	34 min.	3 min.	53 min.

Note: N/A Indicates missing observation

Table 3.6

Types of Talk in Abel's Classroom

Observation Phases	T-O Talk	TWG Talk	T-S & S-S Talk	Miscellaneous	Approximate Minutes of Class
Observation 1	5 min	11 min.	12 min.	2 min.	30 min
Observation 2	2 min	13 min.	15 min.	0 min	30 min
Observation 3	3 min.	8 min.	18 min.	1 min	30 min
Totals	10 of 90 min.	32 of 90 min.	45 of 90 min.	3 of 90 min	90 min

Note: T-O= Teacher-Only, TWG = Teacher Whole Group, T-S= Teacher-Student, S-S= Student-Student

Engagement in practice. Below is a transcript of a typical lesson occurring in Erin's classroom, which highlights an instance in which students were doing something meaningful with language beyond just being compliant with teacher expectations. In this segment, students were discussing a rendition of the Three Little Pigs tale and learning about story structure. The underlying purpose was that they were preparing to write their own stories, using a similar story structure as this fairy tale. In this segment, Erin was revisiting the content of a few of these stories that she had had her students read in the past.

T: So, the wolf blows the first house down [writes this down on white board]. Luke (L) reiterates softly what was just said. Is that how the story ends?

Ned (N): No…no…no. The 3rd little pig has the [???] house so um.. the pig the little pig the wolf I meant cannot blow the house down so it ran out of breath and it gave up

Ben (B): yeah, like, because like the 3 little pigs the stones too hard like the bricks. Bricks are harder than…than… other things [strong Spanish accent].

L: So the wolf checks the…um 3rd little pig in to going to like…stores so he eats him. So…so the…so it's the pig goes earlier than…earlier than the wolf says.

T: What is he trying to tell us?

B: Um…he's trying to tell us that…the wolf tricked the 3 little pigs…and no…the wolf tried to trick the pig…

T: Which pig?

B: the 3rd pig. By going to all the carnival and all the other stuff but the pig reaches there before and then the pig distracts the wolf to..[other students chime in with their thoughts, but hard to decipher what they say.]

N: yeah the butter barralll…the pig he went down to the carnival because he afraid that the wolf gonna eat em so the wolf I think went after him."

B: yeah, [he agrees with smile]. …afraid the wolf's gonna eat em.

T: mmm. I heard X say butter barrel. Does anyone know what he's talking about when he says a butter barrel?

L: [the three start talking, but L overrides the others] --he's talking about the…the butter churn… [6:01]

[The other students say 'yeah' in agreement, and the discussion moves on to talk about the term "churn".]

This excerpt exemplifies a fairly typical activity in that the students demonstrated sustained effort to communicate their ideas not just with the teacher, Erin, but also with their peers. This dialogue in which teachers and students shared responsibility for both speaking and influencing the content of discourse lasted about 19 of the 25-minute period, with the dominant discourse patterns consisting of teacher-student dialogue (see Table 3.4). Field notes show that students remained focused throughout this task based on their eye gaze toward the speaker and in their on-topic contributions. They also showed evidence of using more language than what was required as they tried hard to communicate with and understand each other as evidenced by responding to each other's comments and Erin's questions. She also incorporated various strategies to maximize students' engagement by asking open-ended questions that built upon topics that seemed of interest to the students, such as the wolf tricking one of the pigs. Rather than exercising full control over the discussion, Erin influenced the general topic, but demonstrated flexibility in elaborating upon comments generated by the students. In this way, the students' contributions to the dialogue influenced some of the topics of discussion.

Trends and changes in talk. This group of METs articulated throughout the interviews and in their work assignments a clear bias toward maximizing purposeful student talk from the beginning (see excerpt above as a case in point). Francesca, for example, pointed out that there seemed to be an inverse correlation between her talking to the whole group and their level of engagement—the more she spoke, the less engaged her students tended to be. Erin's reflection typifies the general sentiment of this group when she said, "In the past maybe I would have had more of an agenda of where I wanted them to get with the conversation. And now… I just want to hear what [they're] thinking. I want to hear [their] talking. I want to hear [them] talk to each other." In other words, these teachers valued carving out ample time not just for students to communicate, but also to allow them to exercise some choice in the flow of discussion. These strategies, in turn, may have supported their students observed engagement levels in the activity.

These beliefs also mapped consistently onto their practices (see Tables 3.4, 3.5, and 3.6). These tables provide a breakdown of the estimated talk configurations across the three more experienced teachers. Although the data do not capture in sufficient detail the quality of individual student discourse practices, they do highlight who was talking and how frequently. It is important to note that one type of talk is not necessarily superior to another, as the literature shows how several forms of talk are important in the context of a dynamic classroom (Juzwik et al., 2013). The emphasis of the PD, however, was to increase student-student talk by having

them engaged in activities that they perceived as meaningful. Therefore, in this case, the PD was promoting student participation over Teacher-Only talk (T-O) types of discourse trends.

The latter category (T-O) represents those times in which the teacher was the only speaker involved in communicating. In these instances, she was either the only one talking or was the predominant speaker with minimal participation from the students. A typical example of minimal student participation might be times during which a teacher provided instruction, but made intermittent requests for a choral response among the students. Another instance that would be categorized as T-O would be if the teacher provided modeling without student participation. Teacher- Whole Group talk (TWG) consisted of instances in which the teacher was the dominant *facilitator*, engaging the whole class, with several attempts to draw out student participation from multiple students. One example of this might be if a teacher provided modeling on how to do an upcoming activity, but had students participate in the process. Another example would be those instances in which the teacher tried to engage the students in a whole class dialogue. Teacher-Student talk (T-S) is defined as times during which the students actively participated in the dialogue with at least one other peer, with the teacher playing the role of facilitator.[1] Student-Student (S-S) talk was when at least a pair of students was talking about the task without the teacher being present. In this study, S-S[2] and T-S talk happened simultaneously in overlapping fashion in most instances, as the teacher circulated the paired groups to help facilitate and provide support (i.e., during S-S interactions). While in ideal circumstances, S-S and T-S categories would best be kept separated, I decided to aggregate them due to the fact that these two categories were hard to disentangle. In contrast to the MNTs, those METs demonstrated a consistent pattern of valuing students' active role in talking by building it within their planning.

These data reflected in tables 3.4, 3.5, and 3.6 above show several findings. First, there is an increase in the time dedicated to having students engage in discourse practices, especially when factoring in TWG talk. Second, they show minimal periods of time during which the teachers were the only speakers (T-O talk) dominating the discourse. These findings also corroborate the teachers' professed beliefs and values about the need to get students engaged by talking purposefully, which they articulated in the interviews and emphasized in the work assignments. Third, these data provide additional support to the claim that they entered the PD with more expertise in this domain in general. Each of these teachers, when examining the minute-breakdown in the first observation, dedicated a large number of minutes toward creating that instructional space within which students were able to communicate. As I show later, they dedicated far more minutes than the MNTs in this domain.

Challenges with engagement. Despite the evidence showing that this group with more expertise was able to implement lessons in which many of the students showed signs of being engaged across all phases of data collection, these teachers expressed how they still struggled with incorporating this feature to some extent. They talked in the interviews, for instance, about how this was an ongoing challenge that they worked hard to overcome. This finding was

[1] There were very few instances of T-S talk happening without additional students involved except in the rare occasion when students were working quietly and independently while the teacher spoke with one other student.
[2] One methodological challenge with S-S talk were those occasions when the teacher tried to institute this participatory structure, but the students engaged with each other only minimally, or they exhibited evidence of off-task dialogue.

corroborated in the observations, particularly with Francesca and Abel both of whom taught larger groups of students than Erin.

Sometimes, these audio recording data captured instances (with all focal teachers) of peer work with and without the presence of an adult (i.e., S-S talk). Without an adult present, their conversations would sometimes be silly and off topic. An example from Abel's classroom typifies this tendency. During the part of a lesson when students were working with a peer, I found that the majority of students seemed engaged (e.g., focused on task and making an effort to communicate), but upon closer observation, I observed one dyad who worked hard while Abel was within hearing distance, but then started quietly discussing something off-topic (one of the partner's teeth) as soon as Abel walked farther away. Soon thereafter, Abel walked past these girls again and reminded them they had one reason written down when she was with them before, and that she expected them to have one more by the end of class. In response, the two girls nodded, but then kept talking about the loose teeth once Abel was out of earshot.

This instance illustrates how all the teachers wrestled with creating activities that fully motivated and engaged the students to use language purposefully all of the time. Off-topic discussions, one type of behavior signaling a lack of engagement, while I observed it occurring with most of the teachers, these types of behaviors were less obvious and occurred with less frequency with the group of METs than with the MNTs in this domain.

Engagement and linguistic supports. Interestingly, those METs showed evidence of how their use of linguistic supports, in contrast to the MNTs as I describe below, did not necessarily stifle purposeful and engaging conversations about academic content, as evidenced by those data from Erin, Francesca, and Abel. These teachers also provided, valued, and relied on these same types of linguistic supports, such as language frames. In fact, evidence suggests that they had more supports present than the MNTs. Two of these teachers, for example, provided laminated index cards for *each* student to have and to use throughout the school year with a variety of conversational language frames to support how they might start to say something. Yet, in contrast to the MNTs (i.e., Adaline, Charlotte, Marina, and Louisa), they did not articulate having as much difficulty getting them to engage in purposeful discussions, nor did I observe these over-scripted characteristics in the observations. Abel's observation in a later interview illustrated how she believed the frames were sometimes helpful prompts in generating purposeful dialogue using academic language when she reflected the following:

> It's funny, because it does seem like [linguistic supports] would be less authentic. …but because they don't even have the beginning language to get started in an authentic conversation, that crutch gets them going. And like you'll hear it'll sound very authentic, but they will say – and they'll [pause and] look at the chart. And they'll say, "Well, another problem was," and then they launch into an authentic. But I feel like – that feels okay to me, because it gets them going in it. And without it they just literally sit there and stare at me (Abel Third Interview, 1/27/16).

Basically, she noticed that her students were showing evidence of "trying on" some of the more academic linguistic structures without mitigating the authenticity of their discourse. In this way, she felt the supports were serving their intended purpose. At the same time, she felt that these

more academic linguistic expressions and language use were still not a natural part of their lexicon.

As a point of contrast, Francesca, who worked with a more disengaged student population many of whom were identified as having a learning disability relative to Abel and Erin's students, had a different view. While she concurred with the importance of using linguistic supports as described above and showed ample evidence of integrating them ubiquitously within her lessons, she also voiced some limitations about their relative effectiveness in getting them to practice using the more academic linguistic structures. She explained in an interview how some linguistic supports, such as language frames, word banks, larger visuals, miniature cards, and many more, were helpful, but only to a point even when she was in close proximity to the student pairs. She believed that while these were critical to fostering purposeful student engagement and communication development, her students did not typically utilize them. She found that any effort in "forcing" students to rely on them to augment their academic discourse backfired because, according to her, they were too distal from their natural use of language.

In other words, these observation data confirmed that these three METs were more apt to refrain from *requiring* students to use these linguistic supports in their interactions with their peers. They sometimes were observed encouraging students to use them, and they consistently put them into practice through modeling, but they were not observed requiring that they use them in their dialogue. These teachers were frequently observed modeling for students the language frames and integrating them into their own interactions that they were having with either the whole class or individual students.

Effects of PD on the Practices of MNTs

The observation data show that the MNTs struggled in the beginning to prepare and support students to use language for academic purposes as well as implement activities in which students met many of the criteria of engagement. As I show next, the initial characteristics distinguishing this group from the other consisted of largely low-interest activities during which students were often engaged, but in a manner that showed compliance instead of authentic engagement that the PD emphasized. Also, the activities were frequently over scripted, focused on formal features of language, and dominated by teacher-talk. However, two of these four MNTs – Adaline and Charlotte-- showed evidence of developing more effective practices later in the data collection phases, while the other two teachers—Marina and Louisa— exhibited fewer shifts over time in their knowledge and practice.

These trends were corroborated in the teachers' interviews, such as when Marina lamented, "What can I do to get them to talk with each other?" or when Charlotte said in the first interview that despite her efforts to provide a variety of linguistic supports to the group, her students tried "to give feedback, although they didn't really have much to say" (interview, 10/15/15). I found similar statements from the other two teachers, using language to describe the students' work behaviors like, they're "doing the bare minimum," or in their difficulty in getting the students to have "real conversations."

Engagement in practice. In practice, most of the students with the MNTs displayed little evidence of talking more than expected or trying hard to communicate and be understood. Instead, they displayed an orientation towards compliance of the teacher and/or activity demands. Students in this context, while still completing the tasks, were not motivated

necessarily to ask additional questions or make comments beyond that which was expected of them. They also frequently lost focus if/when their teacher was not in close proximity, especially when they were not aware of—or had forgotten—the underlying reason for completing the task set before them. A segment from Marina, a MNT, typifies students' engagement levels early in the course.

Robby (R): Ethan didn't even share!

Teacher (T): OK—Ethan, share your thing…What is your idea?

[Ethan remains quiet.]

T: Ethan, read your post it.

R: I did the same thing as hiiiim… [whiny voice]

T: you did the same thing as Ethan? Ethan, can read your post it? Read it to Robby. Ethan, can you read one post it? Read it to Robby.

Ethan reads one very quietly to Robby such that it is inaudible.

T: Can you help him [i.e., Ethan] stick it onto the scale? Let him do it?

[Students do this.]

T: And show it to him so he can see it too in the middle?

[Teacher goes to another dyad. Ethan and Robbie stop working on the task.]

This excerpt exemplifies how the students often spoke out of compliance with teacher expectations, such as when the teacher was in close proximity. Additionally, these boys lacked focus on the task and exerted little effort in communicating with their partner, responding only to those questions from the teacher. Other typical scenarios involved a lack of authentic dialogue among the students, often speaking in hushed tones, barely audible.

Emphasis on language form. The observation data also show that in the first phase of data collection (and for some the second phase), many of the MNTs tended to implement activities with an approach to language learning that focused on features of *language form*, which is comprised of an array of rules having to do with pronunciation, correct grammatical syntax, or vocabulary acquisition taught in a manner devoid of context and content (Online Module Curriculum created by Understanding Language for Smarter Balanced Assessment Consortium, 2014), rather than meaning. The PD, knowing that providing instruction in grammar and vocabulary was also very important, and mentioned in at least 20 instances throughout each phase of the PD, referenced that this development was more effectively accomplished when couched within a meaningful context and engaging content.

Two reminders from the earlier case studies for Charlotte and Louisa highlight the focus on *language form* over *function*. For instance, Charlotte expressed that her typical strategy for supporting those who were requiring more support with language was to monitor their dialogue closely during their work with peers so that she would "be there to correct [any grammatical errors] right away" (First Interview, 10/13/15). In these situations, as described in more detail in her case study, these students communicated just enough to be compliant. Louisa, on the other hand, required students to follow the language frames as the primary medium for getting students to practice using language, which often detracted from the students' exercising some choice in shaping the dialogue. In the case of vocabulary, Marina typically rehearsed new terms chorally from a power point slide, followed by covering the terms to have students practice aloud, and then finished off with a quiz. While learning vocabulary is certainly a relevant and purposeful set of knowledge they need in their schooling, this practice reduced opportunities for rich dialogue to take place, and many of these students seemed to lack focus.

Over-scripted activities. The MNTs exercised more control over the content of what was discussed and, to some degree, how it was communicated among the students by initially implementing lessons that were heavily, if not overly, scripted. Evidence of this existed not only in the observations, but also in some of their work assignments. For instance, one activity required students to generate three examples of what they thought it would be like to be an immigrant. This teacher used a series of language frames as her primary strategy to get students to extend their dialogue as well as a formal presentation to the class. The observations, however, highlighted this trend in more detail.

The following example from an early observation typifies this approach to fostering purposeful communication, which resulted in an overly scripted activity and lower levels of engagement. In the first observation, Adaline's students were asked to complete a semantic map containing fact-based questions about bean plants as they listened to Adaline read aloud from an informational text slowly (see photo of semantic map in Figure 3.4). The students were asked to record information from the text and to use it as a scaffold for discussing their answers with a peer. However, Adaline expressed in an interview that in an effort to support them, she consistently alerted the group ahead of time when she was about to read a section of text that contained the answers. Thus, there was little room for hedging guesses or answering more open-ended questions about the topic.

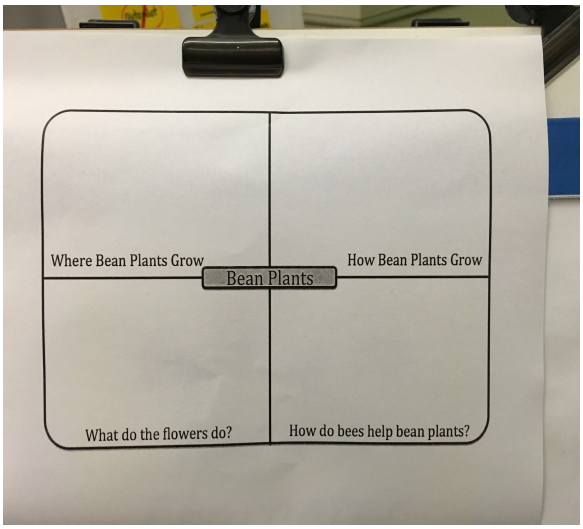


Figure 3.4. Photo of Graphic Organizer used by Adaline's students in first observation

Furthermore, Adaline explained in an interview that in an effort to get students communicating, she provided the students with a "menu of options" for how to start, maintain, and finish these conversations with peers. They had visuals of language frames supporting how to talk with their partner with what questions to ask and different possibilities for how to respond (see Figure 3.5).

"I think that _____ because _____."
My opinion is _____ because _____. One example that supports my opinion is _____.

Figure 3.5. Language Frames Adaline Used

Verbally, she provided much structure prior to the paired work, which is exemplified in the segment below.

> Adaline: Let's stop and check in with partners, A and B. So A's, I'd like you to ask your partner: focus just on where the bean plants grow box. A's, ask your partner, 'What information did you hear?' Watch me [she uses hands as she demonstrates what to say.] Use your finger as a tool to keep track of all the things you heard.

At this point, the students began to interact with their partners, following her directions. After a few minutes, she then told half the students to ask their partner the following:

Adaline: “Is there something I wrote down that you did not write down? B is supposed to ask A, ‘What information did you hear?’ And, B’s-- what should you be doing?”

Whole Class: “Listening!”

Adaline: Write it down if you don’t have it (First observation 10/15/15).

My field notes showed that the majority of the students shared answers with their partners, but not in an audible manner. They were observed reading exactly what they wrote from the graphic organizer in quiet voices. They seemed to demonstrate a compliant form of engagement, to meet the teacher’s expectations, as evidenced by the lack of effort they exhibited to communicate or in using more language than what was expected, such as rephrasings or follow-up questions. There was also little evidence of non-verbal types of engagement, such as animated facial expressions or changes in their tone of voice while talking with their peer.

The interview data suggest that Adaline was well aware that students’ discourse patterns were not what she was expecting or desiring. She wanted them “to feel like they could share information with each other” (interview with Adaline, 10/15/15), but found that these scaffolds seemed to be used just to “fill in the blank” rather than her intended purpose of having them be used to engage in authentic discourse about the text (interview, 10/15/15). On the one hand, Adaline provided substantial linguistic scaffolding in how to proceed with their interaction about the text that they were reading. On the other hand, she struggled to engage her students, as many were not exhibiting many of the criteria of engagement as described above.

Change in engagement. By the last observation, Charlotte and Adaline showed evidence of implementing activities that met more of the criteria of engagement. For example, in the second observation Adaline had students work on the controversial topic of endangered animals, examining sharks and whales. The students were asked to imagine being given a lot of money to donate to saving one of the animals, but not both. They were asked to collect evidence in preparation for defending their position with students who supported the other animal. Field notes showed an increase in engagement as evidenced by students making more of an effort to communicate with each other, using more language than necessary, relative to the first observation. They also had more time reserved to talk and interact, and they were observed raising their hands to participate during TWG-Talk. They also showed increased focus by listening to the speaker and in working on the peer-based task.

Trends and changes in talk. This group of MNTs began the PD by largely dominating the talk that took place in the classroom, although there was variation in the degree to which this was observed (see Table 3.7 about Adaline for a typical example). Nowhere was change more apparent, however, than with these teachers’ efforts to share the responsibility of talking with their students. While these overall shifts in the distribution of talking were not necessarily synonymous with increases in the quality of student talk (the ultimate goal), as these data did not capture this level of detail, there was a clear shift in responsibility as evidenced by the quantity of time for students to communicate and in the types of participatory structures that were observed. Below is an example from Adaline, which typifies for this group the change towards increased opportunities for students to talk.

Table 3.7 provides an estimate of different configurations of how classroom talk was distributed across the three phases of data collection. We notice that there is a downward trend in the number of minutes that Adaline spoke without student participation (i.e., T-O talk), spanning from 15 to 9 minutes. There is also a general upward trend in talk that involved the students, with slight individual inconsistencies over time in the TSW and T-S categories between phases two and three and S-S Talk between phases one and two. By the last observation, these numbers shifted more significantly in favor of student communication, especially if we collapse T-S/S-S and TWG categories, as these both involved the teacher actively seeking student participation. Thus, we see an upward trend when combining these categories from 10 minutes in phase one to 20 minutes in phase three.

Table 3.7

Talk in Adaline's Classroom

Observation Phases	T-O Talk	TWG Talk	T-S & S-S Talk	Miscellaneous	Approximate Minutes of Class
Observation 1	15 min	1 min	9 min	3 min	28 min
Observation 2	13 min	10 min	6 min	2 min	31 min
Observation 3	9 min	8 min	12 min	1 min	30 min
Total Minutes	37 min	19 min	27 min	6 min	89 min

Table 3.8

Talk in Abel's Classroom

Observation Phases	T-O Talk	TWG Talk	T-S & S-S Talk	Miscellaneous	Approximate Minutes of Class
Observation 1	5 min	11 min.	12 min.	2 min.	30 min
Observation 2	2 min	13 min.	15 min.	0 min	30 min
Observation 3	3 min.	8 min.	18 min.	1 min	30 min
Totals	10 of 90 min.	32 of 90 min.	45 of 90 min.	3 of 90 min	90 min

These data also show a marked difference in the first observations between those METs vs. the MNTs. Notice in tables 3.7 and 3.8, for example, how Adaline practiced T-O talk for half of the 30-minute period, whereas Abel engaged in only 5 minutes of T-O talk. Abel, moreover, had 12 minutes of T-S and S-S talk as well as 11 minutes of TWG talk for a total of 23 minutes of dialogue in which the students were active participants. In contrast, Adaline had a combined total of 10 minutes. This difference over time is representative of all the focal teachers as well as one of the criteria for what constitutes a teacher having more expertise vs. being more novice in this pedagogical domain (with Louisa as the one exception).

Student feedback. Another way in which I gauged change and trends over time was by informally asking students about what they thought their teacher was hoping they would learn

and the goal of the particular task. While the observation data tended to show some shifts in teacher practice related to engagement, the student feedback did not reflect change in awareness across the whole student group. With one exception (Charlotte's classroom), I found little change between phases two and three in student metacognitive awareness of underlying lesson goals. When asked, most students described the logistical details involved in doing the task, making comments such as, "She wants us to improve our answers" (Second Observation, Charlotte, 12/08/15)) or "You're supposed to read the story and…if it tells you that like it's a great hunter then you like…" (Third Observation, Marina, 1/26/16). The second most common student response was a simple shrug of their shoulders, indicating that they were not sure or did not understand what I was asking. So, most students did not identify the larger, underlying purpose embedded in the activities. Then again, these data were incomplete as I decided to check in with students beginning in the second phase, and there were several instances during which I was unable to converse with them again.

Summary

Findings show a convergence in the focal teachers' beliefs about the importance of and challenges associated with the engagement feature and its role in cultivating purposeful communication about academic content. Differences emerged in teachers' understanding of this concept and how the concept was instantiated in their practices. A helpful framework for understanding some of these differences was to examine the teachers' relative degree of expertise in this content domain, as this characteristic related to how they articulated their understandings as well as any changes that I observed occurring in both their understanding and practice.

These data confirmed that while their self-reported beliefs about the difficulty and importance of engagement aligned, the MNTs (i.e., Adaline, Marina, Charlotte, and Louisa) exhibited less sophistication and nuance in how they articulated their understanding, often providing brief reflections about how they tried to integrate and plan for it in their lessons. With the exception of Adaline, they also exhibited an emerging understanding of the concept. Louisa, for example, believed she could not integrate this feature into her activities when her students' proficiency levels were at a beginning level, supporting the more traditional view that language learning consisted of mastery of its formal features out of context from meaningful content. Observations from the first two phases corroborated these findings in that their students did not meet many of the criteria of engagement. These teachers were well aware of this and motivated to change this trend. Nevertheless, findings indicated that all of the MNTs initially had difficulty integrating this feature of engagement in practice. For example, they picked low-interest activities and used linguistic supports, such as language frames, that seemed to stifle authentic dialogue (e.g., scripted conversations) rather than promote it. They also accorded little time for students to talk and used basic participatory frameworks, all of which contributed to a form of engagement that was better explained by compliance rather than authenticity.

Those METs (i.e., Erin, Abel, and Francesca), on the other hand, expressed similar beliefs about its difficulty and importance, but they did so in more detail, providing more nuanced answers about why and in what ways it was challenging, yet critical. They were the only teachers, for instance, that explicitly commented in the beginning how and why it played a critical role in their planning of ELD activities. For instance, they expressed a clear bias toward maximizing time for students to communicate from the beginning as well as choosing activities

that were as high interest as possible for students. Initial observations corroborated this more nuanced understanding, as their activities were planned and implemented in a way that prioritized student engagement. Students also met several of the criteria of the engagement feature in each of the observations.

Regarding change over time, the MNTs exhibited more concrete changes in their practice and articulated understanding by the last observation than the METs. At the same time, evidence indicated that even by the end, the latter group demonstrated greater effectiveness in practice when measured by student engagement criteria. Those with more expertise also consistently expressed a nuanced perspective about the ongoing challenges and successes that they experienced, such as their desire to see their students generalize linguistic scaffolds to support academic uses of language without the teacher being present.

The MNTs, in contrast, showed a mix between relatively modest (e.g., Louisa) to more explicit (e.g., Charlotte) changes in practice. The majority showed evidence of more effective planning to make the lessons more useful and engaging, such as affording more time for students to talk about new content and choosing higher interest topics for the activities. Students, moreover, showed an increase in the amount of talking they did, and teachers diversified their participatory structure as well. One limitation I found was that my data did not capture the extent to which there were changes, if any, in the quality of student discourse.

CHAPTER FOUR: SHIFTS IN TEACHER KNOWLEDGE, BELIEFS AND PRACTICES RELATED TO THE PRINCIPLE OF INFORMATION GAP

The purpose of the *information gap* is to effectively increase student engagement and communication by designing activities wherein students have to acquire information that they wanted or needed, but did not yet have with the long-term goal of strengthening their academic language. In this chapter, I analyze the shifts and trends in how teachers promote and integrate an information gap in their activities during designated ELD in order to answer my research question: *How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize an information gap in order to promote the development of students' language and communication development in English?*

Information Gap

I have organized the chapter into the three sections: (a) a synthesis of how the information gap was presented in the Massive Open Online Course (MOOC); (b) two case studies highlighting the journey of the same teachers and how they internalized, processed, and transferred information about the information gap from the MOOC; (c) an analysis of trends across all teachers related to the information gap. I hope to account for and explain through these analytical lenses the salient patterns in how they processed, interpreted, and put into practice this feature across the three phases of data collection.

Information Gap in the Hybrid Professional Development

The professional development (PD) emphasized that if you wanted students to engage in using proper language forms, then you had to ensure that they were asked to do activities for which there was an authentic purpose. The idea was for students to think: "I can't do my part of the task until my partner tells me or shares something. I want to find this out!" The goal was to cultivate an underlying tension "that results from wanting to communicate, but not being exactly sure how" (Session Two Screencast, MOOC, 2015). In this way, the effective integration of the information gap feature was a primary mechanism for fostering *authentic* communication in which "there is a need and desire to use original language to describe one's own ideas for a reason. Language is meant to be used for real purposes, to bridge 'information gaps.' When students truly want to express and receive a message to get something done—as opposed to using language just for show or points—they will push themselves to use more and clearer language"(Zwiers, O'Hara, & Pritchard, 2014). This feature was a critical step in achieving a larger end goal.

Multiple activities were discussed across each session to demonstrate the information gap's application, trying to account for different oral proficiency and primary grade levels. In the MOOC, I found about 15 instances in which an activity was described in sufficient detail that a teacher could use it as an initial springboard in his or her own classrooms and about 10 instances in which the definition was provided in various contexts. These activities demonstrated a range of information gaps, such as scenarios in which the teacher had information the students needed or when one student had information needed by his peer(s). Some examples include using two different podcasts, sharing opinions about a personal, but high interest topic, summarizing a story the other had not heard before, or even the collection of information from a partner for an upcoming roundtable discussion during which the listener

would need to present what they learned (for a complete activity, see appendix F). As a reminder, the two recurring pedagogical approaches used to help participants process this feature were a) describing an activity in varying degrees of depth followed by asking the viewer to classify it as a strong or weak example of an information gap. In cases where it was feeble, direct feedback was provided on how it could be improved. Second, an activity was presented and then explicitly analyzed to identify each of the three features.

Case Study of Two Teachers

My primary interest was in analyzing change over time in the context of the MOOC. Of the seven teachers I followed, three demonstrated a strong ability in integrating this feature from the beginning, with very little change in the subsequent phases of data collection. The other four teachers, in contrast, were split down the middle with one group showing clear signs of positive change over time, while the other two showed more signs of struggle with implementation and understanding. It seemed fitting, therefore, to analyze more closely this latter group's journey by focusing on one teacher who best exemplified change over time and the other who encountered more struggle and hardship. Each has valuable lessons from which we can hopefully learn in order to strengthen how we support teachers in their ongoing professional learning. It is within this context that I now turn to the two individual case studies.

Louisa

Louisa was struggling to support her newly arrived, beginning level students from China, and she was eager to learn what the PD had to offer. Yet, despite her commitment, she exhibited relatively little change throughout the PD. In addition, her student population consisted of beginning speakers, and they represent a small, but important segment of the English Language Learner (ELL) population. What might work for a student with higher levels of basic oral proficiency may or may not work for students who are just beginning. Although students with this level of proficiency represent a smaller percentage of all ELLs in our classrooms (citation needed), it should in fact concern anyone who cares about meeting their language and communication needs as well as supporting those teachers who work with these beginning speakers. My discussion of Louisa is in fact addressing the larger matter of all those teachers who eventually work with these students, many of whom enter our mainstream classrooms equipped with beginning oral proficiency and literacy skills. It is therefore important to explore Louisa's experiences in this PD and the ways in which she struggled in order to gain insight into how we might improve how we support teachers who work not only with beginning speakers, but any student who is needing more support in this domain more than usual.

Two general themes associated with the information gap emerged from my analysis of Louisa's work in the MOOC. First, Louisa appeared to develop a more nuanced conceptual understanding of the information gap across time. Second, this evolution in conceptual understanding seemed to parallel a positive trend in integrating this feature more effectively into her practice over time. These findings hold true after triangulating the data from the interviews with the classroom observations as well as pre- survey and work assignments that she completed, as I shall elaborate below.

I categorize Louisa's conceptual understanding of the information gap into two sub-categories that showed change over time: (a) her understanding of what constitutes an information gap and; (b) how she translated that understanding into practice.

Louisa's understanding of the information gap. Louisa interpreted the information gap as a framework for students and/or teachers to use in order to ask questions of another person. She expressed in the first interview that while she appreciated the intention behind the information gap, its potential in her context seemed restricted due to the limited oral proficiency of her students. In fact, she stated in the first interview that she was accustomed to using the *opposite* approach with her students—she used to provide all information about the content and have the students practice saying it aloud, using repetition as the primary vehicle for supporting their language development.

Louisa wondered about and struggled with how the information gap applied to those students who were requiring more support than usual because "when you're learning a new language, you need vocabulary before you can do the interaction…" (First interview, 10/19/15). She seemed to raise the point that, when faced with the complex task of teaching content and language simultaneously, instruction through interaction is less effective than the direct instruction she used in the classroom. In this respect, she also seemed to view language acquisition as a process by which words came before, and were probably pre-requisite to, knowledge. In the first interview, for example, she framed the information gap as being either opinion-based or linguistic-based when in fact these two terms were not intended to be conceptualized as mutually exclusive. She did not seem to hold the view that it was possible to entice students to use language by eliciting student opinions in order to learn about some of the more formal language features, such as adjectives or pronouns. Despite her doubts regarding the efficacy of this feature in the beginning, however, she incorporated an information gap within her lessons across the three observations and, according to her testimony, in other English Language Development (ELD) lessons as well.

Translating concepts into practice. The relationship between the students' oral proficiency, a recurrent topic of concern for Louisa, and their low levels of engagement in much of the activities I observed yielded a curious dynamic in which almost all dialogue was colored by inauthentic interactions. In numerous instances across all three observations, I corroborated her statements about the students' beginning levels of English proficiency (who are predominantly identified at a beginning level on the California English Language Development Test (CELDT)) and the difficulties they faced in holding basic conversations with others in English. Any conversation I observed seemed to be done solely to complete the task requested by the teacher as opposed to a more authentic motivation to close the information gap within an activity. The typical components that made up almost all of the in-class conversations in English consisted of using more "think time" before responding to their partner's or teacher's questions, a consistent lack of eye contact with each other, inconsistent regard for typical turn-taking roles, and they usually spoke more slowly and in a more deliberate or formal tone of voice. In any partner work, their intentions seemed to be limited to exhibiting their procedural display of knowledge with no apparent motivation to communicate in order to close an information gap of some kind. In essence, the majority of dialogue taking place across three observations could be encapsulated as the students 'going through the motions' with speaking English. Being understood by their peers was secondary. Instead, the goal was to complete the task requested by the teacher as quickly as possible.

In the lesson she created and implemented as part of the work assignment for the PD, she seemed to show a beginning understanding of the concept. The information gap, as evidenced in

her assignment, amounted to students sharing with a partner which of the two books that Louisa showed them seemed more interesting. One of the peer reviewers for this assignment commented that her rendition of "the information gap seemed limited" and awarded her only 4 out of a possible 6 points. Thus, perhaps her sub-par experience that informed the comments she made about the futility in using the information gap with her students was due not so much to their low levels of proficiency. Rather, we might infer that it was her emerging understanding and implementation of the feature that partially explained why she initially felt doubtful.

Students with diverse learning needs. Louisa struggled with this feature in using it to support her diverse learners. She believed the information gap had limitations when she tried to integrate it with those students who needed more support than the majority of the group. She expressed doubt about its utility because of their lack of vocabulary and decoding knowledge. For example, she shared her attempt to adapt a lesson from the PD where she would draw an image and then try to teach them how to draw it. She said this lesson was unsuccessful for those who were requiring more support because they lacked sufficient knowledge of prepositions and the names of various shapes. After this experience, she thought the information gap could only be used predominantly in the context of reading different texts or in sharing an opinion about a topic. However, because those students with diverse learning needs "could not read," she said, "…the only information gap that I…[could] do… is what is your opinion" (Second interview, 12/09/15)?

Her association of needing sufficient literacy skills to implement other forms of the information gap contrasted with the PD's attempt to highlight its versatility in application. She explained that the only instantiation of this feature that she could use effectively with her diverse learners was a basic application in which her students used a language frame to ask their peer for their opinion, such as "What do you want to be for Halloween?" This difference in the information gap's application raises some interesting questions about how other teachers were interpreting this feature and the degree to which others believed it could be used to support those students with more diverse learning needs. Nevertheless, Louisa attempted to use the information gap not only in her MOOC assignments, but also in her classroom during each of the observations I conducted. These initial trends gave way to a more promising, though subtle, set of positive changes by the last round of interviews and observations.

Shifts in Louisa's understanding of the information gap. In the first interview, when I asked about her planning process for including an information gap, she retorted with a question double-checking what it actually was. This more nascent understanding paralleled how she integrated this feature for the first and second observations. I also noticed consistency with the trajectory of how she described and thought about this feature based on the interviews and the two work assignments she submitted, and with how she implemented it in practice.

At the start, according to Louisa, in order for an information gap to be successfully integrated within an ELD lesson, students first needed a firm foundation in vocabulary prior to doing activities that she described as "more engaging" and representative of more authentic dialogue. She wondered about how she could realistically expect students to engage in dialogue that somehow incorporated an information gap if they did not have the prerequisite words needed to talk. Here is a typical example of how Louisa interpreted and put into practice the information gap. In the first observation, the information gap was implemented in a manner that required relatively little effort on part of the students. She was teaching her students a set of vocabulary

words, mostly nouns, associated with Halloween. She provided a visual scaffold (i.e., her drawings) of different classic Halloween costumes along with their linguistic labels on the overhead. In addition, each student had a graphic organizer containing the same type of information.

In this case, the information gap was that she knew the answer to the question that she asked the class, and the students were expected to figure out which costume it was by pointing to the correct illustration on their graphic organizer. To scaffold the activity, she asked the group questions like, "Where is the mummy?" at which point the students were expected to identify it on their graphic organizer by pointing with their finger. In this instantiation of an information gap, which was dissimilar to what was emphasized in the PD, students were using receptive rather than expressive language skills to demonstrate their competency. Louisa then transitioned to having students pick one of the costumes from the prescribed list from the overhead that they *pretended* to want to be. Then, with their graphic organizers in hand, the students circulated the room to find another peer with whom they could ask the following question: "What are you going to be for Halloween?" Their partner, who decided ahead of time which costume they wanted to be for purposes of this task, responded, "I am going to be a _____." These language frames, located on their graphic organizer, provided guidance in both how to ask and answer that question. Based on field note data, over 90% of the students relied on using these visual supports when talking with their partner as evidenced by their "reading" from them each time it was their turn to speak as well as the tone of voice they used, which resembled a flat intonation. About half of the group also spoke as if nobody was present and listening to them. While the evidence suggests that the scaffolds were used effectively, unfortunately the students' dialogue did not transfer to their conversational partner.

By the last interview, Louisa showed a modest change in her view of this feature. She did not reiterate her doubts that a certain level of proficiency was needed in order for this feature to support student communication. While it is possible that she continued to harbor these sentiments to a certain degree, in her reflection during the last interview, she gave a different impression. She described feeling that having the students ask more open-ended questions, such as following up with a partner's response with a /why/ question had a positive effect on her students' engagement. She remarked, "It seemed like they enjoyed doing that. So I guess maybe they are more engaged" (Third interview, 1/20/16). Moreover, she also described her upcoming plans for integrating the information gap in a new, more sophisticated way by picking two sets of books and having them work in pairs, each with their own book, and to share with each other the content of what they would be reading. In other words, she began to articulate and focus not only on some of the merits of its use in her reflections of the lessons I observed, but also indicated ways in which she planned to incorporate it into her future lessons. Unfortunately, Louisa did not complete her post-survey or submit the last three assignments, so it is hard to triangulate these inferences to see how durable they remained.

Nevertheless, the evidence of her persistence in trying to include it in some of her ELD lessons turned out to show a positive evolution in her understanding when weighed against what I observed in the classroom. Overall, I observed subtle growth by the third observation and interview in the articulation of her understanding and adaptation of it.

Effect on student motivation. My observations indicated that student engagement was low in all of these activities, with the majority of the students focusing on demonstrating their

procedural knowledge of these vocabulary terms. Other non-verbal indicators suggest that the information gap seemed to have minimal impact on the students' desire to elicit information from others as well as communicate in an authentic way. For instance, all the students I observed seemed to use minimal eye contact with each other, their tones of voice were flat, suggesting compliance and boredom, and there were no instances in which multiple turns were taken in any of the interactions, such as follow-up questions or unexpected laughter. Louisa, too, corroborated my conclusions in this regard when she commented how unmotivated the students were in trying to elicit information from their partner, especially those with less oral proficiency, she noted. She felt like she was limited to using the information gap in these ways due to her students' lack of knowledge with the associated vocabulary of the content. This more basic understanding was observed, too, in the first two work assignments she submitted for the MOOC, which were activity plans that she implemented. For instance, in the first submission, she had students express their opinion with a partner about what one of two books, neither of which they had read, they thought was more interesting. While it is true that the listening partner did not know what book their partner was going to say, there was little reason why s/he would be motivated to know this information.

This more bare-bones interpretation of the information gap was largely replicated in the second observation over a month later. In each observation, student motivation to communicate in an authentic manner in order to close the information gap seemed quite low. Julia corroborated this same sentiment in the interview, and it constituted a source of struggle for her. Louisa's beliefs and practices, however, seemed consistent—she felt that without the required forms of language under their belts, such as sufficient vocabulary knowledge, she was limited to instantiating a sub-par version of the information gap. By the third observation and interview, however, some subtle and more positive shifts became apparent.

Here is an example of how her view, understanding, and accompanying practice of an information gap, when juxtaposed to the first two observations and interviews, became more nuanced and positive. For starters, she applied this feature in multiple ways within one class in the last observation. First, Louisa implemented an activity whose objective was to teach the students adjectives associated with various animals, such as a giraffe, bear, and lion. As a whole class, after reviewing and creating visuals located on the overhead for each of the animals, Louisa created an information gap by asking various questions about the animals to the whole group. Students responded chorally, using a sentence frame to guide the syntax they used in their response.

While similar to previous choral-based activities observed in the past, what made this one different was that it was experienced more as a game between students and the teacher than it might have been in the past. She asked them questions like, "Does this animal have a mane?" to which the students would respond chorally, "No, it doesn't have a mane!" Or, the teacher would say, "I'm thinking of an animal that has a mane" to which the students would chorally respond with their guess. Some students got the wrong answer each time, while others got it correct. There were also about six instances in which, after the students made their responses, she asked them the open-ended question: "Why did you say X?" Students then had to generate a response without a sentence frame as a scaffold, which, Louisa noted later during the interview, was what she believed sparked more genuine and authentic dialogue among the students and herself. This evidence of increased motivation to close the information gap may also be due in part to the fact

that the expectations were higher and the content a little more challenging and thus more motivating and engaging.

Next, she varied the activity to one in which students, while still needing information from the teacher, had to write down their answers to the teacher's review questions on their personal white boards. Louisa also continued to ask 'why' questions over half the time in this part of the activity. Finally, she had all of the students pick one of the 10 animals and, while keeping their answers to themselves, worked in pairs. The objective was to take turns in guessing what animal their partner had picked. To do this, they had to ask them questions similar to those that the teacher asked beforehand. Each student had to ask three questions about their animal before they were allowed to wager a guess of what it was. Then they switched roles and, when done, moved on to another partner and performed the same dialogue. While students seemed to be increasingly off task after switching 3-4 times, the fact that students did not need to show mastery of the vocabulary objectives prior to wrestling with this newfound knowledge suggests a possible shift in Louisa's beliefs about the utility of the information gap. Also, in contrast to previous interviews, Louisa seemed to place more value than in the past because she described and articulated her plans to incorporate this feature for an upcoming lesson in which it would play a central role. She hoped to implement an activity in which the group would read two different sets of books about a similar topic. After reading these texts, they would work with someone that read the opposite text and use this as a platform for engaging in various communication-based activities.

Charlotte

In my analysis of Charlotte's trajectory of change associated with the information gap, I found that she exhibited starker shifts in both her understanding and practice relative to the rest of the teachers. As demonstrated in the previous chapter on engagement, I categorize her as more of a novice teacher like Louisa in respect to her knowledge and practices associated with supporting language and communication development. Even though both are more neophytes in this educational domain, Charlotte was an excellent candidate to explore in more depth because she represented a fitting contrast to Louisa whose struggles and milder degree of change encapsulated an important, but different set of experiences related to the PD. Furthermore, the majority of the more expert teachers (i.e., the METs), for whom the information gap was also a new concept, seemed to achieve sharp facility with this concept both conceptually and in practice from the very beginning, and they demonstrated little change in subsequent phases. While this particular difference in itself raises interesting questions about why less effort seemed required to develop this skill with the METs, a question I explore later in the chapter, I wanted to underscore in greater depth using a case study analytical frame the different experiences of the more novice teachers (i.e., the MNTs) as they seem to be more indicative of the majority of teachers enrolled in the hybrid MOOC.

Charlotte is Chinese-American and had been working as a 3rd grade, general education teacher for 5 years at the time of this study. She was teaching in an urban public school located in a neighborhood with a demographic that was predominantly Asian. At her site, designated ELD was organized and provided by each teacher independently. The 3rd grade staff decided collectively to align their designated ELD instruction with the English Language Arts (ELA) curriculum by relying on the grade level language standards to determine the ELD curriculum. The staff for each grade level got together about every six weeks before the start of the next

"spiral unit" (i.e., language-arts related curriculum) to collaborate with one another about general ELD plans and to solicit the support of their literacy coach if/when needed. During her designated ELD period, she provided instruction to her whole class comprised of about 20 students. Of these, about six were officially identified as ELLs at varying CELDT levels of proficiency, three English Only (EO) students whom she identified as needing more support in the area of language and communication, and the remaining 11 were typically developing students about half of whom spoke English as a second language. She expressed an interest in participating in the hybrid PD as well as this study due to her interests in receiving some coaching support as well as increasing her understanding about how to effectively support ELLs with language and communication development in English.

Charlotte's understanding of the information gap. Similar to the shifts observed in her learning about the feature of purposeful engagement, Charlotte exhibited marked change between the first and third phases of data collection in both her understanding and integration of the concept in her practice. As evidenced in the first interview, Charlotte described the information gap as being an entirely new concept for her. In point of fact, she could not recall the name of the feature in the first interview, asking if it was called the knowledge gap. Perhaps to illustrate how novel this construct was, she described how she used to strive to integrate the opposite goal in her lessons. While her intention was clear, i.e., presumably to express how the concept was new, she may have inadvertently highlighted her *mis*conception of the information gap in that statement. When I asked her to explain what she meant, she articulated that this feature seemed like a stopgap measure to reduce the number or frequency of questions that students would ask her during the lesson. She viewed it, in other words, as a mechanism to get students to rely on each other for answering questions or resolving issues before seeking the teacher's assistance. This emerging understanding is reinforced when analyzing the pre-survey data because they provide an additional, though indirect, hint that this domain was new pedagogical and conceptual territory. In the four self-reported items in which teachers rated themselves in terms of how knowledgeable and prepared they felt about supporting students' communication and language development, she reported with the lowest score on three of the four items, and she rated herself in the second lowest category with the remaining item. Furthermore, in another pre-survey item set up as a scenario involving two third-grade students having a conversation with each other about which character from a story reminded them of themselves, Charlotte marked the highest category, strongly agree. This response indicated that a very strong information gap existed in the activity. While partially accurate in the sense that student A literally did not know what student B was going to say, a stronger response would have been "somewhat agree" or "agree." The reason is because teachers were encouraged throughout the PD to fortify a gap by creating not only a dynamic in which some information was held by one of the students, but to also foster a motivation or desire to want to acquire the unknown information. This scenario in the pre-survey did not incorporate this latter characteristic.

Charlotte concluded in the first interview that while she recognized the utility of an information gap, she did not consider it as much of a priority in her teaching at that time relative to the other features highlighted within the PD. Rather, she viewed this feature as one in which she was going to work towards incorporating into her activities over time.

Translating concepts into practice. The evidence clearly showed that Charlotte was wrestling with the conceptual underpinnings of this concept. This may help to explain why she had difficulty with integrating this feature into the first activity I observed. As a reminder, I had only three, 30-minute classroom observations, so my inferences on these practices may be provisional rather than definitive. That said, evidence from my observations suggests that she made little effort to highlight or explain the information gap to her students. She also did not appear to put any meaningful effort into its integration in the activity. For example, Charlotte's objective was to have her students practice providing "positive" feedback to their partners' writing in order to publish it later in the week somewhere on site. To do this, she divided the students evenly between ELLs/ students requiring more support and more proficient students with the latter's job to provide feedback to the less proficient students.

This represented a weak instantiation of information gap in comparison to how the PD framed the concept. The more proficient student, Martha, who was lacking information, had to listen to the less proficient student, Ana, read her story aloud with the intent of providing feedback and asking follow up questions. Martha did not know what Ana wrote. Technically, a gap existed in the structural sense that Martha had not heard the story before. However, lacking a physical copy of the manuscript, she also had little discernible motivation to want to hear what Ana wrote or to listen carefully for that matter. Data from my field notes confirm the overwhelming lack of motivation as evidenced by the dearth of communication taking place between students in that lesson. Then again, Charlotte articulated in the follow up interview that it was indeed not a priority in her instruction.

By the second phase of data collection, however, she had shifted her views such that she was clearly putting effort into integrating this feature within her lesson, although with relatively little success. Here is an example that exemplified this shift. The objective in this lesson, to adapt the "stronger and clearer" lesson from the PD, was for Mike and Betsy to each pick a book that they were reading independently in order to share what they found "entertaining" about it with their partner. The basic information gap in this case was that each student did not know what book their partner was reading nor did they know what parts they found to be entertaining. The second objective was for Betsy to "take" the reasons articulated by Mike in order to add them to their own list of reasons for why they liked their own book. This, in turn, would strengthen and lengthen their own list of reasons for why they liked their book. Then, they were to switch roles.

My field notes indicate that despite the fact that Betsy did not know what reasons Mike was going to provide, the vast majority of students in the role of listener were described as exhibiting little motivation in wanting to listen to and record their peer's ideas based on the paucity of student talk and writing. In fact, as Charlotte even pointed out later in the interview, many of them ended up decreasing the number of reasons for why they liked their own text, deleting them as they listened to their partner rather than adding to it. The way in which she implemented the information gap represented an emerging understanding, although there was also evidence of some changes in her perceptions of the concept.

In spite of her struggles in the classroom, these data indicate that she seemed to be aware of some of the difficulties she had been experiencing. For instance, when asked how she had planned to integrate an information gap, rather than reiterate her previous position about wanting to integrate the feature sometime later in the future or to bring up other doubts about its efficacy,

she explained that she had hoped it was going to be more effective than it was. We may infer from this response, therefore, that she had begun internalizing this practice as something worth integrating. Perhaps the absence of any doubt in putting effort into integrating it suggests she had changed her view and saw it as being worthwhile. As far as implementing the feature in practice is concerned, my field notes corroborated her self-critique, although one clear difference is worth noting. When I juxtaposed the first observation in which the information gap was a vague appendage to the lesson at best with the second observation, she clearly made a more formidable effort to use the information gap as a mechanism for getting the students to communicate with one another. In other words, her intention in using it was more apparent in the second observation compared to the first.

Students with diverse learning needs. While Charlotte said that the strategies informed by the three features in general seemed to benefit ELLs as well as those with diverse learning needs, as they represented sound instructional techniques, the information gap had fewer applications for those with learning differences. Charlotte harbored some doubts about its utility in reading and literacy related activities with those students who were requiring more support if they had below grade-level literacy skills themselves. Instead, this feature was limited primarily to other activities that required only verbal interaction. She stated, "I think it's hard to do information gap type activities with reading comprehension unless it's [with an] expert group kind of thing where they each have a different article they're sharing" (Third interview, 2/4/16). She reminded me of the first observation in which she had students reading their writing to a peer as a case in point.

Although the observational data suggest that her integration of an information gap was still emerging, we might also infer that her conceptual understanding had evolved as evidenced by her more formidable effort to incorporate it within the activity. It is possible that she had made steps toward internalizing this feature and was now experimenting with putting this concept into practice. As Guskey (2002) pointed out in his research on teacher PD, teacher changes typically occur in piecemeal fashion, often showing progress in non-linear ways. As I observed in the case of Louisa, perhaps this evolution in conceptual understanding paralleled a positive trend in being able to integrate this feature more effectively in practice over time. Change can be slow and hard to detect, but as I show next, Charlotte seemed to make a more explicit shift by the last observation.

Shifts in Charlotte's practice of the information gap. Charlotte's journey illustrates more than any other how change can sometimes manifest relatively quickly. By the last phase of data collection, I noticed a marked shift in understanding and in the effectiveness with which she implemented the information gap feature. She commented how it did not "make sense to her in the beginning, but by the second live session it was more clarified" in part because the live sessions allowed her the opportunity to talk about what it meant and how to implement it with the support and feedback from other colleagues. She also reiterated how novel this concept was for her professionally at the start. In fact, by phase three of data collection, it constituted the most important concept that she learned in the PD, a comment that stands in start contrast to her initial belief that, while important, she was not going to focus on this feature until later in the future. After making this conceptual shift, Charlotte described how this principle was closely tied to the feature of engagement. She equated the positive change in purposeful engagement

that we both recognized in the last observation with her successful implementation of the information gap. She explained the following:

> The largest lessons I've learned from attending the sessions are having there be an information gap, so there has to be something the kids don't know to sort of help with the engagement. And I've definitely seen, like, totally if they don't know something, like, if they're trying to work towards something, it's just, there's just more investment from them and more engagement from them.

From her perspective, these two features were not mutually exclusive entities. Instead, the students' engagement levels were caused by her more effective use of the information gap.

Effect on student motivation. Structurally, the gap she established was between two students, the same in all observations, but it was the motivational component that seemed to shift in the last visit. She implemented an activity in which students had to use language to orally communicate directions to a peer. The main objective was for students to develop more precision with their communication and listening skills by providing directions orally, using select academic vocabulary related to direction-giving (e.g., junction, next to, opposite, or intersection). Betsy, a student who was working with Mike, another student, had to use specific, directional language to tell Mike where to go on their map, which was a graphic organizer with invented places, streets, and other landmarks. Listening to Betsy's directions, Mike had to navigate his own map to determine what location his partner had chosen. Field notes show that the tenor of these interactions consisted largely of animated talk, some laughter over errors that Mike might make, fluctuations in their tone of voices as they negotiated the directions, and appropriate eye gaze with the speaker. In point of fact, another indicator of effectiveness was that at least half the students had the opportunity to switch and work with new partners, a request from Charlotte if/when each student had a chance to play both roles. Additionally, the audio recordings indicate that there were few instances of Charlotte providing verbal reminders to her students to stay on task during this phase of partner work, which was not the case in the previous two observations.

While her point is valid that these two principles from the PD share an inextricable link, these data from the observations suggest an additional possibility: that this improvement in use of the information gap was a function of other differences in her practice, and that these may have contributed to the overall improvement in the students' engagement levels as well. What the exact mechanisms were that improved students' motivation, of course, is hard to know with certainty. However, the field notes indicate a variety of changes taking place, an insight that Charlotte did not acknowledge explicitly. For example, she picked a high-interest topic that, according to her, she knew her students would appreciate. She expressed a new-found appreciation in listening to what her students wanted. When asked to elaborate, she explained that several of them told her that they really liked it whenever she incorporated an information gap (without using those words) because they enjoyed the challenge of working with a partner in that climate/ under those conditions—it "made learning more fun" (Third Interview, 2/4/16). This raises another interesting point about the potential power in teachers taking the time to listen to their students, a characteristic that seemed new for Charlotte relative to how she interacted with students in the first two phases (a point that will be elaborated in the next chapter).

Second, she dedicated more time to modeling how to actually do the activity and, in addition, rather than taking the lead as one of the actors, she, for the first time, picked two students to do it. The students appeared to be more engaged in the last observation compared with my previous visits. She also had a variety of language frames located on the overhead for them to use, although in this observation I noted an absence of interactions in which Charlotte required or suggested that they rephrase what they said using the syntax embedded within the frame, which is what happened with more frequency in phases one and two.

Third, and perhaps related to the first point above, the activity was judged by her and the students as being more meaningful. Charlotte, for the first time, acknowledged the importance of her goal of trying to make the lesson more purposeful—i.e., an activity in which a real-life connection is integrated. She then described why she picked this particular activity on providing directions: "I thought it was really appropriate to have it be sort of about direction and how to be more clear with the way we speak; and not only understand directions, but also give them to the people so it can be most helpful to them" (Third Interview, 2/4/16). Her demonstration of a new perspective in how she planned an ELD lesson marked a noticeable shift in favor of prioritizing class time for students to talk with one another instead of her spending so much time holding the floor in her teaching mode. She seemed, for instance, to exert more control over the flow and content of what the students discussed in the first two observations. By the third classroom visit, however, she exhibited increased flexibility in letting the students exert more responsibility over what they discussed. In my careful analysis of these data, I found other corroborating evidence of this shift in perspective. I noticed in the previous observations that any time I asked students what they were being asked to do and why, they invariably responded with a superficial, procedural reason like, "because she asked us to do it." In contrast, when asking them the same question in the last observation, I found five instances of student responses that seemed to illustrate Charlotte's underlying motivation for the activity. One response that typifies the students' perceptions was that they were learning how to use a map so "that when we grow up we will be able to use it [and help others]" (Classroom observation, 2/4/16).

Trends Across the Focal Teachers

I have organized my analysis of trends across the seven teachers related to the information gap into the four sections: (a) teachers' understanding and beliefs about the information gap; (b) the prominent challenges they had with implementing this feature; (c) the effects of the PD on their understanding; (d) the effects of the PD on their practices. I hope to account for and explain how they processed, interpreted, and put into practice this feature across the three phases of data collection.

Teachers' Understanding and Beliefs

All seven of the focal teachers expressed in the interviews that the concept of an information gap was novel. Francesca represented the group when she remarked that, relative to all the concepts that made up the foci of the PD, this was the newest. The group's degree of understanding, however, contained more variation. I noticed that three of the METs—Erin, Francesca, and Abel— in respect to supporting ELLs in the area of language and communication as described in the previous chapter, were very effective in integrating this concept in their lessons and articulating their views from the beginning.

The rest of the group—Marina, Charlotte, Adaline, and Louisa-- exhibited more of an emerging understanding of this feature at the start of the PD, which I illustrated in detail in the two case studies earlier. One exception to this trend occurred with Erin, who had more expertise in the domain, but, like the MNTs, initially struggled with understanding certain aspects of the concept that the PD tried to emphasize. She brought to light a common misperception that an information gap was always present in any lesson in the sense that the teacher always knew something that the students did not. By definition, anything she is teaching is "something [she knows] and they don't know" (First Interview, 10/ 19/15).

Marina, when asked how she planned to include this feature in her lesson, surmised that by having her students make predictions about a text they had not yet read constituted an information gap. While this technically constituted an information gap, she neglected to include a motivational component and did not position some students as bearers of information that other students needed. Similarly, Erin understood its literal meaning and equipped some students with information that other students needed, but seemed to leave out the notion that they should integrate a certain degree of motivation on part of the non-knowing students to *want* to find out the information that they do not yet have.

This trend holds true in my examination of these teachers' responses to the initial items in the pre-survey in the sense that they were grappling with how to integrate it. They assessed, using a 5-point self-rating Likert-scale, how knowledgeable and prepared they felt in creating activities and supporting students' communication during designated ELD, which included the use of an information gap. Basically, all teachers rated themselves fairly low on the scale, with an even distribution ranging from the lowest category, "not very," to "somewhat" knowledgeable/prepared to the average categories of "knowledgeable" and "prepared" (Pre-survey).

I found similar trends when analyzing their work assignment submissions, particularly among the MNTs. I found that the information gap feature represented a challenge among these four teachers as well as Erin to a smaller extent. I found six instances in which a peer reviewer, a non-participant who provided feedback the teacher's lesson, either directly or indirectly made comments that illustrated a need to review and/or improve upon the information gap. Typical statements highlighting this trend ranged from "the information gap seemed limited" to the self-reflection, "I tried, in planning the lesson, to think of a way to incorporate a better information gap but didn't come up with anything" to other peer reviewers stating that the information gap "was ignored" or commented, "…a suggestion would be to use the information gap student-student to enhance student engagement" (Work Assignments from the MOOC). These comments reflect not only gaps in these teachers' beginning understandings, but also point to some of the ways in which they initially integrated the information gap in their practice.

Perceived challenges. I also found that the METs—Francesca, Erin, and Abel-- voiced some limitations that were not echoed by those MNTs in this domain. One exception to this trend was that Louisa, a MNT, also harbored concerns about its applicability to students with low oral proficiency levels in English, which I discussed in the case study earlier. I categorized these concerns in two ways: (1) limitations caused by students' language and/or literacy levels and (2) questions about its overall contribution to the strengthening of ELD practices relative to the other two features (i.e., engagement and language).

Language and literacy of diverse learners. These three teachers, including Louisa, were concerned about the utility of the information gap because the many of her students' language and literacy levels were sub-par. They often associated this feature with reading texts. Francesca, for instance, found it challenging to secure texts that all students could access or, alternatively, a variety of texts that spanned multiple levels of textual complexity. She often wound up reading the text aloud, which, while an effective pedagogical approach in its own right, may have become problematic in her circumstances if she used it too frequently. We might infer that, like most people, doing the exact same thing too frequently can become monotonous, and, in this instance, may deprive students of the opportunity to engage in active reading of text.

This raises an important question about the potential utility of this feature as it applies to students who need extra support in the areas of language and literacy. Is this feature as helpful for this population if/when they lack proficiency or exhibit decoding or comprehension skills that are below grade level? These data showed encouraging evidence to the contrary. Overall, the teachers, including Francesca, expressed in 2-3 separate occurrences how they believed that an information gap still played a potentially helpful role for all students, especially those who were requiring more support. In Francesca's case, it just presented an extra logistical hurdle because of the extra effort required to secure multiple accessible texts. In fact, two of the METs pointed out that the information gap might even have a greater positive effect on those who are needing extra support because it prioritized increasing students' motivation to learn.

Overall contribution. As mentioned earlier, multiple teachers had some concerns on a practical level. The three METs, for instance, expressed some doubts about how much they should prioritize the integration of this feature relative to the other two features (i.e., engagement and language). They made clear, however, that this sentiment should not be interpreted as a critique per se. Rather, they all expressed an appreciation for this feature. Francesca, for instance, commented how this feature helped her learn how important it was to integrate two pools of information within a single activity. At the same time, however, she echoed the other two teachers' beliefs that it still seemed less important than the engagement and language features. In fact, in Francesca's case, she provided her own PD to the other teachers at her school site in an effort to disseminate some of the essential concepts from this hybrid MOOC. She said that due to her limited time with the staff, she had to seriously consider what to include and leave out from her presentation, and she decided to focus on the other two features instead. Interestingly, similar to what Charlotte described in the case study earlier, perhaps other teachers felt similarly, as the live session surveys indicated no explicit evidence of this feature being the most helpful part of the sessions, as a strategy they might use in their own classrooms, or as a tool that might help them support all diverse learners.

Translation into practice. Based on my analysis of these data, teachers' interpretations and implementation of the information gap is best viewed through two lenses (see Figure 4.1): the degree to which they embedded a gap within the structure of their lesson plan and the attention given to fostering the student motivation to want to seek out the unknown information.

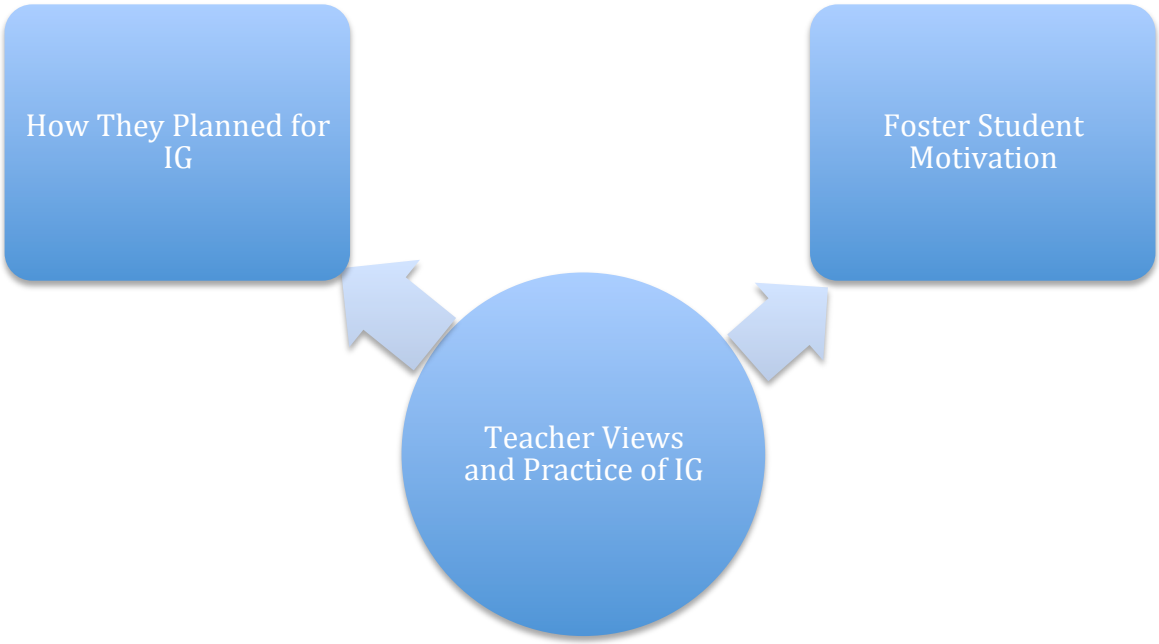


Figure 4.1. Two Lenses for Viewing Findings of Information Gap

These observation data show that those METs—Abel, Erin, and Francesca—were the most effective in fulfilling both of the above conditions with two caveats. First, Erin expressed confusion about what the information gap meant in the beginning, but her implementation was strong and effective as evidenced by the students' engagement levels and their extensive participation. Second, Francesca experienced the opposite set of challenges from Erin. She articulated a clear understanding of the concept as well as how to plan for it, but due to behavioral challenges in the initial observation, less than half the students followed through with the tasks laid out before them.

While the concept was new to all seven of the teachers, the METs appeared able to adapt and integrate it within their activities effectively during the first phase of data collection, where as some of the MNTs strengthened their understanding and implementation of it more slowly. As I showcased in detail in the case studies earlier, the MNTs struggled with implementing one or both aspects of the information gap during the first and, for some, also the second phase of data collection. The following segments exemplify how the majority of these teachers struggled to integrate an information gap effectively. Two of these teachers conducted a read aloud to the whole group during which students were instructed to listen and record various information. The intent was for students to work with their peer in order to exchange this information, which would strengthen each of their initial recordings. Interestingly, neither of these texts appeared to be high interest to the students (e.g., below grade level book about bean plants and characteristics of the holiday, Day of the Dead), and equally important, neither of these teachers fulfilled the two criteria (see Figure 4.1) emphasized in the MOOC. The students all had the same information because they listened to the same story, and there was no explicit motivation spurring the listener to want to write down what their partner had written.

Abel offers a contrasting example that typifies how the METs implemented a more effective activity containing an information gap. Abel executed a lesson in her 4th grade class in which students were discussing a controversial topic about whether or not recess should be structured vs. unstructured. She wanted them to work on listening to their partner who had a different opinion from themselves and to be able to paraphrase what they said. To do this, she divided the class into two groups, with each facing each other as if in a square dance. In this instance, she integrated a relatively nuanced and sophisticated information gap between students. One line of students stated their position to the peer facing him. This latter student would then try to paraphrase what they had said followed by a switching of roles. Students then repeated these steps with another peer. The gap in this case was in not knowing what reasons their partner was going to provide. The motivation to listen and paraphrase was in the high interest topic itself as well as the challenges inherit in generating a more convincing argument than their partner.

Effects of the PD on Teacher Understanding

The fundamental finding about the PD involved in the MOOC is that teachers' understanding of the information gap improved by the end of the PD. The MNTs (and Erin) each struggled with the concept at the outset in slightly different ways, but by the third phase of data collection, all of them were able to describe how they planned to integrate this feature in their lessons. In each case by the last interview, their view of what constituted an information gap appeared to be consistent with its conceptualization within the PD curriculum. Equally important, I found that what they purported to have done during the interview with the information gap was corroborated in my field notes, thus illustrating a strong link between their conceptions and practices.

Several examples from individual teachers illustrate a typical pattern of growth in this group's understanding of what constitutes an information gap. For example, Marina, in the first interview, after being asked in what way she integrated this feature in her lesson, responded that the information gap was in:

> …having them kind of talk about, 'What do you think it's going to be about,' or, 'What do you think…you might see on this holiday,' to just kind of have them be able to predict or think about what that might even mean…(First Interview, 10/29/15).

In contrast, by the last interview when asked the same question, Marina responded that, "both parties had information that the other person didn't know. Like, 'I know why my animal is a really good hunter. I don't know why your animal is a really good hunter, but I want to kind of see.'" (Third Interview, 01/16/16).

Erin's evolution captured these conceptual shifts even more vividly. As mentioned earlier, she began the PD viewing it as automatically embedded in lesson by virtue of the fact that she, as the teacher, knew information that the students needed to acquire. Moreover, she initially received feedback on her work assignments with specific suggestions on how to integrate this feature, but in later submissions she demonstrated a more accurate understanding when she wrote, "the information gap is that students give information (examples, evidence, support) that all students need in order to fortify the one idea. All students need to have more than one piece of information to support the idea" (Work Assignment Two, 2015). Like with most change of any kind, these teachers still showed signs of learning. Erin, for instance,

commented in that last work assignment that she tried to create a more creative information gap than what she had included, but could not do it. She also indicated in the post-survey how she was still struggled with implementing more sophisticated types of information gaps in her lessons, such as one that existed between students rather than between a teacher and her students. Nevertheless, she spoke for the group when she wrote in the post-survey, "I give much more thought to the information gap. I try to make the need for information very apparent to the students… I hope to continue to strengthen my practice with ongoing attention to the information gap…" (post-survey, 2/1/16).

Effects of the PD on Teacher Practice

In general, observational data from the second and third phases suggest a positive trend toward improved *implementation* of this feature by the focal group. In table 4.1, I illustrate how the teachers shifted over time in their own practice along these three dimensions, using the observations as the primary source of evidence. These categories were created based on my close analysis of the themes emerging from the MOOC course content as well as observation and interview data.

Table 4.1

Types of Information Gap Over Time

Phase of Observation	Structural Component of IG	Motivational Component of IG	Student Engagement
One	5 of 6***	1 of 6*	2 of 6 **
Two	7 of 7	4 of 7***	3 of 7 **
Three	7 of 7	5 of 7 ***	6 of 7 ***

Notes: a) Francesca was observed for only two of three phases. Therefore, "phase one" has only six teachers counted in total. b) * Number of METs

Criteria used to measure change. As mentioned earlier, I found three basic trends in my analysis of these data that help frame the different facets of the information gap and the degree to which teachers integrated them in practice. First, the structural component of the information gap (IG) hints at whom the players were that participated. It indicates evidence of the teacher integrating an information gap either between students and teacher or student and student. To use a non-example, if two students were asked to summarize a text with each other, but they both heard the same text, this would not constitute successful structural integration of an information gap.

Second, I found that a teacher needed to embed in their planning an attempt to motivate the students in order to create an effective information gap. I found several instances in which a teacher would integrate this feature, but the students had little to no reason for wanting to find out the unknown information.

Third, Student Engagement, represents the degree to which the majority of the students were exhibiting on task behaviors, such as talking with their partners/teachers about the task at hand, completing the task, showing appropriate eye gaze with the talker, and using a tone of voice indicating attentiveness, enthusiasm, or spontaneity in the discourse taking place. This component tries to account for the relationship between the teacher's planning and what actually

happened in practice based on my field notes and audio recordings. Importantly, any instance in which a teacher met the criteria for "Student Engagement" does not suggest that it was due necessarily to the presence of the information gap. Several variables potentially could have played an influential role.

Impact on METs. As mentioned previously, the three METs tended to change very little over time, although they started out with a strong understanding (Erin was an exception) and were able to put the concept into practice effectively from the beginning. Their ability to integrate this feature was strong, using high interest/ controversial topics to optimize student motivation to want to seek information from their partner.

The following two segments typify strong instantiations of this feature. Abel, for instance, implemented an information gap between two student pairs in which one described a photograph of foul weather (e.g., tornado, hurricane, etc.) that the listener could not see. The latter's task was to listen and try to guess what weather pattern was being described. Francesca's use of this feature was present between student pairs as they crafted arguments about whether Orca whales should be freed or held in captivity. They worked in teams of three, engaging in an informal debate with each side trying to convince the opposing group that their position was stronger, using evidence from the texts. While they often needed facilitation by the teacher to prevent it from devolving into catty arguments, the students were clearly in need of information from their opponents, and each team was very motivated to gain the upper hand over their peers. These observation data show that, with the exception of Erin who, as previously described, struggled with the motivational aspect of this feature in the first phase of data collection, this group met each of the criteria (see Table 4.1), which stands in contrast to the typical trajectory followed by the MNTs.

Impact on MNTs. Of those who exhibited evidence of being more novice to this domain of instruction—Louisa, Adaline, Marina, and Charlotte—I found that two demonstrated relatively mild change throughout all phases of data collection, while the other half demonstrated greater effectiveness in both practice (and understanding) by the last observation. The following segment typifies those teachers who struggled more than the others in integrating the information gap within their practice, especially in the beginning. Marina's first lesson in which she asked her students to listen to a read aloud from the teacher typifies the confusion they had initially. After listening to a read aloud about the Day of the Dead holiday, she asked students to turn to their partner and describe what she had read, what the holiday was, and what types of decorations they might see. In this instance, she appeared to misunderstand what constituted the information gap as the pairs both heard and were working from the same text. Thus, there was no gap to close. Additionally, there was no motivational component that helped create a purpose for wanting to listen and talk with their partner.

Those who exhibited mild changes. Two of these teachers—Louisa and Marina—exhibited milder types of change in their incorporation of this feature. Data from the work assignments that they submitted help to clarify this trend. Teachers received comments from the peer evaluators that suggested how they might strengthen their use of the information gap. Marina's two work submissions suggest that she struggled with incorporating this feature. Peer reviewers noticed this and wrote critical comments like, "How does this activity help the students initiate a conversation?" in reference to an activity that required her students to orally present a timeline to the whole class.

In the second and third observations, while eventually showing more clarity in their understanding about the structural component of information gap (i.e., literally creating a gap either between students or between the class and teacher), Marina and Louisa continued to struggle with the motivational piece throughout all three phases (see Table 4.1). At the same time, however, they also showed some modest improvement with other aspects. A quintessential example was found in Marina's marked improvement with being able to effectively integrate the structural component of an information gap by the last observation. She implemented an activity that had a clear information gap in which students were taking turns to share with their partner why they thought their animal was the strongest.

Those who exhibited more changes. In contrast, these data indicate a different trajectory of learning with the other half of this group of MNTs. Charlotte and Adaline showed clearer signs of becoming increasingly effective in integrating this feature by the end, although such change appeared at different stages in the PD. Charlotte, as I described in the case study earlier, struggled with this feature in phases one and two, but demonstrated significant change by phase three. In contrast, these data on Adaline suggest that she showed modest signs of being more effective by phase two with additional improvements observed in phase three.

For example, in Adaline's first observation, students listened to a read-aloud on bean plants. This was followed by peer work in which students worked in pairs to secure content-specific answers from the text. The information gap in this case was to check with their partner to see if their reasons were the same and/or different from their own. The gap that they needed to reduce consisted of more procedural knowledge related to the text.

In contrast, Adaline implemented a higher-interest topic in phase two, using and adapting the structure of a "stronger-clearer" activity demonstrated in the MOOC. The topic focused on manatees and sharks both of which were described as being endangered. She created a scenario in which each student was asked to imagine receiving a large sum of money that they had to use to support either scientists that studied and protected sharks or manatees, but not both. Next, they met with other students to share the reasons that supported their position. Each student was asked to add anything they heard from their partner that they did not yet have on their list in order to strengthen their argument. The gap in this case was that neither student knew what their partner was going to say. There may also have been some motivation to want to learn from their partner because the topic itself was interesting and the other peer may have held the opposing position, but otherwise, there was no other explicit motivator besides being instructed to add any new reasons to their own list. Finally, the students' engagement levels were higher as evidenced by a modest increase in instances during which students were sharing more of the responsibility for communicating compared to the first observation. In phase one, students in Adaline's class spoke approximately 10 out of 30 minutes. In the second observation, I counted an increase in talking to about 16 minutes. As I hinted above, however, change between the first and second phases was subtler, perhaps in part because there was still no effective motivating component to entice students to want to find out the missing information that they needed. This subtler change, captured in smaller increments over time, seemed indicative of the rate of change that I observed across the majority of the MNTs.

Summary

Findings confirmed that the information gap represented a useful tool that teachers used to foster deeper levels of student engagement and purposeful communication. Overall, there was

a strong relationship between the degrees of change observed in a teacher over time and the frequency of student talk as well as the engagement levels observed among the students. The evidence confirmed the assumption that the information gap was primarily used as a vehicle for promoting student engagement with the goal of increasing the amount of purposeful communication among students. In other words, improvement in the use of the information gap may have contributed to improvements observed with students' engagement levels. Unlike the features of engagement and language (the latter to be discussed in the next chapter), however, all seven of the focal teachers expressed that the information gap was an entirely new concept at the start. How they processed and exhibited change, however, seemed to vary based on their general level of expertise.

Based on my analyses, I found that to understand the nature of teacher uptake of the information gap, it was helpful to divide the construct into two categories: (a) the degree to which they embedded an information gap within the structure of their lesson plan and; (b) the attention the teacher gave to fostering the students' motivation to *want* to seek out the unknown information. Similar to what I observed with changes and trends associated with the engagement feature, I generally found that the three METs (Abel, Francesca, and Erin) adapted both categories of this feature into their activities fairly effortlessly from the first observation, and this was maintained throughout the study with little change observed. Moreover, these METs demonstrated positive change regarding their knowledge of the information gap, as this was a new concept for them. However, perhaps in part due to having a relatively deep knowledge of this domain at the start of the PD, the METs demonstrated changes in their knowledge in a qualitatively different way from the MNTs. First, they articulated a more nuanced understanding, questioning its relative contribution compared to the other two features and outlined what, in their view, were some strengths and potential limitations in its utility. For instance, Francesca and Erin struggled with this feature intellectually in different ways at the start, but they persevered, working with it over time, and they eventually changed their views, moving from a position of skepticism to advocacy. By the end, Erin was motivated to integrate more sophisticated versions of the information gap into her activities, while Francesca believed this feature may have benefited her diverse learners more than her typically developing ELLs as evidenced by their engagement levels.

The MNTs, in contrast, articulated a less nuanced understanding of the information gap throughout the study. They also struggled more with integrating the information gap initially, but half the group exhibited clear signs of change by the end, while the other half demonstrated more modest change. These teachers by and large understood how to integrate it in their lesson, but they struggled initially with the motivational component. Consistent with Snow et al.'s (2005) model of teacher knowledge, they started off implementing rudimentary versions, such as creating an information gap in which the teacher had information needed by the students, but the external motivator to entice the students to care seemed absent or undeveloped. The more can-do procedural knowledge seemed to progress toward more sophisticated and effective instantiations by the end for half of the MNTs (i.e., Charlotte and Adaline), exhibiting greater facility with implementing both the structural and motivational components of this feature.

As evidenced in these data, this feature exhibited potential in effectively 'hooking' the students into the activity. Based on observations and teacher reflections, I found that an effective

implementation of this feature seemed to augment many of the students' levels of engagement in the tasks and, by extension, their use of purposeful language.

CHAPTER FIVE: SHIFTS IN TEACHER KNOWLEDGE, BELIEFS, AND PRACTICES RELATED TO THE PRINCIPLE OF LANGUAGE

In this chapter, I explore the various shifts as well as trends in how teachers promote an increased attention to language to help answer my research question: *How do teachers' understandings, practices, and beliefs change over time in regard to supporting the integration of activities that prioritize an increased attention to language in order to promote the development of students' language and communication development in English?*

Attention to Language

I have organized this chapter into three sections; (a) a synthesis of how language was presented in the MOOC; (b) two case studies that exemplify how two novice teachers processed information about language from the MOOC; (c) an analysis of trends of all teachers promoting and adapting the principle of language during designated English Language Development (ELD) time.

Language in the Hybrid Professional Development

The language component, referred in the professional development (PD) as *Attention to Language*, was operationalized in the MOOC as any "extra teaching and assessment focused on how language is used. This includes structuring interactions, modeling, practicing, giving feedback, or scaffolding. It might even include the strategic development of grammar and vocabulary, that helps students to communicate" (Session One Screencast, MOOC, 2015). These represent different ways that teachers can provide support to help students communicate.

MOOC materials documented that supporting students' language and communication development required a shift in how teachers planned ELD instruction. The PD rejected the historically more common approach that endorses direct instruction about grammatical rules or vocabulary acquisition out of context from meaningful content. Instead, they contended that learning is optimized when an activity is designed with explicit attention to language learning in the context of activities that are engaging and meaningful. In other words, get kids involved in an engaging activity that also requires the use of language, wait for it to happen, then pay attention to it, expand it, and scaffold it when it occurs. The PD curriculum was organized on the premise that students acquire language and communication skills most effectively when they have multiple opportunities to use it in meaningful contexts in order "to get things done [and] to communicate" in purposeful ways (Screencast Session One from MOOC, 2015).

To do this, the PD presented participants with examples of realistic classroom-based activities in varying stages of development in order to demonstrate how one might improve or adapt it to enhance the attention given to the teaching of language and communication. Activities included integrating practice using language, using visual scaffolds with a gradual release of responsibility (e.g., visual with vocabulary labels that are eventually removed), and support students' understanding of grammar, syntax, punctuation, and vocabulary within meaningful content (see Appendix F for an example). These snapshots exemplify specific ways in which teachers could create an activity that supports language and communication development.

Teachers had access to multi-model activities to learn and practice PD content. Across the MOOC and the live sessions, teachers were exposed to (a) at least four detailed video

excerpts of actual teaching that targeted the goals of the PD; (b) resources for further reading; (c) screencasts that illustrated at least 15 activities that varied in terms of depth, topic, grade-level, and assumed proficiency level of the students. Similar to the other features, I found that within each of these activities, teachers witnessed how an attention to language could be increased. These three features, moreover, were the primary recurring themes throughout the duration of the PD.

Case Studies of Two Teachers

Charlotte and Louisa followed a learning pattern similar other case study teachers. Change in teacher practice seemed related to teacher experience, so I divided teachers into two knowledge change groups, the more novice teachers (MNTs) and the more expert teachers (METs)—although in reality there was movement between the two, consistent with the idea that these are not intended to represent fixed and linear categories. The MNTs demonstrated *some change* in increasing students' attention to language, while the METs seemed to experience little change in their understanding and practice. The case studies represent two different journeys among the MNTs. Charlotte, on the one hand, went through a series of struggles with some tangible changes by the end of the PD. Louisa also experienced difficulties, but of a different nature, and ultimately, she exhibited fewer changes in spite of her participation.

Louisa

The data verify that Louisa tried extremely hard to support her students in the area of communication and language in English, even from the very outset of our intervention. Most of her students had recently arrived from China and were identified as having very low levels of oral proficiency in English. The data verify that she believed in addressing formal features of language directly and explicitly (First Interview, 10/19/16); she implemented several strategies to support their linguistic needs by focusing largely on grammar, punctuation, and vocabulary. She also expressed some dismay in the second and third interviews about how her activities at times seemed effective with only some of her students rather than the whole group. For this reason, she was interested in the PD as she was eager to learn about how to help support all of her students in the area of language (pre-survey). Yet, by the end, these data suggest that the PD may have had a limited impact on her practice and beliefs.

Louisa's understanding and practice of language. Many of the strategies that Louisa articulated across all three of the interviews, indeed most that she implemented, bore relatively little overlap with those that were emphasized through the MOOC. We might infer, therefore, that many of these strategies from the MOOC were fairly new. The data from the observations show clear differences between Louisa and the pedagogical approaches emphasized in the MOOC. I saw few instances of modeling that involved teacher-student or student-student collaboration, providing think alouds to model how to communicate, or strategic development of grammar and vocabulary in the context of purposeful activity designed to learn something new or solve a problem. Instead, Louisa described more general strategies on which she relied to support their language and communication.

A part of the problem with getting a clear read on Louisa's repertoire of practices may have stemmed from the fact that she was unaccustomed to articulating how she supports ELLs who need more instruction. I make this claim because, when I broached this topic in the first interview, she explained that she was not sure how to express what it was that she did. Based on

my initial classroom observations, I knew she enacted several strategies, but it was not until the second interview that she was ready to explain herself in more detail. At that point, Louisa articulated an assortment of fairly typical (i.e., those we see in books that are designed to support sheltered English) supports and strategies to provide linguistic support. As I illustrate below, many of the practices that she described were corroborated in the observations.

Louisa's strategies to support language. Louisa described two basic supportive strategies that she liked to use most frequently to support her students' in communicating. First, she believed that providing think time during whole-class discussions was supportive to their communication. Second, Louisa expressed that she often used visuals to support their access to the lessons (First Interview, 10/19/15). Despite being able to articulate these strategies, Louisa was distressed because she was still struggling to get most of her students to communicate purposefully. She noted, in particular, that there were at least five students who, during ELD, would frequently not say anything at all in either language because, she reasoned, they did not understand what they should be doing, most likely because their English proficiency was really low. While her observation about the paucity of authentic communication among most of her students was corroborated in the observations, the findings from these data suggest other factors also contributed to this struggle, such as specific types of linguistic enabling practices. These include frequent oral repetition, such as repeating vocabulary terms, and lowered academic and linguistic expectations among students requiring more support.

Translating concepts into practice. Some of Louisa's strategies were in fact forms of *linguistic enabling* where teachers, in an effort to encourage their participation or avoid upsetting them, "do not push students to reach higher levels of learning and language development" (Zwiers, 2014, p.57). These data show that Louisa engaged in four practices that, in certain circumstances, may have contributed to a reduction, rather than an increase, which was her intention, in student oral output: (a) gestures, (b) differentiating question types (c) peer mentoring, (d) language frames, and (e) repetition.

Gestures. Louisa mentioned using gestures in the first interview, such as pointing, as an alternative to using language for those students whose proficiency was low. For instance, Louisa said in the first interview, "I was like, okay, you're not going to be able to say, 'The vampire is here' – because they can't say 'vampire.' So, that's why I was like, 'Point' – even if you can't say it, at least point that it is here" (10/19/15). This type of occurrence was corroborated several times in each of the observations, as Louisa felt that using this kinesthetic strategy was helpful for her students who were requiring more support. Yet, many of her students were observed minimizing and avoiding speaking in English in response to gestures, instead remaining silent until and unless forced to talk.

Differentiating question types. Louisa claimed that she often adjusted how she asked students a question based on their perceived proficiency levels. However, this was difficult to corroborate in the field notes as her questions showed little variation from one interaction to the next or from one student to the next. They were predominantly display-oriented, using similar syntactic structures and vocabulary across all students. Moreover, her questions usually allowed students to answer them using a language frame, which accounted for over half of the student's articulated response. In this way, students were enabled to rely little on their own linguistic resources to answer any of these questions.

Peer mentoring. Louisa used preferential student seating in each observation in a heterogeneous format as a way to support the linguistic development of the less fluent speakers in her class. The evidence showed, however, that linguistic enabling may have taken place not by Louisa, but by the more proficient student in the dyad. For example, two students were asked to converse with each other about what one needed to do in order to be a good door monitor (First Observation, 10/19/15). Jimmy, the more proficient speaker, was sharing one example with Ana, the less proficient speaker, but she was sharing her example at the same time. Interestingly, they made no attempt to interject and clarify the speaker roles, nor were they making any eye contact with each other. They seemed only intent on fulfilling the task set out for them as quickly as possible. The way in which she structured their interactions often limited student discourse.

Language frames. Louisa simplified the language frames by making them close-ended and requiring students to provide only a single word to complete the frame rather than a phrase or a clause (Second Observation, 12/9/15). This way, Louisa reasoned, the frame remained constant and accessible, but the adjective itself could change depending on what school job was being discussed. She felt that requiring more student input to complete the sentence frames would be too difficult for many of her students, and thus be ineffective, especially for those who required more support than usual.

Repetition. Of all the PD strategies Louisa used, her reliance on repetition stands out from my observations for its overlap with suggested use from the PD. Louisa used repetition as her go-to strategy for language practice, vocabulary introduction and reinforcement, and scaffolding for diverse learners. Louisa frequently mentioned the use of choral language repetition as a pedagogical support when supporting students' communication practices, building in repetition within an activity both in her planning as well as spontaneously to support those with diverse learning needs. Getting students to repeat words, phrases, or directions for an activity happened at both individual and collective levels as well. Indeed, this strategy, while mentioned in the PD in the context of various activities, was used briefly, infrequently, and always in the context of an engaging activity. However, Louisa relied on using repetition frequently and with high intensity to bring an increased attention to language within her activities. Below is an abbreviated segment of an instructional sequence that illustrates her use of repetition as a planned pedagogical tool (Third Observation, 1/20/16). In this example, students were learning new vocabulary words, such as nouns and adjectives, associated with animals that you might see in a zoo.

Louisa: This first animal is a big cat. This lion has something called a mane. Can you say mane?

Class: Mane!

Louisa: Mane.

Class: Mane!

Louisa: It's not purple, it's usually yellow. OK? It has a mane. And it's a big cat. Is it a small cat?

Class: No!

Louisa: So this is a big cat—it's called a lion.

Class: Lion! [Louisa draws 5 other animals and performs the same routine.]

Louisa: This animal is tall and has a very long neck. It's called a giraffe. What is it?

Class: Giraffe!

Louisa: It has a long neck [she draws image on overhead.] Giraffes usually have spots. Can you say spots? Say spots.

Class: Spots!

Louisa: Again

Class: Spots!

Louisa: Spots are—usually a roundish shape. Spots are lots of circles.

Another example of how Louisa would embed repetition within her instruction is her prompting students to repeat single words within a lesson. For example, after drawing a picture of a full moon followed by a bat, she prompted students, "Say bat!" to which the students responded chorally, "Bat!" She repeated this repetition routine ____ more times in the next 10 minutes of instruction.

Louisa consistently used repetition as a type of instructional support when working with students who were identified as requiring more support or were unengaged. Using the expression, 'drill and kill,' to express her point (Third Interview, 1/20/16), Louisa described how two of the small groups needed support because neither was working on the task at hand, which was to converse with each other, asking scripted questions about school jobs. Because they were having difficulty in using language to communicate, she provided support by having them repeat the directions in English. She also modeled how to ask and respond to the questions that were part of the task by reading them aloud from the language frames, followed by having them repeat what she had read. Despite these efforts to support their communication and language (e.g., scripted language frames with display questions to ask), her efforts did not achieve her goals. These students, especially once she left the group's vicinity, would typically fall silent during the peer work. Louisa was aware of this and attributed the lack of success to the fact that they did not understand the directions and/or they possessed low overall proficiency (Third Interview, 1/20/16).

PD providers occasionally referred to repetition as an instructional move, but in contrast to Louisa's frequent prompting, the PD referred to repetition as a small part of the larger activity. For example, during the live PD sessions, the presenter reiterated that to make the acquisition of vocabulary as productive as possible, choral repetition was effective up to a point as long as she

used other strategies in which students had multiple opportunities to use the new words in authentic ways and in novel contexts. In one screencast, for example, the presenter used repetition and choral response as a means to preview new vocabulary and integrate the domains of speaking and listening to promote purposeful communication (S.1.3, Listening Screencast from the MOOC). But this choral response was embedded within an explanation of how the students could then sketch their own illustration and take turns describing their ideas to a partner. The listening student would draw and show their design to the describer, who could help the listener, but not show his own illustration. The screencast then outlined subsequent steps in which students would create their own city out of geometric shapes to teach students from lower grade levels how to identify them. The idea behind this suggestion was in part because students tend to be more engaged in the learning process when the dialogue is predicated on conversation that is open to spontaneity and novel uses with the new vocabulary.

Even though many of the activities I observed Louisa implementing were different from what the PD encouraged teachers to do, she believed it was effective (though she later hints some doubts about this) in supporting those students with less proficiency to be able to access the curriculum. She encapsulated this belief when she said, "The rationale was that I know they can't read, so if [they] repeat hopefully by the sixth time they'll have figured it out… so it was more for the kids who are on the lower end of the spectrum…" (Second Interview, 12/09/15).

Louisa's approach to vocabulary instruction did not result in high levels of vocabulary acquisition. My observations and Louisa's interview data showed that students did not use of the targeted words spontaneously or in authentic contexts (i.e. during peer work). This finding is consistent with the work of Zwiers (2014) who argued that when teachers over focus on specific words, students are far less likely to develop an in depth understanding of how they relate to the concepts within content. This raises an interesting question about how PD's of this nature might be able to address what is quite a common practice among many of our professionals, especially when they make attempts to support those students with diverse learning needs.

Low expectations of students requiring more support. Based on interview and pre-survey data, Louisa expressed a pessimistic view of what those students whom she identified as requiring more support with communication were capable of doing. For instance, she said that her diverse learners were not doing any of the class work because "they can't read the questions anyway," and they did not "know how to manipulate the language enough to do [the work] on their own" (Second Interview, 12/09/15).

Evidence of Louisa's low expectations were corroborated in practice in the nature and quality of instructional support she provided to the three small groups that she supported for a portion of each observation. Louisa divided her students into three groups based on their proficiency levels: low, middle, and high. She said that due to their varying levels of oral proficiency, she tended to focus on different objectives with each group. With her low group, she had them engage in the oral repetition of words and phrases more frequently than the other groups—she used the term 'drill and kill.' In contrast, with the middle group, she did a mixed assortment of activities with some more open ended questions as well as activities involving repetition. The high group did the most in depth work, such as focusing on discussing deeper-level questions about a given topic.

Mild Shifts in Louisa's Practice of Language

Louisa seemed to articulate some modest changes in her beliefs by the last interview. In processing her frustration with how much difficulty her students seemed to have with authentic interactions, she talked about her students' first language in the third interview (1/20/16) in a way that brought into question her previous statements about what role it should play in developing skills in communication and language. She acknowledged that perhaps it would be helpful to have them practice these activities and patterns of interaction in their first language prior to using English since their oral proficiency was relatively undeveloped. She also questioned what she perceived as her students' dependence on the language frames as in some way mitigating authentic interaction. During the last observation, for example, she revamped the typical types of questions that she had her students ask and answer each other. Rather than rely on just "the simple question" requiring a one- or two- word response, she decided to see how they would respond to a deeper-level and more open-ended question in which they had to ask their partners 'why' they said their previous comment.

While I did not capture in my field notes any notable instance during which students were seeming engaged in this new line of questioning, Louisa felt that "they were actually okay with it" (Third Interview, 1/20/16). Equally important when considering change over time, Louisa's shift in perception of the types of questions her students could handle is what counts. Over time in the study she seemed to question her assumptions about what she could reasonably expect of her students.

Students' first language. Louisa believed that supporting students in their acquisition of English involved minimizing their use of their first language during class (First Interview, 10/19/15). Like many educators, she believed that the more students spoke in English, the faster they would acquire the language, although she was not punitive with those students who did otherwise. She positioned herself as a proponent of ensuring that her students spoke only in English, especially during designated ELD. However, if they did not have sufficient proficiency, she said, they could speak in Chinese, but that she would "just repeat [what they say] in English." There were several instances in the observations that corroborated this stance. Typical examples that occurred include one instance when a student was speaking a mixture of Chinese and English, to which Louisa reminded him by saying, "Jimmy, English." There were other times during which a student asked Louisa a question using Chinese, and she responded back to the student using English.

Despite Louisa's position on this issue, her students showed several instances in which they used Chinese to communicate with their peers, especially when the teacher was not involved in the dialogue, often in hushed tones. For example, students often spoke softly in Chinese as they walked around doing group or partner work. If one student was having trouble with English (e.g., reading the directions on a worksheet or getting help with vocabulary), their peers would often provide assistance by providing clarification in Chinese. When I asked Louisa about this, she said that they were most likely speaking softly because "they probably don't want me to hear it" (Second Interview, 12/9/15).

Consistent with her position that more exposure to English yields more English learned, Louisa did not advise her more proficient students to speak in Chinese with those peers that were requiring more support and/or unable to speak in English. For example, in the last observation, a boy was speaking in Chinese with his partner. As he was speaking, Louisa reminded them verbally not to speak in Chinese with those who do not know as much English. Feeling confused

about how to respond, the boy asked, "What should we do? My partner doesn't know [the word] fat." Louisa responded by demonstrating how he could have communicated that word to her without using Chinese by relying on kinesthetic strategies. In this case, she used her arms to show what that word meant. She then asked the whole class, "If your partner doesn't understand, should you use Chinese?" The class responded chorally, "No!" She then asked, "Why?" To this, another boy responded that if you speak to them in Chinese, they will not learn English.

By the last interview, however, she articulated other possible ways in which she could support those who were requiring more support, such as speaking in Chinese during ELD. When sharing her thoughts about some of her students' lack of engagement, she said, "I should probably practice it in Chinese, but they're actually not that much better in Chinese." Thus, Louisa felt stuck in how to support them in the area of language and communication more effectively, and many of the strategies from the PD did not show evidence of being applied in her lessons.

Charlotte

My analysis of Charlotte's journey through the PD suggests that she experienced several changes in her beliefs as well as classroom practices, and all of these changes were consistent with the principle of bringing greater attention to language during designated ELD. Like most teachers, she also had her share of struggles in enhancing communication and supporting students, as some of her language-based strategies were different from or in conflict with the emphases in PD emphasized. While it may be that she also experienced cognitive shifts in her understanding of the content about how to support students' communication and language development, the bulk of evidence suggesting change emerged from the observation data, which showed an evolution in her practice, with some corroborating evidence from the interviews showing changes in her beliefs. Relative to the other focal teachers, Charlotte showed the most contrast in her practices between the start and end of the PD. For these reasons, she is a fitting candidate to explore as she stands in contrast to Louisa, who experienced more struggle, less change.

In this section, I try to describe Charlotte's journey through the PD. First I examine her initial understandings, perceptions, and the nature of her practice as they related to the language goal. Then, I try to highlight the change that she exhibited by the last observation, focusing on how she provided feedback and support to help students communicate using academic language. To do this, I unpack the feature of language, an elusive construct on its own, by exploring some of the domains in which it was presented in the PD: the use of modeling, providing scaffolds, the creation and/or adaptation of peer-based activities that emphasized the integration of structured interactions, and opportunities for students to practice using language for purposeful communication.

Charlotte's understanding and practice of language. At the start, Charlotte exhibited an emerging understanding of how to support students' language development. She expressed, in turn, that her motivation in participating in the PD was that she wanted "to be more supportive of students who have not mastered the English language" (Pre-Survey). She still struggled, however, in her knowledge and practices about how to do this pedagogically. She also expressed a common challenge at the outset, echoed by over half the group of other teachers, with finding ways to get her students to (a) talk more in general; (b) talk more purposefully during class, and (c) use more academic language more often when discussing the content of lessons. She was not

an anomaly in this regard, as several other teachers participating in the hybrid PD during the local breakout sessions shared this sentiment during which they discussed the MOOC content.

Charlotte's strategies to support language. Couching her understanding and practices as 'emerging' is a judgment based on my analysis of the interview, observation, and pre-survey data. Several examples typify how she was still developing her knowledge and skills in this domain. Data from the interviews suggest she limited her instructional approach to supporting her students' vocabulary development by telling them the definition and, sometimes, having them chorally repeat a key word to her. Her responses in the pre-survey were similar. In her response about how she might support her students' literacy and communication practices while reading a text, she expressed some confusion. Other than ensuring that they spoke in complete sentences and "probably have them talk throughout the text" rather than trying to find the main idea," she was "not sure what [she] would do" to support them (Pre-Survey). In other items that used a 5-point Likert scale ranging from not knowledgeable to extremely knowledgeable, she rated herself in the second lowest category (not very knowledgeable) when asked how knowledgeable she currently felt about what instructional approaches were effective in supporting students' language development (see pre-survey in Appendix D). She also rated herself in the lowest category as being "not prepared" for the question about how well prepared she felt about planning and implementing ELD lessons in general.

Finally, the evidence from the first and second observations and interviews shows the variety of struggles that Charlotte wrestled with in her attempts to support her students' purposeful communication using academic language. She told me that what she tried in the initial observation represented her first attempt to embed communication as her primary objective (First Interview, 10/13/15). She shared that she would normally just limit her focus on communication to having students repeat chorally what they were going to do or in the reciting of new vocabulary. Charlotte's understanding and beliefs about how to increase and support students' attention to language seemed to parallel her practice, a topic to which I now turn.

Translating concepts into practice. Across the three observations, she implemented peer-based activities that focused on the key strategies emphasized throughout the PD. The primary intention in having students work in pairs was to maximize their use of language as they worked together to complete assignments; secondarily, we were interested in learning more about how teachers negotiated a productive interaction, such as paraphrasing or maintaining appropriate eye contact (Zwiers, 2014) during classroom discussions. Charlotte seemed to struggle initially in developing activities in which students engaged in these types of peer-mediated negotiations.

In the second observation, she did a peer-based lesson, coined as a stronger/clearer activity in the PD, but this time she used heterogeneous pairs (one more and one less proficient EL), having them take turns sharing why they liked the book they were reading. While the intent was to promote clear communication, field notes indicated that students remained very quiet. Charlotte herself was dissatisfied with the paucity of talking and commented that, after reviewing their graphic organizers after class, she concluded that many of them did not understand the objective. She noted that several of them, upon listening to their partner, reduced the number of reasons on their own sheet rather than making additions to it.

While she expressed a strong desire to support students' communication, many of her strategies seemed to fall short of meeting this objective. In fact, in her attempt to support

increased attention to language and communication, she may have inadvertently stifled it. Data suggest one possible explanation to explain this trend; her struggles may also have been related to the fact that she, quite unintentionally, established a cultural and linguistic climate that did not support students in taking linguistic risks. As I describe in more detail next, both the climate and her instruction may have contributed to this unintended consequence.

Cultural and linguistic climate. A persistent theme emerging from the data from the first two observations was that Charlotte, exercising high levels of control over dialogue, seemed to influence more than just the quantity of student talk in the first two phases of data collection. She also affected the content of discussion as well as the ways in which they used language to communicate, focusing more on language form over meaning. Some examples were subtler, while others were more obvious.

In the first observation, for instance, while the students were sitting on the rug in a very quiet and attentive manner, Charlotte asked them to chorally repeat each of the language frames on a chart in preparation for a peer-based activity. One student made a mistake to which Charlotte responded: "Does that make sense?" (Field Notes one, 10/13/15). In other words, Charlotte chose to emphasize not only the syntactical error he made, but she also did this in front of the other students, which seemed to make him feel embarrassed, as evidenced by his silent response.

Language form. Charlotte also used language frames in a fairly scripted manner at times, placing much emphasis on students integrating them within the flow of their discourse practices. A typical example in the second observation was when Charlotte, after chorally rehearsing language frames, she called upon one student to answer a question. The boy started to answer, but neglected to use a language frame at which point Charlotte interrupted him by restating the frame aloud, followed by looking at him expectantly. The student, in this case, remained quiet briefly and then retorted once again, but this time using the frame. This type of Initiation-Response- Evaluation (IRE) dialogue was commonly observed in the first two observations. In contrast to what the PD was emphasizing, Charlotte sometimes asked a question, called on a student, restated the language frame before the student responded, and then listened to their answer.

Charlotte relied on the frames beyond using them to enhance students' vocabulary and correct use of syntax. She also projected them on the overhead to guide what questions and comments to make along with an example of how one might complete the frame in preparation for peer work. However, instead of using these examples as a springboard to articulate their own responses, several of the students, presumably in an effort to comply with her requests, copied the completed frames as their answer. Charlotte corroborated this trend in the interview, as she felt frustrated about the use of language frames. She observed that her students tended to "stick to them" too much, but she did not explicitly make the connection between the actions she could have taken to minimize this over-reliance on the frames and support the students' in developing their own answers.

Control and influence over dialogue. Charlotte tended to dominate language use. She may have created an environment in which students sometimes may have felt unsupported in using language authentically. Consider this description of a segment of a class discussion[3]. Later in the second half of a lesson during the second observation, she called on a student to

[3] This type of overt confrontation in getting students to participate using language occurred one other time.

reiterate what the class was supposed to do during the peer group work. Pedro, for whatever reason, did not respond for 36 seconds (based on my calculations), looking very uncomfortable. During this time, the other students felt quite uncomfortable, as evidenced by their looking away from both the teacher and student. Finally, Charlotte asked if he needed some help; the boy nodded. She said that whomever he called, he was going to have to repeat or use his own words to describe what that student said in order to practice using language.

The emotional impact this must have had on this boy aside, the point to emphasize is the likely repercussions that this confrontation had on the emotional and linguistic climate of the classroom. When I asked Charlotte in the interview what had happened, she did not acknowledge the emotional impact at all. Instead, she said that she had been struggling in getting some of her students to participate verbally. She noted that this type of silence had happened previously, but she did acknowledge that this type of power struggle was unproductive, and she seemed motivated to change strategies in the future.

These examples, when taken together, suggest that Charlotte struggled in the beginning with getting students to communicate purposefully in part because of how she structured communication within the activity. However, the lack of purposeful communication may also have been mediated by the discomfort that some of the students likely felt. Furthermore, additional evidence from the interview show that she exercised more control over the discourse practices among those students who she perceived as requiring more support. In the interview, she said, "… usually if they're struggling I'll be monitoring their interactions very closely. So I'll be there to correct it right away, [and] if I have them split into partners I would be like watching that partner group and like helping them sort of move along." This example clearly illustrates the efforts that she made to support all learners, particularly those who required more support. These examples, in the aggregate, raise an interesting point about unintended consequences—how teachers' intentions to support those with diverse learning needs in the area of language may in fact have a negative impact on their language production.

Instructional approaches. A persistent finding is that, outside of Charlotte's impact on students' comfort levels with communicating, it was her novice status as a teacher of ELLs that explains many of her actions and responses. She was also learning much of this content from the PD for the first time. It follows, then, that she was absorbing some new instructional possibilities about how to provide support to help students use language in purposeful ways while increasing their attention to language.

Modeling how to carry out a communicative activity that involved student participation was one strategy that the PD emphasized, and Charlotte was, by all accounts, familiar with the basic tenets of this process. However, she seemed to privilege her objectives over language development, prioritizing achieving her planned content goals over taking the time, such as through modeling, to increase students' awareness of language. The evidence from the first and second observations show that she typically provided Teacher-Only (TO) modeling, which she performed quickly and without much student involvement, such as asking them to respond or provide a logical next turn. For example, using the overhead, she read aloud one of the student's writing pieces, which she appeared to appreciate, to demonstrate how to ask questions and respond to a peer's writing. She then had the students repeat the frames chorally as a way to check their understanding before sending them off to work.

More thorough modeling, using student input when possible, and checks for student understanding were seldom evident in her lessons. This practice was consistent with her overall instructional priorities, as expressed in the interviews. Coverage was a primary goal. Thus, she would march through a lesson with little regard for whether students understood the objectives. She said that she "wanted to get going" due to a lack of time. She said that before sending them off to do peer work, "it seemed like all of them knew what to do," although the evidence from the field notes suggested otherwise. Her modeling process, while clearly evident, appeared to be more a matter of compliance and mastery of substance. Charlotte was aware of this problem, and she even acknowledged this later in the interview, commenting on how she felt obliged to talk so much in order to get to the point in her activity where the students could work with each other "in order to use language in purposeful ways" (Interview, 10/13/15). Clearly, there was a tension between her goals and her methods of achieving them.

Shifts in Charlotte's Practice of Language

Over time, Charlotte exhibited concrete changes in regard to the strategies she employed to provide support to help students communicate and increase their attention to the language within an activity. Some of these shifts were represented more as an absence of counterproductive practices, such as the reducing the number of power struggles related to students' participation or requiring that they use language frames in whole class discussions. Other changes involved the appropriation of new strategies, which clearly improved the interactions with her students.

For example, she exhibited greater effectiveness in implementing planned modeling that demonstrated how to engage with their partner linguistically for an upcoming task. In the beginning, she implemented one instance of teacher-only modeling, yet by the second phase, she performed teacher-only modeling twice within one lesson. Impressively, by the last observation she implemented more sophisticated instantiations to include both teacher-student as well as student-student modeling during the demonstration for an upcoming activity. In other words, she modeled an upcoming task with another student after which she invited students' comments about the process and what they learned. Shortly thereafter, she picked two volunteers to demonstrate the upcoming activity for the whole class, which based on field notes, seemed to enthrall the students. In sum, she displayed a steady increase in the complexity and depth of this form of explicit and formal modeling over time and with successful student uptake of the practices.

While Charlotte's instructional practices for language use did not vary much in the course of the study (choral responses, turn-and-talk mini-tasks, and whole class discussions during which she called on individual students), I observed a qualitative shift in how she implemented the practices that had contributed to an unsupportive cultural and linguistic climate. Her students were markedly more enthusiastic by my third observation. Charlotte pointed out in the last interview to a possible shift in how she conceptualized the goals of designated ELD, including how she started to seek her students' feedback about what they enjoyed and liked during class.

Charlotte had never *required* students to abide by the language frames in a scripted manner during peer-based discussions, although she still had them practice rehearsing them as a group prior to the peer-based activity. Students still practiced and were encouraged to use language frames when she modeled the upcoming activity. Moreover, rather than publicizing, repeating, and asking the student to correct a grammatical error, she simply restated what they

had said in order to ensure that she understood them correctly. Finally, she implemented a far more effective peer-based activity in the last observation, during which students interacted for over 15 minutes of the class with each other using language to provide directions in order to navigate a map. They were using language in authentic and purposeful ways, which was in stark contrast to the peer interactions in the previous observations. In reviewing Charlotte's goals that she articulated at the start of the PD, getting students to talk more and in a more purposeful manner, she showed evidence of progress.

Trends Across Focal Teachers

In this section, I move from the two case study teachers to the entire group of focal teachers to examine the trends and shifts in the entire group's knowledge, practice, and beliefs related to the language principle—the idea that to build students' capacity for purposeful communication, teachers need to increase the explicit attention they give to some of the different dimensions of language.

Recall that one of the primary emphases in the PD was to show teachers how to provide additional attention to the teaching and assessment of how language is used. This was important in part because there are strategies teachers can use that provide additional support to their language acquisition beyond what they would naturally learn from integrating the previous two features (CDOT Introduction, MOOC Curriculum). The MOOC accomplished this by focusing on a variety of scaffolds, modeling (also a type of scaffold), integrating more opportunities for students to practice using language for purposeful communication, and creating structured interactions through the development of peer-based activities (see Figure 5.1).

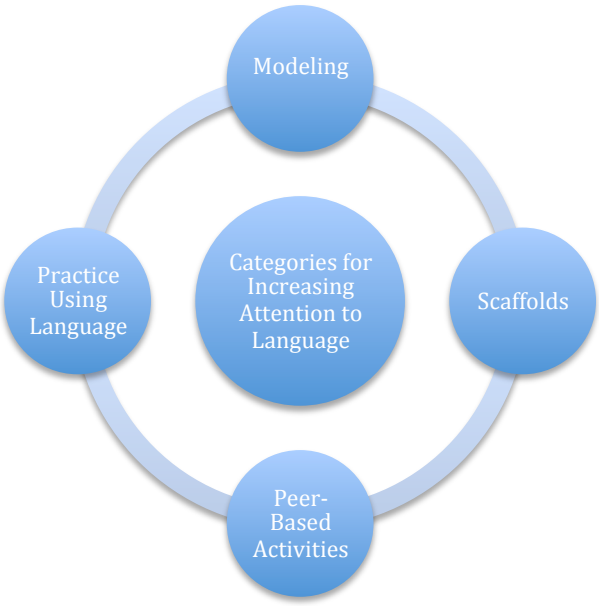


Figure 5.1. Components of Increasing Attention to Language.

All of these strategies have the potential to boost students' language acquisition. For instance, as the MOOC clarified, modeling and scaffolding practices allow teachers the opportunity to hone

in on whatever aspect of language that they think will support them in their communication. Students also need more occasions to actually practice using language either through interactions involving their teacher or other students as this facilitates their development, and it is ideal if they can do this through peer-based activities that build in structured interactions that support their use of language for academic purposes.

In this study, one goal that all teachers shared was their pre-existing desire to increase communication and language in their classrooms. Unlike the information gap goal, which was imposed by the MOOC, they wanted better language development tools even before the MOOC started. The more novice teachers (MNTs) and more expert teachers (METs) tended to differ, however, in the degree to which they articulated these sentiments, with the MNTs group providing broad comments and the more experienced expressing more detail in their concerns and goals. Data from the interviews and observations showed that the trends and changes in teachers could be explained most clearly by plotting a different trajectory for each of these groups. I readily admit that the dichotomy is, in some way, false because the boundaries are more variable and permeable depending on what feature of language we are considering. However, the two groups provide a useful heuristic as a first cut at explaining the journeys of these teachers. These groups also showed some qualitative differences in their pedagogical acumen, specifically how they supported students' language and communication development.

MET Knowledge Change

The three teachers classified as METs from the start— Erin, Francesca, and Abel— demonstrated little change across the three phases of data collection in either their practices or articulated knowledge of how to increase the attention placed on language and communication (see Figure 5.1). The evidence for this claim comes primarily from observations and interviews, but also from their work assignments and pre-surveys. Among those METs, the data from the first observations in October verify that they possessed a refined and nuanced ability to apply this principle prior to their participation in the MOOC; in short, there was little room for growth and little opportunity to attribute any practices to the MOOC experience. This claim is supported in both the nuanced descriptions that the METs provided in the interviews as well as the array and frequency of strategies and supports (see Figure 5.1) they implemented during each of the observations.

Examples of understandings. The METs tended to begin the MOOC with a deeper, more nuanced understanding of what was involved to increase student awareness of language and communication within an activity. This was often reflected in how they articulated their planning process as well as the many challenges associated with increasing students' attention to language. They provided, for instance, more detailed, comprehensive responses about the importance in providing explicit support in the areas of vocabulary and grammatical skills. From the beginning, they consistently framed how they strove to couch this instruction within the context of engaging content that had students already using language to communicate in purposeful ways. Typical points they raised included when Abel commented, "I should actually be doing a little more purposeful grammar... even a traditional grammar lesson that would feel more purposeful because it came from what you were reading or what you were talking about" (Second Interview, 12/9/15). Erin agreed with the importance of linking language form within a meaningful context when teaching these concepts when she said that grammatical instruction

"is**…**always based within whatever story they're reading or content they're discussing" (First Interview, Erin, 10/19/15).

Erin, for example, described the challenging nature associated with supporting students' language and communication development (First Interview, 10/19/15). As part of her answer to my question regarding how she planned to provide a focus on language, she expressed that to do it successfully, it took time and effort in two ways. First, she had to maximize the opportunities for students to use language in interactions with others. Second, she had to make sure her students understood the interactional norms (First Interview, 10/19/15). She went on to add a detailed reflection about scaffolding their communication through the use of language frames. She voiced some concern about its limitations with her students, as the frames were sometimes decreasing authentic discourse, the majority of whom were identified as being at risk. She believed, as did Abel and Francesca, that it was more important to ensure that the students actually talked rather than insisting that they use the frames or be accurate in their articulation. In other words, Erin's response above demonstrated a detailed, nuanced, and thoughtful explanation about how to increase attention to language.

This group also discussed the hard work they put into planning for a focus on language. Francesca noted that she often reserved more than 30 minutes of planning for a designated ELD lesson, which she noted, exceeded the length of the class itself (Interview, 12/10/15). Abel, for instance, always asked herself, "Okay, well if I was to have this discussion with someone, what's the language that I'm going to use" (First interview, 10/28/15). She also recognized that even with planning, she had to be prepared for the unexpected when she commented, "I always miss like ten things that are going to trip them up, because it's just so natural to me that it's hard to figure out what they don't know…" (First Interview, 10/28/15). Abel summed this up succinctly when she said, "I think that is part of the struggle is just giving up the little bit of accuracy for the sake of a – for them to be able to have a conversation" (Third Interview, 1/27/16).

Expertise should not be equated with the absence of struggle; in fact, all of the METs still continued to struggle with finding solutions to supporting their students to communicate purposefully. Abel's comment encapsulates this in her struggle to get them to use academic language: "They're owning the conversation, [but] they don't want to own the academic part of the conversation like…" (First Interview, 10/28/15). In other words, getting them to communicate purposefully was happening, but now she was working towards encouraging them to integrate more academic structures within their dialogue. Francesca discussed her ongoing efforts to generate appropriately challenging language frames that augmented communication when she reflected, "But that seems too unnatural to them that they didn't really try it. So, it needs to be more explicit or I'm not sure. I'll just keep trying…" (12/10/15). Working with significantly disengaged students, she also lamented how she was still integrating instructional techniques to help them learn the basic interactional skills to supplement linguistic support when she said, "I've spent so much time trying to get them on basic listening, eye contact, facing each other, and honestly we still have so much to do" (12/10/15). The detail and nuance with which the METs spoke contrasted with the reflections among those who were the MNTs in this domain, a topic to which we now turn.

MNT Knowledge Change

The MNTs—Charlotte, Louisa, Marina, and Adaline— provided less nuanced descriptions of their understanding of this feature across the three phases of data collection. They

expressed a desire for their students to use more language, but tended to provide less detail that described how they hoped to do it and why. Instead, they made more generalized comments with little reference to those strategies, such as scaffolding or modeling, which would help them support students.

Marina, for example, represented this group when she described how she wanted to "make sure that no matter whom – whatever we're talking about, that everyone has the chance to be able to talk about [the topic]" (First interview, 10/19/15). Basically, she provided a legitimate response about how she planned to incorporate an attention to language, but she did not extrapolate on additional information about how she would do this and why. This was reflected in some of her work assignments as well. She did not show evidence of how she might provide an increased attention to language, which was critiqued by one of the peer reviewers in the MOOC. Recall earlier in this chapter some of the reflections provided by Charlotte and Louisa that depict an emerging understanding of this domain. Charlotte, for instance, usually relied on an abbreviated approach to vocabulary instruction by giving them the definition and having the students repeat the word chorally (First Interview, 10/13/15). She also expressed in the pre-survey that she provided linguistic support in part by ensuring her students spoke in complete sentences, but did not elaboration her thinking in the way that the METs did. Louisa, on the other hand, provided more examples and details of how she tried to support their language, but they tended to be couched in an understanding that language was most effectively acquired with a focus on the formal features of language without consideration of context. Louisa, for instance, described some strategies to support their language, such as "using visuals" and pointing to an object rather than verbalizing it.

Comparing METs and MNTs. In sum, the METs articulated a nuanced understanding of how to increase students' attention to purposeful communication and language, while the MNTs relied on shorter, less descriptive responses. On the other hand, by the end, the MNTs probably because they started out at such a modest level, expressed greater growth in their expressed views about what and how to teach when it came to language development issues.

Practices among the focal teachers. The trends in all of the teachers' expressed knowledge about language carried over in their practices as well. In the sections that follow, I illustrate how the MNTs, those with a more emerging understanding, put into practice fewer types of strategies (see Figure 5.1) with less frequency to support an attention to language and purposeful communication. At the same time, the METs implemented more types of strategies with greater frequency, but they exhibited little change over time in the types of strategies they put into practice. The MNTs, on the other hand, demonstrated less expertise at all points in time, but with more change over time. The types of strategies employed and their distribution across the two groups of teachers tell an interesting pedagogical story.

Scaffolds. My analyses of the observations show that the teachers' use of language-based scaffolds was consistently present from the outset, with some slight changes occurring among some of the MNTs. There were, however, differences in the number, quality of implementation, and types of language-based scaffolds observed between the METs and MNTs. Keeping in mind that there are many scaffolds available to teachers, some of which are not captured in the data, some are explicit while others are used more subtly and thus harder to observe—I focused on those that were observable in the classroom.

I found three main types of scaffolds that were most commonly used across the focal teachers: (a) supports for purposeful communication; (b) their use in texts and; (c) those that were activity-specific, with the intention of making the lesson more accessible to all students. Table 5.1 is not an exhaustive list. Rather, it illustrates the scaffold types that were *observed* across the MNTs and METS in the MOOC.

Table 5.1

Scaffolds Observed

Scaffold Types Observed	The MNTs	The METs
Supports for Communication		
Word Banks	0	ALL
Turn-taking Visual (e.g., Clue Card)	0	2 of 3
Language Practice (e.g., Talk to Hand)	0	2 of 3
Language Frames Given to Students	0	2 of 3
Language Frames Displayed (e.g., on the wall)	ALL	ALL
Kinesthetic Moves (e.g., gestures, movement)	0	ALL
Use of Text for Communication		
Text Read Aloud	3 of 4	2 of 3
Text Read Aloud from Overhead	ALL	1 of 3
Physical Prompt to Highlight Text Being Read	2 of 4	1 of 3
Use of Overhead to Display Text	3 of 4	2 of 3
Student Copies of Text	1 of 4	2 of 3
Oral Cues to Signal Importance	1 of 4	ALL
Activity-Specific		
Use or Display Student Work as Example	2 of 4	2 of 3
Use of Graphic Organizers to Complete/Use	ALL	ALL
Post-its to Support Communication	2 of 4	1 of 3
Language Frames Specific to Activity	ALL	ALL

Note: There were 4 MNTs and 3 METs

Scaffolds used by all cases. Typical examples of scaffolds (see Table 5.1) that all teachers used consisted of posting language frames on the wall that were not activity-specific, such as possible questions of clarification or response statements. Others were language frames

specific to the activity, such as statements on the overhead to use when working with a peer, and the use of graphic organizers supporting all students' access to the activity, such as a replica of the worksheet handed out to the students, but also displayed on the overhead. All teachers used each type to varying degrees from the outset, although there were quantitative and qualitative differences between the groups.

Differences in scaffold use between teacher groups. Among the METs (Erin, Francesca, and Abel), on average, I counted a range of between 10 to 14 scaffolds that they used across any single observation. In contrast, the MNTs, in the beginning, used on average about half the amount of scaffolds. This number tended to grow with the latter group by the third observation to about ten on average within the 30-minute period.

Supporting communication. With a few exceptions, the types of scaffolds that the METs were likely to use, but not the MNTs, were ones that each student was either given by the teacher or generated by the students and teacher together. The most common example of the latter was found in generating a word bank using student input. In the first observation, for instance, Erin created a word bank related to the story they were reading together, generating words to describe the emotions of some of the characters.

These METs also tended to include other physical scaffolds for each student to use and carry with them, sometimes to supplement visuals displayed on the wall or overhead. For instance, two of the teachers used a "talk to your hand" scaffold designed for students to practice using language on their own. Students held up their hand in front of their face to rehearse what they could say to their partner in the upcoming activity prior to starting.

Text Related. The third type of scaffold commonly observed across both groups consisted of augmenting the accessibility of the texts when used during a lesson. While this was not necessarily part of all teachers' instructional practices, of those who did use a text, I found that there were some differences that emerged between both groups. While all teachers tended to read the text aloud, which in itself is a scaffold, as in the case with Marina when reading to her group about a holiday, the METs used additional scaffolds to support students' comprehension and communication about the topic. From the beginning, this group also projected the text being read onto the overhead or provided individual copies to follow along with their finger.

In contrast, the MNTs was initially observed reading the text aloud with only some cues provided orally about important parts that they were either about to or had just read. However, by the third observation, the MNTs exhibited some change in this regard, incorporating additional features like highlighting the text on an overhead as they read aloud.

Changes in scaffold use over time. While the METs demonstrated no observable changes over time in respect to the types of scaffolds they used to support communication, the MNTs showed a little more variability. While two of them showed no discernible changes (Louisa and Charlotte), two others (Adaline and Marina) showed a slight increase in the number used. Marina showed the most change in her use of scaffolds. In the first and second observations, for example, she read from a text that she held in her hand as the students listened and "took notes." In the later observations, however, she used the above scaffolds but added more variety, such as displaying some of her students' work on the overhead to use as examples, her use of color-coded language frames and prompts that they could use, and post-it notes used to record their ideas that they would later rely upon when talking with their peer.

METs modeling scaffolds. The differences between groups in the types of scaffolds they used to support communication are limited in that they only suggest whether or not teachers provided them. While this is an important indicator in examining the degree to which teachers are increasing attention on the language component of a lesson, it says little about the frequency of implementation as well as degree of effectiveness. These data from the observations showed that sometimes teachers would provide scaffolds, but not model or refer to them in their instruction. Here's a typical example: a teacher might post language frames on the wall or pass out a graphic organizer that the students could use to support oral talk with a peer. But then the teacher might not refer to the frames during instruction. In the observations, I found that METs were more likely to model and refer to the scaffolds compared to the MNTs, although this delineation did not always hold true.

The METs tended to make more references to the scaffolds than the MNTs by showing how to use them. A typical example from Francesca's classroom illustrates this practice in her review of the mini-card containing language frame prompts that students could use to support their conversation with a peer. She demonstrated how to use the frame by reading the prompt aloud to the whole class and providing examples of how to use it in a sentence. While talking, she used other scaffolds concurrently to support her examples, such as non-verbal, kinesthetic cues like facial expressions, exaggerated tone of voice to indicate states of mind, and movements of her hands to signal transitions in her speech. She also elicited student input by having them try to experiment using the new words as well.

MNTs modeling scaffolds. At the same time, these data show that the MNTs also modeled the scaffolds, but it was less frequently observed, and it seemed less effective in increasing students' attention to language. In point of fact, Charlotte, Marina, and Louisa expressed frustration about feeling like some of their modeling was ineffective in terms of getting their students to use more purposeful language. For instance, Charlotte provided a scaffold of a language frame on the overhead, intending it to be used as a writing prompt for an upcoming peer-based activity to spark dialogue. However, she later realized that many of her students just copied the model onto their own graphic organizers and were observed using minimal language in their interactions. This over-reliance suggests that in addition to providing and modeling the scaffold, care and attention should also be placed in assessing the degree of student uptake of the scaffold.

Modeling

The findings in the domain of modeling are focused on instances in which the teachers connected with making language more explicit for the students. In general, these data revealed richer findings in the observations in the way of trends and change than with their reflections in the interviews.

As mentioned previously, the PD emphasized the use of modeling as a vehicle to increase an attention to language largely through embedding examples within partially worked out activities that were then analyzed for the participants. I found that there were clear differences in the types and frequency of modeling between the METs and MNTs. The three METs, as was the case with earlier instructional moves, started out at a pretty high level and exhibited no significant change over time in the practice of modeling. However, there was a modest increase in the frequency with which they occurred over time. The MNTs, in contrast, exhibited fewer types and less frequency of modeling, but they did show mild increases over time.

Another way to parse the distribution of modeling activities is to distinguish between planned and improvised types of modeling. The former involved the teachers' planning for how to use modeling as a vehicle to support students' communication and to increase attention to the use of language. Improvised modeling, on the other hand, had similar objectives, but was largely unplanned.

Planned modeling practices. These data on modeling show that Abel, Erin, and Francesca, the METs, implemented multiple types of modeling with high frequency for varying purposes (e.g., to clarify an upcoming activity or how to use a new vocabulary word), all of which shared the common goal of highlighting language or communication. The MNTs, on the other hand, demonstrated fewer types with less frequency.

The most prominent form of modeling addressed in the PD was geared toward teaching students how to engage with their peer in an upcoming activity that required them to communicate with an academic purpose (i.e., shown in the top three rows of Table 5.2 below). I found that these types of modeling were best categorized as Teacher-Student, Student-Student, and Teacher-Only strategies. All types of modeling, however, were also addressed indirectly through the demonstration and analysis of activities. Table 5.2 illustrates the various types of modeling that I observed across all the teachers.

Table 5.2

Types of Modeling at the Start and End of Data Collection

Types of Modeling	MNTs	METs
Teacher-Only	Start: 2 of 4 End: 4 of 4	ALL
Teacher-Student Modeling	Start: 1 of 4 End: 3 of 4	2 of 3
Student-Student Modeling	Start: None End: 1 of 4	1 of 3
Role Playing	None	2 of 3
Metacognitive Strategies: Think Aloud	Start: 1 of 4 End: 3 of 4	ALL
Explanation of Linguistic Concepts	Start: 1 of 4 End: 2 of 4	ALL
Rephrasing	Start: 1 of 4 End: 2 of 4	ALL
Supportive Feedback to Help Students Communicate	Start: 1 of 4 End: 1 of 4	ALL
How to Phrase Oral Output	Start: 3 of 4 End: 4 of 4	ALL 3
Modeling Definitions of New Vocabulary	Start: 2 of 4 End: 4 of 4	ALL 3

Teacher-only modeling. Teacher-only modeling was the most frequent type observed across all focal teachers, and it also exhibited the most change among participants. In this type of modeling, the teacher was the only active participant, but its design was to provide linguistic scaffolding for an upcoming activity involving students' use of purposeful language. A fairly typical instantiation occurred with Erin in the first observation during which she wanted her students to work in pairs to discuss pivotal events in their own lives, using the frame, "A pivotal event in my life was _____ because _____." Before the students worked together, Erin modeled how she might answer that question in the activity. She then described a personal experience of hardship related to playing on a sports team during which she used the word and the frame. She then fielded questions from the students during which she encouraged them to use the term.

Teacher-student modeling. This type of modeling involved student participation with the teacher, usually with the whole class acting as the audience. Again, these were generally demonstrations that attempted to increase the students' attention to how language could be used in an upcoming activity as well as basic directions. A typical example was when Abel pretended to be partners with one of her students to describe extreme weather events. Her objective was to figure out what weather pattern the student was describing. Abel modeled how to use the individual student language frames containing prompts for possible follow up questions or comments. Using a fishbowl technique in which students offered feedback to Abel and her partner, they talked about what went well and what could be improved regarding what language could have been used.

Student-student modeling. This strategy involved at least two students modeling in front of the class as a way to address the linguistic component of an upcoming peer-based activity. As I described in the case study on Charlotte earlier, Student-Student modeling seemed to be a captivating approach to increase their awareness of the linguistic components of an upcoming activity. Abel had her class, for example, line up in two lines facing each other. The topic of discussion pertained to whether or not school recess should be free or structured. After explaining the objectives of what she wanted the students to discuss, highlighting the language frames, she asked for two volunteers to demonstrate the activity. Afterward, she called on one more set of volunteers to do the same thing.

The descriptions highlight the array of planned types of modeling geared towards drawing students' attention to the language component in the context of a planned, peer-based structured activity. There were, however, several other types of modeling exemplified largely by the METs, which they also practiced with higher frequency than those who were newer to this domain.

Improvised modeling practices. These data verify that other types of modeling, most of which was spontaneous, frequent, and required relatively little instructional time, were utilized across all focal teachers to support their language and communication.

Trends among METs. Upon closer analysis, however, those METs—Erin, Abel, and Francesca-- showed more evidence of using these types of modeling than those whose understanding and practices were emerging in this domain (i.e., Charlotte, Louisa, Marina, and Adaline). I found that these practices often served a common purpose: either to support the linguistic needs of students when they exhibited signs of confusion or unfamiliarity or to

explicitly raise their awareness of some relevant aspect of language being used in the context of the activity.

Instances of improvised modeling were far more frequent among the METs (shown with an asterisk in Table 5.3), occurring on average between 10 to 40 times in a 25-minute period across each phase of data collection. While those teachers with the asterisk showed some growth in frequency over time, there was no corroborating evidence suggesting that they learned these strategies as a result of their participation in the MOOC. For example, my analysis of these data shows that the types of strategies the METs utilized and the degree of effectiveness remained constant over time with only the frequency increasing. Furthermore, these teachers, when asked about this in the interviews, did not make comments about learning these modeling strategies in the MOOC.

Table 5.3

Frequency of Observed Modeling Strategies

Data Phase	Marina	Adaline	Charlotte	Louisa	*Francesca	*Erin	*Abel
One	1	5	4	8	N/A	15	10
Two	2	6	8	8	20	16	12
Three	7	5	4	8	41	23	20

Note: * indicates a MET

Trends among MNTs. In my analysis of the observation data, I counted between 1 to 8 modeling strategies that were used among the MNTs, with little change across the three phases of data collection (see Table 5.3. One exception to this trend was found in the case of Marina, who exhibited an increase in the types and frequency of modeling over time (see Table 5.4). She integrated almost no modeling in the first observation except for demonstrating the use of a new vocabulary term.

Table 5.4

Frequency and Types of Modeling for Marina

Phase of Observation	Definition Clarification	Rephrasing	Think Alouds	"Teacher-Only" Modeling	How to Phrase Output
One	1x				
Two		1x	1x		
Three		1x	1x	4x	1x

Note: Teacher-Only (T-O) Modeling consists of instances in which the teacher provided modeling for how to complete an upcoming activity or task. Think Alouds are metacognitive strategies in which the teacher makes their cognitive processes transparent to her students.

By the last observation, however, I found seven instances in which she exhibited four types of modeling, consisting of rephrasing, a think aloud, how to formulate a response, and four counts of teacher-only modeling during which she demonstrated how to do upcoming tasks. The latter finding may be particularly meaningful as the PD emphasized this type of modeling most explicitly through the different activities.

While she did not say anything explicitly about the modeling strategies, she did comment in the last interview (1/26/16) how she felt like the PD gave her several "really good ideas," such as the need to "slow down [and]… try different ways to see if my students are understanding what's going on and to give them the language they need to be able to…talk with their peers about something" (Third Interview, 1/26/16). She also talked about how she needed to keep trying to give them more opportunities to talk, using content that is "purposeful and…something they're interested in." In making this comment, the types and increase in frequency of modeling strategies may represent a "slowing down" to assess understanding as well as providing them with the "language they need" to access the activity.

Types of modeling strategies. The frequencies in modeling (see Table 5.3) were commensurate with the array of different types of modeling that were observed (see Figure 5.2). These included: (a) rephrasing students' comments to both check understanding as well as model more sophisticated syntax and vocabulary, (b) use of metacognitive strategies like thinking aloud, (c) how to articulate oral output, such as using language frames, (d) strategic explanations of linguistic concepts pertaining to grammar, (e) supportive and explicit feedback in which the teacher focused on supporting the students' use of language, such as, "I liked how [George] described extreme weather" (Observation two, Abel, 12/09/15), (f) role-playing, and (g) demonstrating how to use targeted vocabulary in context.

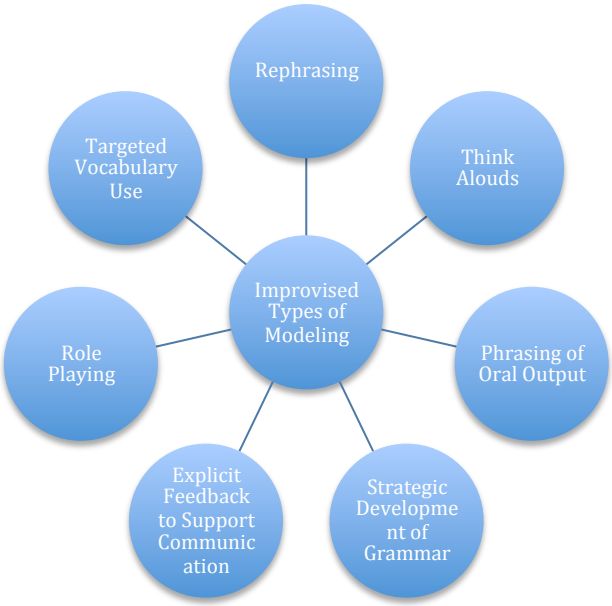


Figure 5.2. Components of Improvised Types of Modeling.

Those METs implemented the above types of modeling from the start, increasing in frequency over time. In contrast, the MNTs started the PD practicing fewer types with less frequency. These data verify, for example, that there were no instances of rephrasing or role-playing to increase their students' attention to language among the MNTs. Moreover, no more than one teacher from this group implemented think alouds, a strategic development of grammar, or explicit feedback at the start of the PD, while only half supported targeted vocabulary

development. The frequency also reflected low incidences of each of these modeling practices being used across each phase of data collection (see Table 5.3). The following are some examples of how each of these improvised strategies was instantiated.

Role-playing. Francesca encapsulated the effectiveness of role-playing when she stopped a lesson one time and played the role of two students simultaneously. She used a different tone of voice for each and kinesthetic moves to position her body in different positions to represent which imaginary student was speaking in order to highlight more effective ways for the listening student to ask a follow up question.

Think alouds. Those METs as well as Adaline frequently used "think alouds," a metacognitive strategy to demonstrate the cognitive processes involved in articulating a problem, using academic vocabulary and correct syntax at the same time.

Modeling oral output. Several teachers demonstrated how to articulate a comment or question to the class prior to peer group work. For instance, Abel demonstrated how to paraphrase when she said to the group, "When listening to the other side of an argument, you may want to make sure you understood it correctly…You might say to them…" (First observation, 10/1/15).

Target vocabulary. Considered an area of need for most ELLs as well as other students with diverse learning needs, these teachers often targeted specific vocabulary by using the word in question in varied contexts, illustrating multiple examples of how it might be used. They would also elicit student participation or create opportunities for students to practice using the terms. For instance, Francesca, upon assessing that some of her students were struggling with the terms "tend" and "generally," paused the class and told them the definitions and modeled how it might be used, followed by the students' participation to use the words (observation one, 12/10/15). She also took the opportunity to integrate these words in naturally occurring contexts at other times.

Strategic development of grammar. A frequently occurring example of a teacher supporting students' strategic development of grammar was when Abel got the whole class to recognize when one of the students spoke in a complete sentence when she said, "Did you notice that Susie put that into a complete sentence?" (Second observation, 12/09/15).

Explicit feedback to support communication. Those METs exhibited several instances during which they provided explicit feedback in one way or another that tried to help students understand the language or to communicate more purposefully. For instance, Francesca provided feedback to one student whose attempt to communicate her position about a controversial issue was muddied. She said, "…can you give me another reason why you think whales should be free? Evidence from what? Killing them? [student laughs]" (Observation Three, 1/28/16). Basically, this student articulated a reason that was not sufficiently clear, so Francesca, using academic language, provided some explicit feedback on how she needed to clarify her position.

Rephrasing. Rephrasing was used ubiquitously among those METs. Francesca, for instance, asked one of her students, "I'm confused because I think you said that whales should be free, but…you also said that whales should not be free because if they're in the wild they'll get killed. So, do you think they should be free?" (Second observation, 10/14/15). In other words, Francesca was modeling correct syntax as well as academic vocabulary to reframe what she

thinks this student said, giving her an opportunity to use some of these linguistic tools in the future.

Trends among METs. As demonstrated above, the modeling techniques among the METs were more varied and performed with increasing frequency. While they did show higher levels in the number of modeling strategies used over time, they exhibited no change in the types of modeling they implemented. Furthermore, these findings were observed in each observation, and they intimated having prior experience in prioritizing students' attention towards language before the PD. Thus, as noted earlier, these shifts in frequency of modeling practices cannot be explained to be a result of their participation in the PD. I did find, however, that this group based much of their improvised modeling strategies on their ongoing formative assessment of the students' linguistic needs, where as the MNTs were observed less frequently performing this type of practice. The MNTs, in contrast, exhibited some different trends. This finding raises an interesting question about the relative importance of including this feature as part of future PD's as it may play an integral role in increasing teachers' effectiveness in practice.

Trends among MNTs. This group—Louisa, Adaline, Marina, and Charlotte—tended to exhibit some changes in their knowledge and practices around modeling. In comparing each teacher to her own practice over time, the observational data indicate that most of the MNTs showed different degrees of improvement as measured by the frequency and types of modeling utilized across each phase. A strong finding that spanned three of the four MNTs—Adaline, Marina, and Charlotte-- was in their effectiveness in implementing the type of modeling emphasized the most in the PD: planned modeling (i.e., Teacher-Only, Teacher-Student, or Student-Student), which demonstrated how to use language purposefully with their partner for an upcoming task that focused on authentic communication. For example, Adaline started to plan and implement more extensive modeling by phase three (see Table 5.5).

Table 5.5

Frequency and Types of Modeling for Adaline

Phase of Observation	Definition Clarification	Rephrasing	Think Alouds	"Teacher-Only" Modeling	How to Phrase Output	Strategic Development of Grammar	T-S Modeling
One			2x	1x	1x	1x	
Two	2x	1x	1x	1x	1x	1x	
Three			1x		2x		2x

Note: Teacher-Only Modeling consists of instances in which the teacher provided modeling for how to complete an upcoming activity or task. Think Alouds are metacognitive strategies in which the teacher makes their cognitive processes transparent to her students.

To highlight this contrast, the modeling she provided in the first observation was limited to a few oral rehearsals about what each peer could say to their partner, modeling a few sample questions and comments they could use. By the last observation, she engaged in Teacher-Student modeling, discussing metacognitive strategies, using role-playing to demonstrate linguistically how to defend their reasons found in a text.

As highlighted in the case study on Louisa, she was one exception to this general change. While she certainly provided a variety of modeling, these data showed no observable changes in

using modeling as a mechanism for increasing students' attention to the language embedded within the activity (see Table 5.6).

Table 5.6

Frequency and Types of Modeling for Louisa

Phase of Observation	Definition Clarification	Rephrasing	Think Aloud	"Teacher-Only" Modeling	How to Phrase Output	Strategic Development of Grammar	T-S Modeling	FB
One		1x		1x	2x			5x
Two	1x	2x	1x	1x	2x	1x		
Three	1x			1x	3x		1x	2x

Note: Teacher-Only Modeling consists of instances in which the teacher provided modeling for how to complete an upcoming activity or task. Think Alouds are metacognitive strategies in which the teacher makes their cognitive processes transparent to her students. FB indicates explicit feedback provided to help students to communicate or understand.

The trends found in these data among the MNTs indicated a smaller range in the types and frequency of modeling they performed. For instance, nobody implemented the more complicated, but arguably more effective types of modeling to prepare students for upcoming communication-oriented tasks (i.e., Teacher-Student and Student-Student demonstrations). With the exception of Louisa, nobody practiced Teacher-Student modeling until phase three, nor did anybody put into practice Student-Student modeling until Charlotte in the last phase, which I described in more detail in her case study.

These findings suggest that while all types of modeling are important when it comes to supporting and increasing students' language development for academic purposes, the PD's primary focus on modeling (i.e., planned modeling strategies), which focused on how to use language in an engaging peer-based task, seemed to parallel the areas in which there was the most change. We might infer, therefore, that the PD may have had an impact on these aspects of teacher practice. In general, the disparity between how often both groups modeled as well as in the variety of modeling that occurred remained constant. The METs showed clear evidence of using a greater variety of modeling strategies with the intent to promote purposeful communication, and the frequency increased over time. Even though this frequency was unlikely related to their participation in the PD, it was practiced far more frequently than the MNTs. At the same time, the latter group of teachers also showed increases in the types of modeling used, especially planned strategies, to highlight and support language, but the discrepancy in types and frequency between both groups was maintained throughout the phases of data collection.

Opportunities to Practice Language

Embedded in the activities that were emphasized in the PD was the somewhat obvious strategy of creating opportunities for students to practice using language in purposeful ways. We can infer, therefore, that students need to have large amounts of time to produce language in order to deepen their understanding and knowledge of its features, such as vocabulary and syntax. Findings suggest that the teachers increased opportunities to practice in two ways. First, some of the MNTs increased the amount of overall time dedicated for students to engage in dialogue across the different phases. Second, the tasks that the MNTs designed or adapted were increasingly more effective in drawing out more opportunities for students to communicate purposefully when comparing each teacher to their own previous performance.

The other two trends in these data paralleled findings reported earlier in the chapter. First, from the beginning, those METs carved out large amounts of time and implemented activities that were effective in supporting students in practicing using language relative to the MNTs. Second, the MNTs initially allotted less time for students to practice using language, and the activities they implemented were less effective in fostering student practice. Below I discuss these findings in more detail.

Quantity of time allocated for student talk. To understand the changes among the MNTs, it is helpful to compare some of the key ways in which the METs differed from the MNTs.

METs. As I highlighted in a previous chapter, those METs—Erin, Francesca, and Abel—dedicated more minutes in the class period for students to talk in purposeful ways. They spent at least half of the period with students sharing the responsibility of talking across all three observations. Francesca represented this group's approach in her poignant remark that in her experience, the more time she dedicated for students to talk, the more effective the lesson ends up being, with the reverse scenario also being true: the more she talked, the less effective was her activity.

MNTs. The MNTs, in contrast, showed a tendency to dominate the dialogue initially, as evidenced in the number of minutes they spoke, although they changed by the last observation, carving out more time for students to talk. I found that the typical ratio between student-student vs. teacher-only talk among the MNTs was best represented through that data from Adaline and Marina (see Table 5.7 and Table 5.8). I found that Marina spoke without student input for about 20 out of 25 minutes in the first observation with only 1-2 minutes of students conversing with one another (see Table 5.7). Adaline, with a less extreme ratio, spoke without student input for 15 of the 25 minutes in the first observation and about 9 minutes of Student-Student dialogue (see Table 5.8). By the last observation, however, this ratio among most of the MNTs changed noticeably. I estimated that Marina spoke without student input for about 13 of the 30 minutes, while student-student talk increased to about 16 of the 30 minutes. Adaline showed a similar type of change, speaking without student input for approximately 9 of the 29 minutes, while student-student talk increased to about 12 of the 29 minutes.

Table 5.7

Ratio of Teacher to Student Talk for Marina

Observation Phases	Teacher-Only Talk	Student-Student Talk	Total Minutes in Class
Observation 1	20 min	1-2 min	25 min
Observation 3	13 min	16 min	30 min
Changes in Talk	7 fewer minutes	14 more minutes	

Table 5.8

Ratio of Teacher to Student Talk for Adaline

Observation Phases	Teacher-Only Talk	Student-Student Talk	Difference
Observation 1	15 min	9 min	25 min
Observation 3	9 min	12 min	29 min
Changes in Talk	6 fewer minutes	3 more minutes	

While the changes above indicate how often students and teachers were talking, these data do not necessarily reflect the quality in the talk or the factors that contributed to these changes. While critical considerations, these data did not capture this level of discourse.

Peer-based Activities to Promote Student Communication

As a reminder, the PD focused heavily on analyzing and adapting activities that integrated authentic, but structured interactions and other supports geared towards getting students to practice using language in purposeful ways. This strategy helped create a structure within which language was prioritized. These data confirm that the PD had a positive impact on at least half of the focal teachers' implementation of activities during designated ELD, with indirect evidence suggesting that at least half of the other teachers participating in the hybrid PD felt similarly.

Typical peer-based activities among MNTs. This group of teachers struggled with the implementation of peer-based activities in the beginning. They wrestled with creating more structured interactions, but showed evidence of making some positive gains by the last phase of observations, as evidenced by the increase in the quantity of student talk as well as student engagement. Marina, Louisa, Charlotte, and Adaline appeared to work hard at integrating some of these principles of increasing an attention to language as they all articulated in the first interviews different levels of frustration in getting their students to speak in more authentic and purposeful ways. They expressed, for instance, how they "wanted them to talk more" and articulated how they wanted them to feel comfortable with speaking and interacting with greater frequency. In point of fact, this was a sentiment shared across many of the other teachers participating in the live sessions, and about ten expressed this as an area they wanted to improve upon in particular (Live Session Surveys, 2015).

Possible explanations for their struggle. The reasons underpinning this struggle seemed to vary. Some had trouble in implementing activities possibly because they were overly scripted (e.g., Louisa) or lacked sufficient understanding of how do the task (e.g., Charlotte's lesson on providing feedback with writing), while others struggled with getting students to practice communicating within the lesson due to a possible lack of appealing content (e.g., the task related to the below grade-level text the teacher read to the students about bean how bean plants grow). These teachers also struggled with implementing lessons that had insufficient linguistic supports, such as scaffolding and modeling the communication that the teacher wanted.

Marina, for example, did not implement a peer-based activity at all in the first observation. Instead, she read a story aloud to the whole class on a topic that appeared to be low interest. Little effort was put into heightening an attention to language. There was, for instance,

an absence of eliciting language use through open-ended questions, modeling, or other improvised strategies, and there was very little time protected for students to engage in purposeful dialogue with one another or as a larger class.

By the third observation, in contrast, she seemed to have a better grasp on how to increase the attention on language in several ways. First, she created more time for them to practice communicating during the activity. Second, the content of the activity, which was about Great White sharks, was more interesting to students as evidenced by the teacher's comments in the interview as well as higher rates of overall student participation and the presence of on task behaviors. One side represented evidence that great white sharks were great hunters, while the other side represented evidence to the contrary. They searched for evidence, using a text that they had been reading, discussing, and highlighting in previous days. While very little data showed the students integrating this academic vocabulary into their speech, she was making an explicit effort in her planning to do it. This was a notable change that had not been present in the previous observations. For instance, she included a few open-ended questions for the first time (e.g., Why do you think Great White sharks are great hunters?), provided Teacher-Only modeling for how to work with their peer, eliciting student feedback as she did this.

In summary, these data verify observable shifts in the MNTs' value in creating more time for students to focus on language as well as the emphasis they placed on planning and implementing peer-based activities. These created more opportunities to practice using language, and thus constitute important strategies for drawing more attention to the language within a lesson.

Summary

In this chapter, I examined the trends and shifts in the focal participants' knowledge, practice, and beliefs related to the language feature from two vantage points. First, I provided an analysis of our two case study teachers and their different journeys through the PD, with one exhibiting very mild levels of change (i.e., Louisa) and the other more explicit levels of change (i.e., Charlotte). I then moved toward a more global analysis of all seven of the focal teachers to examine overarching themes. Through these two analytical frames, I attempted to provide a multifaceted picture of the degree to which teachers experienced changes in their understanding, beliefs, and practices as they related to supporting and increasing students' awareness of language and communication.

The evidence showed that shifts in teacher understanding and practice could be divided into two groups, the MNTs and METs, but in reality, there was some movement between the two, consistent with the idea that these are not intended to represent fixed and linear categories. That being said, my close examination of two case studies represented different journeys among the MNTs, with one experiencing relatively little change and the other more marked shifts.

On the one hand, we witnessed up close some of the struggles that Louisa experienced as she navigated new instructional approaches toward language learning that were often at odds with her previous understanding of language development and instructional practices. For instance, she was often observed increasing an attention toward language in ways that may have contributed to less instead of more authentic communication among her students. This occurred in a variety of linguistic strategies she used, such as focusing on the formal features of language outside of any purposeful context as well as using frequent repetition (i.e., 'drill and kill') as an instructional support for those students who were requiring more support with accessing the

content. Her view contrasted with the PD's understanding of language, which emphasized the idea that to build students' capacity for purposeful communication, teachers needed to increase the explicit attention they gave to some of the different dimensions of language, but within purposeful and engaging content. Louisa disagreed; she believed it was first necessary to learn a minimum level of oral proficiency and vocabulary acquisition before integrating meaningful content instead of using meaningful content to foster oral proficiency. Thus, she continued to emphasize the more formal features of language while also trying to integrate all three of the features from the PD. Throughout the study, Louisa was extremely dedicated to helping her students, and she persisted despite these conceptual conflicts, never appearing to give up on finding some resolution to the reasons that motivated her to participate in the PD in the first place, which was to implement activities that met the linguistic needs of all her students. While it is conceivable that she was starting to show signs of reconsidering some of her professional assumptions about language and communication development in the last interview, the evidence showed that the PD had a limited impact on her practices and beliefs.

Charlotte, on the other hand, told a different story. She showed the most contrast in her practices between the start and end of the PD. She initially described herself as having an emerging understanding of how to support her students' language development, and she expressed feeling like her pedagogical knowledge in this domain was low. Like the other focal teachers, she wanted her students to talk more purposefully during class using more academic language, but was unsure how. She articulated very little about the issue other than stating that she always made sure that her students spoke in complete sentences. These beliefs seemed to parallel her practices in the first and second phases of data collection, showing evidence that many of her strategies seemed to stifle student dialogue rather than augment it. For example, in her attempt to use linguistic scaffolds, such as language frames, as a support to enhance dialogue, they tended to constrict student interactions.

In general, besides the adverse impact she may have had on her students' comfort levels with engaging in purposeful dialogue, her status as a MNT in this domain may help to explain many of these actions. She was also wrestling with new pedagogical approaches while simultaneously trying to increase her students' attention to language. By the last observation, Charlotte exhibited several changes in her use of strategies to help students communicate and increase their attention to the language being used. Some of the shifts were represented as an absence of the less productive practices, such as the power struggles she had or her insistence in making students use language frames in some of their peer interactions. At the same time, she also showed evidence of incorporating new strategies from the PD, which seemed to have a positive effect on her students' interactions. Some of these changes consisted of implementing more planned modeling with successful student uptake of the practices, more time allotted for students to talk, and more effective peer-based activities.

When analyzing the trends across all the teachers, one goal they shared was their pre-existing desire to increase communication and language in their classrooms. The MNTs and METs tended to differ, however, in the degree to which they articulated these sentiments, with the MNTs providing broad comments and the METs expressing more detail in their concerns and goals. The trends in their expressed knowledge about language carried over in their practices as well.

To understand practice as it related to the feature of language, the latter construct was divided into three sub-categories based on my findings: scaffolds, modeling, and opportunities for practicing. The METs—Erin, Abel, and Francesca— demonstrated a more nuanced understanding of the complexities involved in how to make the language component more explicit as well as how to provide extra linguistic support for students. They also were relatively effective in integrating these features into their activities from the beginning, exhibiting relatively little change throughout the PD. On the other hand, the MNTs— Marina, Adaline, Charlotte, and Louisa— probably in part due to their emergent level of understanding, demonstrated more shifts in their expressed views about what and how to teach when it came to language development issues.

Across the three categories of language (scaffolds, modeling, and opportunities for practicing), the basic trends were similar across both groups. Those METs allotted more time and opportunities for students to engage in purposeful dialogue about academic content from the beginning, showing increases over time. The MNTs, on the other hand, started off with relatively little time carved out for student talk, but this increased noticeably over time by the end, although it never equaled to that of the more experienced group.

The two other types of strategies employed and their distribution across the two groups of teachers told an interesting pedagogical story as well. The METs used a greater variety of scaffolds and modeling with higher frequency from the beginning, often making more references to them in their practice with students than did the MNTs. Moreover, they exhibited relatively little change across the observations over time. The MNTs, on the other hand, put into practice a smaller range in the types and frequency of modeling and scaffolding initially. Over time, however, about half of this group demonstrated a modest increase in the number of scaffolds used. This group also showed increases in the types of modeling used, particularly planned strategies, to highlight and support language, but the discrepancy in types and frequency between both groups was maintained throughout the phases of data collection.

CHAPTER 6: CONCLUSION

Summary of the Dissertation

One purpose of professional development (PD) is to keep our teaching fresh and responsive to new knowledge and social changes. Because teachers enter into PD with a wide range of prior knowledge and experience, it becomes a complex learning space that we are still learning how to navigate. In order to understand teacher learning in PD, I used a multiple embedded case study of a small team of teachers who were participating in a hybrid Massive Open Online Course (MOOC). This MOOC used a multidimensional and adaptive PD platform introducing current practices for teaching academic uses of English. A special instructional emphasis was placed in the MOOC on diverse learning needs of English Language Learners (ELLs). My primary aim was to collect evidence of teacher learning attributed to their participation in this MOOC. I focused in on how teachers processed the 3 features of the MOOC (engagement, the information gap, and an increased attention to language) and traced trends and change in teacher knowledge and practice across 3 time points in their *Designated ELD* time.

I used the framework of developing teacher expertise outlined by Snow, Griffin, and Burns (2005) to understand changes and trends in teachers' knowledge, beliefs and practices. This framework enabled me focus on prior knowledge as a variable in teacher change. While none of the teachers were new to the classroom, there were several whose knowledge was emerging in how to support purposeful communication practices with ELLs and other students with diverse learning needs. These more novice teachers (MNTs), who started with less understanding of and experience with the content, showed a way of processing new information that was distinct from the more expert teachers (METs), who began the PD with more expertise. In this way, the developmental model from the Snow et al. volume was extremely useful when analyzing these data. Using multiple methods—primarily qualitative analysis of embedded case studies using data derived from interviews, observations, surveys, and participants' work assignment submissions—several findings emerged related to changes in teachers' understandings, beliefs, and practices of the 3 primary features emphasized in the PD.

Engagement

The hybrid MOOC PD emphasized that language activity, to be effective, needed to be engaging and purposeful. The findings suggest that all 7 teachers found the engagement feature the most challenging to implement. While the METs demonstrated competency in meeting the criteria of engagement in their practices from the beginning, the MNTs demonstrated a less nuanced understanding of this feature, with their practices initially corroborating these trends. Student responses to MNT instruction were characterized by compliance rather than engagement. This trend changed over time, and by the last observation, 2 of the 4 MNTs showed clear signs of change in their practice as well as in their articulation of engagement (recall Charlotte's third interview in which she exhibited a major turn-around in both her understanding and practice of engagement), while the other two MNTs exhibited milder changes and continued to struggle with the practice (recall Louisa's case study in which she struggled to incorporate many of the objectives from the PD in her practice).

Information Gap

The information gap (IG) was one of the primary mechanisms for fostering *authentic* communication. The trends and changes in learning about the IG paralleled the trajectory for the engagement principle. This relationship suggests the possibility that improvement in the use of the IG may have contributed to improvements in student engagement. As with uptake of the

engagement principle, initial teacher experience/expertise appeared to mediate the changes and trends exhibited in both teacher understanding and enactment of the IG.

The METs adapted IG into their practices fairly seamlessly from the beginning, but the MNTs initially struggled. Over time, two of these four teachers showed signs of improvement in both their understanding and practices, while the other two teachers continued to struggle throughout, exhibiting milder changes. Initially, all four of the MNTs wrestled not so much with how to integrate the IG, but with taking into account the need to foster students' motivation to want to close this gap. For instance, for those who tried to integrate the IG in their activity at the start tended to implement it in a basic manner that demonstrated a stable, procedural knowledge, but they also missed certain key elements, such as student buy-in (recall the first observations of Marina and Louisa when student motivation with the activity appeared low even with a basic IG integrated). It was not until the last observation that many of the MNTs demonstrated greater facility with implementing both aspects associated with the IG, heading in the direction towards a more expert, adaptive knowledge (Snow et al., 2005).

Attention to Language

The language component was operationalized in the PD as providing extra teaching and assessment that focused on what it took to increase student awareness of language and communication within an activity. In general, my analysis of the language construct yielded three sub-categories: scaffolds, modeling, and opportunities for practice. Not only did the three METs consistently use more types of these strategies with higher frequency relative to the four MNTs, but they also showed evidence of adapting a vast array of linguistic supports in both a planned and improvised fashion based on their formative assessment practices of their students' needs. The METs still struggled with aspects of this feature, but it was altogether different from the challenges that the group of MNTs faced. The most common challenge for the METs was in getting their students to adopt and integrate more academic vocabulary in their communication practices independently. With the exception of shifts in Erin's conceptual understanding, the METs, who began with a relatively high level of expertise in this content area, exhibited little change over time in either their articulated knowledge or practices.

The MNTs, in contrast, were found to have an emerging knowledge base that paralleled their practices at the start, articulating a less nuanced understanding of the feature in the interviews, work assignments, and pre-survey. However, three of the four MNTs demonstrated some change in their practices by the last phase of data collection, such as increasing the time afforded for students to talk and in implementing more effective peer-based activities both of which were significant in the sense that these components were emphasized explicitly throughout the PD. As an example of a time allocation change, recall Marina's increase in Student-Student talk in a 30-minute period from 1-2 minutes in the first observation to 16 minutes in the third observation. The change in peer-based activities is well-portrayed in the positive changes noted in the last observation with Charlotte during which her students engaged in dialogue for over 15 of the 30 minutes, a significant increase from earlier phases. The majority of MNTs also showed positive change in implementing planned modeling strategies that diversified the participatory structure in the lesson in ways that went beyond just the teacher dominating the discourse. Half the MNTs (i.e., Marina and Adaline), moreover, demonstrated some modest increases in the types of scaffolds they used. When comparing these observed changes with the METs, I found, by and large, that the MNTs still implemented fewer types of linguistic oriented strategies with less frequency than the METs to support their students' attention to language even after observing these changes in the majority of the MNTs over time. Overall, the METs, who

exhibited less change over time, still appeared more able than the MNTs to apply the information from the hybrid MOOC more effectively from the start, a finding which was expected.

Diverse Learners

Formally, the goal of the PD was to support teachers in helping ELLs develop content knowledge through authentic language and communication practices. Across the interviews, including the pre-intervention interview, all 7 teachers expressed a positive stance toward the key elements of the PD; they thought that the 3 features and the strategies informing them would also be useful in supporting the language and communication development of diverse learners—not just their ELLs. Even though the 7 teachers essentially shared this fundamental belief going into the PD, my findings suggest that the METs and MNTs understood, articulated, and enacted relevant practices in different ways.

The METs' and MNTs' relative level of expertise appeared to mediate their beliefs and understandings about how the content of the hybrid PD interfaced with their students who had diverse learning needs. The METs expressed a more nuanced view than the MNTs about how the strategies of the PD interfaced with diverse learners. For example, they reported that implementing these strategies successfully with some of their diverse learners required some adjustments, such as Francesca's view that extra staff support was necessary to help them access the curriculum. Some also commented that they needed to adjust their expectations about their diverse learners' rate of progress. Once they recognized this, the benefits of the PD for those who needed extra support became more apparent. The MNTs, on the other hand, articulated few differences in applying the 3 features with ELLs and other diverse learners. In their articulate view, the PD content simply represented good teaching strategies for everyone.

In regard to teacher practice, the MNTs showed evidence of supporting those students who required more support in ways that were different from the METs. For example, some of the MNTs (i.e., Marina, Charlotte, and Louisa) tended to resort to the more common strategy of reducing the academic expectations of the task (e.g., recall Marina giving away the answer to tasks). Others sometimes relied on language instruction that de-emphasized the building of ideas and fostering authentic and purposeful dialogue. Recall, for example, how Louisa had those students who needed more support with producing language by having them repeat sentences after the teacher or when she confined the types of questions she asked these students to superficial, close-ended types. Some of the MNTs were observed resorting to these types of practices when the strategies that they were trying to implement from the MOOC/PD were not working as they had hoped.

Discussion

One key finding was that teachers with more initial expertise in this domain processed and implemented the content of the PD in qualitatively different ways from those teachers with less expertise. To understand why this might be, I highlight three possible and related explanations by contrasting differences between teacher groups in teacher practice, prior knowledge, and application. First, I highlight how the METs' practice of the content from the beginning was reflected in their implementation of a more balanced instructional approach. They began the PD with practices that embraced a variety of rich linguistic supports as well as an acceptance of the students' natural use of discourse practices. This is in contrast to the MNTs demonstrated difficulty in balancing these two domains in a variety of ways. I use the framework outlining teacher knowledge development provided by Snow et al. (2005) to help us understand the relationship between teacher knowledge and its impact on their understanding and practice.

Second, I show a relationship between the teachers' prior knowledge of the content and how that may have impacted their professional learning in different ways. And finally, I show that the differences between the METs' and MNTs' knowledge extend to how they applied the strategies from the PD with other diverse learners during designated ELD. I also point out how each group varied in how they provided extra support to those diverse learners who were still having difficulty accessing and participating in the activities related to the PD.

Balanced Approach with Linguistic Supports Key

I was reminded several times about the importance of teachers taking a more dialogic stance towards students' language. Such an approach, in contrast to the stance of the teacher as the sage on the stage or the purveyor of knowledge, seemed to yield more purposeful and authentic communication practices because my experience from observing those teachers who used this approach confirmed it. Building on the argument of Juzwik et al.(2013), these authors suggest that supporting students' learning through talking requires that teachers provide more decision-making power to students in determining what content they discuss as well as how they discuss it. These authors also indicated that other languages that students should be able to tap into and incorporate into their discourse included a child's first language, hybridized languages, and dialects. While I concur, I would add after analyzing these data that this principle also applies to the regular registers students used when speaking in English—i.e., the non-academic forms of discourse. Often, some of the MNTs demonstrated difficulty in navigating these new strategies from the PD with the language that students brought to the table—to some, the natural register of the students and the instructional strategies of the PD seemed mutually exclusive at times (e.g., Charlotte and Louisa).

Adaptation to student performance levels mattered. I found that both MNTs and METs who prioritized encouraging students to practice using language "just as they are" (Juzwik et al., 2013) rather than requiring them to comply by using planned components of the targeted language were more effective in getting students to exhibit higher degrees of engagement and purposeful language use (Juzwik et al., 2013, p. 32). Their dialogue seemed more, although not exclusively, self-propelled relative to the MNTs who often exerted more control over their language production (recall, for example, how Charlotte required some of her students to restate their comment using the sentence frame and correct syntax). At the risk of essentializing MNTs, I also found that some METs still had students who were dependent on the teacher to facilitate these more authentic discussions, many of whom got derailed soon after the teacher would leave to work with another small group (e.g., Abel and Francesca). That all teachers were still struggling in some way is a testament to how truly difficult it is for students to generalize and "own" these practices. It is also a reminder of how teacher change is a non-linear process of progression that does not happen overnight. Instead, we should expect changes in practice of this magnitude to require a persistent and conscientious effort on part of the teacher as well as consistent support from PD providers or coaches over a period of time (Dagen & Bean, 2014; Neuman & Cunningham, 2009). As Abel, one of the METs, wisely pointed out, she felt pretty sure that she was able to get her students to "own" the conversations, but just not the academic part of these conversations (Second Interview, 12/9/15).

It is no surprise that some of the teachers may have been frustrated or skeptical with this approach to language instruction. One explanation for this might be that when a MNT, like in the case of Louisa, Marina, and Adaline, wants to allow the students some authority in controlling the trajectory of a discussion, she must also be comfortable and have trust in herself that she can maintain the productivity and planned objectives no matter where the conversation

leads. Often, however, some of the MNTs, such as Charlotte, may have viewed this "messier" approach as a deterrent to meeting the objectives she planned or in the case of Louisa, contradictory to her view of how students acquire language most effectively; namely, a more formal approach to dialogue in which language serves the function of displaying their knowledge or understanding rather than the building of their ideas (recall her reliance on students using language frames in each observation) (Bunch, 2014).

My point is not that linguistic scaffolds and other supports, including those involved in the current study, can detract from students' development of academic oral language. Rather, we should provide such structure up to a point, but then allow students to decide, as Juzwik et al. (2013) also argued, whether or not they integrate them into their discourse. In other words, I argue that we as teachers should provide the tools, model how to use them, encourage students to experiment with trying them out, and provide explicit and formative feedback to highlight its use when we see it in practice, but we should also stop short of enforcing it. As Juzwik et al. (2013) pointed out, "revising one's oral language at the same time" as they are practicing it in real time is difficult (p. 31).

As important as it is for teachers to nurture student ownership of these practices and strategies, I found that even teachers who were more effective in getting students to communicate purposefully about academic content still exercised a high degree of control in the classroom. By and large, they decided the topic to be discussed, the text to use (if applicable), and the structure of student interaction (e.g., frames or graphic organizer). Additionally, they seemed to work tirelessly to (a) model more academic discourse practices through their own speech, (b) provide explicit feedback highlighting those students who experimented with new language features, and (c) offer scaffolds to support students in using new forms of academic language. For example, the METs incorporated improvised linguistic supports, such as rephrasing and extending student input, numerous times within a 30-minute period; in so doing, they modeled and supported the use of more academic and complex use of language and communication structures. However, these teachers always allowed students to speak as they were without judgment. This approach was in keeping with the PD's argument that how we as teachers implement these pedagogical strategies matters, but we also cannot, as the saying goes, yank on a flower to make it grow. I found that the MNTs struggled to strike this balance, whereas the METs seemed to juggle both more effectively, although they experienced their challenges too. In general, I was not surprised to observe these patterns because learning how to facilitate this style of communicative practice is extremely complex work, requiring a set of pedagogical skills that necessitates much practice to cultivate.

Re-Examining the Relationship between Teacher Knowledge and Learning

I wondered time and again why two teachers implementing the same features from the PD would achieve such different outcomes. Why for one teacher was it relatively futile (at the start), while for another, it was more effective. My findings showed that the teachers processed and implemented much of the content of the PD in different ways depending on their prior levels of knowledge and expertise in this domain. This was made apparent across each of the three features emphasized in the PD (i.e., engagement, information gap, and attention to language). The theoretical model highlighted earlier provides a convincing explanation. The MNTs were consolidating larger amounts of declarative and surface-level knowledge as they were implementing the activity, but within a simpler set of circumstances. For instance, those who made the effort to integrate the information gap were able to implement it, but missed the critical motivational feature of manufacturing a desire among the students to *want* to seek information

they did not yet have. Moreover, some of the MNTs were able to plan for teacher but not for student practices—only modeling to raise students' attention to some language features, but showed little evidence in being able to implement a similar strategy in a way that was "contextually contingent and grounded in experience" based on the ongoing formative assessment of students (Stoddard et al., 2002, p.668). These more complicated challenges tended to fall beyond the scope of what these teachers could initially do in part because the bulk of their attention was focused primarily on applying the new strategies and knowledge.

One way in which this learning curve was extremely apparent was in some of the linguistic supports they used to support purposeful communication, such as language frames. A key finding is that using language frames effectively is complicated, often requiring nuanced understanding and an ability to apply them flexibly in instruction. On the one hand, they had the potential to support academic discourse between students as they provided a framework for learning new syntactical structures and academic vocabulary most of which were new to ELLs and other diverse learners (Zwiers, 2014). On the other hand, these frames sometimes created a counter-productive dependency among the MNTs. For example, Louisa implemented activities requiring students to use language frames in their communication with a peer, but in a way that cut off self-generated talk. As shown above, many of the MNTs attempted to support students' language production by over emphasizing the use of linguistic scaffolds, creating a dynamic in which students appeared less comfortable or motivated to practice using language in an authentic manner.

I noticed a similar trend in the types of changes that the MNTs exhibited in how they implemented the three features. Several of the MNTs exhibited greater transformation both in their knowledge and practice, showing increasing flexibility in their application of these principles (Stoddart et al., 2002). We can reasonably infer that this was due in part because they had more room for growth, both in the complexity of their understanding as well as application of the concepts. It made sense why I found little change in the MNTs' implementation of improvised linguistic strategies, for instance, but more change in some of the foundational areas like planned modeling or time carved out for students to engage in purposeful communication. These latter concepts represented more surface level features to the more sophisticated practices that require more "flexible application of principles in practice," (p.668), such as fostering students' application of academic language independently with a peer without facilitation.

In other words, the MNTs started to move toward a more complex understanding and "flexible application of principles in practice," although their repertoires were still less developed than those who had more expertise (p.668). The more expert METs exhibited a more organized and reflective knowledge because they were able to integrate these features from the PD more effectively from the beginning, in large part because of their deeper prior knowledge of the domain. For this reason, the METs exhibited milder, if any, changes throughout the PD. This is not to say that the METs were uniformly skilled at conceptualizing and implementing the content in the PD. They still struggled with the concepts and practices. Recall that Erin struggled with the concept of the information gap, and the whole group concluded that engagement was extremely difficult to integrate into their activities. The METs differentiated themselves from the MNTs, however, by starting out with a more consolidated and sophisticated understanding of the content, which enabled them to integrate and implement more novel pratices from the beginning.

Re-Examining Diverse Learners

All educators work in a world of legally defined categories (e.g., Special Education, ELL, specific learning disability, etc.) composed of many students who are challenged with accessing content involving academic language. While it is safe to assume there will always be some students for whom the typical instructional approaches require further individualization and adaptation, these findings suggest that these categories are more blurred and less clear-cut in practice. Regardless of whether someone had an IEP for whom language was involved in the disability, was designated as an ELL, was not identified with any specific label, or any other number of variations, I found that these teachers believed that many of these students were experiencing language as a barrier in the classroom. In other words, many students were reported to be struggling with language and communication practices, independent of whether they had a specific label or not. While the PD's primary goal was to focus on ELLs specifically, my findings showed that challenges around learning academic language discourse practices impacted not only those students designated as such, but also other students.

This is an important finding as those diverse learners who struggle in the areas of language and literacy often benefit from this extra exposure to academic discourse practices because it helps them gain access to new content. Regardless of their official designation, one possible explanation for why they are experiencing difficulty may be that they have had less experience and/or exposure to using and learning academic vocabulary, content, and other syntactic structures that are valued by schools and needed for school-related discourse practices (Zwiers & Crawford, 2011). Alternatively, due to an underlying disability, some may just require more exposure to the content than typically developing ELLs or other students. For other diverse learners, they may need additional exposure to content due to other socioeconomic or sociocultural factors, such as living in poverty, which create their own barriers to learning.

Teachers varied in the degree to which they were able to apply the practices of the PD to those students most in need of their support; ironically, this was one of the PD's underlying goals of the curriculum. Overall, teachers indicated that the PD practices were "just good teaching strategies" for all students (Adaline interview, 12/9/15). However, this teacher agreement with the PD content did not always play out equally for students with diverse learning needs in the case study classrooms. Because differences emerged between the METs and the MNTs, teacher expertise might explain some of the variation in practice.

The METS. The METs typically found that the strategies, to be effective when implementing them with other diverse learners, sometimes required more teacher support (e.g., Francesca and Abel) in the classroom. Francesca, for instance, advocated for and eventually acquired an additional teacher to be present to provide extra assistance to those with special needs. Moreover, two of the METs believed it was necessary to shift some of their expectations about what some of their diverse learners would accomplish relative to typically developing ELLs. As an example, Francesca reported that many of her diverse learners' rates of progress were slower and that they were sometimes less engaged in the tasks than her typically developing ELLs. The METs also responded to these unexpected challenges by discussing and generating practical solutions. In the case of Francesca and Erin, they expressed the importance of persevering in the face of this adversity, and reported that they eventually noticed an increase in their diverse learners' engagement levels and interest in language over time. Francesca and Erin also pointed out that the principle of the information gap in particular might have had a greater positive effect on those who were struggling because this feature prioritized making an effort to increase the motivation to want to learn.

In these ways, the METs exhibited a more nuanced and in depth knowledge base that was in keeping with a more adaptive instructional approach (Darling-Hammond & Bransford, 2007) relative to the MNTs. They seemed to possess a more expert-adaptive knowledge base rather than a more situated, procedural level of understanding (Snow et al., 2005). Not only did they show evidence in being able to implement these instructional practices for the majority of the students in class (i.e., stable procedural knowledge), but it is possible that the METs were also sufficiently knowledgeable and experienced in this domain to "be able to deal with a full array of instructional challenges [and] to identify problems for which the current knowledge base offer[ed] inadequate guidance…" in order to respond more effectively to those diverse learners in need of extra support (p.8).

The MNTs. The fact that none of the MNTs articulated specific differences related to their diverse learners may be explained in part by their less nuanced understanding of this domain in general. If the model by Snow et al. (2005) is correct, perhaps the MNTs did not express awareness of these more nuanced differences between these learners because they were focusing most of their cognitive attention on how to implement and integrate the basic tenets of these strategies rather than how to adapt and fine-tune them for specific students and groups. They certainly recognized the PD's overall applicability to some of their other diverse learners, but did not perceive some of the subtler ways in which they differed and, by extension, did not express any specific strategies (unlike the METs) that might help meet these other students' needs. In this way, a clear difference emerged between the METs and the MNTs in how they both articulated their understanding and supported diverse learners when implementing these new strategies.

The MNTs tended implement strategies to support those who were not responding to the standard instructional approach in ways that often resulted in less authentic communicative practices rather than maintaining or improving them. Louisa expressed, for instance, how she purposefully reduced the difficulty of the activities for those who needed more support to make sure they would "learn" the concept, such as having them repeat several teacher-generated statements. Charlotte, in similar fashion, engaged in power struggles a few times with individual students who were struggling with their expressive language, insisting that those students, who remained quiet when called upon, to speak before the class continued. Marina, on the other hand, in an effort to support those who needed additional individualization with the instructional tasks, inadvertently engaged in the linguistic enabling practice of providing obvious hints or even the answers to the task that they were assigned. These examples, at odds with the approaches emphasized in the hybrid MOOC, most likely reduced these students' engagement levels and authentic practice of language. I found the latter type of occurrence somewhat unsurprising because a reduction in complexity is sometimes an unintended consequence when trying to modify or individualize tasks to help those in need gain access to the content (Gargiulo & Metcalf, 2015). Researchers have long recognized that maintaining high expectations with students who need extra support can be extremely challenging, although still extremely important (Gargiulo & Metcalf, 2015; Snow et al., 2005).

This raises an interesting question about the complicated and unpredictable nature of change in teacher practice that happened to impact some of the other diverse learners in this case. While the PD strategies seemed to resonate with the MNTs, much time and practice are required to assimilate new knowledge and apply it in practice. I was reminded time and again how changes in knowledge and practice do not seem to follow a linear and predictable progression (Guskey, 2000). Rather, it happens slowly and often in subtle ways. Hence, we should not be

surprised that these differences between both groups emerged in these data, especially if we use the framework provided by Snow et al. (2005) to explain these findings. They suggest that a model for understanding the development of teacher knowledge should be based on *progressive differentiation*, which they described as a "process of development in which the capacities being used at any point are analyzed and elaborated, in response to evidence that they fall short" (p.6). Basically, they posit that what a teacher learns in a PD is based in large part on their degree of knowledge of the content prior to starting. As I explained above, the MNTs, relative to the METs, started off with relatively little understanding of the content of the PD. Therefore, we should expect most of their learning to focus on the basic implementation and articulation of the strategies on a more general level. The METs, on the other hand, began the PD with more of these basic knowledge structures already acquired. For these teachers, their "skill in using [the strategies were] not superseded, but rather analyzed and elaborated," which allowed them more opportunity to consider the application of these strategies to more complex situations, such as those diverse learners who were not responding positively to their instruction (p.6). This part of the model helps explain why the METs, but not the MNTs, were able to notice and articulate these challenges associated with those diverse learners who were needing more support, implement some solutions in keeping with the PD's approach to language-learning, and to reflect on the results of their efforts later.

Considerations to strengthen PD content for diverse learners. As I consider the wide ranges of teacher knowledge reflected in the focal participants, we may want to explore how the hybrid PD could present information pertaining to those diverse learners in need of additional support, such that all teachers, regardless of their knowledge levels of this domain, would walk away with a better understanding of how to adapt their instruction whenever the new strategies they implement are insufficient in meeting their needs. For instance, recall Louisa's struggle with adapting the PD content to some of her students with beginning proficiency levels who continued to need extra support. This is important to consider as more and more students with diverse needs are spending increasing amounts of time in mainstream classes. As several researchers have highlighted, regardless of the level of teacher experience, educators will benefit from increasing their capacity for how to support all diverse learners, including, but not limited to ELLs (Lewis, 1999; Snow et al., 2005; Wenglinsky, 2000).

It is important to remember that this particular hybrid MOOC set out with research-based strategies and innovative approaches to learning that already bore much overlap with many of the inclusion-based strategies in the area of literacy (Gargiulo & Metcalf, 2015). However, at various times, all 7 teachers expressed that a few of their students were not responding to the strategies from the hybrid MOOC in a way that they wanted. There is a benefit, therefore, in dedicating time within professional learning activities toward how to handle those students who continue to have trouble accessing the content.

One area that could provide additional support to teachers might be in creating opportunities with colleagues during the live sessions to reflect on their own practices of inquiry (Snow et al., 2005) with a focus on those learners who did not respond positively to the new strategies they tried. There is value in creating structured spaces within which teachers practice identifying these types of problems as well as collaborating with others to generate solutions geared toward how to further modify, differentiate, or accommodate the learning environment in the service of language and purposeful communication. For example, as part of adapting and implementing an assignment for the course, they could be asked to also identify a few students who they believed were having difficulty when they implemented the activity. They could

discuss these situations with colleagues during the live sessions or through their work assignments and generate solutions that they could share with the rest of the group. Short of enlisting learning specialists to participate in these PDs, there would also be value in raising teacher awareness about the importance of collaborating with the learning specialists at their school site in situations where these strategies from the PD were not helping as much as they wished. This type of generalized knowledge would likely benefit teachers' instructional practices across content areas and not limited to just designated ELD.

Implications

The findings from this study have several implications for research, policy, and practice. In the sections that follow, I reaffirm the importance of using multiple measures to track changes in teacher knowledge and practice. In particular, measures of teacher satisfaction with PD content fall short as an index of effectiveness; more emphasis on observed impact on teacher practices and student uptake of new teacher practices is required to study the efficacy of PD. In the realm of policy, I discuss possible avenues for strengthening future hybrid PD's by leveraging the involvement of participating educators with local expertise as well as widen the recruitment net to include those staff that are trained to work with diverse learners. Both would add authenticity and an additional perspective to the content of the PDs. I then illustrate several implications for practice by examining how we can better support our teachers in learning this pedagogical content knowledge with the goal of supporting students' development of academic language and communication.

Research Implications

Measuring a PD's impact on a teacher's understanding and practice is a very challenging endeavor. Multiple measures play a critical role in helping us gauge up close the interactions across different settings between what a teacher articulates orally, produces in writing, and implements in practice. There are also implications about the applicability of the content on students requiring extra support, but until we go beyond tracking teacher perceptions, we are sure to be more limited in the inferences we can draw.

Multiple measures for understanding teacher learning. The use of multiple measures to better understand the impact of the PD on teachers' knowledge, beliefs, and practice was critical. It allowed me a closer glimpse of the interactions between what they articulated either orally or in writing and how that knowledge translated into practice. For example, I would have drawn difference inferences about the changes that Charlotte exhibited. While she articulated a more nuanced understanding related to the engagement principle by the last phase of data collection, there would have been no way of knowing the degree to which they transferred into her practice. Moreover, among those teachers with more expertise, while they provided more in depth responses about the PD content through the interviews and work assignments, I would have had no way of knowing the degree to which it became even more obvious in their practices. Another example was how all the teachers expressed great difficulty in implementing the engagement feature and how new the information gap was conceptually. Yet, the observations illustrated how the METs had a much smoother transition putting these concepts into practice than the MNTs. The latter group struggled, and it was only by the last observation that I noticed marked within-teacher improvement. The implications of this are clear. If the data sources, such as surveys, interviews, and work assignments, had been analyzed without any observations conducted, I would have been unable to draw more inferences about teacher change that seemed

to occur. We, of course, would have still seen some differences, but they would have been less apparent than they actually turned out to be.

Effects of Strategies on ELLs and Diverse Learners

The data captured teacher views about the degree to which the strategies emphasized in the hybrid MOOC supported ELLs and diverse learners. However, without permission to identify specific students identified as ELL or as having special needs, I was limited in the analyses I could draw. Therefore, we should move beyond self-reported data from teachers by identifying a range of students from typically developing ELLs, ELLs with special needs, monolingual students with special needs, and others in order to track how these students respond to their teacher's efforts to implement the strategies from the hybrid MOOC. One approach would be to track how various individual teachers work with these learners—to what degree does their instruction vary with these students? Are they aware of it? If we know the background of specific students, we could then evaluate the extent to which these features of communication that the teachers would be learning about from the hybrid MOOC/ PD seem to be supporting these other students. We could collect data both on teachers' perceptions about any improvements they noted with these students in the work they produce, such as increased participation, and triangulate this with our own analyses as researchers.

Another approach could be to focus the unit of analysis on the individual students. It could be helpful to follow a small group of them, each with different labels, but who are receiving the same instruction from teachers who are participating in the PD. We could also extend the parameters of the student such that we follow them throughout the day for longer periods of time. In this way, we could examine how these individual students respond not only to the strategies from the PD that their teacher is implementing, but also what the learning experiences are like for them in different instructional contexts. This may yield some interesting insights into the relative benefit of these strategies from the PD on their learning experiences.

Policy Implications

Hybrid Massive Open Online Courses (MOOCs) as a vehicle for ongoing PD, while not without their weaknesses, represent one effective way to support teachers with their professional learning in a meaningful way. Because of the expertise exhibited by the METs, I argue that one way to strengthen participation levels of hybrid MOOCs is to continue strengthening the collaborative nature of the PD by tapping into the local expertise of the METs. I also suggest that because much of the content of the PD seemed to support other diverse learners in the classroom, we should work to increase the representation of those teachers who provide services to some of them, such as speech and language therapists as well as teachers and paraprofessionals with expertise in Special Education.

The power of hybrid PD. The adoption of the Common Core State Standards (CCSS) created a significant need to support teachers in acquiring new strategies and knowledge to bolster their instruction. Designing a hybrid MOOC as a vehicle for ongoing PD was one answer to address this demand to support ELLs and other diverse learners who may need additional support. The robust shifts I found in teachers' knowledge, beliefs, and practices (mostly with the MNTs) occurred in part because the PD created pathways for teacher collaboration and face to face interaction in addition to being able to interface with the MOOC platform independently at times that were convenient for them. Both spaces seemed to reinforce and support the other, making it more of a personalized curriculum in a way that would not have been possible through just a MOOC platform. Virtually all of the teachers commented how appreciative they were to

be able to collaborate with other colleagues from their grade level or school site, often borrowing ideas from each other.

While we still have *much* to learn in how to increase teachers' participation (recall, for example, how only 1 of 7 teachers completed over half the work assignments), the feedback suggests that there are many positive attributes as well. These trends suggest that this hybrid model may be a favorable solution to other, more traditional types of PD as well as MOOCs on their own. We can also infer that these changes observed among many of these teachers was in part due to working in a space that encouraged them to share their own knowledge about language and communication rather than having to work in isolation, which they are more likely to do in this profession.

Leverage local expertise to strengthen PD. This study re-confirmed the importance in not assuming that years of experience in the classroom should be equated necessarily with expertise in supporting ELLs and other diverse learners in the area of language and communication in English (Stoddart et al., 2002). All of the focal teachers in this study had at least five years of experience teaching in the classroom. They also indicated being at a level of experience that surpassed the more novice stages of instructional ability. Even so, the interviews and observations highlighted the diverse array of expertise that actually spanned across the seven focal teachers, including both the MNTs and the METS. Assuming a similar continuum existed across the other 40 or so participants in the hybrid MOOC, it may be wise to rethink how we handle this diversity of teacher knowledge in a way that can effectively add to the PD's strengths. Although no one expressed frustration or disappointment over either stale or inaccessible content, we could benefit from identifying the METs because they could help facilitate or expand upon aspects of the PD. In other words, METs could take on more leadership within the hybrid MOOC setting by sharing video footage of their practices or providing additional support to the other teachers during the face-to-face components of the PD. METs could also collaborate with the directors of the PD on how to relay the content into their own school settings in order to expand the number of those who are privy to the information. For example, METs, with proper support, could, at their school site, provide a more condensed version of the PD with other staff who are not already participating in the MOOC.

Moreover, willing METs could mentor MNTs at their local sites—to provide a lifeline to MNTs who might need additional explanations, examples, and modeling in order to enact new and unfamiliar practices. In the spirit of opening up educational research, integrating the METs into the implementation and planning of the PD would be another step towards breaking down the barriers between the often-separate worlds of academic research and school based practice—fostering a mutually synergistic relationship in which practice informs research informs practice, resulting in a virtuous cycle of improvement and achievement. By strengthening this connection, we would likely foster additional future collaboration, creating a more sustainable network over time. The more we can integrate professionals who are already in the classrooms in the PD, the more likely we are to foster deeper learning and engagement across as many teachers and other educators as possible.

While it is true that an extremely high attrition rate remains an ongoing issue with using MOOCs as a platform for inservice PD, it does not necessarily follow that teachers would be disinclined to get more involved so long as a hybrid MOOC model integrated strategies shown to increase their effectiveness and participant buy-in (Anders, 2015). More effective hybrid models address this issue of attrition and participant motivation by focusing on offering "social experiences that enhance engagement and allow learners to build relationships, communities, and

social networks as they construct new knowledge and develop new skills" (p. 53). In other words, basing the hybrid MOOC on this model, as the one in this study attempted to do (see methods chapter for a detailed discussion of this issue), the METs would more likely exhibit sustained and active participation and a willingness to take on a leadership role if it meant that this extra effort would support their colleagues in meaningful ways.

Inclusion of special education teachers in PD efforts. As increasing numbers of diverse learners are mainstreamed, the need grows for effective and well-functioning collaborative partnerships between general and special education staff. For this reason, among others, we should consider increasing the participation of Special Education teachers in these PD efforts. Inclusion of special education teachers is also relevant because they are likely to work with any student who needs more support, regardless of whether they are considered an ELL and/or identified as having special needs. They stand to benefit, therefore, from the strategies and domains of knowledge that are emphasized in this hybrid MOOC. Even if we set aside the notion that these strategies would likely prove useful when supporting students with special needs, there are also situations in which Special Education staff is literally in charge of providing designated ELD instruction to ELLs, which happens to be the case at my child's school. Whatever the context in which any Special Education teacher works at their school site(s), the inclusion of special education teachers (and their support staff) in this PD would strengthen the collaborative network of Special and General education staff, which is critical if we are to maximize our effectiveness in supporting our all our diverse learners. These teachers' participation in the hybrid MOOC, since they are often working in inclusive classrooms, would also add another useful perspective to the ongoing dialogue when evaluating and applying these concepts.

Implications for Practice

This section highlights how the findings from this study have important implications for practice in respect to (a) providing additional instruction to teachers in how to support those students, such as ELLs with beginning proficiency and other diverse learners, who continue having difficulty even after implementing strategies from the PD, and (c) focusing more attention on helping the MNTs develop the capacity for scaffolding authentic interactions among the students in contextually contingent ways (i.e., spontaneous use of scaffolds) based on their ongoing assessments of student needs.

Reflecting the diverse range of ELL proficiency levels in activities. It is important to remind ourselves that there exists much linguistic variability within the ELL community as well as those with special needs, and we should be careful to avoid essentializing such particular groups (e.g., the METs and the MNTs in this study, or even particular categories of students for whom the practices in the PD are intended) within the content of these hybrid PD's. For example, the differences between the METs and the MNTs notwithstanding, there is much within group variability within each of those groups. Similarly Spanish-speaking ELLs cannot be uniformly described and understood with a one-dimensional construct since their literacy practices, language ability, and communicative skills vary considerably across settings, families, age, and linguistic experience (Garcia, 2011). While the hybrid-PD valiantly attempted to account for this variability in its content, my analysis of these focal teachers illustrated that some of our teachers were working with students whose areas of need were not frequently addressed or showcased explicitly through the content of the PD.

Louisa provided an informative case study in this respect because she offered a glimpse of how applicable this PD may be for those educators who are working with ELLs with barely

emerging English competence. Since she was one of the few from the group who demonstrated relatively little change, the question arises: Was the low level of L2 competence of her students one of the factors that made observable transformations more difficult in her circumstances? Did the PD curriculum fail to sufficiently take into account those emergent populations of ELLs? Would she have fared differently had the PD addressed these emergent ELLs more explicitly? One possible explanation is that many of the activities from the PD assumed that students had slightly more developed levels of proficiency. At the very least, future PD's may want to consider addressing more explicitly how to modify activities when working with students whose proficiency levels are just beginning. Similarly, we may also benefit from addressing more explicitly how to modify these strategies when trying to support other diverse learners who require more support to access the curriculum.

As I have discussed previously, all 7 of the focal teachers shared that there was usually a small percentage of their students who continued to have trouble accessing the curriculum as they intended. Sometimes, these students were identified as being an ELL, monolingual with a learning disability, or someone they identified as being at risk of falling behind in the area of language and literacy skills. Regardless of these labels or lack thereof, I found that the PD's pedagogical strategies support the theory of Universal Design for Learning (Gargiulo & Metcalf, 2015; Meyer & Rose, 2000; Rose & Meyer, 2002), which posits a helpful solution for how to address the needs of students who require more support to access the content. Proponents suggest that by creating a framework in which all students, regardless of their label or lack thereof, receive the supports they need in order to access the content and participate with their peers, this will help ensure greater equity of learning opportunities across all students. Understandably, these proponents of UDL add the important caveat that this theory should not be mistaken as a panacea for supporting all students in all circumstances, pointing to the reality that some diverse learners will require further individualization and adaptations based on the students' strengths and challenges in order to support their access to the content, such as ELLs with an underlying language disability, students with autism, or other developmental disabilities. Perhaps future PD efforts would benefit from bridging these different populations of students and the challenges they present to teachers by reframing the PD content as being part of a UDL framework so that teachers start to see that these strategies, on the one hand, are potentially effective with other diverse learners in addition to ELLs. At the same time, the PD could emphasize the natural limitations of these strategies in the sense that they will never be sufficient to meet the needs of all learners. Additional adaptions for ELLs and others with special needs will invariably be needed. Therefore, when possible, future PD's might also dedicate time for discussing alternative accommodations and adaptions to supplement the strategies emphasized in the PD. This way, teachers will have opportunities to engage in cycles of inquiry that, over time, will foster a mindset geared toward constant refinement of the curriculum so that all learners can participate in a meaningful way.

Teachers' use of scaffolds. It is commonly asserted that achieving competency in language and literacy requires that the array of components that we know is needed (e.g., vocabulary, comprehension, decoding, phonological awareness, background knowledge, etc.) work in a symbiotic fashion. This system, however, tends to fall apart when one or more of the components is undeveloped in a child, dismissed, or over-emphasized in a teacher's instruction (Goldenberg, 2011). I argue we can apply the same logic to how we support teachers in providing extra linguistic support to their students (i.e., an increase in their attention to language) when done in the service of authentic communication.

In addition to the need to strike that delicate balance between providing linguistic supports without pushing them too much (recall my earlier discussion of this topic at the start of this chapter), the evidence also suggests that the METs and MNTs differed in the types and frequency of linguistic supports they provided and articulated. Unlike the METs, many of the MNTs showed some change in their knowledge and practices in certain ways in how they provided extra attention to language. For instance, this group showed evidence of incorporating it more effectively in their planning through an emphasis on peer-based activities during which more space was provided for students to talk. However, none of the MNTs, in contrast to the METs, appeared to progress in providing an attention to language in contextually-contingent ways, such as providing modeling and scaffolding based on their ongoing formative assessment and monitoring of their students' linguistic needs. In other words, the METs infused these improvised strategies within their instruction semi-constantly. While I found evidence of improvement in the attention that MNTs' placed on language through their preparation of the activity (e.g., choice of activity, teacher-student modeling, or prepared scaffolds like language frames), the data showed very little change in respect to how they increased students' attention to language spontaneously. Some examples include providing explicit feedback to support students' communication based on their output, rephrasing what students say using correct syntax or targeted language, or enacting think-alouds in which the teacher models how to problem solve or process the content, incorporating targeted language. We need our teachers to develop more capacity in how to provide increased attention to language not only in their planning, but also in contextually-contingent situations.

We know this is a critical component of instruction, as it is performed in response to their formative assessment of their needs—i.e., allowing our assessment of students' needs to influence how we provide linguistic supports. While planning for how to provide extra support is equally critical, such as through planning peer-based activities and creating visual scaffolds (e.g., graphic organizers or language frames), the planned scaffolds are insufficient on their own (Zwiers et al., 2014), without equal emphasis on the more improvised linguistic supports. The implications of this imbalance are clear. We should dedicate some instruction in how to provide extra attention to language in contextually contingent ways. Otherwise, as I often found among the MNTs, students will miss out on many valuable learning opportunities in how language is used. Teaching these skills may not be easy, especially when considering Snow et al.'s (2005) model of teacher knowledge development, but that does not mean it is less important to start.

Effective pedagogy between ELLs and diverse learners. Most theories involving how to help students who need extra support in accessing and participating in the curriculum imply that adaptations and other tools are critical to have ready to use. In the field of Special Education, much research has been done investigating what types of adaptations, such as modifications and accommodations, are needed to do this effectively depending on the needs of those students with special needs. In general, some students, depending on their needs, require levels of individualized instructional supports that might be different from what their other peers receive. Sometimes, in the spirit of UDL, these students' needs are met by applying strategies that are more integrated within the curriculum in such a way that other diverse learners benefit from the application of these strategies, such as ELLs. This latter approach is best exemplified through UDL and its support for more differentiated instruction, of promoting more "flexibility in the ways [teachers] deliver instruction, provide learning activities, and assess students to meet the needs of individual learners" that may benefit (Gargiulo & Metcalf, 2016, p.50). At the same time, researchers concerned about our ELLs have also been investigating what the most

effective tools are for supporting their learning and academic achievement. What both movements appear to have in common is a quest to move away from the assumption that 'one size fits all' in respect to a teacher's instruction as well as with our learners' needs. Yet, from my review of the literature, there seems to be relatively little that has explicitly investigated the degree of overlap that exists between these movements in respect to principles of effective pedagogical practices.

There are certainly differences between ELLs and other diverse learners (broadly defined). Yet, there may also be more commonalities than we realize, but more research is needed to confirm this prediction. My data, which came mostly from the METs, suggest that some differences existed in the applicability of the strategies recommended in the PD between typically developing ELLs and other diverse learners. Recall Francesca's belief, once more, when she commented that to meet the needs of her other diverse learners in implementing these strategies, she needed more educator support in the classroom which, after she received it, caused her to comment that she noticed a positive difference. At the same time, all 7 teachers expressed that many of the strategies they were learning in the PD were also very helpful with their other diverse learners. For instance, Erin, a MET, noticed that some of the strategies from the PD, such as the information gap, were more successful for her students with special needs than their ELLs.

The implications of learning more about the degree of overlap in these principles of effective pedagogy from all the work accomplished by these two general groups of scholars are worth our notice. For starters, a better understanding of the similarities and differences would support the increasing collaborative efforts taking place between general and special education teachers. Moreover, as we move toward using more inclusive practices, clarifying these relationships would be timely as we continue searching for ways to support our diverse learners. It is important that teachers be aware of some of the potential differences, such as Francesca's observation that she needed to adjust what her expectations with her diverse learners were regarding their rate of progress in respect to meeting the learning objectives she initially established. We would also likely find many similarities in the literature. For example, Walqui (2006), in her illuminating work on how to provide more effective scaffolding for ELLs, suggested that a key detail for practitioners to keep in mind when integrating extra linguistic supports is to plan on using them more extensively and continuously as the needs arise. She noted that for typically developing monolingual students, they may benefit from 1-2 iterations of a task to understand the particular objective, but for ELLs to acquire the same concept, they may need 4-5 opportunities (2006). Based on my reading, a very similar approach is recommended as one of many adaptive practices that benefit other diverse learners, including those who are monolingual. In the end, we can only benefit from uncovering how the pedagogical strategies and supports found to be helpful with our diverse learners applies to ELLs and vice-versa.

Limitations

As with any study, there are a number of limitations that should be highlighted. In the sections that follow, I underscore how replicating this type of hybrid PD on a wider scale presents various logistical challenges followed by a discussion of the relatively high levels of attrition and incomplete data of my participants and what this means for understanding the nature of the changes that I observed. Equally important, a variety of limitations in the methodology exist that represent threats to the validity of my findings, such as the small number and short

duration of observations I conducted. These alone make the inferences that I have made about changes in teacher practices and knowledge to be more exploratory than conclusive.

Replication Poses some Challenges

This adaptive multi-dimensional model of PD to support purposeful communicative development showed that it is possible to implement in a site-based capacity, although its sustainability and scalability remain uncertain. This particular on-site hybrid PD was secured through grants and an ongoing partnership between the school district and a local university that had the infrastructure already in place to develop and implement MOOCs as a form of PD. There was also financial compensation through the grant part of which was reserved as compensation for the teachers' time.

A lingering question, therefore, is how feasible it would be to replicate a similar model on a wider scale since there are several interconnected variables to coordinate. Fostering professional connections, district wide support, motivation on part of teachers and organizers, and securing the funds would be but some of the hurdles to overcome to implement this model elsewhere. Laying out additional road maps for how we might do this would be necessary, but possibly quite challenging depending on the circumstances across districts. That being said, my findings suggest that this approach would be worth the effort, as this closer relationship between the district and developers of the PD in which both collaborated in the joint creation of the project, was positively received by most of the participating teachers. This, in turn, could support teacher and larger, district-wide change more effectively in the long term, since they would be in a better position to provide future PD's on site or coaching across grade levels.

Attrition and Incomplete Data

MOOCs have always been associated with the consistent challenge of attrition. There are the high levels of attrition rates to which many MOOCs fall victim compared to the relatively stable completion rates we see in comparison with more traditional approaches to PD (Williams, 2015). Among other reasons, this is an inherent risk given the extremely voluntary character of MOOCs; since no one pays any fees and there is little comparative evaluation of performance of individuals, students face few consequences for dropping out.

In many cases in which the MOOC is the only platform for PD, the attrition rate is often extremely high, with well over 90% dropping out. As Anders (2015) suggested, a hybrid approach can yield lower attrition rates, which a study by Rutherford-Quach, Zerkel, and Zwiers (2015) found in their study. They compared, among other things, the attrition rates of those who enrolled as singletons in a MOOC vs. those who participated in a hybrid version consisting of the both the MOOC curriculum as well as a series of live sessions. Results suggested that the latter group had far lower attrition rates than the singletons. Even so, as evidenced in this study, we still struggled with getting teachers to complete all components of the course. In other words, they finished the PD, but without necessarily completing all components of the curriculum, such as surveys, some work assignments, and materials in the MOOC platform. We replicated the experience of many other research efforts.

Of the focal teachers I followed, for example, only one completed the entire post-survey, and nobody completed all five of the MOOC course work assignments. Four completed one assignment, one completed nothing, and another completed four. This low level of participation raises the important point about how much effort they put into the PD overall. This begs the follow-up question: If they exhibited changes in knowledge or practice, as I have reported in several cases, what were the exact mechanisms of change? It becomes more challenging with

incomplete data to understand the nature of any changes. The marked changes I found in the case of Charlotte exemplify this point clearly.

These transformations in Charlotte's case all hinged on one point in time (last observation and interview) rather than fluctuations occurring in peppered fashion across multiple points for longer durations. In ideal circumstances, I would have visited the classroom with greater frequency, which is a limitation in its own right, in order to gauge how reliable and valid these changes actually were. Moreover, her completion rate represented another threat to the validity of this finding. She decided, for instance, not to complete the post-survey; nor did she submit any work assignments in the MOOC, and she did not appear to watch several of the screencasts on the MOOC platform. I wonder, as a result, what motivated the changes I observed. On the other hand, she attended each of the live sessions, which represented a source of learning that should not be underestimated. Perhaps passive participation, which comprised at least 10 hours of PD was sufficient to promote visible change in her practices. Perhaps this change reflected the power of the live sessions, but it is hard to know for certain.

Methodological Issues

The changes and trends I found must be tempered by the fact that the duration of the study was relatively short, lasting only four months with three visits per teacher. I had only three, 30-minute observations and three interviews that lasted between 30 and 45 minutes. Therefore, the inferences I have made about these practices and knowledge were more provisional than definitive, especially pertaining to the inferences I drew based on the observations. I would be in error to assume that I got a realistic snapshot of their practices, as various factors could have turned those spaces into inauthentic contexts, such as the inevitable attention that being audio recorded and observed can have on any teacher's practices, especially when they are observed infrequently (O'Leary, 2013). Ideally, my claims would be stronger if I had conducted a more observations and interviews, particularly if I had been able to conduct 1-2 observations prior to the start of the PD in order to establish a firmer and more reliably documented baseline.

Another threat to the validity of my claims concerns the potential impact of the Hawthorne Effect, which can occur when a participant knows that he or she is a part of a research investigation and, intentionally or even unintentionally, displays responses or behaviors that represent what they expect the observer wants to see. This becomes more of an issue in my case since I conducted relatively few observations. To use the example of Charlotte again, perhaps she chose a lesson in that last observation that she suspected would be popular with her students since she knew she was going to be observed. Perhaps this was simply a really good day where everything she did seemed to gel. Nevertheless, I mitigated these threats to validity by converging the available data sources and triangulating across them (Miles & Huberman, 1994).

While we cannot know the exact mechanisms that fueled these positive changes nor the degree to which these changes will be sustained over the long term, we know that Charlotte (and others) exhibited some positive changes in their practice and understanding, and we can reasonably infer that some of the impetus likely came from their participation in the hybrid component of the PD.

Future Research

Research is still needed to understand the nature of teacher-learning in the context of their participation in hybrid MOOC settings. In general, we know relatively little about the impact of these types of blended learning environments on teacher understanding and practice in the area

of language and communication. We also understand little about how teacher characteristics, such as their belief systems, mediate what they learn. We also need to explore how this style of PD impacts the learning of students and the degree to which these strategies actually change the quality of their discourse practices and ownership of academic language.

Teacher Beliefs

In this PD, the focus was primarily on how to implement more effective strategies to support the language and communication development of ELLs. However, my findings illuminated another important, and in my case unexamined, variable that may have played an important role in contributing to changes in teachers' knowledge and practice; namely, teacher belief systems. Beliefs would be interesting avenue to research further for a few reasons. First, all focal teachers inevitably encountered numerous challenges in implementing these three features from the PD. However, I found that the belief systems of the MNTs (e.g., Louisa and Charlotte) tended to associate the challenges they encountered in supporting language and communication development with shortcomings of the students. In contrast, those teachers who exhibited more expertise demonstrated a noticeable attitudinal difference in that the students were never considered at fault for these challenges. Instead, they were more self-critical and humble in their attempts to provide these strategies. It seems worthwhile, therefore, to explore these variables in more detail in future studies to see the extent to which this attitudinal construct impacts teacher practice and student learning.

PD Impact on Student Learning

We may also want to expand future research to consider the impact of these PD's on student learning, an important measure of a PD's effectiveness that has long been established (Guskey, 2014). The ultimate test of any PD, after all, is the degree to which it incites changes in student achievement. Yet, we still have relatively little data showing a link between those students whose teachers participate in hybrid MOOCs and their achievement levels. We could assess student outcomes, for example, by examining the impact of the PD on student performance using multiple measures ranging from criterion-referenced to standardized assessments. We could also benefit tremendously from interviewing students more systematically than I did in this study. We could conduct multiple interviews to gauge their metacognitive awareness about the link between the activities they do in the classroom and how that may support them linguistically or in terms of communication. This would help us better understand the overall impact of the PD on student and teacher learning.

Changes in Quality of Student Talk

The findings pertaining to changes in students' talk only captured a part of this construct of purposeful language and communication. While I found changes in the quantity of time allotted for students to engage in discourse practices as well as basic participatory structures used over time, I did not take into account changes in the *quality* of talk, such as the amount of deliberation between students and teacher, characteristics of dialogue, the quality of question types and responses to these questions (Juzwik et al., 2013). Thus, while my findings affirm that many of them were moving in a positive direction in that many of the teachers showed evidence of placing increased value on student talk, I did not capture what we are ultimately trying to achieve: changes in the quality of student talk.

In summary, the questions I sought to answer illuminated some helpful insights, but as it often happens, they also generated new questions that demand our attention. In any event, this particular PD using a hybrid MOOC platform seems to be a promising approach for providing teachers with evidence-based language and literacy instruction, but we still can infer very little

about its generalizability to other contexts, such as a different school district or team of PD providers. These analyses do suggest, however, that we seem to be moving in a productive direction.

References

Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). A systematic review and meta-analysis of the cognitive correlates of bilingualism. *Review of Educational Research, 80*(2), 207-245.

Alexander, R. (2006). *Towards dialogic teaching: Rethinking classroom talk*. Cambridge: Dialogos.

Amendum, S. & Fitzgerald, J. (2011). Reading instruction research for English-language learners in kindergarten through sixth grade: The last twenty years. In A. McGill-Franzen & R. L. Allington (Eds.), *Handbook of reading disability research* (pp. 373-391). New York, NY: Taylor & Francis.

Anders, A. (2015). Theories and applications of massive online open courses (MOOCs): The case for hybrid design. *The International Review of Research in Open and Distributed Learning, 16*(6).

Applebee, A. N., Langer, J. A., 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., & Klingner, J. K. (2006). Forging a knowledge base on English language learners with special needs: Theoretical, population, and technical issues. *Teachers College Record, 108*(11), 2187.

August, D., & Hakuta, K. (1997). *Improving schooling for language-minority children: A research agenda*. Washington, DC: National Academy Press.

Bailey, A. L., & Heritage, H. M. (2008). *Formative assessment for literacy, grades K-6: Building reading and academic language skills across the curriculum*. Thousand Oaks, CA: Corwin Press.

Bakhtin, M. M. (2010). *The dialogic imagination: Four essays* (Vol. 1). Austin, TX: University of Texas Press.

Bali, M. (2014). MOOC pedagogy: gleaning good practice from existing MOOCs. *MERLOT. Journal of Online Learning and Teaching, 10*(1), 44-56.

Banks, J., Cochran-Smith, M., Moll, L., Richert, A., Zeichner, K., LePage, P., . . . McDonald, M. (2005). Teaching diverse learners. *Preparing teachers for a changing world: What teachers should learn and be able to do, 2005*, 232-274.

Bayne, S., & Ross, J. (2014). MOOC pedagogy. In P. Kim (Ed.), *Massive Open Online Courses: The MOOC Revolution* (pp. 23-45). New York, NY: Routledge.

Berliner, D. C. (1988). *The development of expertise in pedagogy*. New Orleans: American Association of Colleges for Teacher Education.

Berliner, D. C. (1994). Expertise: The wonder of exemplary performances. In J. N. Mangerieri & C. C. Block (Eds.), *Creating powerful thinking in teachers and students: Diverse perspectives* (pp. 161-186). Orlando, FL: Harcourt Brace.

Bodrova, E., & Leong, D. J. (2007). *Tools of the mind*. Upper Saddle River, NJ: Pearson.

Boling, C. J., & Martin, S. H. (2005). Supporting teacher change through online professional development. *The Journal of Educators Online, 2*(1), 1-15.

Bransford, J., Derry, S., Berliner, D., Hammerness, K., & Beckett, K. (2005). Theories of learning and their roles in teaching. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 40-87). San Francisco, CA: Jossey-Bass.

Britton, J. (1990). Talking to learn. In D. Barnes, J. Britton, & M. Torbe (Eds.), *Language, the learner, and the school* (pp. 91-130). Portsmouth, NH: Boynton/ Cook Heinemann.

Brown, A., & Green, T. (2003). Showing up to class in pajamas (or less!): The fantasies and realities of on-line professional development courses for teachers. *The Clearing House, 76*(3), 148-151.

Bunch, G. C. (2014). The language of ideas and the language of display: Reconceptualizing "academic language" in linguistically diverse classrooms. *International Multilingual Research Journal, 8*(1), 70-86.

Capps, R., Fix, M., Murray, J., Ost, J., Passel, J. S., & Herwantoro, S. (2005). The new demography of America's schools: Immigration and the No Child Left Behind Act. Retrieved from http://www.urban.org/UploadedPDF/311230_new_demographpy.pdf

Carter, E., Hughes, C., & Odom, S. (2007). *Social interaction interventions: Promoting socially supportive environments and teaching new skills*. New York: Guilford.

Cazden, C. B. (2001). *Classroom discourse: The language of teaching and learning*. Portsmouth: Heinemann.

Conole, G. G. (2015). MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. *Revista de Educación a Distancia*(39).

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Clark, V. P. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

Cummins, J. (2000). *Language, power, and pedagogy: bilingual children in the crossfire*. Buffalo: Multilingual Matters LTD.

Dagen, A., & Bean, R. (2014). High-quality research-based professional development: An essential for enhancing high-quality teaching. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Bauserman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 42-64). New York: The Guilford Press.

Darling-Hammond, L., & Bransford, J. (2007). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco, CA: John Wiley & Sons.

Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan, 76*(8), 597-604.

Dede, C., Ketelhut, D. J., Whitehouse, P., Breit, L., & McCloskey, E. (2009). A research agenda for online teacher professional development. *Journal of teacher education, 60*(1), 8-19.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*(3), 181-199.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational evaluation and policy analysis, 24*(2), 81-112.
Dickinson, D.K. & Tabors, P.O. (2001). *Beginning literacy with language: Young children learning at home and school*. Baltimore: Brookes.
Dillon, D. R., O'Brien, D. G., & Sato, M. (2011). Professional development and teacher education for reading instruction. In M. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (Vol. IV, pp. 629-660). New York: Routledge.
Downes, S. (2008). Places to go: Connectivism & connective knowledge. *Journal of Online Education, 5*(1).
Dreyfus, H., Dreyfus, S. E., & Athanasiou, T. (2000). *Mind over machine*. New York, NY: Simon and Schuster.
Duff, P. (2008). *Case study research in applied linguistics*. New York, NY: Taylor & Francis.
Duke, N., Purcell-Gates, V., Hall, L. A., & Tower, C. (2006). Authentic literacy activities for developing comprehension and writing. *The Reading Teacher, 60*(4), 344-355.
Durgunoglu, A. Y. (2002). Cross-linguistic transfer in literacy development and implications for language learners. *Annals of Dyslexia, 52*(1), 189-204.
Espinosa, L. M. (2010). Classroom teaching and instruction "best practices" for young English Language Learners. In E. E. Garcia & E. C. Frede (Eds.), *Young english language learners: Current resaarch and emerging directions for practice and policy* (pp. 143-164). New York: Teacher's College Press.
Feiman-Nemser, S. (1983). *Learning to teach* (Report No. IRT-OP-64). Retrieved from Lansing, MI:
Francis, D., Lesaux, N., & August, D. (2006). Language of instruction. *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*, 365-413.
Frankel, K. K., Pearson, P. D., & Nair, M. (2010). Reading comprehension and reading disability. In A. McGill-Franzen & R.L. Allington (Eds.), *Handbook of reading disability research* (pp. 219-231). New York, NY: Routledge.
Frankel, K. (2013). *Understanding "re-mediation" from a student perspective: Adolescents' reading in high school literacy intervention classes* (Unpublished doctoral dissertation). University of California, Berkeley: Berkeley, CA.
Frede, E. C., & Garcia, E. E. (2010). A policy and research agenda for teaching young English language learners. In E. E. Garcia & E. C. Frede (Eds.), *Young English language learners: Current research and emerging directions for practice and policy* (pp. 184-196). New York: Teacher's College Press.
Freeman, Y. S., & Freeman, D. E. (2008). *Academic language for English language learners and struggling readers*. Portsmouth, NH: Heinemann.
Garcia, G. E. (2011). Classroom experiences and learning outcomes for dual language learning children: An early childhood agenda for educators and policy makers. In C. Howes, J. T. Downer, & R. C. Pianta (Eds.), *Dual language learners in the early childhood classroom* (pp. 1-18). Baltimore: Brookes Publishing Company.

GarcÌa, O., Kleifgen, J. A., Falchi, L., & College, C. (2008). From English language learners to emergent bilinguals: Equity matters. Research Review *(1*). New York: Teachers College, Columbia University.
Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.
Gargiulo, R. M., & Metcalf, D. (2015). *Teaching in today's inclusive classrooms: A universal design for learning approach*. Boston, MA: Nelson Education.
Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom*. Portsmouth, NH: Heinemann.
Gibbons, P. (2015). *Scaffolding language, scaffolding learning*. Portsmouth, NH: Heinemann.
Glaser, R. (1985). Thoughts on expertise. In C. Schooler & W. Schaie (Eds.), *Cognitive functioning and social structure over the life course* (pp. 81-94). Norwood, NJ: Ablex.
Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
Goldenberg, C. (2011). Reading instruction for english language learners. In M. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (Vol. IV, pp. 684-710). New York: Routledge.
Griffith, P. L., Ruan, J., Stepp, J., & Kimmel, S. J. (2014). The design and implementation of effective professional development in elementary and early childhood settings. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Bausermanq (Eds.), *Handbook of professional development in education* (pp. 189-204). New York: The Guilford Press.
Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press.
Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: theory and practice, 8*(3), 381-391.
Guskey, T. R. (2014). Measuring the effectiveness of educators' professional development. In L. E. Martin, S. Kragler, D. J. Quatroche, & K. L. Bausermanq (Eds.), *Handbook of professional development in education* (pp. 447-466). New York: The Guilford Press.
Guskey, T. R., & Huberman, M. (1995). *Professional development in education: New paradigms and practices*. New York, NY: Teacher's College Press.
Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. *Reading &Writing Quarterly, 19*(1), 59-85.
Hakuta, K. (2011). Educating language minority students and affirming their equal rights: Research and practical perspectives. *Educational Researcher, 40*(4), 163-174.
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* (pp. 358-389). San Francisco: Jossey-Bass.
Haneda, M., & Wells, G. (2008). Learning an additional language through dialogic inquiry. *Language and Education, 22*(2), 114-136.
Hattie, J., & Yates, G. C. (2013). *Visible learning and the science of how we learn*. New York, NY: Routledge.

Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. Cambridge: Cambridge University Press.
Higgs, J., Miller, C. A., & Pearson, P. D. (2013). Classroom digital interaction: High expectations, misleading metaphors. In K. E. Pytash & R. E. Ferdig (Eds.), *Exploring Technology for Writing and Writing Instruction* (pp. 239). Hershey, PA: Information Science Reference.
Johnson, L., & Becker, S. A. (2014). Enter the Anti-MOOCs: The Reinvention of Online Learning as a Form of Social Commentary.
Johnston, P., & Allington, R. (1991). Remediation. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 984-1012). New York: Longman.
Johnston, T. (2015). Stanford MOOCs support English learners and their teachers (Vol. January 28, 2015). Stanford Graduate School of Education.
Juzwik, M. M., Borsheim-Black, C., Caughlan, S., & Heintz, A. (2013). *Inspiring dialogue: Talking to learn in the english classroom*. New York, NY: Teachers College Press.
Juzwik, M. M., Sherry, M. B., Caughlan, S., Heintz, A., & Borsheim-Black, C. (2012). Supporting dialogically organized instruction in an English teacher preparation program: A video-based, Web 2.0-mediated response and revision pedagogy. *Teachers College Record, 114*(3), 1-42.
Kaiser, A. P., Roberts, M. Y., & McLeod, R. H. (2011). Young children with language impairments: Challenges in transition to reading. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 3, pp. 153-171). New York, NY: Guilford.
Kellogg, S. B. (2014). *Patterns of Peer Interaction and Mechanisms Governing Social Network Structure in Two Massively Open Online Courses for Educators.* Retrieved from NC State repository: http://repository.lib.ncsu.edu/ir/bitstream/1840.16/9549/1/etd.pdf.
Kim, P. (2014). *Massive open online courses: The MOOC revolution*. New York, NY: Routledge.
Kleiman, G. M., & Wolf, M. A. (2015). Going to Scale with online professional development: The friday institute MOOCs for educators (MOOC-Ed) initiative.
Kleiman, G. M., Wolf, M. A., & Frye, D. (2014). Educating educators: Designing MOOCs for professional learning. In P. Kim (Ed.), *Massive Open Online Courses: The MOOC Revolution* (pp. 117-146). New York, NY: Routledge.
Klingner, J. K., Artiles, A. J., & Barletta, L. M. (2006). English language learners who struggle with reading: Language acquisition or LD? *Journal of Learning Disabilities, 39*(2), 108-128.
Kong, A., & Pearson, P. D. (2003). The road to participation: The construction of a literacy practice in a learning community of linguistically diverse learners. *Research in the Teaching of English, 38*(1), 85-124.
Kramsch, C. (1995). The cultural component of language teaching. *Language, culture and curriculum, 8*(2), 83-92.
Kramsch, C. (2000). Social discursive constructions of self in L2 learning. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 133-155). Oxford: Oxford University Press.

Krashen, S. D. (1985). The input hypothesis: Issues and implications. *TESOL quarterly, 20*(1), 116-122.
Lawrence, F. R., & Snow, C. (2011). Oral discourse and reading. In M. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (Vol. IV, pp. 320-338). New York: Routledge.
Lee, O., Quinn, H., & Valdés, G. (2013). Science and language for English language learners in relation to Next Generation Science Standards and with implications for Common Core State Standards for English language arts and mathematics. *Educational Researcher, 42*(4), 223-233.
Lenski, S., Ehlers‐Zavala, F., Daniel, M. C., & Sun‐Irminger, X. (2006). Assessing English‐Language learners in mainstream classrooms. *The Reading Teacher, 60*(1), 24-34.
Lewis, L. (1999). *Teacher quality: a report on the preparation and qualifications of public school teachers* (1428927123). Retrieved from http://nces.ed.gov/pubsearch/pubsinfor.asp?pubid=1999080
Limbos, M. M., & Geva, E. (2001). Accuracy of teacher assessments of second-language students at risk for reading disability. *Journal of Learning Disabilities, 34*(2), 136-151.
Lipson, M. Y., & Wixson, K. K. (1986). Reading disability research: An interactionist perspective. *Review of Educational Research, 56*(1), 111-136.
Liyanagunawardena, T. R., Adams, A. A., & Williams, S. A. (2013). MOOCs: A systematic study of the published literature 2008-2012. *The International Review of Research in Open and Distributed Learning, 14*(3), 202-227.
Malloy, J. A., & Gambrell, L. B. (2010). The contribution of discussion to reading comprehension and critical thinking. In A. McGill-Franzen & R. L. Allington (Eds.), *Handbook of reading disability research* (pp. 253-262). New York, NY: Routledge.
Mariani, L. (1997). Teacher support and teacher challenge in promoting learner autonomy. *Perspectives: A Journal of TESOL Italy, 23*(2). doi:Retrieved from http://www. learningpaths. org/papers/papersupport. htm
Matusov, E. (2009). *Journey into dialogic pedagogy*. New York, NY: Nova Science Publishers.
McDermott, R. (2001). The acquisition of a child by a learning disability. In S. Chaiklin & J. Lave (Eds.), *Understanding practices* (pp. 269-305). New York: Cambridge University Press.
McIntyre, E., Li, G., & Edwards, P. (2010). Principles for teaching young ELLs in the mainstream classroom: Adapting best practices for all learners. In G. Li & P. A. Edwards (Eds.), *Best practices in ELL instruction* (pp. 61-83). New York, NY: Guilford Press.
McKeon, D. (1994). Language, culture and schooling. In F. Genesee (Ed.), *Educating second language children: The whole child, the whole curriculum, the whole community* (pp. 15-32). New York, NY: Cambridge University Press.
Mehan, H. (2000). Beneath the skin and between the ears: A case study in the politics of representation. In S. Chaiklin & J. Lave (Eds.), *Understanding practice: perspectives on activity and context* (pp. 241-268). Cambridge, MA: Cambridge University Press.

Meltzer, J., & Hamann, E. (2004). Meeting the needs of adolescent English language learners for literacy development and content area learning, Part 1: Focus on motivation and engagement. *Providence, RI: The Education Alliance at Brown University*.
Mercer, N. (2000). *Words and minds: How we use language to think together*. New York, NY: Psychology Press.
Mercer, N., Dawes, L., & Staarman, J. K. (2009). Dialogic teaching in the primary science classroom. *Language and education, 23*(4), 353-369.
Merriman, J. (2014). Content knowledge for teaching: Framing effective professional development *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 359-384). New York, NY: Guilford Press.
Met, M. (1994). Teaching content through a second language. In F. Genesee (Ed.), *Educating second language children: The whole child, the whole curriculum, the whole community* (pp. 159-182). Cambridge: Cambridge University Press.
Meyer, A., & Rose, D. H. (2000). Universal design for individual differences. *Educational Leadership, 58*(3), 39-43.
Miles, M.B. & Huberman, A. (1994). *Qualitative data analysis.* Newbury Park, CA: Sage.
Moje, E. B. (2007). Developing socially just subject-matter instruction: A review of the literature on disciplinary literacy teaching. *Review of research in education, 31*(1), 1-44.
Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: using a qualitative approach to connect homes and classrooms. *Qualitative Issues in Educational Research, 31*(2), 132-141.
Nagy, W. E., McClure, E. F., & Mir, M. (1997). Linguistic transfer and the use of context by Spanish-English bilinguals. *Applied Psycholinguistics, 18*(04), 431-452.
National Clearinghouse for English Language Acquisition (NCELA). (2007). *The growing numbers of limited English proficient students: 1995/96-2005/06*. Washington, D.C.
National Center for Statistics, (2015). Schools and staffing survey: Overview of the data for public, private, public charter, and Bureau of Indian Affairs elementary and secondary schools. Retrieved from https://nces.ed.gov/
Neuman, S., & Cunningham, L. (2009). The impact of a practice-based approach to professional development: Coaching makes a difference. *American Educational Research Journal, 46*(2), 542-566.
Nystrand, M., & Gamoran, A. (1991). Instructional discourse, student engagement, and literature achievement. *Research in the Teaching of English, 25*(3), 261-290.
Nystrand, M., Gamoran, A., Kachur, R., & Prendergast, C. (1997). *Opening dialogue*. New York, NY: Teachers College.
O'Grady, W., Archibald, J., Aronoff, M., & Rees-Miller, J. (2005). *Contemporary Linguistics*. New York: St. Martins.
O'Leary, M. (2013). *Classroom observation: A guide to the effective observation of teaching and learning*. New York, NY: Routledge.
Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Thousand Oaks, CA: SAGE Publications, inc.
Pearson, P. D., Moje, E., & Greenleaf, C. (2010). Literacy and science: Each in the service of the other. *Science, 328*, 459-463.

Perna, L. W., Ruby, A., Boruch, R. F., Wang, N., Scull, J., Ahmad, S., & Evans, C. (2014). Moving through MOOCs: Understanding the progression of users in massive open online courses. *Educational Researcher, 43*(9), 421-432.

Pinkham, A. M., & Neuman, S. B. (2012). Early literacy development. In B. A. Wasik (Ed.), *Handbook of family literacy* (Vol. 2, pp. 23-37). New York: Routledge.

Proctor, C. P., Dalton, B., & Grisham, D. L. (2007). Scaffolding English language learners and struggling readers in a universal literacy environment with embedded strategy instruction and vocabulary support. *Journal of Literacy Research, 39*(1), 71-93.

Purcell-Gates, V., Duke, N. K., & Martineau, J. A. (2007). Learning to read and write genre‐specific text: Roles of authentic experience and explicit teaching. *Reading Research Quarterly, 42*(1), 8-45.

Reich, J. (2015). Rebooting MOOC research. *Science, 347*(6217), 34-35.

Reutzel, D., & Clark, S. (2014). Shaping the contours of professional development, pre K 12: Successful models and practices. In L. E. Martin, S. Kragler, D. J. Quatoche, & K. L. Bauserman (Eds.), *Handbook of professional development in education: Successful models and practices* (pp. 67-81). New York, NY: The Guilford Press.

Ronaghi, F., Saberi, A., & Trumbore, A. (2014). NovoEd, A social learning enviornment. In P. Kim (Ed.), *Massive Open Online Courses: The MOOC Revolution* (pp. 96-105). New York, NY: Routledge.

Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: American Association for Supervision & Curriculum Development.

Rutherford-Quach, S., Zerkel, L., & Zwiers, J. (2015). *Combining online and face to face learning: Examining a hybrid massive open online course model for teacher professional development*. Paper presented at the Paper presented at American Education Research Association, Chicago.

Saldana, J. (2009). *The coding manual for qualitative researchers.* Thousand Oaks, CA: Sage.

Saunders, W. M., Goldenberg, C. N., & Gallimore, R. (2009). Increasing achievement by focusing grade-level teams on improving classroom learning: A prospective, quasi-experimental study of Title I schools. *American Educational Research Journal, 46*(4), 1006-1033.

Scarcella, R. (2003). *Academic English: A conceptual framework*. (Technical Report, Linguistic Minority Research Institute, University of California) 2003-1.

Scholz, R. W., & Tietje, O. (2002). *Embedded case study methods: Integrating quantitative and qualitative knowledge*. Thousand Oaks, CA: Sage Publications.

Sheu, F.-R., Bonk, C. J., & Kou, X. (2013). *A mixed methods look at self-directed online learning: MOOCs, open education, and beyond.* Paper presented at the 25th Annual Ethnographic & Qualitative Research Conference. Cedarville, OH.

Short, D., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners: A report to Carnegie Corporation of New York*: Alliance for Excellent Education.

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4-14.

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International journal of instructional technology and distance learning, 2*(1), 3-10.
Silverman, R., & Doyle, B. (2013). Vocabulary and comprehension instruction for ELs in the era of common core state standards. In S. B. Neuman & L. B. Gambrell (Eds.), *Quality reading instruction in the age of common core standards* (pp. 121-135). Newark, NJ: International Reading Association.
Snow, C., Griffin, P., & Burns, M. S. (2005). *Knowledge to support the teaching of reading: Preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass.
Snow, C., & Kim, Y. (2007). Large problem spaces: the challenge of vocabulary for English Language Learners. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 123-139). New York, NY: The Guilford Press.
Snow, M. A. (2001). Content-based and immersion models for second and foreign language teaching. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (Vol. 3, pp. 303-318). Boston, MA: Heinle & Heinle.
Stoddart, T., Pinal, A., Latzke, M., & Canaday, C. (2002). Integrating inquiry science and language development for english language learners. *Journal of Research in Science Teaching, 39*(8), 664-687.
Sullivan, A. L. (2011). Disproportionality in special education identification and placement of English language learners. *Exceptional Children, 77*(3), 317-334.
Tabors, P. O., & Snow, C. (2001). Young bilingual children and early literacy development. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy* (Vol. I, pp. 444-458). New York: The Guildford Press.
Ur, P. (1999). *A course in language teaching*. Cambridge: Cambridge University Press.
Verhoeven, L., & Snow, C. E. (2001). *Literacy and motivation: Reading engagement in individuals and groups*. Mahwah, NJ: Lawrence Erlbaum Associates.
Verhoeven, L. T. (2011). Second language reading acquisition. In M. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (Vol. IV, pp. 661-683). New York: Routledge.
Vivian, R., Falkner, K., & Falkner, N. (2014). Addressing the challenges of a new digital technologies curriculum: MOOCs as a scalable solution for teacher professional development. *Research in Learning Technology, 22*(1).
Vrasidas, C., & Zembylas, M. (2004). Online professional development: Lessons from the field. *Education+ Training, 46*(6/7), 326-334.
Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: MIT Press.
Vygotsky, L. (1980). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
Walqui, A. (2006). Scaffolding instruction for English language learners: A conceptual framework. *International Journal of Bilingual Education and Bilingualism, 9*(2), 159-180.
Wasik, B. A., Bond, M. A., & Hindman, A. H. (2006). The effects of a language and literacy intervention on head start children and teachers. *Journal of Educational Psychology, 98*(1), 63-74.

Wasik, B. A., & Hindman, A. H. (2011). Identifying critical components of an effective preschool lanaguage and literacy coaching intervention. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. III, pp. 322-336). New York, NY: The Guilford Press.

Wei, R. C., Darling-Hammond, L., & Adamson, F. (2010). *Professional development in the United States: Trends and challenges*. Dallas, TX: National Staff Development Council.

Wells, G., & Arauz, R. M. (2006). Dialogue in the classroom. *The journal of the learning sciences, 15*(3), 379-428.

Wenglinsky, H. (2000). How teaching matters: Bringing the classroom back into discussions of teacher quality. Retrieved from doi:http://files.eric.ed.gov/fulltext/ED447128.pdf

Wharton-McDonald, R. (2010). Expert classroom instruction for students with reading disabilities. In A. McGill-Franzen & R. L. Allington (Eds.), *Handbook of Research on Reading Disabilities* (pp. 265-272). New York, NY: Routledge.

Williams, B. (2015). *Learning from peers: Professional development in online teams.* (Dissertation Proposal), Stanford University.

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17*(2), 89-100.

Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.

Zwiers, J. (2007). Professional development for active learning in Sub-Saharan Africa: Reflectively practicing a community-centered approach. *Journal of education for international development, 3*(1), 1-15.

Zwiers, J. (2013). *Building academic language: Essential practices for content classrooms, grades 5-12*. San Francisco, CA: Jossey-Bass.

Zwiers, J., & Crawford, M. (2011). *Academic conversations: Classroom talk that fosters critical thinking and content understandings*. Portland, ME: Stenhouse Publishers.

Zwiers, J., O'Hara, S., & Pritchard, R. (2014). *Common Core Standards in Diverse Classrooms: Essential Practices for Developing Academic Language and Disciplinary Literacy*. Portland, ME: Stenhouse Publishers.

Appendix A: CDOT

Communicativeness Design and Observation Tool for Lesson Activities (CDOT)

The purpose of this tool is to facilitate the analysis and improvement of the communicative features of activities to develop language across disciplines. *Communicative* means that, rather than focusing on memorizing grammar rules and word meanings to give the appearance of language learning and use, activities actually require and foster communication--they motivate and support students in using language to get interesting and meaningful things done.

EVALUATING FEATURE 1 – Useful & Engaging Purpose: In the activity, students use language to do something meaningful and engaging (beyond just to answer questions or get points); the activity (or something similar to it) prepares students to use language for academic purposes.

- ☐ Do (most) students try hard to communicate/understand idea(s) to/of others? (e.g., rephrase, facial expressions, prosody, visuals, gestures, etc.) Do they ask how to best communicate/understand ideas?
- ☐ Do they maintain their communication (listening, reading, writing, talking, conversing), using more language than expected or required? Do students remain focused on the task?
- ☐ Ask student(s), Why did we do this activity? How can it help you in the future? (interview)

_____

EVALUATING FEATURE 2 - Information Gap: In the activity, students get or give information that they want, need, and don't have.

- ☐ Do students share information that is not known to their listener(s), watcher(s), reader(s), or viewer(s)?
- ☐ Do students interpret (listen/watch/read/view) information that they do not already know?

EVALUATING FEATURE 3: **Attention to Language:** In the activity, there is extra teaching and assessment focused on improving how language is used. This includes structuring interactions, modeling, practicing, giving feedback, and/or scaffolding (e.g., visuals, teach grammar or vocabulary, re-read, re-listen, pairs, have them paraphrase).

- ☐ Does the teacher highlight how to use language to help fortify students' communication and understanding?
- ☐ Do students use teacher support or feedback to improve how they communicate and/or understand ideas?
- ☐ Do students use scaffolds to improve how they communicate and/or understand ideas?

Appendix B: Pre- Interview

Date: _____ Time:_____

Institutions: Stanford University, University of California—Berkeley

Type of School: Elementary Middle High School Other_____

Name of Interviewer:_____ Interviewee Pseudonym: _____

Grade level of Class Observed: _____ Students in class: ELL levels ____ Monolingual___

Instructions for Interview Procedures

Once a teacher agrees to an interview date and time, check to see if teacher has completed the MOOC pre-survey (15-20 minute duration). If the teacher has not completed the MOOC pre-survey, send a reminder via electronic mail 3 days beforehand, but emphasize that it is voluntary. If the participant elects not to complete the MOOC pre-survey, then go ahead and start with item 1 below. If they do complete the survey, start with item 2.

Be sure to ask the questions in bold and use the probes as needed.

Pre- Interview Guide

1) [If the participant elects not to complete the pre-survey from the MOOC ask the following by saying the following:] **For purposes of this interview, I'm conceptualizing communication in the following way: rather than focusing on memorizing grammar rules and word meanings to give the appearance of language learning and use, activities actually require and foster communication--they motivate and support students in using language to get interesting and meaningful things done in the classroom**

2) Questions re: classroom observation

A. **What were your goals for today's lesson?**

a. Follow up: what were your goals as far as making this lesson more communicative?

b. Follow up: What were you expecting your students would accomplish in this lesson?

c. Follow up: Do you feel that you met those goals? Why do you think this was the case?

B. Describe what you did in both planning and instruction to support student language development in today's lesson.

a. What resources or materials did you utilize to support your planning for today's instruction?

C. Describe how you used scaffolds, strategies, or tools both in planning for and during instruction to support student communication and language learning.

a. Which of these seemed to work well?

b. Which seemed less effective?

i. Can you share some examples of some of the challenges such a student may face?

ii. Can you describe what you struggle with as far as trying to reach these students you've described?

D. **Describe any instances during which you felt like you needed to modify or change the lesson to help any of your students with regard to language?**

3. Questions re: Communication

a. In your experience teaching designated ELD, what have been some of the effective communicative teaching practices you have used to support students' language development?

4. **Do you work with <u>any</u> other students that you think need more support in the area of communication and language (besides those classified as ELLs)?** Can you tell me more about that?

5. **Do you work with any students that have an identified learning disability (which could range across different disability categories)?**

6. Dissertation- related

a. Take a moment and think of a specific student (could be a previous student in your class) with special needs and/or is needing more support in the area of language development. Without telling me who they are, describe how you

might individualize or differentiate instruction for them using communication practices to help support their language development?

i. To what degree do these scaffolds and/or other supports you just described similar and/or different from the types of supports you typically use during ELD instruction?

ii. Can you give some examples?

iii. When thinking of a student you've worked with at some point in the past (not necessarily this year) who is classified as ELL AND has identified special needs that impact his/her language how are the supports, modifications, scaffolds, or differentiation of instructional practices different and/or similar to what practices you rely on when working with typically developing ELLs?

7. Questions re: Teacher's designated ELD program

   a. How is 'designated ELD' organized and implemented in your school?

      i. How is this approach working for you?

      ii. What, if anything, seems to be working well as far as student growth in language?

      iii. What, if anything, could be improved with the current program as far as supporting students' language development through communicative practices?

      iv. In what ways, if any, do the students in the ELD class influence what you plan in your ELD instruction?

8. Follow-up Questions from MOOC pre-survey responses:

   a. In the pre-survey, you seemed to indicate an interest in learning about _____. Describe in more detail what you mean when you wrote ____.

   b. What other goals do you hope the PD will address as it relates to supporting your ELLs in developing language through communicative practices?

Appendix C: Observation Protocol

`Teacher Pseudonym/ ID:	Student composition (ELL level, gender, etc):
Class/grade:	Languages used during class:
Date and time:	Seating arrangement: Rows groups horseshoe circle other

Foci of observation

- **A) 3 Features from PD:**
  - **a) Useful & engaging purpose—**doing smthg. meaningful? Using language for academic purposes?
  - **b) Information gap—**Std.'s get/give information they want, need, and don't have
  - **c) Att'n to language—**xtra teaching/ assmnt to improve how lang. is used (e.g., structuring interactions, modeling, practicing, type of FB, scaffolding, using evidence for explanations, asking for/giving clarification, sharing information, etc. .)

- **B) Evidence of teacher differentiation (e.g., adaptation or modification) and scaffolding**
  - **a) What prompted T. to do something?**
  - **b) Interaction format**
  - **What is student's reaction?**

- **C) Learning Objectives**
  - **goals of activity (content, literacy, & lang. objectives)**
  - **alignment to lesson?**
  - **Clarity of how learning objectives communicated**

- **D) Any visuals/ other artifacts on wall that focus on language?**

Objectives:

Agenda:

Running Record: Start time: End time: **Note: start new row with each transition in classroom.**

Time	Activity	OC

Appendix D: Pre-Survey (Administered online)

Welcome to our course, Using Communication-Focused Activities in Designated English Language Development Lessons (Fall 2015)! In an effort to learn more about each of you, we invite you to complete this short survey.

We want to start off with questions that will help us understand what you think regarding designated ELD with a focus on communication. While the course itself involves more open-ended, real-world examples, most of these questions are short answer, multiple-choice, or rankings. This is done so that we can quickly get a sense of the common threads among the thousands of participants. Completing it, therefore, should take no more than 10-15 minutes. Thank you!

How knowledgeable do you currently feel about what instructional approaches are effective in students' language with a focus on communication?

	Not very knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Extremely knowledgeable
Choose between 1 and 5	1	2	3	4	5

Please describe some of the typical things you do to support student learning during designated ELD.

How well prepared do you currently feel about planning and implementing ELD lessons?

	Not very well prepared	Somewhat well prepared	Well prepared	Very well prepared	Extremely well prepared
Choose between 1 and 5	1	2	3	4	5

How knowledgeable do you currently feel about providing effective supports (e.g., scaffolds, differentiated modifications) for ELLs who are struggling with language in the classroom?

	Not very knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Extremely knowledgeable
Choose between 1 and 5	1	2	3	4	5

Please read through and then evaluate the following classroom activity described below.

Classroom Context: 4th grade class, Students are mostly at an Early-intermediate English Language Proficiency Level

Objective: Students will use descriptive language to explain the process of evaporation.

After a read-aloud of a science text on the water cycle, students are instructed to turn to a partner and tell them what evaporation is using the following sentence frame:

Evaporation is the process of_____.

After their pair-share, students share out their own answers to the whole class using the sentence frame. Then they write a two-sentence description of the evaporation process as an exit ticket.

A score of 4 signifies that the activity is extremely effective, where as a score of 1 signifies that the activity does not display this feature at all. [Note: 4= extremely effective, 3= very effective, 2=somewhat effective, 1= not effective]

	Not effective	Somewhat effective	Effective	Extremely effective
How effective is this activity in generating purposeful, engaged student communication?	1	2	3	4

How might you modify this activity, if at all, to increase the quality and/or quantity of student communication?

Please read through and then evaluate the following conversation excerpt between two third grade students on the components that follow.

Context: 3rd Grade English Language Arts; students had read a book about two different types of personalities, one more adventurous/rebellious and one more passive and compliant.

Objective: Students will be able to compare themselves to characters in the book using evidence from their lives.

Conversation Prompt: Describe to your partner how you are like or not like one of the characters in the book and give examples.

(1) Student A: I'm more like Wendell because I'm adventure.

(2) Student B: Like when?

(3) Student A: When I go biking with my father I am adventure because I like to go fast.

(4) Student B: Me too, but my mom me regaña. (scolds me)

(5) Student A: Who are you like?

(6) Student B: I look like both of them 'cuz sometimes I'm good and sometimes I'm bad.

(7) Student A: Like when?

(8) Student B: We went to a lake one time, and they told me not to go in, but I did.

A score of 4 signifies that you strongly agree, where as a score of 1 signifies that you do not agree [Note: 4= Strongly Agree 3= Agree 2=Somewhat Agree, 1= Do Not Agree]

	Somewhat Agree 1	Agree 2	Strongly Agree 3	Do not Agree 4
Students are engaged to accomplish a purpose				
Students are sharing information that the other one doesn't already know.				

Please read through the following student language excerpt that emerged from the related activity.

Prompt: During the last few weeks, we have been reading the comic book, Pheobe and Her Unicorn, and discussing how to summarize a text.

The student is asked to write a summary of this text, which is written below :

Pheobe was at a pond skiping rocks and she hits a Unicorn and her name was Marygold and she grants phobe one wish and it is to be her best friend and marygold helps pheobe get out of truble and mean bullys, piano Lessons, and candy breathing Dragons. This Book is REALLY FUNNY!

After reading this student's summary, what would you do instructionally to help her improve in her ability to communicate a clear and concise written summary?

Please indicate your main current job/position.

What grade level(s) are the students you teach or support? (You may choose more than one; If not applicable, choose N/A.)

- [ ] Pre-Kindergarten
- [ ] Kindergarten
- [ ] Grade 1
- [ ] Grade 2
- [ ] Grade 3
- [ ] Grade 4
- [ ] Grade 5
- [ ] Grade 6
- [ ] Grade 7
- [ ] Grade 8
- [ ] Grade 9
- [ ] Grade 10
- [ ] Grade 11
- [ ] Grade 12
- [ ] Undergraduate level
- [ ] Graduate level
- [ ] Other adult learners
- [ ] N/A

Please select the district you are affiliated with, or provide the country, state or province, county and/or city of the school where you currently work.

- ○ Seattle Public Schools
- ○ Denver Public Schools
- ○ New York City Public Schools
- ○ Los Angeles Unified School District
- ○ San Francisco Unified School District
- ○ Other school location

We are interested in knowing if your school and/or district are supporting your participation in this course in some way. Please mark all ways your participation in this course is being supported below

- ☐ I have release time to participate in activities related to the MOOC.
- ☐ I am receiving a stipend to participate in the MOOC.
- ☐ I am participating in the MOOC along with a team of colleagues from my school and/or district.
- ☐ Our school, district, and/or ESD is providing a facilitator to support my colleagues and I in activities related to the MOOC.
- ☐ My school and/or district is supporting my participation in the MOOC in another way. (Please describe below.)
- ☐ I am participating in the MOOC without any explicit support from my school and/or district.

Please estimate what percentage (%) of your current students are ELLs.

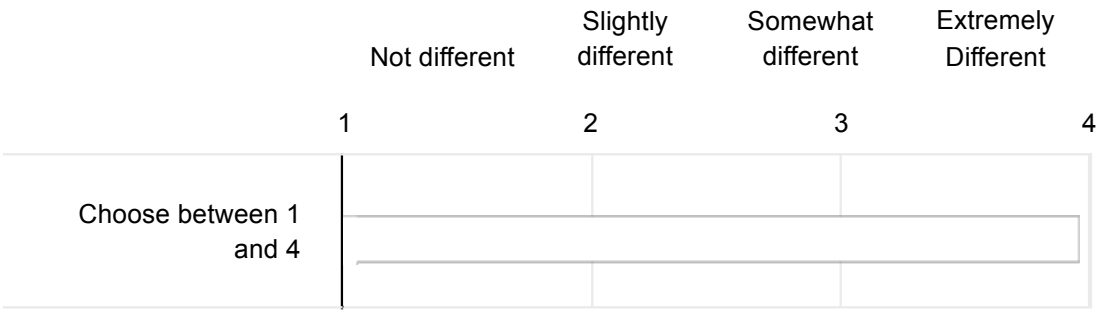
About how many years of experience do you have as an educator, directly working with students?

How knowledgeable do you currently feel about providing effective supports (e.g., scaffolds, modifications) for NON-ELLs who are struggling with language in the classroom?

	Not very knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Extremely knowledgeable
Choose between 1 and 5	1	2	3	4	5

To what extent do you find yourself having to modify your instructional strategies during ELD? If so, describe 2-3 examples of how you often provide extra support/accommodations to those students who are struggling with language in the area of communication.

When supporting communication-based practices, how do the teaching strategies and accommodations you use with ELLs differ when working with other students (e.g., students with a mild disability or monolinguals struggling with language)?



In one or two sentences, please explain why you are interested in this class. (For instance, what do you hope to learn from it? What is motivating you?)

How would you categorize the dominant English language proficiency level(s) of your
ELLs? (You may choose more than one)

- [ ] Beginner
- [ ] Early Intermediate
- [ ] Intermediate (medium proficiency)
- [ ] Early Advanced
- [ ] Advanced (High proficiency)
- [ ] N/A

Would you be interested in further communication with the course facilitators about your experience in the course? If so, please provide an email address for future contact.

Is there anything else you would like us to know about you?

Appendix E: Post-Survey

Section 1 Thank you for participating in our course, Using Communication-Focused Activities in Designated English Language Development Lessons (Fall 2015)! As the course wraps up, we invite you to complete this short survey to gather information about your experience in the course. The survey should take no more than 10-15 minutes. Thank you!

Q3 How knowledgeable do you currently feel about what instructional approaches are effective in supporting students' language with a focus on communication?
_____ Choose between 1 and 5 (1)

Q5 How well prepared do you currently feel about planning and implementing ELD lessons?
_____ Choose between 1 and 5 (1)

Q41 How knowledgeable do you currently feel about providing effective supports (e.g., scaffolds, differentiation, modifications) for ELLs who are struggling with language in the classroom?
_____ Choose between 1 and 5 (1)

Q42 How knowledgeable do you currently feel about providing effective supports (e.g., scaffolds, differentiation, modifications) for NON-ELLs who are struggling with language in the classroom?
_____ Choose between 1 and 5 (1)

Q51 To what degree have some of these features of communication-based practices that you have learned from the MOOC seemed to be supporting other students struggling in this area, such as ELLs with IEP's, English-only students with IEPs, or other students who are struggling (e.g., reclassified ELLs or students considered "at-risk")?

Q42 In what ways have you already changed your instructional practice with respect to supporting students' language with a focus on communication? (If you have not changed your instructional practice, write that.)

Q43 In what ways do you plan to change your instructional practice with respect to supporting students' language with a focus on communication? (If you do not plan to change your instructional practice, write that.)

Q54 Please read through and then evaluate the following classroom activity described below. Classroom Context: 4th grade class, Students are mostly at an Early-intermediate English Language Proficiency LevelObjective: Students will use descriptive language to explain the process of evaporation. After a read-aloud of a science text on the water cycle, students are instructed to turn to a partner and tell them what evaporation is using the following sentence frame: Evaporation is the process of_____. After their pair-share, students share out their own answers to the whole class using the sentence frame. Then they write a two-sentence description of the evaporation process as an exit ticket. A score of 4 signifies that the activity is extremely effective, where as a score of 1 signifies that the activity does not display this feature at all. [Note: 4= extremely effective, 3= very effective, 2=somewhat effective, 1= not effective]

_____ How effective is this activity in generating purposeful, engaged student communication? (1)

Q55 How might you modify this activity, if at all, to increase the quality and/or quantity of student communication?

Q56 Please read through and then evaluate the following conversation excerpt between two third grade students on the components that follow. Context: 3rd Grade English Language Arts; students had read a book about two different types of personalities, one more adventurous/rebellious and one more passive and compliant. Objective: Students will be able to compare themselves to characters in the book using evidence from their lives. Conversation Prompt: Describe to your partner how you are like or not like one of the characters in the book and give examples. (1) Student A: I'm more like Wendell because I'm adventure. (2) Student B: Like when? (3) Student A: When I go biking with my father I am adventure because I like to go fast. (4) Student B: Me too, but my mom me regaña. (scolds me) (5) Student A: Who are you like? (6) Student B: I look like both of them 'cuz sometimes I'm good and sometimes I'm bad. (7) Student A: Like when? (8) Student B: We went to a lake one time, and they told me not to go in, but I did. A score of 4 signifies that you strongly agree, where as a score of 1 signifies that you do not agree [Note: 4= Strongly Agree 3= Agree 2=Somewhat Agree, 1= Do Not Agree]

_____ Students are engaged to accomplish a purpose (1)

_____ Students are sharing information that the other doesn't already know (4)

_____ Students are using scaffolds and support from the teacher (5)

Q57 Please read through the following student language excerpt that emerged from the related activity. Prompt: During the last few weeks, we have been reading the comic book, Pheobe and Her Unicorn, and discussing how to summarize a text. The student is asked to write a summary of this text, which is written below : Pheobe was at a pond skiping rocks and she hits a Unicorn and her name was Marygold and she grants phobe one wish and it is to be her best friend and marygold helps pheobe get out of truble and mean bullys, piano Lessons, and candy breathing Dragons. This Book is REALLY FUNNY! After reading this student's summary, what would you do instructionally to help her improve in her ability to communicate a clear and concise written summary?

Q45 Which session contributed most to your learning?
- ❍ Session 1: Communication-Focused Listening & Watching (1)
- ❍ Session 2: Communication-Focused Speaking (2)
- ❍ Session 3: Communication-Focused Reading & Visual Literacy (3)
- ❍ Session 4: Communication-Focused Writing (4)
- ❍ Session 5: Communication-Focused Conversation (5)

Q46 How did the session contribute to your learning? Provide explanations for your selection in the above question.

Q49 Which of the following areas of learning represent important takeaways for you? (check all that apply)
- ❑ How to help students communicate and understand the ideas of others in the class. (1)
- ❑ How to support students to use more complex language in an activity. (2)
- ❑ How to help students recognize the larger goal or purpose of an activity. (3)
- ❑ Creation of an information gap where students need to get or give information they want or need. (4)
- ❑ How to get students to use language to support their communication (as opposed to a focus on just the grammatical parts of language). (5)
- ❑ How to get students to respond to & use the various language supports you provide. (6)
- ❑ How to use scaffolds inspired by or adapted from the MOOC to support student communication more effectively. (7)
- ❑ Communicativeness in listening and watching. (8)
- ❑ Communicativeness in speaking. (9)
- ❑ Communicativeness in reading. (10)
- ❑ Communicativeness in visual literacy. (11)
- ❑ Communicativeness in writing. (12)
- ❑ Communicativeness in conversation. (13)
- ❑ Other (14) _____

Q48 What were some challenges you faced as you were completing the course?

Q33 Is there anything else you would like us to know when designing future courses

Appendix F: Typical Activity from the MOOC

This is another type of information gap activity which involves each student having a card with one of four, it doesn't have to be four, one of multiple variations with different information on them. For example, you might put a famous person's name and then some information such as years of birth, death, nationality, contributions to history, and so on.

[00:09:08]
Students can share this information, and then make cards of other famous people, or make cards about themselves, to share for a biography or autobiography presentation. Cards could also have four different types of evidence from an article, points on different sides of a controversial issue, quotations from a text or famous people, variables to consider in a physics experiment, or data needed to solve a math problem.

[00:09:33]
So here's what you do. You model for students the goal of sharing the information on the card. Then you act out any needed vocabulary, in this case maybe like and dislike terms on the wall. Then you give a card to each student and let them practice what they'll say to themselves.

[00:09:52]
And then you have them find all three other artists, or whoever, and share their information. Now this variation of an information gap activity involves making two forms, A and B. The forms are different in that they each have information that the other needs. In the example shown, a customer goes to the store and ask how much things cost.

[00:10:15]
A has items without prices, and B has those prices, and vice versa. Students learn the item vocabulary and their numbers, getting plenty of practice in asking how much something costs. It can be part of a larger unit on running a business, supply and demand or the economy. Here's what the students do.

[00:10:34]
Half the students get form A, and half the students get form B. You model and preview expressions and vocabulary. Students pair up and each play a role. For example, A might be a customer, B the store owner. A and B switch roles. Optionally, students create their own forms.

[00:10:52]
Now as I said before, the activities you just saw tend to be used more often in beginning level classes, but variations can be used in intermediate levels and beyond. Just think of a way that each person can use and share information by interacting with others. Here are some features and information gap activities.