EXPLORING THE USE OF MASSIVE OPEN ONLINE COURSES (MOOCs) AS A
SOURCE OF PROFESSIONAL DEVELOPMENT FOR TEACHERS OF ENGLISH
LANGUAGE LEARNERS (ELLs)

A Capstone Project Defense

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by

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Abstract

Demographic changes in the US (National Center for Education Statistics, 2015) are creating classrooms comprised of a growing number of English language learners (ELLs). At the same time, new rigorous standards are pressing all teachers to consider and address the role of language in learning (Bunch, Kibler & Pimentel, 2012). This context of a large number of ELLs in classrooms guided by rigorous standards requires that all teachers are prepared to meet the unique linguistic needs of ELLs. Massive Open Online Courses (MOOCs) offer a potential form of professional development (PD) to reach a large and widespread audience of educators, but up to now there has been limited research on the use of MOOCs and their function as PD. This study examined participant learning experiences in a MOOC designed to prepare content teachers to use conversation to integrate language and content in instruction. Findings are useful for MOOC designers to understand and improve the design of MOOCs for PD as well as for district and state education leaders to inform decisions about the use of MOOCs as a form of PD for preparing teachers for working with ELLs.

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APPROVAL OF THE CAPSTONE PROJECT

This capstone project, EXPLORING THE USE OF MASSIVE OPEN ONLINE COURSES (MOOCs) AS A SOURCE OF PROFESSIONAL DEVELOPMENT FOR TEACHERS OF ENGLISH LANGUAGE LEARNERS (ELLs)) has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

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December 16, 2016

DEDICATION

This paper is dedicated to English language learners across the United States who deserve high quality education.

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Executive Summary

Throughout the United States, schools must address a changing demographic of students that includes more English language learners (ELLs) in all classes (National Center for Education Statistics, 2015) alongside new rigorous standards that emphasize the language demands of academic content (Bunch, Kibler & Pimentel, 2012). Teaching ELLs requires unique understanding and instruction to address both language and content development (Harper, de Jong & Platt, 2008). Pre-service teacher education varies in the ways and extent to which it supports teacher preparation for working with linguistically diverse students (Samson & Collins, 2012) and in-service teachers report that professional development is not adequately preparing them to meet ELLs unique needs (Wei, Darling-Hammond & Adamson, 2007). Massive Open Online Courses (MOOCs) offer one possible format for teacher professional development related to working with ELLs, but little research has been conducted thus far to understand the ways and extent to which teachers learn in MOOCs.

Purpose

Although MOOCs offer a great potential for improving the training of teachers to work with ELLs, we need better understanding of how participants engage in and learn through the MOOC format. First, we must better understand how to prepare teachers for working with ELLs. Second, we need to explore if and how the format of a MOOC can be utilized to support teacher professional development. The present study, therefore, seeks to describe participant experiences in a MOOC by Understanding Language and make recommendations about future MOOC design and implementation. The study was

guided by the following questions about participants' setting, characteristics, and prior experiences and how they correspond to learning experiences in a MOOC titled:

Integrating English Language Development and Content Learning: A Conversation-Based Approach.

1. What are the roles of the individual, school, and course design in supporting teacher learning in a MOOC focused on conversation for ELLs?
2. How do participants interpret and use classroom academic conversations over the course of the MOOC?

Since there is limited existing research on MOOCs as a form of PD for training teachers to work with ELLs, the study is guided by a review of literature from three fields. First of all, it is important to consider what we know about teacher professional development generally and how it relates to teacher beliefs and practices. Next, I focused in more detail on research related to training teachers specifically for working with ELLs. Finally, I review recent literature on learning experiences in MOOCs. The research is framed by the situative perspective on learning so as to consider the context and how it relates to teacher learning, but also draws from aspects of activity theory which includes individual prior experiences and characteristics.

Methods

There is little research on professional development (PD) for preparing teachers to work with ELLs and even less research on the use of MOOCs as a form of PD. This study is an initial exploratory study to better understand the experience of participants in a MOOC designed to support teachers in working with ELLs. Data collection included

pre-and post-surveys, course assignments, and interviews of six focal participants. Data was analyzed using statistical measures to describe course wide patterns among all US K-12 educators and then followed up with analysis of six case study participants for rich description of participant experience in the MOOC. Multiple case study (Stake, 2006) was employed to describe trends across participants, but also to highlight individual cases.

Findings

Through analysis of both course wide data and individual case study narratives, I addressed the experience of users in the MOOC as well as participant interpretation and use of academic conversations. The study reports the following findings.

Finding 1: Features of course design promoted opportunity for participant application of learning in practice, but did not adequately support development of a community of learners.

Finding 2: Although participants attributed the extent of their learning to individual effort, school context also played a large role. In particular, school practices that supported a culture of collaboration and emphasized academic language fostered meaningful course experiences.

Finding 3: Participant individual and school based experiences shape their interpretation of academic conversation and the extent to which they emphasize conversation as a tool to display language or to build up new ideas.

Finding 4: The way in which participants describe academic conversation is also related to the way in which they apply academic conversation in their practice. In reporting about classroom practice, participants overwhelmingly devote time and scaffolds to the

development of student conversation, but vary in the degree to which they utilize conversations to support idea development and to assess student language.

Discussion and Implications

Based on these findings, MOOC designers and district leaders who are considering the use of MOOCs at their site should engage collaboratively in supporting the use of MOOCs. The recommendations include the following.

Recommendation 1: Develop school capacity to support participants by building a culture of collaboration and emphasizing academic conversations.

Recommendation 2: Explore further research about ways to promote a community of learners in and across digital learning spaces.

Recommendation 3: Incorporate course content that presents concepts of the language of display and language of ideas and encourages teachers to consider the appropriate role of each in academic conversations.

Chapter One

Educators in the United States face a changing demographic of students at the same time that policy pushes teachers to be accountable for the success of all students. English language learners (ELLs) comprise 10% of students in US classrooms and in several states ELLs comprise an even larger percentage of students (National Center for Education Statistics, 2015). The changing face of a new demographic of students described by Enright (2011) as the “new mainstream” is a growing concern for teachers across the United States. In fact, about half of teachers in the US can expect to have culturally and linguistically diverse students in their class at one time or another (Menken & Antunez, 2001).

We know that teachers have a great influence on student learning outcomes (Darling-Hammond & Ball, 2008) and that ELLs specifically require teachers who are adequately trained to meet their distinct learning needs (Harper, de Jong & Platt, 2008). Because ELLs face the double work of learning language and content simultaneously, it is important that teachers have understanding of the role that language plays in learning, how language is acquired, and effective classroom practices for promoting language development (Tellez & Waxman, 2006). However, many ELLs are placed in content classes with teachers who have little to no preparation for working with them (Villegas & Lucas, 2011). It is imperative that teachers are prepared to work with ELLs and this work will require cooperation of policy makers, university teacher preparation programs and school districts. This issue is especially acute in states with large percentages of ELLs such as California where 22.3 % of all K-12 public school students were classified

as English learners in the 2014-2015 school year

(<http://www.cde.ca.gov/ds/sd/cb/cefelfacts.asp>).

The present study utilizes case study analysis to better understand how a particular professional development model addresses the need for teachers to have greater understanding and preparation for working with ELLs. The course is developed around the type of needs that are present in California, a state with a high density of ELLs, but the course content and instruction is relevant and beneficial for teachers in all states working with ELLs.

Nationwide Context: A Growing Number of ELLs and the Challenges They Face

The number of ELL students in US schools has been growing over the last ten years, such that the percentage of ELL students in public schools increased in all but 11 states between 2002-03 and 2012-2013. As of 2012-2013, DC, Alaska, California, Colorado, Nevada, New Mexico, and Texas all had at least 10 percent or more public school students classified as ELLs. When looking at California, the state with the largest percentage of ELLs, there were approximately 1.392 million ELL students (22.3% of total enrollment) in the 2014-2015 school year in public schools. Another 18 states had between 6.0 and 9.9 percent ELLs in public schools (National Center for Education Statistics, 2015). In addition, there are many students who have been reclassified as fluent English speakers who still struggle with language and literacy in an academic setting (Olsen, 2010).

While in public schools, ELLs are faced with the double work of learning language and content simultaneously (Short & Fitzsimmons, 2007) and this challenge becomes especially acute at the secondary level where the language of school and

academic content becomes more complex and integral to learning (Snow & Uccelli, 2009). Recent research highlights the importance of academic literacy for secondary ELLs (Schleppegrell & Colombi, 2005; Snow & Biancarosa, 2003; August & Shanahan, 2006) which involves not just disciplinary knowledge, but use of that knowledge in reading, writing, and oral interactions (Koelsch, 2006). Many ELLs are struggling to meet the academic demands and challenges of schools. In fact, secondary ELLs across the nation are facing greater than average rates of grade retention, course failure, and dropout (Ruiz de Velasco, J. & Fix, M., 2000; Valencia & Villarreal, 2005; Menken 2008).

Standards Movement: Challenges and Opportunities for ELLS

The current context of the standards movement, although controversial because of accompanying high stakes assessments, does benefit ELLs in that it brings attention to their specific linguistic needs and calls for teachers to meet those needs. For example, the recent college-and-career ready standards emphasize language and literacy demands of content area learning and set the expectation that ELL students will be held to the same level of rigor, but with necessary support as stated below,

The National Governors Association Center for Best Practices and the Council of Chief State School Officers strongly believe that all students should be held to the same high expectations outlined in the Common Core State Standards. This includes students who are English language learners (ELLs). However, these students may require additional time, appropriate instructional support, and aligned assessments as they acquire both English language proficiency and content area knowledge.

(www.corestandards.org/assets/application-for-english-learners.pdf (Retrieved 11/30/2015))

The document also acknowledges that while ELLs should be held to the same rigorous content standards, they may do so without necessarily “manifesting native-like control of conventions and vocabulary” (p. 1).

In order to guide educators in better understanding the inherent language practices of the disciplines as well as the language demands of the standards for ELLs, the Council of Chief State School Officers published a framework that outlines the disciplinary and language demands of the standards (2012). In the framework, they note how the recent standards call for students to understand and use language and literacy for tasks such as “explain correspondences” and “justify their conclusions” in Mathematics, to “ask questions” and “construction explanations” in Science and to “construct valid arguments” and “build and present knowledge” in English Language Arts. While the language and literacy demands of the standards present a challenge for all students, they are especially critical for ELLs who are in the process of acquiring English. Kibler, Walqui and Bunch (2014) look specifically at the Common Core for English Language Arts and point out three key areas of the standards that are especially pertinent for ELLs. The standards push for students to: 1) read complex text 2) write- using evidence to analyze, inform and argue and 3) speak and listen- work collaboratively, understand multiple perspectives, and present ideas. All of these areas require students to understand and use language in meaningful ways within a social context. The authors suggest that teachers should reconceptualize ways of thinking about educating ELLs to support learning as a social process that helps ELLs build autonomy and engage with complex texts.

Although the standards present a great challenge for ELLs, Bunch, Kibler, and Pimentel (2012) also highlight the standards as an opportunity to bring attention to language in content learning. They point out that language has always been critical for content understanding and recognize that the new standards push all teachers to acknowledge and address the language of their content. In this context, language instruction for ELLs should shift away from its previous conceptualization that focused on isolated forms of language (grammar, vocabulary, syntax, etc) and functions of language (making requests, seeking information, explaining, etc), but instead should be redefined to focus on “language as action” (van Lier & Walqui, 2012). With the perspective of language as action, students learn language through meaningful classroom experiences and interactions with teacher and peers. Scaffolding is used as appropriate and language is interwoven with meaning making processes by students. Finally, following the recommendation of Galguera (2011), we should shift our thinking from preparing educators to work with ELLs to preparing educators for instruction of “language use for academic purposes” (p. 85).

Current State of Teacher Preparation

In order to prepare students for the linguistic demands of academic content outlined by the recent standards, Bunch (2013) suggests that language teaching is no longer the sole responsibility of the ESL teacher, but should be a concern for all teachers and administrators. Tellez and Waxman (2006) also recommend that there should be guidelines and expectations for how to prepare content teachers to work with ELLs. With regard to what content teachers need to understand, Hull and Moje (2012) point out that teachers need to understand the language demands and practices of their discipline,

while Lucas and Grinberg (2008) add that teachers should also understand and use effective teaching strategies for meeting the unique needs of ELLs.

The current context of an increasing number of ELLs combined with an emphasis on language demands of content requires that nearly all teachers are prepared to work with ELLs. Although credentials and training do not necessarily ensure that teachers are effectively prepared to work with ELLs, there is a greater likelihood that they will gain the needed background understanding through such measures. Even though we know that there is a demand for teachers who are prepared to work with ELLs, many schools face a shortage of teachers who are trained and/or certified to work with ELLs (National Center for Education Statistics, 2015).

Addressing the need of preparing teachers will require state wide changes that involve policy, practice, and research in order to improve the quality of teacher education related to working with ELLs (Samson & Collins, 2012). Although recent federal education acts have set expectations for learning outcomes of ELL students, there is no clear federal policy guideline on how to best prepare teachers for working with ELLs. The previous No Child Left Behind (NCLB) Act of 2001 established standardized testing and reporting of ELL students. While the recently adopted Every Student Succeeds Act (ESSA) of 2015 still requires reporting and accountability for ELL student learning, it does allow multiple measures for tracking improvement in learning and some exclusion from testing for newcomers.

Neither act, however, has contained explicitly stated expectations for teacher preparation or teacher quality for working with ELLs. In a review of the ESSA bill on the *Teaching English to Speakers of Other Languages (TESOL)* website, Lindahl (2015)

shares that the lack of attention to teacher education for working with ELLs “speak to the notion that working with ELLS requires ‘just good teaching’ (de Jong & Harper, 2005) rather than acknowledging that effectively teaching ELLs requires a sophisticated awareness of language and pedagogical practices” and that “if schools of education and school districts continue to position ESL programs and ESL certification as an add-on or an extra to ‘mainstream’ education, they will continue to marginalize ELLs themselves”.

Without clear federal guidelines, states and districts are left to determine how to prepare and train teachers to work with ELLs. When considering teacher training based on university teacher education programs, Menken (2001) surveyed 1,075 higher education programs in the US and found that fewer than 1/6 of the institutions required preparation for mainstream teachers about working with ELLs. When looking at state level policies, Salerno and Lovette (2011) conducted an analysis of all US state certification requirements and found that only 36 states required secondary content teachers to have knowledge of ELLs as part of their certification. The states that require such coursework are generally those with a large population of ELLs (Arizona, California, Florida, Pennsylvania, and New York). At the district level, many districts that lack well-qualified ELL teachers will find loopholes in program placement resulting in ELLs being placed with teachers who have little or no specialized training (Lucas & Grinberg, 2008).

Consequences of Lack of Training

Due to the lack of explicit policy or clear direction on training teachers to meet the needs of all students, ELLs are often in classes with teachers who have not had training. Of the 41% of teachers who have ELLs in their classes, only 12.5% have had

recent (within the past 3 years) training to work with ELLs (National Center for Education Statistics, 2015). Without adequately prepared teachers and instructional accommodations, ELLs are often isolated from classroom participation (Valdes 2001) and lack sufficient opportunities for language development and content learning (Harper & Platt, 1998).

Due to lack of preparation and experience working with ELL students and families, teachers often hold misconceptions about ELL students and instruction (Harper & de Jong, 2004) which may have negative consequences for ELL learning opportunities. This is especially critical because ELLs face double the work of learning language and content simultaneously so instruction must go beyond vocabulary exposure and address the unique and specific language needs of ELLs (Lucas & Grinberg, 2008). When looking at studies of teacher beliefs about ELLs, researchers found that content area teachers often had misconceptions or beliefs that conflicted with what research tells us about ELL learning. In a survey of 279 content area teachers, Reeves (2006) found that teachers had neutral or slightly positive attitudes about including ELLs in mainstream content classes but held on to misconceptions about the role of native language in instruction. The majority of teachers (82.5%) supported English only instruction and several (40%) did not agree that native language support could be a resource for learning. This belief is at odds with research that (Cummins, 1981; Collier & Thomas, 2004; Slavin & Cheung, 2005) shows the benefits of bilingual instruction and the use of native language to support learning. Karabenick and Noda (2004) also used a widespread survey to look at content teacher beliefs about ELLs and instruction. They found that content area teachers who had more favorable attitudes about having ELLs in their classes were

more likely to support the use of native language in the classroom. In looking at the nature of teacher-student interactions in content classes, Verplaetse (1994) analyzed the discourse of three middle school science teachers and found that teachers asked more directive rather than open ended questions of ELLs. Finally, Gebhard and Harman (2011) found that the majority of K-12 instructional practices for ELLs focus on direct instruction and drill practice of language forms that are based on behaviorist ideas about second language acquisition. While these studies did not make a direct connection with teacher preparation, they do demonstrate the negative effects of teachers' misunderstandings about working with ELLs.

At the level of policy, it is also essential that teaching ELLs is described and enacted as more than just "good teaching" (de Jong & Harper, 2005) or generalizable strategies. In a case study analysis of a school in which the entire staff underwent ESL training and all ELL students were mainstreamed, Langman (2003) found that the result was unfavorable conditions for language learning. The principle of the school chose this plan of action based on the need for ELLs to experience rigorous content learning, but ultimately such content exposure came at the expense of meaningful language learning opportunities for ELLs.

When looking at the larger policy level, the state of Florida issued a decree that required all teachers to undergo training for working with ELLs. Harper and de Jong (2009) noted several unintended consequences of this policy. ESL teachers were often responsible for after-school and weekend PD sessions where content teachers wanted take and go strategies for working with ELLs. As a result, teaching ELLs was reduced to a simple grab bag of strategies and ESL specialists were no longer regarded as experts.

Balancing the needs of what teachers want from PD as well as what teachers should take away from PD is an ongoing dilemma for professional development facilitators. When looking at the positioning of ESL teachers, Maxwell (2013) reminds us that ESL teachers in fact have had training, experience, and expertise that should be leveraged in order to support ELL students in accessing rigorous grade- level content high quality standards.

With an increasing number of ELLs being placed in content area classes (Villegas & Lucas, 2011) that are guided by rigorous standards, it is essential that policy and practice are developed to encourage teachers' understanding of how to address ELL's unique language learning needs within this context. Although pre-service teacher education is one avenue for increasing teacher preparation for working with ELLs, there is also a great need for professional development of the many in-service teachers who have ELLs in their classes already. As mentioned already, California has a considerable population of ELLs and offers a lens on the problem of educating teachers in the specialized knowledge and skills necessary to increase the academic success of ELLs.

California Context

The current study is situated within California and the concerns and issues of teacher preparation for working with ELLs that arose out of that context. Professional development activity surrounding ELL teacher training has been ongoing in the state for a number of years. I will be examining a professional development experience that is available to educators across the nation, although the course reflects the experiences and needs of educators in this state. Since California has a long history of addressing the needs of ELL students, however, it is also a valuable point of reference for understanding

the situation of how policy, demographic changes, and educational shifts influence the education of ELL students.

Currently California is the state with the largest number of ELLs in the country. In the 2014-2015 school year, 22.3 % of all K-12 public students were classified as ELLs and 42. 9% noted that they speak a language other than English in the home (<http://www.cde.ca.gov/ds/sd/cb/cefelfacts.asp>). Even with this large density of ELLs, however, many teachers in California lack preparation for working with ELLs. This lack of preparation is reflective of the often tense and contentious history of how to educate ELLs in California.

California has for a long time been an immigrant destination, and as a result has often been on the forefront of language policy issues. At a national level, the United States first began to address questions of language instruction policy after the wave of immigration in the 1950's. The Bilingual Education Act of 1968 was the first federal act to address the needs of ELLs and promoted the use of bilingual education programs. The decision of the Supreme Court case *Lau v. Nichols* in 1974 which originated in California courts resulted in a federal decision that required that students learning English have equal opportunities for education and not be discriminated or denied access to curriculum based on their language proficiency. Following these national cases, California along with other states widely utilized bilingual programs and instruction through the 1970's and 1980's with the majority of programs consisting of English/Spanish language instruction based on the large majority of Spanish speaking ELLs.

The use of bilingual programs soon received push back in California as well as other states from a growing political movement based on the ideology of "English only".

In 1998 California passed Proposition 227 which essentially banned bilingual instruction. The law required that schools place ELLs in English language classrooms using the approach of structured English immersion with instruction in “nearly all” English. Students could remain in these classes for a period not to exceed one year. There were measures for parents to apply for a waiver to place their child in a bilingual education program (Salomone, 2010) but these were not always widely advertised.

After 1998, schools and teachers that had formerly practiced dual language instruction were in a state of confusion about how to proceed with educating ELLs. Gándara et al. (2000) examined the impact of Proposition 227 through observations and interviews with teachers and administrators in the first year of implementation. She found that with the lack of clear direction of how to proceed with instruction for ELLs, many teachers exercised autonomy. The way in which teachers interpreted the policy and delivered instruction often depended on their own skills, experiences, and beliefs about educating students. Although there are no reliable studies that could prove the effectiveness of English only instruction versus bilingual instruction due to changes in testing and programs over the time period (Salomone, 2010), one consequence of the act was the decrease in the number of bilingual teachers who were working in California public schools. California saw a dramatic decline in the number of credentialed bilingual teachers after the passage of Proposition 227. Although credentials do not necessarily equate to effective instructions, Hopkins (2011) noted that many of the credentialed teachers demonstrated skills in instructional methods for working with ELLs and were also better equipped to reach out to parents of ELL students. There loss, therefore, was felt by the students and families of ELLs.

Even without the availability of bilingual teachers and instructions, schools in California as well as across the nation are expected to address the learning needs of ELL students. Gándara (2008) describes California's policy context of Proposition 227 combined with the previous No Child Left Behind Act as a "perfect storm" which resulted in ELL students receiving inadequate instruction but still having to meet federal guidelines for learning standards. Linda Darling-Hammond (2004) also echoes this sentiment of inequitable education in her analysis of the state of education and access to qualified teachers in California. Using evidence that the lowest performing students are in schools with underqualified teachers, she argues that low income, minority, and ELL students are not receiving equitable educational opportunities.

In recent years, California has started again to acknowledge the benefits of bilingualism and address the need for preparing teachers to work with ELLs. In the area of teacher education programs, Senate Bill 2042 also known as the English Learner Authorization requires that all state accredited teacher preparation programs must infuse all areas of their elementary and secondary programs with training in how to work with ELLs. In addition, all teacher candidates "admitted to a California Multiple or Single Subject Teacher Credential Program on or after July 1, 2002 complete embedded English learner course work authorized under Assembly Bill 1059" (Chap. 711, Stats. 1999).

At the policy level, California state leaders acknowledge the current and pressing need to develop standards and guidelines for ELL learning expectations. In 2010 the California State Board of Education adopted the California Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects. In 2012, California adopted the English Language Development

standards to outline the language needed for ELLs to participate in academic content.

Most recently, in 2015 California DOE published an English Language Arts/English Language Development Framework

(<http://www.cde.ca.gov/ci/rl/cf/elaeldfrmwrksbeadopted.asp>) in which they situate

meaning making alongside language and content development as seen in Figure 1. The

aim of this document is to align language and literacy goals for educators and curriculum

writers. The state recognizes that language instruction is embedded alongside content

instruction and is creating a framework to guide that instruction.

Figure 1. CA CCSS for ELA/Literacy Conceptual Tool. Adapted from Curriculum Framework and Evaluation Criteria Committee, 2015.

Finally, in November, 2016 California voters passed Proposition 58 which takes away the former restrictions on bilingual education in the state of California. As the law takes effect, it will be up to school districts to decide how and whether to implement bilingual education programs, although the law states that if 20-30 parents want bilingual education for their children, the school will have to provide it. As the law begins to be implemented, teacher education programs and school districts will need to collaborate to ensure an adequate pool of qualified teachers for bilingual instruction (Sanchez, 2016).

Although California is making many efforts to improve the preparation of teachers to work with ELLs, there is still a need to address the many in-service teachers who are not adequately prepared to work with their linguistically diverse classrooms. In a survey of California teachers, Gándara, Maxwell-Jolly, and Driscoll (2005) found that 43% of teachers with 50% or more English learners in their classrooms had received no more than one in-service that focused on the instruction of English learners. For those teachers with 26-50% English learners in their classes, half had no or only one such professional development (p 13)

Clearly, there is still a great need for increased attention on understanding the needs of ELL students in California and preparing teachers to meet those needs.

The present study addresses a nationwide PD effort, but is based out of and largely driven by the contextual factors in California. Understanding Language, a Stanford University initiative seeks to address the need for widespread PD for preparing content teachers to meet the language needs of ELLs through the use of free online courses.

Understanding Language

Understanding Language (UL) was formed to help educators better understand the role of language in the new college and career ready standards. Although numerous other organizations focus on instruction and teacher preparation for working with ELLs, UL is a leader in addressing language and content integration. Through presentations, papers, and professional development, they aim to help content area teachers understand and meet the linguistic needs of ELL students, especially as they relate to CCSS and NGSS. The organization is led by co-chairs Kenji Hakuta and Maria Santos, both prominent

researchers in the field of second language education. The advisory board consists of several prominent researchers and academics who specialize in education for ELLs.

The ultimate goal of the Understanding Language initiative is to help ELLs access rigorous curriculum and content standards. This goal is met through a three pronged approach consisting of: designing and delivering professional development, understanding and disseminating best practices in school and program models, and influencing policy and research agendas. The first and most prominent area of work is in the area of professional development, which includes the design and delivery of Massive Open Online Courses (MOOCs) that serve as professional development for teachers working with ELLs. By utilizing the MOOC format to deliver PD, UL is able to achieve the objective of reaching a large number of teachers and prepare them to work with ELLs.

The first MOOC that UL delivered was titled *Constructive Classroom Conversations (CCC)* and enrolled nearly 9,000 participants. Since that time, UL has rolled out several more MOOCs in addition to delivering the CCC MOOC twice a year. MOOC content and instruction has evolved based on findings from research and the field. There have been three different partnerships with school districts (Seattle Public Schools, Los Angeles Unified School District, and currently San Francisco Unified School District) to deliver hybrid models of MOOCs. In these courses, a subset of participants from the school district participated in the online MOOC accompanied by local live sessions lead by district staff. The current hybrid course titled “Using Communication-Focused Activities in Designated English Language Development Lessons” first took place in the fall of 2015 and was the first course in which UL teaching staff (Jeff Zwiers)

led the in-person PD for SFUSD educators through five live workshop sessions with participating teachers.

Through an internship with UL in the fall of 2015, I participated in the design and delivery of this hybrid MOOC. The course was available free and openly to the general public. It was largely advertised through the networks UL has with school districts and other education organizations and therefore attracted a majority of teachers from the US who spoke English. Although the teachers were nearly equally distributed across grade levels, the majority of teachers were ELD or ESL specialists rather than content or general education teachers. As a member of the instructional team, I gained first hand understanding of the process of designing a MOOC for PD. I also observed and developed questions about how the MOOC met the need of preparing teachers to work with ELLs.

In developing MOOC materials, the question arose among the teaching team about how to balance giving teachers what they want in the form of hands on activities with the need to develop teachers' theoretical foundation for understanding the needs of ELLs. One of the leading instructors is a well-known and published presenter of professional development and pushed to include materials that teachers would want so that they would stay engaged in the course. Other members of the team who had been involved with UL since its beginning stages voiced concern that offering activities that were presented as "real world" or "engaging" only for classrooms would take away from the rigor of preparing ELL students for academic content. This challenge of teacher buy-in is an ongoing concern for PD developers across all contexts. Teachers must be motivated to learn and integrate PD content (Richardson & Watt, 2010), but in the case of

working with ELLs, PD must also help teachers understand that ELL instruction needs to go beyond just “good teaching” (de Jong & Harper, 2005) or a few generalizable strategies.

In addition to the need for better understanding about PD content for MOOCs that prepare teachers to work with ELLs, there is also a need to better understand the use of MOOCs as form of PD. Although UL has completed an initial self-study of the MOOC format and presented a few conference papers about the MOOC format for PD, there is little understanding about how teachers actually experience learning through the MOOC format and what could be done to improve teacher learning and application of learning through this format.

Purpose of the Study

Across the nation, there are a growing number of ELL students in public schools (National Center for Education Statistics, 2015). At the same time, the college-and career-ready standards that are guiding education highlight language demands for ELLs and set the expectation that ELLs will participate in rigorous grade-level content. While this context calls for all teachers to have clear understanding of how to work with ELLs and address the language of disciplinary practices, many teachers have had little to no training for working with ELLs. Although the issue needs to be addressed through a system wide effort involving researchers, policy makers, and practitioners, professional development programs can offer support for all teachers. Because the need is so widespread, PD must consider the dual purpose of delivering high-quality learning while also addressing a great number of teachers. The online flexibility of MOOCs offers a

potential way to deliver PD to a wide audience and therefore prepare many teachers for working with ELLs.

Although the potential of MOOCs to fill a pressing need is great, there are two major problems of practice that need to be addressed. First of all, there is a need to better understand how to prepare teachers to work with ELLs. We know that teachers need to gain better understanding of disciplinary language practices and demands, but are still exploring how to prepare them for this and what this translates to in instruction. Second, there is a lack of research about the format of MOOCs for PD. While there is a growing body of research about characteristics of high-quality PD, we do not yet know if and how MOOCs can adequately deliver high-quality PD.

This study, therefore, seeks to better understand how the content and structure of an online MOOC serve as PD to prepare teachers for working with ELLs. Specifically, this study explores considerations from research about PD and working with ELLs in order to understand the extent to which these characteristics or other characteristics apply within the context of a MOOC. The research was guided by the following questions about participants' setting, characteristics, and prior experiences and how they correspond to learning experiences in a MOOC titled: *Integrating English Language Development and Content Learning: A Conversation-Based Approach*.

1. What are the roles of the individual, school, and course design in supporting teacher learning in a MOOC focused on conversation for ELLs?
2. How do participants interpret and use classroom academic conversations over the course of the MOOC?

Conceptual Framework

In order to answer these questions, I draw from literature related to PD, ELLs, and online learning communities. While the characteristics of effective PD provide a useful foundation and offer insight in terms of the learning experiences for participants, it is important to consider the unique role of MOOCs spanning across many settings. In order to analyze the position of MOOCs as a form of teacher PD, I draw from Borko's (2004) situative perspective on learning which considers the setting of PD as well as activity theory which includes both setting as well as participant characteristics.

Since there is still little consensus on effective instruction for ELLs and even less is known about the use of MOOCs as a form of PD, however, it is not necessarily appropriate to consider the proposed research questions through the lens of effectiveness. Alternatively, Brennan, Blum, and Smith (2015) propose using the lens of *meaningfulness* of learning to apply to research about MOOCs. When using this perspective, they found the importance of the themes of activity, peers, culture, and relevance when considering meaningful learning experiences for participants. For the present study, I also explore and try to better understand the extent to which participants learning experiences are *meaningful*.

In trying to understand the learning experiences of participants, I conceptualize learning as it is situated in a particular setting as well as shaped by participant prior background and experiences. The situative perspective on learning as well as some elements of activity theory will be useful in guiding this work. First of all, using the situative perspective on learning provides a frame to understand how the learning of participants takes place within and corresponds to aspects of their particular situation

(Borko, 2004). Figure 2 seen below outlines the key features of PD research according to a situative perspective on learning.

Figure 2. Key components of PD according to a situative perspective on learning.

Adapted from Borko, 2004.

This perspective is useful for understanding how individual's particular school context, peer interactions, and institutional practices influence their opportunity to learn in a MOOC. Given that little is known about MOOCs in general and even less is known about participant learning experiences in MOOCs, this frame also brings to light how participants in a MOOC experience learning across a wide variety of contexts and settings.

In addition to exploring learning which is situated in a particular setting, I also consider how participant experiences and background shape their learning experiences in a MOOC. In research question one I examine participant statements about ELLs, academic conversation, and prior training. In activity theory, the characteristics and experiences of participants are considered alongside features of the setting and particular situation (Edwards & Kinti, 2010). I explore participant prior experiences and characteristics initially through pre-survey responses and in more depth through case study analysis. Using this aspect of activity theory acknowledges that learning

experiences in the MOOC about working with ELLs are not only influenced by the setting, but also by participant characteristics and prior experiences.

In order to merge the relevant ideas of these two theories in a way that is appropriate for this study, I created a visual conceptual frame to describe the lens I am using to explore the research questions. Figure 3 below displays the conceptual framework, pulling from situative perspective on learning and activity theory.

Figure 3. Conceptual framework

This framework contains similar aspects as situative perspective on learning (participant, course, and context) but establishes that the participant comes to the course bringing ideas from individual experiences and understandings as well as influences from the school context that ultimately shape his/her experience in the course. I use the arrows and dotted line to represent the course content of academic conversation. Participants enter the course with some ideas about academic conversation and through the course add to

their understanding. Note that the green and yellow colors represent the combination of their existing ideas and new ideas from the course. Although they are represented in the figure as an even split, the extent to which participants apply prior ideas and new course learnings differs individually. Finally, the way that a participant describes academic conversation ultimately shapes the ways in which they report using academic conversation in their classes. Research question one focuses on the first two thirds of the figure by exploring how participant characteristics and school context shape user experience in the MOOC. I rely on literature about teacher learning and professional development to ground the evidence for research question one. Research question two looks primarily at the final two pieces of the figure with an emphasis on the dotted line representing academic conversation. This framework, however, illustrates how although the research question highlight different aspects, they are interconnected pieces.

For research question two, I rely on certain assumptions about the role of teaching and language. In the course and in this study, language is presented as “language as action” (van Lier & Walqui, 2012), and as such in the classroom students develop language through engagement in meaningful activities with peers and appropriate teacher scaffolding. Specifically, I analyze student language in the classroom using the work of Bunch (2014) about language of display and language of ideas. He suggests that students utilize language in distinct and intentional ways during classroom interactions. When working with peers, students often engage in the language of ideas. At this time, they may employ what is considered non-academic language but the function of language is to build ideas and develop content understanding. When students must present content, they switch to the language of display in which they share orally and in writing their

understanding of content. He also cautions that overemphasis on the language of display for ELLs can stifle authentic conversation and use of language to develop ideas. When analyzing the ways in which participants describe and use academic conversations in their own contexts, I frame student language according to its function of ideas or display. In summary, teacher learning in a MOOC is a complex and connected process that involves prior characteristics of the individual as well as influences of the school context. Consideration of these forces and how they relate to the learning experience are useful for understanding how participants engage with and enact the content about academic conversations.

Definition of Terms

The following terms are presented and used throughout this study.

- *Designated English Language Development (ELD)* is used largely by the state of California to describe either specific classes or time designated to language instruction specifically for English language learners.
- *English Language Learner (ELL)* is used to describe students who are not yet considered by their school district and federal guidelines to be proficient in English as required for an academic setting.
- *English as a Second Language (ESL) teacher/specialist* is used to describe teachers who have had particular training in meeting the needs of ELL students.
- *Integrated English Language Development (ELD)* is used largely by the state of California to describe language instruction that takes place within and connected to content area instruction.

- *Language as Action* as described by van Lier and Walqui (2012) involves language learning through meaningful and purposeful classroom activities rather than the traditional language instruction focused largely on forms and functions.
- *Massive Open Online Course (MOOC)* is used to describe a relatively new type of course in which participants learn through an online medium. Access is generally free and open to an unlimited number of participants globally.
 - *cMOOCs*, also known as connectivist MOOCs by Downes (2009) focus largely on participant construction of knowledge through peer sharing and collective learning experiences.
 - *xMOOCs* are often considered traditional MOOCs and rely on a leading expert to instruct students by imparting knowledge with limited opportunity for student interaction or construction of knowledge.
- *Professional Development (PD)* is used to describe learning that takes place with the goal of improving practice for teachers. It can take place in a variety of formats and settings.

Chapter Two

While the need to address in-service teacher preparation for working with ELLs is apparent, the way in which this is done is a much more complex concern that involves many components. In order to examine the use of the MOOC format for preparing teachers to work with ELLs, it is necessary to consider the intersection of three key areas of literature. First, I consider the context of professional development (PD) as a source of change in education and what research shows us about the characteristics, context, and types of PD. Next, I focus in more specifically on what teachers need to know about ELLs and how PD can be used to prepare teachers for working with ELLs. Finally, I look at the developing body of research about online learning and specifically MOOCs as a form of learning and PD.

Professional Development: Key Characteristics

The publication of *A Nation at Risk* (NAR; National Commission on Excellence in Education, 1983) signaled the start of another cycle of reform in education in order to improve student learning and create a more productive society. Since that time, there has been an increased focus on teaching and learning with specific attention to teachers (Cuban, 1990). In describing how educational change occurs, Darling-Hammond (2009) describes the four major approaches: bureaucratic approach, professional approach, market approach, and democratic approach. She then goes on to argue that a democratic and professional approach is most appropriate for empowering teachers and students and addressing the needs of modern US schools. She highlights that teacher PD should allow for thorough, meaningful, and ongoing training and also give decision-making power to teachers, staff, and administrators. Using this approach, Darling-Hammond recommends

that strong teacher development programs as well as sound and effective teacher professional development can drive change in education.

The need for quality professional development is also recognized through federal policy. The No Child Left Behind (NCLB) Act of 2001 as well as the more recently adopted Every Student Succeeds Act (ESSA) of 2015 both present professional development as integral to developing teacher capacity. Specifically, ESSA highlights the need for professional development to be sustained over time, intensive, collaborative, embedded within the work day, data-driven, and classroom focused.

These aspects of high-quality PD come from recent research about what makes PD effective. Although in the past research on PD had looked mostly at teacher satisfaction, attitudes, or willingness to change (Frechtling, Sharp, Carey & Vaden-Kiernan, 1995), the 1990's started to see a shift when researchers began to focus on the process and components of PD. A number of researchers have looked specifically at how professional development serves to improve teacher professionalism (Desimone, Porter, Garet, Yoon & Birman, 2002), change teacher practices (Borko, 2004) and impact student learning (Fishman, Marx, Best & Tal, 2003). In order to better understand the process of PD, researchers have sought to identify the key characteristics or features of PD that make it effective. While these studies include both large and small scale design as well as case studies and surveys, there is some consensus in findings about certain key features that are relevant.

Reform Orientation

PD can be described as following a traditional or reform orientation. The traditional orientation of PD usually involves an expert leader providing a one time

workshop that is outside of the school and outside of the school day. Reform-oriented PD, on the other hand, focuses on teacher learning and change in practices through mentoring or coaching, engagement in collective efforts at the site, and relevance to the context (Desimone, Porter, Garet, Yoon & Birman, 2002). This approach more closely aligns with the goals and needs of the teacher. Researchers generally conclude that reform-oriented approaches are more effective forms of PD for changing teaching practices (Loucks-Horsley et al., 1998, Putnam & Borko, 2000). Finally, Darling Hammond (1997) describes the types of activities that are most aligned with teachers goals, needs and ways of learning as those which are characteristic of the reform orientation.

It is important to consider, however, as Garet, Porter, Desimone, Birman and Yoon (2001) point out, that the form of reform vs. traditional is not necessarily as important as the characteristics of the PD. For example, reform oriented PD is generally longer in duration and promotes active learning, however, if a traditional workshop model also involves active learning and extended duration it has potential to be effective. The characteristics described below are generally agreed upon by researchers as salient features of effective PD.

Content Focus

In considering the content of PD, researchers point out three main areas that should be considered. The content should address subject matter understanding, pedagogy and the intersection of the two which Shulman (1987) theorizes as pedagogical content knowledge or the understanding of teaching practices specific to a content area. In a review of the state of PD in 1995, Corcoran suggests that it is important for PD to

deepen teachers' content knowledge. In a review of 12 empirical studies that looked at PD for math and science instruction, Kennedy (1998) noted the importance of the content focus of the PD was more important than the structure of the PD. Finally, using a national probability sample of 1,027 math and science teachers, Garet et al. (2001) looked at the effects of various characteristics of PD on teacher learning. They found that a content focus along with coherence resulted in greater teacher knowledge and skills. In a review of nine PD studies that abided by the What Works Clearinghouse standards of rigorous studies that directly show an effect of in-service PD on student achievement, Yoon, Duncan, Lee, Scarloss, and Shapley (2007) also found that focusing on content knowledge alongside pedagogical content knowledge led to improvements in student learning. In summary, it is important for PD to address teachers' need for understanding the content as well as effective practices for teaching that content.

Active Learning

In her framework for the key features of PD, Desimone (2009) suggests that PD should include active learning, described as opportunities for teachers to engage with and apply the content. Two of the recent and influential studies of PD also support this need for active learning. In the Garet et al. (2001) large scale survey study, the researchers define active learning as having an opportunity to connect PD learning to practice, observing and being observed, reviewing student work, and presenting, leading and writing. They found that the opportunity for active learning played a role in improving teacher knowledge and skills. Penuel, Fishman, Yamaguchi, and Gallagher (2007) also used survey data from 454 teachers in a science PD program that was facilitated by 28 different providers. They used a hierarchical linear modeling framework to analyze

teachers' survey responses and found that teachers' ability to contextualize PD content to their site was a strong predictor of whether they implemented PD. Clearly, when teachers have an opportunity to engage with the PD material and apply it to their own practice, there is a greater likelihood that meaningful learning will occur.

Collective Participation

In her description of high-quality PD, Desimone (2009) highlights the importance of collective participation of teachers which can occur across the same school, grade, or department. As described by Ball and Cohen (1998), collective participation allows teachers a space to discuss and engage with content. In an effort to better understand the current state of PD, Wei, Darling-Hammond & Adamson, (2010) analyzed data from the 2003-04 and 2007-08 Schools and Staffing Survey of teachers nationwide. In looking at teacher responses, they found that when teachers form relationships with other teachers in learning together, they are more likely to enact changes and implement learning in the classroom.

Recent research has expanded the idea of PD learning to include not just what happens in workshops or meetings, but also to include learning that takes place through interactions among educators. Sun, Penuel, Frank, Gallagher, and Youngs (2013) found that the learning potential of PD can be expanded through teacher interactions and sharing. In their study of a writing professional development in 39 schools, they found that teachers extended the influence of PD by using learning to support and help colleagues. Teachers' social networks also influence the ways in which they enact and sustain reforms, with PD being one aspect of that. Coburn, Russell, Kaufman and Stein (2012) reported that teachers were better able to sustain reform efforts when their social

network included strong ties, high depth interaction, and high expertise. For these reasons, the influence and effectiveness of PD should be considered not just at the individual teacher level, but also within the context of learning with peers.

In recent years, collective participation has expanded to include professional learning opportunities that take place through shared learning experiences, often described as professional learning communities (PLCs). Dufour (2004) points out that although many educators use the term PLC in common practice, not all PLCs are actually effectively performing and impacting teacher and student learning. He suggests that in order for PLCs to be effective, they should include the following characteristics: a focus on student learning, a culture of collaboration, and a focus on results. Although there are numerous theoretical ideas and examples of PLCs in practice, there is not yet a great amount of empirical evidence about the impact of PLC learning. In a review of the literature that included ten primary studies in the United States and one in England about PLCs, Vescio, Ross and Adams (2008) looked collectively at the empirical studies done on PD and suggest that PLCs can have a positive impact on teaching practices and student achievement. Although their research is just a limited introductory look at the work of PLCs, they did conclude that PLCs can shape teacher practices and student learning. Specifically, in PLCs teachers become more focused on student learning, collaborating, and continuous learning. These practices then in turn benefit student learning as evidenced in six of the studies that reported student learning outcomes. The research supporting PLCs sheds further light on the potential of teacher learning through joint and collective learning experiences.

Coherence

Research suggests that in order for PD to be effective, it should align with teachers' own goals and experiences. Darling-Hammond & McLaughlin (1995) emphasize the importance of preparing teachers for their own practice. This focus on coherence is also supported by empirical research. In a study by Garet et al. (2001), the researchers define coherence as adherence with teachers' goals, alignment with state and district standards and assessment, and communication with others. They find that coherence has a positive influence on changing teaching practice and attribute this to the fact that teachers who connect the experience to their own practice are more likely to have buy in, engagement, and deep learning. They even found that out of teachers who gained the same knowledge and skills, those who experienced coherence had greater change in their teaching practice. Penuel, Fishman, Yamaguchi, and Gallagher's (2007) research on teacher survey results in a science PD also supports the idea that coherence, which they described as PD that was meaningful and relevant to teachers' context, had a positive impact on implementation of PD content. In their recommendations, they suggest that when planning PD, providers should consider how to "localize" to teachers programs and context.

Duration

One major criticism of traditional PD is that it is a one-time event with limited follow-up. Supovitz and Turner (2000) analyzed surveys from over 4000 teachers and principals and found a relationship between the quantity of PD hours and the degree to which teachers implemented PD learning. They found that the group of teachers who participated in 80 hours of PD or more reported using inquiry based teaching (the content

of the PD) significantly more than the average teacher who had not gone through the PD. In the comparison groups in which teachers attended less than 80 hours of PD, teacher reporting on the use of inquiry was not significantly different than those teachers who had not undergone PD. In addition, Kubitskey and Fishman (2006) found changes in teacher beliefs about themselves and the PD content as well as their practices increased over the duration of a long term PD for eleven science teachers. Garet et al.'s (2001) review of teacher survey data also suggests that longer time span and contact hours correlated with more action-oriented reform type activities and active learning which are both related to a greater degree of teacher knowledge and learning. The duration of PD is important because a longer time period allows for teachers to have more time to gain knowledge of the material and also encourages and allows for application and integration of course learnings.

Context

In addition to the characteristics of effective PD, it is also important to consider how contextual factors influence PD. Contextual factors, which include federal, state and local policies, school-based routines and characteristics and practices of fellow staff, are often closely linked to coherence because they impact teachers' background understanding and goals. For example, Boardman and Woodruff (2004) looked at the experience of 20 teachers learning a new instructional practice. Through grounded theory they established that teachers who felt the influence of the high-stakes testing environment were less willing to try out new practices learned in PD and would often evaluate their own classroom practices by the such outside standards and assessment.

School based contexts and experiences are also related to collective participation. Sun, Penuel, Frank, Gallagher, and Youngs (2013) found that teachers were able to diffuse learning from PD through their school when helping or supporting other teachers. In addition, Coburn, Russell, Kaufman and Stein (2012) highlight the importance of teacher social networks in enacting and sustaining reform efforts. Teachers are never truly working in isolation, and therefore it is important to consider the context in which they teach and how that context shapes their participation in and integration of PD.

Teachers' Views on PD

Lastly, it is important to add to the research base about PD by including views from teachers themselves about their goals, expectations, and beliefs about PD. Commissioned by the Bill and Melinda Gates Foundation, the Boston Consulting Group (2014) recently surveyed 2,900 teachers, principals, and professional development leaders and reported that teachers seek out the following characteristics in PD: relevant, interactive, delivered by someone who understands my experience, sustained over time, and treats teachers as professionals. They also noted that when strong collaboration does exist in professional learning opportunities, the benefits are substantial. Since teacher motivation and buy-in is key to the effectiveness of any PD, (Little, 1993) it is important to also consider these beliefs of teachers about PD as well as ways in which true collaboration can be fostered.

PD for Working with ELLs

Although these characteristics are useful for establishing a foundation for effective PD, there are additional considerations or applications of these characteristics for PD related to working with ELLs. While there has been an increase in the availability

of PD, these learning opportunities do not always extend to preparing teachers to work with ELLs. In analyzing the 2008 Schools and Staffing Survey, Wei, Darling-Hammond, and Adamson (2007) found that only 27 % of teachers reported access to PD about teaching ELLs. At the same time, the number of ELLs in classrooms across the country continues to grow (National Center for Education Statistics, 2015). Clearly there is a need for understanding and implementing effective PD for teachers about working with ELLs.

Preparing Teachers for Working with ELL Students

Although there is an increase in the amount of curriculum and resources for working with ELLs, two prominent research syntheses about instruction for ELLs both note the lack of clear and consistent research about best practices for preparing teachers to instruct ELLs (August & Shanahan, 2006; Genesee, Lindholm-Leary, Saunders & Christian, 2006). While there are limited empirical findings about how to best prepare teachers to work with ELLs, there are numerous ideas from theory and practice that are worth considering. The lack of empirical research to guide decision making about how to prepare teachers for today's linguistically diverse classrooms, however, is a pressing concern which the present study hopes to address, albeit in limited ways.

One of the noteworthy findings of recent research in second language acquisition is the distinction between academic and social language and the difference in time it takes to acquire each. This finding is particularly relevant for instruction, assessment and programmatic decisions for ELLs. Researchers note that while learners can acquire social and conversational language in one to two years, it can take four to seven years to acquire and use the language of academic settings (Collier, 1987; Cummins, 1981;

Hakuta, Butler & Witt, 2000). Some current researchers have added to the discussion by pointing out that academic language can be defined in a variety of ways (Valdes, 2004) and that social and academic language should not be considered completely distinct in learning (Bunch, 2006). Overall, however, it is important for educators to acknowledge that learning language to be successful in a school setting occurs and improves over an extended time. Fillmore and Snow (2000) suggest that in order for teachers to work effectively with ELLs they should have a clear understanding of language acquisition and how language learning shapes teaching and learning.

Content Focus

Similar to PD in general, PD for working with ELLs should have a strong content focus that includes knowledge of language learning, content, as well as effective classroom practices. In a report of what teachers should know about language, Fillmore and Snow (2000) suggest that in order for teachers to work effectively with ELLs they should have a clear understanding of language acquisition and how language learning shapes teaching and learning. On the other hand, Tellez and Waxman (2005) review the literature about quality teachers for ELLs and caution that too much depth about second language acquisition can be overwhelming for content teachers. In describing the Systemic Functional Linguistics approach to addressing academic language for ELLs, Schleppegrell (2004) suggests that teachers should consider language, but focus specifically on understanding and preparing to teach according to the language demands of their particular content. This focus on understanding the language of a particular discipline and how it is used in that discipline is highlighted in the framework describing the language demands of the new standards (Council of Chief School State Officers,

2012). Finally, several researchers (Janzen, 2008; Lucas, Villegas, and Freedson-Gonzalez, 2008) suggest that in addition to understanding language and language learning in principal, it is also of utmost importance to know and understand the individual language backgrounds and characteristics of their students. Most recently, Bunch (2013) created a framework that highlights the intersection of language, content, and teaching by suggesting that teachers should have pedagogical language knowledge which includes understanding the language of their discipline particular to teaching and learning.

Although the majority of recommendations regarding content of what teachers need to know about ELLs are based largely on theory, policy, and practice, these suggestions provide a foundation for thinking about PD design for teachers of ELLs. The PD should have a content focus that addresses the specific language used for teaching and learning in their content and should also encourage teachers to consider the characteristics of their individual students and context.

Active Learning

In their review of the literature related to PD for preparing teachers to work with linguistically diverse students, Knight and Wiseman (2006) synthesized findings about the empirical work thus far. They reported that the training or workshop model was used in over half of the 19 studies that they reviewed. They found that those models that also included opportunities for interaction and additional follow-up coaching showed somewhat more favorable outcomes, although they do not explicate what outcomes. Utilizing the approach of discourse analysis, Molle (2013) examined the experiences and interactions of eleven ESL and general education teachers in a PD program about

teaching and learning of ELLs. She found that an overemphasis of strategy focus in PD for working with ELLs limited participants' opportunities for deep understanding about working with ELLs and even at times reinforced deficit ideas about ELL students. These findings support similar conclusions by Harper and de Jong (2009) who found that teachers in Florida who were forced to complete PD about working with ELLs sought out a grab bag of strategies and as a result the expertise and understanding of ESL specialists was diminished. In synthesizing findings from three different studies that they conducted of both in-service and pre-service teachers in Florida, the researchers concluded that an unintended consequence of training all teachers to work with ELLs was that the expertise and specialization of English as a Second Language (ESL) professionals was often weakened. Although teacher buy-in is an essential component of PD, these studies highlight the need for PD about teaching ELLs to go beyond just sharing strategies by promoting learning that deepens participants understanding of ELLs.

Coherence

The notion of coherence in preparing teachers to work with ELLs also presents an interesting challenge. Although research about PD in general suggests that teachers are more motivated and invested when the learning in PD aligns with their goals, interests, and beliefs (Garet et al., 2001), teachers working with ELLS may at times have inaccurate or flawed ideas about working with ELLs. In two large scale survey studies of content teachers about their beliefs about ELLS in their classrooms (Reeves, 2006; Karabenick & Noda, 2004), respondents shared beliefs about language learning that are inconsistent with research. Reeves noted that 90.3% (252) participants had received no training to work with ELL students. In surveys of teacher beliefs, most teachers (71.7%)

believed that ELLs should learn English within two years in school. In addition, 82.5% of teachers reported support for making English the official language of the United States.

On the other hand, in a survey of 729 teachers, Karabenick and Noda highlighted the fact that teachers with favorable attitudes about ELLs were more likely to support the use of native language in the classroom. Research consistently shows the benefits of native language in the process of second language instruction (Cummins, 1981; Collier & Thomas, 2004). In addition, research about second language acquisition highlights the fact that while ELLs may learn social language within one to two years, it can take much longer to acquire the language of schooling (Hakuta, Butler & Witt, 2000). The results of these studies highlight the fact that while coherence with teacher beliefs may be a factor in motivation for learning, there is also a need for PD to clarify or shift teachers' understandings about working with ELLs.

Context

The context for teachers working with ELLs is an important consideration for understanding how they learn as well as what beliefs or ideas may influence their learning. With regard to how teachers learn, it is important to recognize the influence of contextual factors. Eun and Heining-Boynton (2007) found that PD for teacher working with ELLS was most effective when teachers had a sense of self-efficacy alongside organizational support. One particular organizational structure that influences teacher learning is the amount of time and space that content teachers have dedicated to collaborating with ESL teachers. Valdes, Kibler, and Walqui (2014) recommend that in light of new college and career ready standards, the role of ESL teachers should be

shifting toward a more collaborative role with content teachers. In looking at a school with a recent increase in ELL students, Hopkins, Lowenhaupt, and Sweet (2015) used qualitative data along with social network analysis to better understand how teachers learn and collaborate with ESL specialists. They noted that opportunities for content teachers to engage in collaboration with ESL specialists depended on their content area as well as organizational routines regarding planning time. It is useful to acknowledge the extent to which institutional routines and practices can support or hinder content teachers' ability to enact and build upon knowledge about working with ELLs gained through PD. In order for PD to have the greatest impact, Santos, Darling-Hammond, and Cheuk (2012) recommend that content teachers have learning opportunities within the school day that allow for interaction with both content as well as ELL teachers.

PD for preparing teachers to work with ELL students relies on many of the key characteristics of high-quality PD, however, there are also some unique and additional factors to consider. Although teacher interest and motivation for the PD is important, this need must be carefully balanced with the need to clarify or improve understanding about ELL students. Finally, with the current demographic shifts and continued growth in the number of ELL students in US schools, the need for PD to help content teachers work effectively with ELL students is imperative. In this context, one possible way to prepare a large number of teachers is through the use of Massive Open Online Courses (MOOCs) as a form of PD. The following section highlights the research thus far on MOOCs and how it relates to PD.

Massive Open Online Courses as a Form of Professional Development

Online learning is expanding in many ways including the use of Massive Open Online Courses (MOOCs). Although MOOCs originated as a way to expand the reach of higher education courses, just recently there is growing interest in the potential of MOOCs as a form of PD for educators. While the research thus far about MOOCs as a form of PD is limited, there are some findings about participant learning and experiences in MOOCs that provide useful insights.

Background of MOOCs

With the rapid increase in online learning opportunities, the United States Department of Education commissioned a report to better understand the role and effects of online learning for participants. In their meta-analysis review of research from 1996-2008, Means, Toyama, Murphy, Bakia, and Jones (2009) found several key themes about online learning. They reported that overall in the studies reviewed, students who participated in online learning displayed better outcomes than face to face learning, but that blended learning environments (including both online and face to face) had the greatest outcomes. They did note, however, that blended environments often contained additional instructional elements or extended learning time so they can not necessarily be compared with the control group. Although there was great variation depending on the content and type of learners, this analysis suggests positive potential for the use of online learning.

When looking at MOOCs, there are two key types of MOOCs and each has a unique approach to learning. The traditional MOOC, often referred to as xMOOC (Daniel, 2012) is based on the idea of an expert that shares knowledge with participants. This form of MOOC is commonly used to allow open access for a wide variety of course

subjects to the masses with the goal of equalizing higher education. When looking at PD, however, most MOOCs utilize the connectivist approach, also known as cMOOC.

Grounded in a theory of learning as a social activity, cMOOCs focus on peer participation and interaction and rely on aspects such as peer review, student presentations and/or dialog in forums. In this context, learning takes place through connection with others and interactions with a community of participants around a shared topic (Downes, 2009). The four key characteristics of connectivist MOOCs according to Downes are autonomy, diversity, openness, and connectedness/interactivity. The MOOC that serves as the basis of this study is designed as a cMOOC and is characterized as being creative, collaborative, and constructive (Williams & Hsieh, 2015), therefore the review of the MOOC literature focuses largely on cMOOCs in order to establish a relevant context.

Participant Retention

Although supporters of MOOCs praise their ability to reach wide audiences at a low cost and address a diversity of student needs (McAuley, Stewart, Siemens & Cormier, 2010) one clear limitation of MOOCs is the high dropout rates (Clow, 2013). Researchers interested in participant retention in MOOCs often focus on motivation (Khalil & Ebner, 2014). In their analysis of participant involvement, Milligan, Margaryan, and Littlejohn (2013) used semi-structured interviews with 29 participants in a cMOOC to better understand patterns of engagement. In describing engagement patterns in the course, they noted the influence of participant confidence levels, prior experience learning in a MOOC, and motivation in achieving the course outcomes. These initial findings are useful, but further research is needed to determine what learning

conditions and learner characteristics lead to greater levels of engagement and course completion.

Peer Learning Opportunities and Participation in MOOCs

Learning in cMOOCs is based on the idea that learning occurs through interaction with others and digital platforms (Siemens, 2005) and that peer participants actively construct knowledge rather than receive knowledge. Research on cMOOCs therefore focuses on the learning potential of peer networks, peer interactions, and peer review. When looking at patterns of engagement in cMOOCs, Milligan, Littlejohn, and Margaryan (2013), use findings from interviews with 29 participants in order to describe three types of participation. *Active participants* represent the most essential element of cMOOCs and are engaged with the course by continuous posting, connections with other participants, and contributions. These participants are highly motivated to complete the course and are essential for the development of learning in the course. *Lurking participants* are active followers of the course, but do not necessarily post or contribute actively. Lurking participants represented the largest group of participants (44%) in the researchers' study. Finally, *passive participants* shared frustrations or dissatisfaction with the course.

Kellogg, Booth, and Oliver (2014) looked at a MOOC specifically for educators and used social network analysis to better understand the peer interactions in the course. They proposed that peer learning opportunities could be leveraged to fill the void of the absence of instructor involvement with such a high number of participants. In their analysis, however, they found that peer interactions only developed through two of five stages of development and focused on sharing and comparing information or

acknowledging confusion or dissonance. The peer interactions rarely reached the level of negotiation, co-construction of knowledge, testing and modification, and summary, application and metacognition. Similar to Milligan, Littlejohn, and Margaryan (2013), they found that the majority of participants were followers, but not active contributors to the course.

Finally, peers can facilitate learning in MOOCs through giving and receiving peer feedback on assignments. When looking at peer feedback on an xMOOC, Guo, Xiong, Goins, Pursel, Suen (2015) analyzed 131 peer reviewed assignments rated by 591 peer raters and compared peer ratings to instructor ratings. They found that peer accuracy improved with greater levels of participation in the course and more time spent on the task of peer review. Although this research has not yet been replicated on a cMOOC, the findings are useful in considering the use of peer feedback in MOOCs generally.

It is important to consider these preliminary findings in the design of cMOOCs in order to improve the potential of peer learning opportunities. Kraut et al. (2012) suggest numerous design claims for online communities with relevant application for cMOOCs. They suggest that requests for contributions should be designed to encourage greater depth and complexity. They also recognize that participants are more likely to contribute to requests from participants who are familiar to them or have similar goals. Using ethnographic tools to describe interactions of participants in an online learning community of pre-service and in-service teachers, Barab, MaKinster, and Scheckler (2003) noted that physical proximity influenced collaboration, even if teams were working through online tools. They suggest that teachers' need to localize learning impacts the degree to which they connect with other participants. Yuan and Gay (2006)

also looked at participant interactions of 32 students enrolled in a university course split among two campuses with an online component. When looking at relationships with other students, they found that location played a greater role than gender, race, and task group assignment. The basic design of MOOCs involves a large number of participants with few instructors. Specifically cMOOCs rely on peer interactions and contributions to form the substantial learning of the course. Milligan, Littlejohn, and Margaryan (2013) remind us that further research to better understand participation and participant contributions in MOOCs is essential because

these (active) participants create and share, far more so than the live presentations and course readings. Moreover, the network of connections with other learners is something that can persist long after a cMOOC has ended. The more active or experienced members of the group provide a model for those who are less experienced, and are instrumental in creating the emergent spaces supporting connectedness and interactivity (p. 157)

By leveraging and bolstering active participation and peer learning opportunities, the power of cMOOCs can be greatly expanded and improved.

Findings about MOOCs at Understanding Language

In addition to the body of literature that is developing about MOOCs in general, the organization Understanding Language (UL) has also started to investigate and explore the MOOCs that they manage for teachers working with ELLs. The research thus far has offered insights about types of participants, completion rates, and team participation in the MOOCs. These initial findings have been useful in shaping design and delivery of

MOOCs, but as an organization they recognize the need for greater understanding of how MOOCs can serve the need of PD for preparing teachers of ELL students.

In order to better understand the population of participants, Williams (2015) used descriptive statistics to characterize participants who participate in a MOOC for PD about teaching ELLs. She found that less experienced teachers were more likely to take the course than more experienced teachers. On the other hand, she found that when more experienced teachers took the course, they were more likely to complete it than the less experienced teachers. She also found that in a course focused on improving language use, the majority of teachers were teachers of ELLs and that they were more likely to finish the course than teachers who did not teach ELLs.

One of the major concerns about MOOCs is the very low completion rate. In looking at hybrid versions of a MOOC, Rutherford-Quach, Zerkel, and Zwiers (2015) found that participants who were involved in the hybrid (online and in-person) version were far more likely to complete the course than those enrolled only in the online MOOC. When looking just at participants in the online version, they found that 40% of variation in completion was determined by their participation on a team in the course. These results suggest the great potential and power of team and peer support for encouraging participation in the MOOC.

When looking specifically at the team element of the MOOCs, Williams and Hsieh (2015) also found that being on a team predicts greater course completion. They also noted the elements of team participation that were meaningful. Being part of a larger team and being part of a team with active participants were also predictors of course completion.

UL has responded to these findings about hybrid MOOCs and teams in order to support participant learning opportunities. First, they created an orientation session at the beginning of each MOOC to address team formation and team dynamics. They also changed the order of assignments so that team assignments would come before individual assignments in order to allow for team learning opportunities before individual work.

Through this initial research, UL sees the value in having in person support as well as the role of team and participant interaction in the course. One limitation is that the hybrid versions of the MOOC are often costly and require a great level of coordination on the part of staff from the organization and the school district. In the summer of 2016, they created a webinar designed specifically for administrators or district leaders about how to set up a hybrid MOOC. The webinar is designed to help education leaders effectively organize and facilitate hybrid MOOCs. In the webinar (<http://ell.stanford.edu/moocs>), they list the following components for an effective hybrid MOOC:

- Team support from school or regional colleagues
- Integrated face-to-face professional development structure
- Real life facilitators (i.e. ELL instructional coach, administrators)
- Tangible and relevant incentives for participants (e.g. PD credit, monetary incentives, release time, etc)

Looking ahead, UL would like to continue to understand how to make MOOCs scalable and localized for a variety of settings. Understanding more about participants' experience in the MOOCs will be essential for this development.

Summary: Intersection of PD, Teacher Preparation for ELLs, and MOOCs

Although there is very limited research on the use of MOOCs as a form of PD for preparing teachers to work with ELLs, we can use findings from three broad areas to

offer insights. As a foundation, it is important to consider the characteristics of effective PD. Next, we can zoom in on how those characteristics apply when we are preparing teachers to work with ELLs and what additional considerations should be included. Finally, we can look at what developments or findings are emerging about learning in MOOCs to think about the potential of MOOCs to fill a need for PD for teachers working with ELLs. Using this framework, I note the following summary of the literature.

Figure 4. Evidence of need for better understanding of MOOCs as a form of PD

There is a great need for professional development to prepare teachers to work with ELLs. MOOCs have the potential to fill this need for a great number of participants at minimal cost. When focusing on the MOOC in this study, there is a particular need to understand how participants specifically learn about working with ELLs. The course content is designed and delivered by experts in the field with an emphasis on research based findings about working with ELLs. The course also allows opportunities for active learning through assignments that all have real classroom applications.

Chapter Three

In this chapter, I present the methodology that I will use to complete the study. This includes a summary of the research questions and purpose as well as a description and justification for the appropriate methods of data collection and analysis.

Purpose and Research Questions

Classrooms across the country face a changing population of students. With this “new mainstream” (Enright, 2011), teachers need to be prepared to address the unique needs of a linguistically diverse population (Villegas & Lucas, 2011). At the same time, rigorous standards emphasize the inherent language demands of academic content (Bunch, Kibler, Pimentel, 2012). Currently, there is a lack of professional development (PD) opportunities for teachers (Wei, Darling-Hammond & Adamson, 2007) and many teachers feel unprepared to work with ELLs (Gándara, Maxwell-Jolly, Driscoll, 2005). One possible approach to addressing the need for a large number of teachers involves offering free PD opportunities through Massive Open Online Courses (MOOCs). Although MOOCs present a great potential format for addressing teacher PD, there is scant research about the participant experience and effectiveness of MOOCs as PD for teachers. This study addresses the need to better understand the experience of teachers in MOOCs as PD for working with ELLs by addressing the following questions.

1. What are the roles of teacher characteristics, school context, and course activities in supporting teacher learning in a MOOC focused on promoting conversation for ELLs?
2. How do participants interpret and use academic conversations in their classroom practice over the course of the MOOC?

Research Approach

This study was driven by the need to better understand how to prepare teachers to work with ELLs, and specifically how such preparation can take place in the format of an online MOOC. Because there is a lack of clear, consistent research about how to prepare teachers for ELL students (Genesee, Lindholm-Leary, Saunders & Christian, 2006) and even less known about the use of MOOCs as a form of PD, this is an initial exploratory study about a particular MOOC. As a researcher, I come from the perspective of a constructivist epistemology in which I build understanding through engagement with the data. Using this lens, my findings are developed through interchange and interaction between researcher and participants. I am not looking for knowledge, but instead developing understanding in a social act with participants (Lincoln & Guba, 1994).

Because the study's research questions are focused on individual experiences, it is important to consider the unit of study as the individual. Ultimately, however, this information will be useful in understanding how the PD program can function effectively not just at the individual level but also as a form of school or district wide PD. Initial studies of MOOCs for educators have focused on basic description of participants as well as peer interactions in the courses, using mostly survey data and/or analysis of participant contributions or interactions on the course platform (Milligan, Littlejohn & Margaryan, 2013). At UL, their own self-study has focused on statistical analysis to describe participants (Williams, 2015), make predictions about participant characteristics and outcomes (Williams & Hsieh, 2015), and to compare online versus hybrid versions of the MOOC (Rutherford-Quach, Zerkel & Zwiers, 2015). The use of surveys and analysis of all course participants in this study is beneficial for looking at patterns and trends in

course participation that can help course developers determine what characteristics of the course and participants shape the learning experience. For these reasons, I also conducted a preliminary analysis of overall trends and patterns in participation, with an emphasis on the participant characteristics and school contexts.

Few studies, however, have dug deeper into the actual participant experience to hear about how they construct understanding in the MOOC and how such learning influences their classroom practice. In this study, I utilize a multiple case study approach (Stake, 2006) to create a rich description of participants and how they engage with and contribute to cMOOCs. According to Stake the key characteristics of qualitative case study research are that it is holistic, empirical, interpretive, and emphatic. The study includes multiple types of evidence filtered through researcher impressions in order to come to a better understanding of the participants. The multiple case study approach affords analysis of both particular cases as well as the general participant experience.

The mixed methods approach for this study is appropriate for understanding participant learning experiences in cMOOCs by providing evidence to describe overall patterns and then proceeding to tell the story of participants through rich description.

Research Site, Participants, and Access

The online context of learning in MOOCs presents a new and unique opportunity for research about teacher professional development. While the potential to fulfill the demand for training a large number of teachers about working with ELLs is certainly great, we don't have clear evidence yet to determine if and how MOOCs can truly accomplish this task. Because UL has developed and delivered several MOOCs as PD since 2013, they are an ideal site for study. As a well-respected organization that has

been on the forefront of research and PD related to language and content learning for ELLs for several years, they have a solid foundation in understanding the needs of teachers working with ELLs. The present study explores the extent to which they can leverage that understanding about preparing teachers to work with ELLs in a new online context.

Research Site

The research site for learning, therefore, involves the online platform of the course as well as the potential participants. The course in this study is titled *Integrating English Language Development and Content Area Learning: A Conversation-Based Approach*. The total number of participants that enrolled in the course was 2,749 and of that total there were 2360 who signed in, 457 who audited the course, and 147 who withdrew from the course.

Course design.

The course consisted of the following four sessions which each contained instructor led videos, readings, classroom example videos and assignments.

Session1: Creating a Classroom Culture of Conversation

Session 2: Fortifying Comprehension Skills and Language with Conversation

Session 3: Fortifying Argumentation Skills with Language and Conversation

Session 4: Fortifying Application Skills with Language and Conversation

The site of the study was the online platform in which the course took place. The site included content for participants to read/review as well as opportunities for involvement as displayed in Table 1 below.

Table 1

Course Materials

Materials for Review	Opportunities for involvement and engagement with the course
Instructor led screencasts	Assignments (required)
Classroom video examples	Team formation (optional)
Readings	Peer evaluations of assignments (required)
Tools and handouts	Discussion Forums (voluntary)

The course assignments all involved classroom application of course learning. Participants were asked to apply concepts that were modeled and discussed in the course in a classroom setting where they were working with ELLs. For each of the four sessions, there was one assignment designated for teachers and one assignment designated for coaches, depending on the role of participants. The assignment tasks for both teachers and coaches asked participants to apply learning in the classroom, but assumed that coaches would be supporting teacher planning and reflection rather than doing it themselves. The assignments focused on gathering and analyzing data about student language use, conversation skills, and oral and written output.

In addition to viewing videos and completing assignments, there were a few other ways in which students could participate and contribute to the course. During the orientation session, all participants were required to complete a user profile and were encouraged (voluntary activity) to join teams and could choose the reason that they came together as a team (ie content, school, etc).

Participants were also required to submit peer evaluations of three peer assignments for each assignment. Peer evaluations asked participants to review other participant assignments and rate them on a scale of one to four with the following considerations.

A submission may receive a higher rating if, for example:

- Your peer successfully identified the language demand(s) from the planned lesson/activity.
- Your peer carefully detailed why he or she chose to focus on a particular language feature or skill.
- You learned something new about teaching conversation skills or facilitating student discourse, or the submission made you think differently about the relationship between language and content.

Participants were also encouraged to give feedback to teammates on the assignments.

Finally, participants could contribute questions or responses on the course forum which was organized by the following categories: videos, readings, technical questions, assignments, academic language instruction-successes and challenges. Posting in the forums was a voluntary aspect of the course.

The course was designed and lead by course instructors Jeff Zwiers and Steven Weiss from Understanding Language. The course relied heavily on the work of Zwiers, O'Hara, and Pritchard and their recently published book *Common Core Standards in Diverse Classrooms: Essential Practices for Developing Academic Language and Disciplinary Literacy* (2014). As in all MOOCs which have been released so far by UL, participants who completed all course requirements and surveys were eligible to receive a statement of accomplishment stating that they have completed the course which is equivalent to 30 hours of professional development. It is up to the individual school district to determine if teachers receive PD credit for taking the course.

Hybrid versions of the course.

A subset of teachers from a large urban district in California participated in a hybrid version of the course which involved an additional two live PD workshops with Jeff Zwiers. Participants in this district also had the opportunity to take part in a MOOC about English Language Development in the spring prior to the MOOC in this study. In both MOOCs, participants received a small stipend for participating in the MOOC and live sessions. One of my case study participants came from this district and participated in both the spring MOOC and the MOOC in this study. In addition, a large rural school district in California offered financial support and district led in person meetings for participants in the MOOC in this study. Two of the participants in my case study sample came from this district.

Participants

The course included participants from geographic, linguistic, and educational contexts around the world. For the purposes of this study, I focused on the needs of teachers working with ELLS in US public schools. I chose to focus on this subset of the population based on review of the literature that highlights the gap in US teacher preparation and PD for addressing the needs of a growing population of ELL students. For this reason, my sample population consisted of participants who listed in the pre-survey that they are K-12 teachers or coaches in US public schools. The unit of study is the individual, although I acknowledge that learning in a MOOC is not an isolated or solitary event, but instead constructed through interaction and involvement in a school setting.

In order to better understand the actual learning experiences, I used a multiple case study approach to describe six case study participants. The reasons for these decisions are explained below. My choice of case study participants was guided by how participants responded to pre-survey questions about their individual characteristics and school context. I wanted to better understand how the course serves the need of preparing content teachers who have not had significant training or experience working with ELLs since this is the larger contextual problem of practice. For this reason, I initially limited my sample to participants who had marked that they had no training and limited experience working with ELLs. As I used this limiting factor, however, I found that the majority of teachers who signed up for the course had at least some type of training for working with ELLs so I removed that question as a criterion factor.

Use of pre-survey to gather participant information.

To choose case study participants, I looked at participant responses on the pre-survey. Participants were encouraged to take the pre-survey in order to move on and view course materials, but it was possible for them to open the survey link but then not complete the survey. For this reason, I do not have participant survey responses to analyze for all registered participants in the course. Despite this being a limitation, I chose to focus only on completed surveys for analysis since it was the available data source. Since registration for the MOOC occurred on a rolling basis, I chose to analyze pre-survey responses on the due date for the first assignment, assuming that anyone who enrolled after that date would not be able to complete the first assignment and therefore not have the ability to completely finish the course.

Individual characteristics of participants.

I reviewed the pre-survey data to better understand and capture ways that participant differed by individual characteristics. I considered reasons for taking the course as a way of addressing prior beliefs and characteristics. I coded the responses about motivation for taking the course and found that several ESL specialists or coaches were taking the course in order to learn strategies and ways that they could support content or mainstream teachers in their respective schools. These responses suggested that in addition to content teachers receiving training through PD, an additional source of learning for some of the MOOC participants occurred through the informal and formal networks and collaboration among ELL teachers/coaches and content teachers at the school level. Based on this evidence, I decided to address the varied experiences of both ESL/Bilingual teachers and content teachers in my case study by using this as a distinguishing characteristic.

My first step in looking at the pre-survey data to choose case study participants was to eliminate any non-US participants. I then limited the data to only teachers or coaches by eliminating researchers, university faculty, adult educators, etc. Finally, I categorized the participants by their role as an ELL or bilingual teacher/coach and another category as a content area teacher/coach.

School context of participants.

In addition to individual characteristics, I sought to understand how school based support shapes participant experiences for research question one. In order to address school support, I looked at responses to survey question #34 which asked “how many colleagues at your school are taking the course” and survey question #35 which asked

“how is your school and/or district supporting participation in the course” (if at all). I used responses to these questions to develop categories of high, mid, and low level of school wide support.

For research question one, I focused on both individual characteristics and school support so I designed a matrix that captured participant variation on both of these aspects. I contacted all case study participants who fit these category assignments through messages on the course page or through email when they had provided it in the pre-survey. Using this method, my case study participants represented the following combinations of role and level of school wide support.

Table 2

Participant Characteristics

Participant	Role	School wide support
Participant 1	Content	High
Participant 2	Content	High
Participant 3	Content	Low
Participant 4	ELL	High
Participant 5	ELL	Mid/low
Participant 6	ELL	Low

I initially sought to describe school wide support at the three levels of high (colleagues taking course and other form of school support), mid (colleagues taking course or some other form of school support) and low (no colleagues taking course and no other form of school support). I was unable to recruit a mid -level content teacher. In addition, participant five who I initially described as mid-level based on a colleague taking the course later commented that the colleague dropped out of the course so I considered him as mid/low level of support. Despite these small changes, however, my participant pool

still exemplified an appropriate level of variation of role and level of school support for analysis and comparison.

Access

In the fall of 2015, I completed my Ed.D. internship with the organization Understanding Language (UL). During this time, I was a member of the team that developed, facilitated, and researched a MOOC titled *Using Communication Focused Activities in Designated English Language Development Classes*. (ELD) I also served as course manager for a repeating MOOC titled *Learning as Evidence: Improving ELLs Argumentation Skills Through Formative Assessment Practices*. Through this experience, I learned firsthand about the design, development, management, and refinement of MOOCs at UL. During my work on the ELD course, I continuously participated in team meetings and projects, but also took the extra step of volunteering to be the lead author for one of the five sessions. By creating a piece of the MOOC materials, I not only gained valuable skills and experience about PD design, but also developed trust and rapport with my teammates. The lead instructor for the ELD course was also the lead instructor for the course which is the focus of this study. Through the development of relationships with staff at UL and in particular with instructors of the MOOC courses, I had the opportunity to not only gain access to the online data of the course, but also had the opportunity to be involved in discussions and meetings about planning for the course in this study.

For the course in this study, I was enrolled in the course with teaching assistant privileges which allowed me access to all recorded data about participant involvement in the course. In the spring of 2016, I attended all team meetings related to planning for the

course, held ongoing meetings with the course instructor to better understand the course design and facilitation, and had access to staff working on technical aspects of the course who could answer questions or offer ideas about accessing and utilizing the data that is gathered through the course online platform. In conversations with the lead instructor, he also invited me to offer suggestions or additions to the course that I was interested in piloting and observing.

With regard to participants, everyone who signed up for the MOOC signed assent into the research study during orientation with the course. In order to gather more in-depth information about individual participants, I then followed up with sub groups of participants and emailed them an additional consent form which allowed me to interview them individually. Because of the extensive geographic reach of the course, the interviews and focus groups were conducted by phone.

Data Collection Methods

The online nature of the course allows for an ample amount of recorded data about participant experience and involvement in the course. The Novo Ed site records information regarding participant profile and activities. I also had access to view discussion forums, course announcements, syllabus, all course materials, and all participant assignments and peer feedback. I viewed data sorted by individual participant which includes profile, percentage of activity in course, course assignments and peer feedback submitted, team activity, and other courses participant is enrolled in through Novo Ed. I also gathered additional information about participant prior experiences, understandings of working with ELLs, school context, and experience with the course through a pre and post-survey that was supposed to be completed by all course

participants. I focused specifically on course-wide data that was relevant to my research questions understand trends and patterns and then followed up with analysis of case study participants using a multiple case study approach to fully develop findings. Using Stake's (2006) approach to multiple case study, I began with clear research questions, but adjusted my questions based on what I found in the data. I conducted follow-up interviews and intensive artifact analysis of six case study participants.

While I initially posed research questions that sought to understand how specific characteristics, school context, or course design shaped teacher learning, I later revised the frame of my research questions. Question number one looks at the user experience of participants according to individual characteristics, school context, and course design. Question number two then addresses how participants interpret and use the content of the course. Table 3 illustrates the sources of data collection as guided by the research questions.

Table 3

Research Questions and Sources of Data

Research Question	Source of Data
What are the roles of teacher characteristics, school context, and course activities in supporting teacher learning in a MOOC focused on conversation for ELLs?	pre-and post-survey participant assignments 2 interviews each of six participants
How do participants interpret and use academic conversations in their classroom practice over the course of the MOOC?	pre and post survey participant assignments 2 interviews each of six participants

Description of Data

Pre- and Post-Survey

All students were encouraged to take a pre-and post-survey in order to fulfill the expectations for receiving a statement of accomplishment. Appendix A provides a copy of the pre-survey and post survey. The pre-survey included assessment of participant knowledge and practices about working with ELLs as well as background and demographic information about the participant. The post-survey focused on a follow-up assessment of participant knowledge and practices as well as questions about the course content and design.

The pre-survey was part of the first orientation session and collected information about participant demographic information and basic characteristics. The questions included information about the participant role, grade level, school district, level of district support for participation in MOOC, years of teaching experience, training or background in teaching ELLs, percentage and level of ELL students in class, and interest in taking the course. This information was useful for understanding common characteristics among the categories of participants as well as to paint an overall picture of who registered for and who completed the course. I used responses from the pre-survey to create categories of participants and then to choose case study participants.

The post-survey was made available with the release of the last session. Completion of both surveys along with all course assignments was a requirement for receiving the course statement of accomplishment, although there was no way of ensuring that a participant actually completed the surveys since they could have gotten through NovoEd by only opening the survey. I looked at and compared responses about

course objectives, motivation to take the course, and approaches for working with ELLs on the pre and post surveys to understand how participant ideas and practices may have changed over the period of the course.

Artifact Analysis

One of the key characteristics of cMOOCs is that participants are largely responsible for constructing knowledge through interaction with course materials and peers (Downes, 2009). This particular course was designed to include course assignments with practical classroom applications so that teachers feel a sense of coherence with their daily lives and needs (Penuel, Fishman, Yamaguchi & Gallagher, 2007) and are therefore invested in and motivated to learn in the course. Because participant contributions are a key foundation for cMOOC learning, I analyzed student contributions carefully by looking at both overall trends as well as more specific details of the individual case study participants. I used survey responses from all participants to understand the trends and then followed-up with coding of case study participant assignments to confirm or refute the trends. Finally, I reviewed individual assignments to pull out examples that exemplified the codes. Observation in the traditional sense of qualitative research does not necessarily translate to the online learning context. For this reason, observation consisted of analysis of online participation and review of course assignments over the duration of the course.

The assignments, which were all based on classroom applications, specifically showed the extent to which participants integrated course learning into their classroom planning and instruction. Although teaching staff at UL review student assignments throughout courses to adapt and shape instruction, they have not yet conducted any

systematic review of participant assignments to understand their learning in the course. For course assignments, I coded examples of times that participants described academic conversation and examples of times that they used academic conversation in class activities.

Interviews

In order to understand participant experiences beyond their online presence and participation, I conducted interviews with the six case study participants. Merriam (1998) suggests that interviews are useful for gathering data about that which is not observable. In this study, there are two key areas of evidence that I hoped to capture in interviews that would not otherwise be readily available. First, through interview with participants, I was able to gain better understanding about participant experiences in the MOOC including their background and interest in the course, level of satisfaction with different aspects of the course (videos, assignments, forums, etc) and learning in the course. The interview data about user experience in the course supported research question one. Second, I utilized interviews to gain a window into how participants described and used academic conversations in their class practices to address research question two. For this area, I asked questions about the level of support they have at their school for the course, how they used, shared, or extended learning outside of the online platform, and examples of how they applied course learning in their own class or school.

I conducted two interviews with each participant in order to gain information about their experience during the duration of the course. The first interview was conducted shortly after the release of session two and the final interview was conducted after the conclusion of the course to capture overall impressions and learning from the

course. Interviews were semi-structured so that the questions and purpose were consistent across all participants, but allowed for the flexibility to hear individual stories and experiences with the course which have thus far not been well documented by research. Appendix B displays a list of interview questions and interview protocol for both interviews. The interview data was combined and compared with survey data in order to describe participants in greater depth than a survey can capture. For example, I followed up survey questions about how participants applied course learning by asking participants in the interviews to describe a specific example of an academic conversation in their own class. The interview responses were considered alongside course participation in assignments in order to better understand participant contributions and learning of the content.

Data Analysis Method

Descriptive statistical analysis was used to understand the background characteristics of participants and some overall patterns in participation. Some of this data was automatically gathered and displayed in graphs on the Novo Ed platform. In addition, I used pre and post-survey data to describe patterns in participant characteristics and responses. Although this type of descriptive analysis has already been conducted on other versions of MOOCs at UL (Williams, 2015), my goal was to understand the participants in this MOOC and provide additional insights about participation in MOOCs. This form of analysis provided a foundation for viewing the overall trends and characteristics of course participants which I then further explored through analysis of the case study participants.

For better understanding of what course participation looked like at the individual level, I utilized a multiple case study approach (Stake, 2006) in order to look at both the particular cases as well as the general participant experience. The multiple case study approach is useful in understanding participants according to common characteristics in each category as well as possible comparison and contrasts across categories. As suggested by Stake (2006), I conducted data collection and analysis in a simultaneous and iterative manner. Because the case study relies largely on the interaction and impression of the researcher, I supplemented that with systematic protocols and processes to ensure that I was most clearly and accurately representing the data.

According to Miles, Huberman, and Saldana (2014) there are three stages of qualitative data analysis: a) data condensation, b) data display c) conclusion drawing/verification. In the first stage, I combined data from the various sources to find trends in overall participation and to create individual case study stories. At this stage, I analyzed the data from survey results by creating spreadsheets of participant responses and organizing it by who completed the first assignment and who completed the course and post-survey. Although many people enrolled in the course, I use the subset of participants who completed the first assignment as an area of focus since many participants may sign up but never intend to actually complete the course (DeBoer, Ho, Stump, & Breslow, 2014; Koller, Ng, Chuong, & Chen, 2013). I used pre-survey findings to describe the participant demographics for research question one. I compared how ESL/Bilingual teacher and content teachers responded to questions about how knowledgeable and how prepared they felt for working with ELLs. I also analyzed course completion rates according to teacher role (ESL/Bilingual or Content) and level of school

support for participating in the MOOC (low, mid, high). Finally, I considered participant motivation for participating in the course and coded responses by internal motivation (focused on one's own class practices) and external (focused on sharing ideas or collaborating with colleagues) to consider the ways that participants hoped to use course learning. For research question two, I collected participant responses about course objectives and motivation and coded them according to course characteristics of academic conversations. In stage one, I simultaneously used qualitative analysis to code the data. I coded both interviews, both surveys, and all completed course assignments using an inductive-deductive coding approach. I did some initial open coding of assignments across sessions and participants to gather ideas of what I found in the data related to the two research questions. I then went back to the course content and adapted codes using the relevant themes in the course screencasts for each session. At this point, I collaborated with two fellow researchers investigating this and another MOOC at UL to finalize the codes. Table 4 below represents the codes used across the data, including subcodes and data sources.

Table 4

List of Codes

Parent code	Sub code	Data source
effective conversations	Build up ideas that weren't there before	Interview 1 and 2
	Starts and stops, messy (workshop)	Pre-survey (4. plan instruction, 5.motivation)
	Input and output	Post-survey (10. Aha moment, 11. Change practice
	Practice/improve language (workout)	assignments
	Practice/improve thinking skills	
	Practice/improve conversation skills	
	build content understanding	

	co-construct (push others to think more deeply) Clarify Support	
Teacher actions to support conversation/	Give time to converse Support culture of conversation Trust students, student ownership of conversation Model Scaffold Create, build, clarify, support ideas Analyze and reflect on language Formative assessment and feedback (window) Metaconversations about conversation Variety of formats (not just pair-share) Purposeful (not just for points)	Interview 1 and 2 Pre-survey (4. Plan instruction, 5. motivation Post-survey (10. Aha moment, 11. Change practice, 14. Shared learning) assignments
ELL student	Asset Deficit neutral	Pre-survey (5. Motivation)
Teacher prior knowledge/approaches	Strategies Trainings certifications Published curriculum Standards	Interview 1 and 2 Pre-survey (4. Plan instruction, 5. Motivation) Post-survey (10. Aha moment, 11. Change practice) assignments
School context	Opportunities for collaborative teacher learning Emphasis on academic conversation Other programs for ELL instruction Support of MOOC	Interview 1 and 2 Pre-survey (4. Plan instruction 5. Motivation, 34. # of colleagues, #35 school support) Post-survey (14. Shared learning) assignments
Comprehension	Matches the author's and/or comprehender's purpose	Course assignment

Argumentation	Comprehension strategies (predicting, questioning, etc) Using background knowledge Collaborative argumentation Make claim Clarify Support Evaluation and negotiation (balance scale)	Course assignment
	Math argumentation tool	
Application	Transferring Extending Designing Problem solving Creating	Course assignment
CAT	Build on previous turns Clarify ideas Support ideas Construct text meaning Push others to use new language	Course assignment Interview
User experience	Positive Negative Individualism Sharing of ideas (self-initiated) Sharing of ideas (school initiated)	

Although I initially included the topics of each session (comprehension, argumentation, and application) in the coding process, I did not explore these in detail in the analysis.

Data Display

In stage two of data display, I began to organize the data according to the research questions and themes. At this point, I created a cross case comparison chart of the multiple case studies and began to look for patterns within and across the data. In this stage, I observed the data while also pondering the impressions of the evidence (Stake, 2006). I noticed that participant role (ELL teacher and content teacher) did not seem to

be an influential factor for course completion for those who completed the first assignment. I also noted that school level of support did not seem to be an influential factor for course completion for those who had completed the first assignment. This initial finding prompted me to dig deeper into the case study narratives to determine what aspects of the user experience shaped participant experience. I focused on the case study evidence of two participants- Ana and Julie who had similar roles, but opposite levels of support to compare their experiences. For research question two, I pulled out the data in which participants describe or report use of academic conversation and coded them in relation to course defined characteristics of academic conversation (conversation, language, content, culture of conversation, thinking, assessment, skills, literacy). I compared the frequency of particular aspects within and across participants in order to understand how participants were conceptualizing and applying academic conversations.

Finally, in the last stage of conclusion drawing/verification, I identified the major themes in the data in order to develop findings. At this point, I reviewed data displays as well as analytic memos to draw conclusions for each research question. I returned to the data to find examples in both the overall participant trends as well as case study narrative to support the findings. I searched for disconfirming evidence that may complicate the findings as well. In addition, I returned to the literature to connect findings to relevant literature or to find ways to frame the findings.

Trustworthiness

Guba and Lincoln (1994) outline key components of trustworthiness for qualitative data as credibility, transferability, dependability, and confirmability. The case study portion of this study utilized the following methods to develop trustworthiness.

For this study, I gained credibility largely through triangulation of data from various points. For example, when asking for self-reported information such as knowledge of working with ELLs, I used assignments as well as interview questions to determine how well teachers know and use effective practices for working with ELLs. For research question two, I considered how participants described academic conversation using a combination of survey and interview data and also how they reported using academic conversation using assignments and interviews. Finally, when I found themes or patterns of participation by certain groups of participants, I also looked for negative cases or disconfirming evidence to ensure that I was fully and accurately representing the data.

Regarding transferability, the information gathered in this study will be most useful for similar contexts. Specifically, the information about how teachers participate in MOOCs as PD for working with ELLs will be useful for the host organization Understanding Language to consider changes or adaptations for future MOOCs. Because the area of MOOCs for teacher learning is so new and rarely researched, however, any findings will be useful in informing the field and providing foundations or suggestions for further research. Specifically, findings from research question one about user experience in the MOOC will be useful for MOOC designers and consumers. The findings for research question two about academic conversation will be useful for researchers and practitioners interested in English language development and student language.

In order to gain dependability as a researcher, I maintained a methodological journal of all process decisions and actions. Throughout the data collection and analysis

stages, I consulted with a methodologist in order to ensure that I was using sound judgement and established research principles to conduct the study. I also met monthly during data analysis with two other researchers to create and check codes and to review case study descriptions.

Finally, to show confirmability, I used a variety of data points to describe patterns and develop a narrative about the data. I used a combination of self-reported data, artifact analysis, and interview data to develop case studies at both the individual and multiple case study level. When using the data, I was explicit about my predisposed ideas and reasons for choosing particular examples of evidence.

Researcher as an Instrument

Although the steps listed above helped to ensure trustworthiness of the data, I must acknowledge and account for my role as a researcher in the study. As a participant in the organization developing the course, I must acknowledge and be sensitive to how that role is shaping my role as a researcher. My position as an intern in the organization helped me to gain insider level of access as a course designer in a previous course and also allowed me opportunities for close contact, communication, and involvement in the current course. As an organization, UL has set a goal of not only facilitating MOOCs as PD but also researching and presenting findings about MOOCs. Their high level of interest in my efforts to better understand MOOCs as PD for working with ELLs translated to supporting practices and actions for my research.

This high level of access, involvement, and support were useful for gathering and interpreting the data. For example, I was able to co-create the online survey and research tools. Finally, having organizational support helped with logistics of data collection and

analysis. Although my prior experience with the Novo Ed platform was useful for pulling out data, I was able to interact with staff who have several years of experience with Novo Ed who provided technical support in data collection from the platform.

Although this close relationship with the organization was very beneficial for gaining access to the data, I had to constantly be aware of the organizational interests behind that support. Staff at UL were interested in research regarding their MOOCs, but obviously biased towards data that shows favorable results about the MOOCs. When gathering and analyzing data, I carefully documented my actions and continuously consulted with peers outside of the organization to minimize bias and influence. For this reason, I also chose a capstone committee that has no personal ties or interest in the organization so that they can provide me outsider review and support. For the data to ultimately be useful for the organization, it is important that I took clear and conscious steps to constantly look for disconfirming evidence, had peer checks, and triangulated data as much as possible.

Limitations

Although the findings are useful for developing some initial ideas about the use of MOOCs for preparing teachers to work with ELLs, there are some limitations in the extent of the data collected. First of all, the study relies largely on teacher's self-reports and does not include any classroom observation of practices. This move, however, was an intentional decision in the research design. Prior to conducting the research, I collaborated with a peer doing research on another similar MOOC and reviewed protocols for class observations. Since the course took place over a matter of a few months, I did not feel confident that a limited number of classroom observations could

provide evidence for a change in practice based on course learning. For this reason, I focused on course assignments and teacher reporting in interviews and surveys. Using this approach, however, I was unable to substantiate claims about teacher learning as a change in practice and needed to instead focus on user experience with the course and the content. Despite these limitations, however, the study is an important first step in presenting the story of course participants in MOOCs and suggesting areas for continued research.

Summary

In the US today there is a growing need for professional development for all teachers so that they can better serve the unique needs of ELLs and address the language demands of their content. While MOOCs have the potential to reach a large and widespread audience in addressing this need, there is little known about if and how the format of MOOCs can be utilized as a form of PD for preparing teachers to work with ELLs. Understandings about PD in general, teacher preparation for working with ELLs, and MOOC learning communities are all useful in establishing a lens for this work. While we know that active learning is essential for PD and that participants play a fundamental role in participant knowledge construction in cMOOCs, we know very little about the characteristics and participation of MOOC participants. This study aimed to better understand and paint a picture of participant learning experiences in a MOOC for preparing teachers to work with ELLs. Although the data is limited to this particular MOOC, the insights will be useful for future MOOC designers to improve course design and MOOC consumers, especially school districts and other organizations who are making decisions about the potential use of MOOCs for PD in their site. Finally, analysis

of the ways in which participants engaged with the topic of academic conversation will be useful for researchers and practitioners who are interested in student language use and teacher moves to support student conversation.

Chapter Four

Throughout the United States there is an increasing number of ELLs in classrooms creating what Enright (2011) describes as the “New Mainstream”. At the same time, rigorous standards and research on learning (Walqui, 2006) emphasize the inherent importance of language in developing content understanding (Bunch, Kibler, Pimentel, 2012). Since many in-service teachers do not feel that they have had adequate training for working with ELLs (Gandara, Maxwell-Jolly, Driscoll, 2005), there is a clear need for professional development that prepares teachers to address the language demands of academic content. This study examined participant experiences in a MOOC, one new form of professional development that has the potential to meet the needs of a great number of teachers. The analysis includes quantitative data to describe participant backgrounds and experiences, but relies largely on case studies of six participants in the course to depict their experience in the MOOC. The case study participants were chosen based on varying characteristics of role (ELL teacher or content teacher) as well as the level of explicit school support for the MOOC so as to capture similarities and differences in experience at both the individual and school level. Findings are useful for understanding the experience of users in a MOOC as well as for understanding how participants describe their understanding and use of the course content.

Course description

The course examined in the study was titled “Integrating English Language Development and Content Area Learning: A Conversation-Based Approach”. The course was available free of charge to participants around the world through the NovoEd platform online. The instructors for the course were Jeff Zwiers and Steven Weiss from

Understanding Language (UL). The course was comprised of four sessions and took place from February 3rd until June 8th, 2016. This was the first time that this particular course was offered, although related courses have been offered by Understanding Language for the past three years. Course materials include instructor led screencasts, classroom example videos, readings, and supplementary handouts for each session. In order to receive a statement of accomplishment, participants were required to complete a pre and post survey, complete an assignment for each of the four sessions, and complete three peer evaluations for each assignment.

Participant Demographics

Participant demographic information was collected from two sources. Participants registered for the course on NovoEd and were instructed to fill out a course profile. In addition, participants were guided to take a pre-survey as a prerequisite for accessing the course materials. Since the NovoEd course profile only provides limited details, I relied mostly on the pre-survey data to gather demographics about course participants. Participants were, however, required to only open the survey so it is possible that some participants opened, but did not complete the pre-survey, which is one limitation of this data. Although 2,749 people enrolled in the course, only 1,126 opened the pre-survey and 572 finished the pre-survey. The course is open to participants around the world, but since this study focuses on K-12 educators in the US, I focused the study on this subset of participants. There were 212 US based educators who took the pre-survey.

One of the pre-survey questions asked participants to indicate their current teaching role. The breakdown of participants by is displayed in Figure 5 below.

Figure 5. Role of US based educators

It is interesting to note that although the topic of the course is integrating language and content, over half (54%) of the participants indicated that they were ESL or Bilingual teachers. The even split of teachers among ESL/Bilingual and content teachers indicates that both groups of teachers are interested in improving their understanding and/or practice related to language and content integration. While some teachers may have checked off more than one content area or a content area in addition to ESL or Bilingual, this graph overall is still indicative of the roles and content area specialties of participants in this subset. Valdes, Kibler, and Walqui (2014) suggest that in light of recent adoption of rigorous standards, the responsibility and instruction of ELLs must change from the prior conceptualization of ESL teacher specialists being primarily language teachers and content teachers teaching solely content. Instead, they suggest that all teachers hold shared responsibility for ELL student learning and work in coordination to integrate language and content learning. The equally high numbers of both types of teachers in

this course indicates that both types of teachers are feeling a sense of responsibility for instruction of ELLs.

Although the group of participants who completed the pre-survey indicates those with a certain level of interest in the course, recently researchers ((DeBoer, Ho, Stump, & Breslow, 2014; Koller, Ng, Chuong, & Chen, 2013) note that many participants enroll in MOOCs, but never intend to complete the course. Rutherford-Quach, Thompson, and Mojica (2016) have also examined MOOCs as a form of teacher PD and recommend instead that researchers consider the category of participants who complete the first assignment for analysis of participation in the course. Using this approach, I narrowed the US educator group by those participants who completed the first assignment, thereby displaying an interest and greater level of commitment to participating in the course. Of the 212 US educators who completed the pre-survey, 45 completed the first assignment. I chose case study participants from this particular subset of participants. Within this group, participants represent a similar breakdown in roles as the entire group who enrolled in the course. Once again, participants may have checked off more than one content area, but the chart still gives an indicator of the breakdown of content teachers and ESL/Bilingual education teachers. Figure 6 shows the breakdown of roles of US K-12 educators who completed the first assignment.

Figure

6. Participants who completed the first assignment

Although ESL/Bilingual teachers still represent the largest subset of teachers (26 total, 28%), the number of teachers who identify as Language Arts teachers (18 total, 20%) is also relatively large. This suggests that although there is a definite need for all content teachers to understand how to address language for ELLs in their discipline, the majority of teachers who seek out and commit to the PD of this course are those teachers who inherently are already addressing language, either as ESL teachers or Language Arts teachers. Valdes, Kibler, and Walqui (2014) suggest that in the current state of education, ESL teachers' role is shifting from an isolated specialist to a collaborator with mainstream curriculum. Given the high participation rates of ESL/Bilingual teachers in this course, it is apparent that these teachers are now seeing their role expanding from being language teachers to being responsible for language and content instruction or collaboration and coaching with fellow content teachers.

In another pre-survey question, participants are asked about the percentage of students who are considered ELLs in their classes. Given that a large percentage of course participants identify as ESL/Bilingual teachers, it is not surprising then, that most of these teachers report working with a majority of ELL students in their classes. It is interesting, however, to note that a similarly large number of content teachers also report working with large percentages of total students who are ELLs, suggesting that policies and programs to address ELL instruction are focused on placing ELLs not only with ESL specialist teachers but also giving them access to mainstream content teachers. Figure 7 displays the percentage of students are ELLs for both ESL/Bilingual teachers and content teachers.

Figure 7. Percentage of total students who are ELLs by teacher role

This finding reflects nationwide trends that all teachers are receiving increasing numbers of ELLs in their classes (National Center for Education Statistics, 2015). It also

suggests that teachers who do have a large number of ELLs are seeking out PD opportunities for learning about ELL instruction.

ESL teachers are required to have additional certifications or training, however, in this study teachers who identify as ESL/Bilingual do not differ greatly on pre-survey self-reports about how knowledgeable and how prepared they feel about working with ELLs as shown in Figure 8 and 9 below. The pre-survey asked participants to respond to the following questions: How knowledgeable do you currently feel about supporting teachers/students in developing academic oral language and literacy? How well prepared do you currently feel you are able to support teachers/students to develop academic oral language and literacy in a real-life classroom?

Figure 8. Participant responses to question of “How knowledgeable do you currently feel about supporting teachers/students in developing academic oral language and literacy?” Response choices included the following:

1: Not very well prepared

- 2: Somewhat well prepared
- 3: Well prepared
- 4: Very well prepared
- 5: Extremely well prepared

Figure 9. How well prepared do you currently feel you are able to support teachers/students to develop academic oral language and literacy in a real-life classroom?

Based on these responses, it is clear that teachers in all roles are facing the challenge of working with a large number of ELLs, but not feeling knowledgeable or prepared to work with them. Pre-service teacher education is limited in the extent to which it addresses preparation for work with ELLs (Salerno & Lovette, 2011) and researchers suggest that even when ELL instruction is addressed for primary teachers in teacher education, teachers use generic accommodations or in the moment scaffolding, but show rare evidence of using ELL specific practices (Coady, Harper & DeJong, 2015). In-service teachers report a lack of adequate PD opportunities and support for working with ELLs (Wei, Darling-Hammond & Adamson, 2007). In order to address this challenge, teachers participate in the MOOC. Further analysis of the specific reasons why teachers participate in the MOOC is addressed below.

In addition to understanding individual characteristics, research question one also considered the school context of participants. I used pre-survey questions about school support for the MOOC to label participants as low, mid, and high levels of support. In choosing case study participants, I ultimately consolidated these labels into low and high levels of support since there were few participants at the mid-level. I defined the levels of support by the following characteristics.

High level of support: colleague(s) taking the course AND some other form of support (meetings, financial incentives, etc)

Middle level of support: colleague(s) taking the course OR some other form of support (meetings, financial incentives, etc)

Low level of support: NO colleague(s) taking the course, NO other form of support

The levels of support of the US based educators who completed the first assignment are displayed in the Table 5 below.

Table 5

Levels of Support by Teacher Role

	Low support	Middle support	High support
ELL/Bilingual	10	4	7
Content	6	5	12
Total	16	9	19

The distribution of levels of support by content area differ in that content teachers tend to have more high support than ELL teachers, but given the small sample size this is

not necessarily indicative of the greater population of teachers. The experience of teachers at each level of support will be analyzed in greater detail through the case study descriptions.

Characteristics of Participants Who Finished the Course

Although it is useful to describe the characteristics of who enrolled and completed the first assignment for the course, MOOC designers are most interested in learning about who actually completes courses and understanding the nature of their participation and learning in the course (Milligan, Littlejohn & Margaryan, 2013). First and foremost, this study supports findings from previous research done by UL in that completion of the first assignment is predictive of finishing the course. Of those US based K-12-participants who completed the first assignment, 55% (24/44) ended up completing the course, in comparison with .02% (52/2749) participants who enrolled in the course and completed the course and .05% (52/1,129) who completed the pre-survey and completed the course.

Teacher Characteristics and Course Completion

The initial research questions sought to understand the extent to which role as an ESL/bilingual teacher and role as a content teacher shaped participant experience in the MOOC. Based on the research stating that many teachers feeling unprepared to work with ELLs (Gandara, Maxwell-Jolly & Driscoll, 2005), I sought to understand if there may be a difference in course experience for ESL/Bilingual teachers who were required to have greater levels of certification and presumably more experience with ELLs.

With regard to course completion, these roles did not appear to differ greatly in the sample of all US K-12 educators. Of the 24 US based educators who completed the course, 10 were ESL/bilingual teachers and 14 were content teachers. The case study

narratives provide greater insight about roles and show that many of the content teachers who signed up for the course also had prior training and experiences with ELL students, often nearly comparable to those teachers who identified as ESL teachers. It is also possible that there was some overlap in responses because of participants who identified as both ESL and content teachers. Considering the fact that all teachers in the study were working with large percentages of ELLs in their classes, there was not a clear distinction in course experience and completion based on teacher role.

School Support and Course Completion

Research question one also considered how school context shaped learning experiences and completion rates of participants. In previous research (Rutherford-Quach, Zerkel & Williams, 2015), UL found higher completion rates for participants in hybrid versions of MOOCs compared with participants taking only the online version. The present study, however, complicates this. When looking at participant rates of completion, high school support is not necessarily a predictor of course completion.

In the Table 6 numbers and percentages of completion by level of support are shown as the number of participants who completed the course out of the total number of participants in that category (who completed the first assignment). It should be noted that ten of the participants in the high level of support who completed the course came from the same school district which provided in-person meetings as well as a financial incentive for participating in the course. When considering these results, it is also important to remember that although level of support is one area of interest, there are many factors that may have influenced completion rates.

Table 6

Course Completion by Level of Support

	Number of participants from those who completed first assignment	Percentage
Low level of support	10/24	42%
Middle level of support	2/6	33%
High level of support	12/23	52%

These findings suggest that although support of the MOOC may be useful, nearly as many participants in this subset of US educators finished the course with a low level of support. This finding is explored in greater detail later through description of the case study participants and analysis of the culture of collaboration and academic conversation focus in their particular sites.

Motivation and Course Completion

Although motivation was not a key characteristic in the research questions guiding this study, it is useful to consider for two reasons. First of all, studies about motivation for MOOCs are a large part of the research body about MOOCs (Khalil & Ebner, 2014) and of interest to MOOC designers. Second, motivation is inherently related to individual characteristics as well as influenced by the school context. When looking at the sample of US educators who completed the first assignment, I coded motivation responses on the pre-survey by internal and external. I developed this specific coding

pattern after an initial open coding of all motivation responses in which I noted that several responses included a desire to learn more about ELL strategies so that they could improve co-teaching or share learning with colleagues in their school. I hoped to explore this topic by analyzing ESL and content teacher motivations within this course and the extent to which they wanted to use learning to support their own practice. I was also interested in understanding the extent to which ESL/Bilingual teachers view and act on their role to share understandings with other teachers as is suggested by Valdes, Kibler, and Walqui (2014).

For the motivation coding, I used the following criteria. Internal motivation refers to interest in improving one's own classroom practices and included statements such as "I hope to learn some new strategies to help build my students' academic skills." External motivation refers to motivation to use course learnings in work with colleagues or school wide and includes such statements as "I currently co-teach and ELL English class will soon co-teach a science class. I don't think our think-pair-share activities are effective. I'm hoping to find ways to help content teachers incorporate more group work in their lessons and make that group work productive and language oriented." Although the external statements were not always this specific, they shared the common feature of want to support other teachers or improve collaborative teaching practices. I analyzed course completion based on role (ESL/Bilingual or content) and motivation (internal or external). Results are displayed in Table 7.

Table 7

Course Completion by Motivation and Role

	External ESL/Bilingual	External Content	External Total	Internal ESL/Bilingual	Internal Content	Internal Total
Finished	3	2	5	8	8	16
Did not finish	7	1	8	4	9	14
% finished	30%	40%	38%	67%	47%	53%

One notable finding was that both types of teacher completed the course at higher rates with internal motivation as compared to external motivation. The group that completed the course at the highest rate, however, was ESL teachers with internal motivation, perhaps because they were inherently most interested in developing their professional capacity as teachers of ELLs. This finding prompted further analysis of the extent to which participant reasons for taking the course and prior ideas about academic conversation aligned with the course objectives. Greater detail of participant motivation and understanding of the course content is provided in case study narratives for finding three.

Findings

Although the participant demographics and course completion rates provide some interesting insights and ideas for further analysis, the small sample size (of US based K-12 educators who finished the first assignment) limits the extent to which analysis of trends and patterns are useful. In order to gain deeper understanding of these initial themes, case study analysis was used to provide a more in-depth understanding of

participant experiences. There were six case study participants chosen out of the initial group of 45 US educators who completed the first assignment. They represented a range of roles (ESL/bilingual and content) and levels of school support for the MOOC (low, middle, high). Table 8 displays case study participant characteristics, followed by a description of each participant including background information, school context, and details about his/her experience in the MOOC.

Table 8

Case Study Participant Characteristics

	Role	Prior certification/ training	School characteristics	School support of MOOC	Complete MOOC
Veronica	High School English teacher, responsible for intermediate level ELLs	Crosscultural Language and Academic Development (CLAD), Specifically Designed Academic Instruction in English (SDAIE)	Secondary continuation high school outside a large city in California	None	No
Ana	First grade dual language (Spanish/English) classroom teacher	Dual Language certification in NM Guided Language Acquisition Design, (GLAD) training	Dual Language School of Choice in large city in New Mexico	None	Yes
George	ESL Social Studies Teacher, ESL department head	Social Studies, ESL, and Communication Arts Certification Sheltered Instruction Observation Protocol (SIOP) training	High school in large urban district in Missouri	One other colleague taking the course	No
Brenda	Third grade classroom teacher	CLAD certification Total Physical Response (TPR) training	Elementary school in rural district in California	Other colleagues taking the course, district level meetings, financial incentive	Yes
Rachel	Literacy Coach	CLAD certification GLAD training	Elementary school in rural district in California	Other colleagues taking the course, district level meetings,	Yes

				financial incentive	
Julie	Fifth Grade Dual Language Teacher (Chinese/English)	BCLAD (Bilingual Crosscultural Language and Academic Development)	Newcomer School in large urban district in California	Other colleagues taking the course, district supports in-person PD with MOOC instructor	Yes

Veronica

Veronica is a secondary English teacher in a continuation school in a densely populated county outside a major city in California. The school is a charter school is geared toward older working students and offers coursework, GED support, and a work component. The school has less than 100 students and she is the only English teacher. She also is responsible for addressing English Language Development for students who are considered language learners or former language learners. She reports that probably 98% of students at the school identify as Hispanic, but that most were either born in the US or came here from Mexico when they were young. The students in her classes generally are considered high proficient by state exams. Veronica had worked in another district prior to her current one and had experience with ELLs there. She teaches English classes as well as a small English Language Development Class. When working with ELLs, she utilizes the Specifically Designed Academic Instruction in English (SDAIE) method that focuses on making content comprehensible for ELLs.

Although her current district is small and does not offer specific PD support, she seeks out PD experiences online for working with ELLs or general teacher development. She has not spoken in depth about what she learned in the course, but has received

administrator support to create a reading and conversation class based on principles that she took away from the course.

Veronica learned about the course from a friend and signed up because the course content caught her attention. She had previously completed another MOOC by Understanding Language focused on Constructive Conversations. She did not receive any support from her school for participating in the MOOC and did not have any other colleagues taking the MOOC at her school. She completed assignment one, but did not complete any of the remaining assignments.

Ana

Ana is a first grade teacher in a dual language school of choice in an urban district in New Mexico. The school follows a 90-10 model for dual language in which 90% of the day is in Spanish in Kindergarten and gradually decreases with grade so as a first grade teacher she teaches 80% of the day in Spanish. Her students are primarily Spanish language learners. Ana has TESOL and Bilingual Certification for the state of New Mexico and although she works primarily with Spanish language learners now, she has experience working with ELLs in prior sites. Her school utilizes GLAD strategies¹ as an approach to working with ELLs.

Ana has no specifically stated support from her school for participating in the MOOC and does not have any colleagues taking the course. Her school, however, has recently received a Kellogg grant to support teacher learning and use of academic conversations.

¹ GLAD strategies emphasize differentiation of content to support student academic language development (<http://projectgladstudy.educationnorthwest.org/what-is-glad>).

Ana speaks positively about the course content and how she is applying content in her setting. The only challenge that she mentions is applying content to the lower grades. Ana completed all of the surveys, course assignments, and peer evaluations so she received the statement of accomplishment.

George

George is a high school ESL teacher in a STEM magnet school in a large urban district in Missouri. He teaches social studies to ESL students and is also the ESL department head. The city is a center for refugee resettlement so receives many ELL students as a result. The district has a newcomer center school where students will go first for up to four semesters so the students in his classes are generally intermediate to advance English proficiency according to the WIDA Access for ELLs (<https://www.wida.us/>) proficiency test. George is certified in ESL, Social Studies, and Communication Arts in the state of Missouri. Prior to his current role, he taught Social Studies at a private Christian school. His approach to instructing ELLs is based on Sheltered Instruction Observation Protocol (SIOP) <http://www.cal.org/siop/> which he has received training in from his current district.

George does not receive any support from his school for participating in the MOOC. In the first interview, he mentioned that he forwarded the course information to his entire department and that one other ESOL teacher signed up, however, that colleague did not continue with the course.

George completed assignment one, but expressed frustration in both interviews about the peer evaluation process and about the fact that there were assignments listed for

both teachers and coaches. He did not complete the course and blames lack of time as the reason for not finishing it.

Brenda

Brenda is a third grade teacher in a large rural district in California. According to her, the district is 95% Hispanic and the majority of families live below the poverty line. She has been teaching in this district for 25 years and also grew up in the community. She has a core elementary class, but during English Language Development deployment time, students are grouped for English focused instruction by proficiency level and she works with a group of intermediate proficiency students. Brenda has the CLAD certificate as required by the state of California. Brenda did have some training for working with ELLs and mentions being trained in the method of Total Physical Response (TPR). She has taught all levels of English learners from beginner to advanced in both heterogeneous and homogenous contexts throughout her experiences. She does not speak Spanish, but states that some teachers in her school who are bilingual will go back and forth between English and Spanish with beginning English proficiency students.

Brenda's district supports her participation in the MOOC through a financial stipend for completion and district wide meetings every one to two weeks throughout the course led by district staff. Brenda participates in the meetings which are generally used as time to work on the course and occasionally to discuss course content. There are two people at her school who are also participating in the MOOC, but they are in different grade levels and do not discuss it often at their site.

Brenda participated in another MOOC by Understanding Language focused on Constructive Conversations prior to participating in this MOOC. She spoke favorably

about the previous course and the use of recording and analysis of student language. She appreciates the course videos most of all. She mentions that she has had outside distractions with family health problems so she has not been able to make the MOOC a priority. She completed all of the surveys, course assignments, and peer evaluations so she received the statement of accomplishment.

Rachel

Rachel is the only case study participant who is not actively teaching in the classroom. She is an elementary literacy coach, but had been a kindergarten teacher for eight years prior to becoming a coach. She works in the same rural school district as Brenda, but at a different school site. She describes the population at her school as about 60% Hispanic. In her work, she supports teachers with developing and delivering instruction and also provides small group support to students. She has the required California CLAD certification. She mentions that she has had GLAD training through her school district in the past.

Rachel participates in the same district as Brenda and therefore also has the support of the district wide meetings and stipend. There are three other teachers at her site who are also participating in the MOOC. Specifically, one of the new teachers that she coaches is also participating in the MOOC and they discuss the MOOC content in their coaching meetings and planning sessions. She mentions that her school is focused on academic conversations and district leaders will look for them in their walk through observations.

Rachel appreciates the videos in the MOOC. She completed all of the surveys, course assignments, and peer evaluations so she received the statement of accomplishment.

Julie

Julie is a fifth grade teacher at a newcomer school in a large urban district in California. The school is bilingual English/Chinese but the ways in which teacher incorporate Chinese varies by class. The students and teachers in the school speak a combination of Mandarin and Cantonese. Students at the school have been in the United States for less than a year and are generally beginner or intermediate English proficiency. She has the Bilingual and Crosscultural Language and Academic Development certification for the state of California. She has attended district wide PD for working with ELLs, but not for any specifically mentioned programs or approaches.

Julie receives a stipend from her district for participating in the MOOC. In addition, her district offered two live session workshops with the course instructor Jeff Zwiers to support work in the MOOC. Julie attended the live sessions. She has an Instructional Reform Facilitator (coach) who is also participating in the MOOC from her school.

Julie completed a hybrid MOOC by Understanding Language about English Language Development prior to participating in the MOOC of the study. She does not complete all of the readings and videos on her own, but does appreciate the opportunity to discuss the ideas during the live sessions. For this MOOC, she completed all of the surveys, course assignments, and peer evaluations so she received the statement of accomplishment.

Case Study Analysis Summary

As stated previously, case study participants were chosen to include a range of roles (both ESL/Bilingual teachers) and content teachers to understand how teachers' individual role and characteristics may have shaped their experience in the MOOC. As seen above, the six participants include first grade to high school level teachers and include ESL, Dual Language, English teachers, and one literacy coach. Even though they differed in their individual roles, all participants had some form of certification for working with ELLs. This is due in part to the fact that four of the participants came from California which requires the CLAD certification for all teachers. Across the different roles, several teachers also mentioned prior training through specific programs such as SIOP or SDAIE which are both versions of sheltered instruction or GLAD training which was developed by the US Department of Education. In addition, participants were chosen with variation of school wide support to better understand the influences of context and which types of support or practices influenced meaningful participation in the MOOC. Three of the participants (in two separate districts) took part in hybrid versions of the MOOC with district wide live meetings and financial stipends for completion. The ways in which these variations in prior training and school support shaped participant learning is explored through the following findings.

Summary of Findings

Although the quantitative data helped to describe the course participation trends, the case study narratives are used to fully develop these findings and make a statement about participant experiences. Case studies were developed from a range of evidence

including: pre and post surveys, two interviews, and course assignments. A summary of the findings based on course trends and case study narratives is displayed in Table 9.

Table 9

Summary of Findings

Findings	
Finding 1	Features of course design promoted opportunity for participant application of learning in practice, but did not adequately support development of a community of learners.
Finding 2	Although participants attributed the extent of their learning to individual effort, school context also played a large role. In particular, school practices that supported a culture of collaboration and emphasized academic language fostered meaningful course experiences.
Finding 3	Participant individual and school based experiences shape their interpretation of academic conversation and the extent to which they emphasize conversation as a tool to display language or to build up new ideas.
Finding 4	The way in which participants describe academic conversation is also related to the way in which they apply academic conversation in their practice. In reporting about classroom practice, participants overwhelmingly devote time and scaffolds to the development of student conversation, but vary in the degree to which they utilize conversations to support idea development and to assess student language.

Finding One: Course Design

Research question one considers the experience of users in the course and how it varies by their role, school context, and the course design. When discussing their learning experience, participants spoke favorably overall about the content and design of the course. Among case study participants, some described themselves as “readers” and

preferred the materials they could read, while others appreciated being able to hear the content presented by the well-known instructor or seeing the content being put into action in actual classroom videos. These responses are also supported by the course-wide data. When considering all participants who completed the course and completed the post-survey (this includes non-US educators), participants ratings also favor readings, videos, and assignments as shown in Figure 10.

Figure 10. Participant rating of course components contribution to learning on a scale of 1-5

Note: Number ratings represent the following scale:

- 1: Made no contribution
- 2: Made a minor contribution
- 3: Made some contribution
- 4: Made a substantial contribution
- 5: Made a major contribution

Figure 10 highlights that all course participants rated the readings, videos, and assignments as the most beneficial aspects of the course.

Connection of Course Content to Practice

In addition to commenting on the course materials, several case study participants mentioned how they appreciated how the course was relevant for their work in classrooms and that the assignments gave them an opportunity to practice content in the classroom. In interview one, Veronica shared that “I’ve been able to implement some of the stuff that I’ve learned in the classroom”. The opportunity to use learning directly in classroom practice promotes active learning, one characteristic that Desimone (2009) suggests is important for effective PD. In a large scale survey study, Garet et al. (2001) define active learning as having an opportunity to connect PD learning to practice, observing and being observed, reviewing student work, and presenting, leading and writing. This course presents the opportunity to connect PD learning to practice as well as reviewing student work (student conversation). Specifically, the assignments that are rooted in classroom application lead to participant implementation of new ideas, as described by Julie in interview one

Having some of the assignments is good, because then it forces me, "Okay I should try this or that. Whether or not it works is not that big a deal. It's more about I tried it, and then if it works out I will use it again, and if it doesn't I can always modify it and do something else. It's nice to have something to try and do it in the class than to just like, you learned it, you forget about it.

Julie’s statement highlights the need for PD to be more than just learning for learning’s sake, but to actually offer opportunities for classroom application. Veronica also identifies how she is able to apply the course content when describing her lesson planning in interview one “Now I’m more conscious about including treating the conversations as a

very important area of my lesson. I plan for it now and I try to include it in most of my lessons.” Finally, Ana also explains how she specifically used one of the models of a lesson from a course video for use in her own classroom. She shares that

Well, right now I’m developing a lesson. We’re, our school, we’re a service learning school so I chose a book that we’re gonna for read next week for the homework assignment, and it’s in Spanish so I’m going to, uh, do a lesson, kinda model it after a lesson I saw on one of the videos, so. And that’s what I did with the last one. Like we have an evaluation system, so my observation was based on one of the videos I’d watched.

Having a specific visual model to review and consider may have contributed to Ana’s willingness to try out the strategy. Overall this course clearly provides opportunity for participants to connect course learning to their own practice, an essential feature of professional development for educators.

Lack of Community of Learners in Online Platform

Although participants report applying course learning in their individual practice, Milligan, Littlejohn, and Margaryan (2013) describe this type of learner as a “lurker” in a course and suggest that “active” participation in a MOOC would also involve connection and collaboration with other learners in the course. In the survey results from all participants, however, the course design elements focused on peer or collective learning are not rated highly. As seen in Figure 10, team membership, forum discussions, and peer feedback are all rated as the lowest aspects of the course design. When asked which features of the course were least useful, all participants in the case studies mentioned the peer feedback, citing both the feedback structure and the quality of the feedback that they

received. In interview one, Veronica blamed the feedback as one of the major limitations in her completing the course when stating that “I know it helps and all that but it's just too time consuming. Most of the time that's the reason why I don't get to finish the entire assignment because I don't have time to go through everybody's assignment and evaluate it.” The feedback was a required component of the course for receiving the statement of accomplishment, but participants felt frustrated that they did not have a positive experience with it. The structures to support peer interaction in the MOOC must provide strong pedagogical practices, but also consider time that participants are able to commit to the course.

Challenges in Developing an In-Person Community

The elements of the course design that were intended to promote an online community of learners were not considered useful by case study participants. This lack of engagement in an online community could have been overcome with other structures to support online dialog such as required discussion forums or team based assignments. In addition, the development of a positive in-person community could also support participants' opportunity to discuss and interact with the content. Although this aspect will be discussed in greater detail in finding two, it is useful to note that participants also indicate that a lack of an in-person community to discuss the course was a limitation in their course participation.

When describing his involvement in the course in interview one, George notes that “I prefer sitting in a class with other real people so I can have that conversation and give and take live and in person.” In her first interview, Julie shares her experience of

trying to complete the course on her own as compared with doing it at a district-wide live session.

I did try watching it on my own, and it's harder to sit there and watch it by myself than to do it at a live session, and then have someone else who is also a teacher to talk it over with. I think it's, after we went to the conference, they were saying that learning is a social process, so it could be that. It's easier to learn something when you're talking to people about it.

Julie's preference for doing the course in person with colleagues also supports the desire to have live interactions and discussions about content.

Even in cases where participants had live session meetings in their district to support the MOOC, they at times still found it difficult to process the material without site or grade level colleagues. In her first interview, Brenda notes that

I don't have anybody else in 3rd grade or on my team signed up, so I don't have anybody to say hey, what did you think about this, did you understand ... I feel like I'm by myself so to ... not in a bad way, but I have other teacher friends at other school sites. We don't meet at lunchtime and discuss the ... what we read last night or the latest assignment because there's a kindergarten teacher, but her kids at a different level and there's a 5th grade teacher and his kids. I don't have that and I want to talk to somebody and say do you get what we're doing, I feel a little lost.

Brenda's need to discuss readings and assignments from the course with peers highlights a need for participants to engage with the material in real time with colleagues that have shared interests and experiences. Brenda's comment highlights the fact that

although it is important to be able to have broad discussions and generalize learning to her own context, she would find it helpful to have peers with shared experiences to discuss the actual implementation in practice. This emphasis on teacher to teacher learning in small groups is the foundation of Professional Learning Communities (PLC) which give teachers a time and space to plan, discuss content, and reflect on student learning with colleagues that have similar goals (Dufour, 2007).

Summary

Although participants individually engage with the content of the course and report applying it in their own practice, they express frustrations with the online components that are intended to foster collaboration among learners. Research suggests that PD should offer teachers an opportunity to discuss and interact with colleagues (Ball & Cohen, 1998) and that when teachers form relationships and learn together, they will be more likely to implement learning and changes (Wei, Darling-Hammond & Adamson, 2010). In addition to learning together, teachers may also share learning through their informal networks (Coburn, Russell, Kaufman & Stein, 2012). Participants in the MOOC of this study express this desire for collective participation, which is not adequately fulfilled through the online community nor through the in-person school based communities.

Finding Two: School Context

Research question one also considers how school context shapes participant experiences in the MOOC. Across all six case study participants, educators attributed great importance to individual effort in the extent to which they were invested in and learned from the course. Although individualization is a key feature of MOOC learning,

two school based characteristics also played a significant role in case study participant experience in the MOOC. School sites that supported a culture of collaboration and emphasized academic conversations encouraged meaningful participant experience in the MOOC.

Individual Effort

In describing their experience with the MOOC, four out of the six case study participants explicitly stated that their individual effort determined the extent to which they learned from the course. For example, in interview one Brenda expresses that

“What you put in is what you're going to take out. Right now, I'm distracted with some things so I'm not putting forth my 100%, I'm just kind of like okay, let me ... I signed up, I want to get something out of this, I want to know something, but what am I doing?”

In addition, several participants blame their lack of time to be able to commit to the MOOC as the reason that they are not able to complete it to the fullest. In explaining why she wasn't able to finish the course, Veronica states that it is too much to do with full time work but she appreciates that the materials will be available for future access. This flexibility afforded by the MOOC is an advantage of the course design that should be explored with further research to determine the extent to which participants do access materials after the official MOOC course time.

Although several case study participants report feeling like they are not able to complete the MOOC fully because of time demands, there is contrary evidence that suggests that providing participants work time to do the course is not enough support to ensure that they engage deeply with the content and actually apply learning in their

practice. In interview one, Julie shares that she chooses her reading and viewing based on time and only completes about 50% of the course reading/viewing, but that it is easier to do when they have the live session to work on it. She later states though, that the advantage of the live session is having colleagues to discuss the material with, rather than just the time to do it. Rachel, a participant in another district with live meetings to support the MOOC, expresses her frustration with the live sessions when stating that “It was more like a time where you could get your work done. It was you could work in your group on your own time type of a thing. I didn't get as much out of the group sessions.” These statements suggest that even when schools offered time to complete the MOOC, participants did not always feel like it was helpful. When sessions were used as primarily time to do the work, they were viewed as ineffective, however, when the live session was used as a time to discuss and share the cognitive load of the new content, participants expressed greater satisfaction with live sessions.

While individuals attribute their own effort and time to their MOOC experience, findings suggest that more than just time may be needed for a meaningful course experience. Specifically, two case study examples highlight the differences in participant experience based on other school based factors. As stated in finding one, participants seek a community of learners and the school site and culture may play a role in supporting such a community. In addition, the extent to which schools already support academic language and conversation can shape participant experience. In order to understand the role of school context, I chose to highlight Julie and Ana because they shared the common individual characteristic that they were teachers in dual language or bilingual elementary programs but differed in their school contexts. Analysis of the

contrasts in three key areas suggests areas for promising practices at the school level. The following analysis addresses the school context related to: support of the MOOC, culture of teacher learning, and practices related to conversation. I argue that prior research that suggested that Julie and Ana's stories provide evidence that challenges prior research which focused on school based support alone as a predictor of MOOC completion.

Julie

At first glance, Julie appears to be set up for success in the course. She has participated in a prior MOOC run by UL in the fall prior to this course and is also concurrently participating in live workshops with the course instructor that are supported by her district. Closer analysis of Julie's case, however, reveals a more complex story.

Prior ideas and approach to instructing ELLs.

The school utilizes what Julie refers to as Systematic English Language Development and when speaking about the curriculum she states that

“Yeah, so they always send us all the curriculum that they give all the other schools, and we're supposed to use it. It works if it's like, math it works, but English-wise they will give me the fifth grade language arts books, and I can't really use it.”

Julie's use of the pronoun “they” emphasizes her feeling that curriculum follows a top down approach in her district, although they ultimately adjust it at their school based on their student levels by using lower grade level texts.

Prior to taking the course, Julie did not regularly use conversation in her classes beyond scripted language practice. In assignment one, Julie reports that,

They (students) understood that they need to practice conversations to get better at English. They understand it, but they have a hard time doing it. Most of the English language practice is scripted because my students are newcomers and don't have enough English skills to communicate.

Although Julie is open to the ideas of the course, she has not practiced conversation or allowed opportunity for student voice in her prior instruction for ELLs.

School climate and support.

Julie receives support of the MOOC through two in-person PD offerings at the district level that are led by course instructor Jeff Zwiers. She likes that these sessions give her an opportunity to discuss content and how others have used it. When speaking about other PD experiences in the district, Julie shares that they had an outside mandatory presentation for five days about working with ELLs that presented what they already knew and she felt that it “wasn’t really useful”. When describing her own school context, she responds that she hasn’t shared course learnings because “my colleagues, I don't think they're willing to try some of the stuff” and that

the colleagues that I have wouldn't be interested, so it's hard to share with them.

The other colleagues at my school aren't very respectful. If I were to suggest anything, there would really be no point because they would just be, ‘Why are you telling me this?’ It's not very collaborative. It's not a very collaborative school.

The school culture which Julie describes makes it difficult for her to share learning from the course and discuss content with colleagues within her site. This lack of collaboration

in the school combined with beliefs and practices that represent a limited view of student conversation present challenges for Julie's full participation and learning in the MOOC.

Ana

According to pre-survey data, Ana was categorized as having a low level of school support for the MOOC because no other colleagues were taking the course and she was not receiving any other school based support (stipend, time, points, etc) for participating in the course. In this sense, she offers a contrasting story from Julie who is receiving what I define as a high level of school support for the MOOC. Even from the first interview, however, it is clear that Ana is working in a context that supports her course learning in other ways.

Prior ideas and approach to instructing ELLs.

Ana teaches eighty percent of the day in Spanish and twenty percent of the day in English. Her school utilizes GLAD strategies² and had recently received a Kellogg grant to support teacher learning and use of academic conversations. She states that

We teach academic language because we picked that. We got to pick what we wanted to learn about and at our school teachers decided that. So we went to other schools and they were doing other stuff at other schools and we decided that we wanted to do that.

Her use of the pronoun "we" to describe the focus of teacher learning at the school stands in contrast to Julie's assertion that "they" sent us curriculum. Ana has been addressing academic language in her class for over two years with the support of the

² GLAD strategies emphasize differentiation of content to support student academic language development (<http://projectgladstudy.educationnorthwest.org/what-is-glad>).

programs that came from the Kellogg Grant. In assignment two, she describes how she set up the assignment

During morning routines, I review the posters I have for the behavior I expect to see during academic conversation. I have a PDSA (Plan, Do, Study, Act) in place for this. The plan-academic conversations and the do- the 4 L's- look at each other, lean towards each other, lower you voice, and listen attentively. ...I gave them 2 minutes to discuss their plans with a partner. As they shared their ideas with their partners, I walked around the room with my checklist looking for the desired behaviors.

Ana's mention of routines, posters, and checklists for behaviors demonstrates that she already has several existing classroom practices in place related to academic conversation. When asked about how she utilizes learning from the course, she shares that she uses it daily and thinks about how students will engage in language during every lesson development.

School climate and support.

Ana has no specifically stated support from her school for participating in the MOOC. When describing the work of the Kellogg grant, Ana shares that her school utilizes book clubs and "visitas" in which colleagues observe each other teaching and discuss the use of academic language. She states that the observations are non-evaluative and a positive thing for teachers.

Although Ana does not receive specific support for taking the MOOC, the collaborative environment and school wide emphasis on academic language are key supports for Ana's positive MOOC experience. As noted by previous studies (Garet et

al., 2001; .Penuel, Fishman, Yamaguchi & Gallagher, 2007) coherence with teachers prior beliefs and understandings is a key principle of effective PD because teachers have greater buy-in, engagement and deep learning. In the case of Ana, she valued conversation in her class and this belief is also supported by her larger school community. Therefore, she utilized course learning to refine her practice around conversation and was able to engage with the content surrounded by peers who also valued conversation and acted in a collaborative spirit.

Additional Consideration

The cases of Julie and Ana present an interesting contrast in how individual school context shapes MOOC participation. On the one hand, Julie is given time and in-person support for the MOOC, but expresses challenges of working in a site that does not value collaboration or student conversation. In contrast, Ana receives no explicit support for participating in the MOOC, but thrives in a community where peer collaboration is a common practice and academic language is an already established school value. One other case study presents insights about a potential promising practice for how MOOC participation can be enhanced through collective learning experiences. Rachel is the only case study participant who is not actively teaching in the classroom, but instead serves as a coach for an elementary school. She participates in a district where ten teachers are taking the MOOC and meeting on a regular basis. Although she does not see great value in the in-person meetings to support the MOOC, she has found another way to develop a shared learning experience at her school site. When asked in interview one if she shared any learning from the course with colleagues, she talked about her work coaching a new teacher who was also taking the MOOC at the same time. She explained that,

I'm her support provider, so we meet every week as well and there are lessons that she plans that I go in and observe her for that we've planned together. We're using strategies from this and incorporating it into those lessons as well.

This example and the accompanying lesson description that she provides in one of her course assignments are the only example among all of the cases that presents evidence of collective learning among staff taking the MOOC together. The fact that the two educators work in the same site, have shared planning time, and have shared goals allows them to engage in productive learning experiences about the content of the course.

Summary

Although participants attribute their individual effort and time spent on the course to their level of success in the course, there are factors within the school context that play a strong role in participant learning experience. Specifically, a culture of collaboration and an emphasis on academic language and conversation provide a supportive learning environment, even in ways that support in the form of time or financial incentives cannot. Ultimately, participants seek a community in which they can discuss content and engage with the ideas of the MOOC. Having fellow staff at the same site with shared planning time and similar goals may be one way to increase collective learning opportunities in the MOOC. Finally, the data suggest that school support is more complex than the original definitions based on colleague or school structural support and future research should expand the conceptualization of school support to also include school based discourse and practices.

Finding Three

This study aims to not only describe the user experience in the MOOC of the study, but to also address how participants engage with the course content of academic conversations. As noted in finding 1 and 2, individual characteristics and school context shape user experience in the MOOC. With regard to academic conversation, schools that are already supporting learning about and use of academic conversations provide a supportive environment for participation in the MOOC. Data from whole course data (45 K-12 US based educators who completed the first assignment) suggests a relationship between the ways that participants describe academic conversation and the ways and extent to which they apply course learnings about conversation. Follow-up analysis of six case study participants' interpretation of conversation suggests that participants describe academic conversation with an emphasis either on language conventions or development of academic content understanding, possibly related to their prior training with instructing ELLs and school context.

In order to understand how participants are conceptualizing academic conversation, it is important to look at their prior understanding and approaches to working with ELLs as well as how they describe and use conversation during the course. I initially looked at data across all 45 K-12 educators who completed the first assignment in order to identify course-wide trends. Table 10 reports findings from coding of responses of this group for the question "In what specific ways do you plan instruction to accommodate students who are English language learners?" on the pre-survey. Although the question did not specifically ask about academic language or conversation, the responses shed light on the types of approaches or instructional moves that teachers use when working with ELLs. The table displays the number of times each strategy or

approach was mentioned throughout all participant responses. Note that some participants may have reported using more than one strategy or approach.

Table 10

Coding Frequency of Prior Approaches

Approach key word	Frequency of Mention
Sentence frames	10
Visuals	8
Model	6
Collaborative structures (think-pair share)	6
Comprehensible input	6
Vocabulary	4
TPR	4
Graphic organizers	4

The frequency of the listed approaches suggest that when considering instruction for ELLs, teachers overall are focused on making language understandable (visuals, models, and comprehensible input) as well as providing supports for language output (sentence frames, vocabulary, TPR, graphic organizers).

I then followed-up with analysis of case study participant responses to survey questions to determine how their responses supported or refuted the course-wide trends in approach to ELL instruction. The specific responses of case study participants support the course-wide data and also provide more detail about the specific types of practices that are prevalent among teachers. Table 11 displays the full responses of all case study participants to the question about prior approach to ELL instruction. Words that are repetitions from the trends in the course-wide data above are marked in bold. .

Table 11

Case Study Prior Approaches

Participant	Prior approach to instruction of ELLs
Veronica	Give clear precise directions and repeat them orally as necessary. / Write sentence starters / Provide word walls
Ana	I use visuals and realia. Also provide opportunities for my students to have <u>structure conversations</u> . Pair and share projects.
George	All of the high school students in my social studies classes are English Learners and most are refugees or immigrants. Therefore, when I plan lessons for them, I do not assume that they share the same background knowledge with each other or with American students. So, I try to provide lessons that include building background knowledge. I also try to use data about language and reading abilities of my students to help me determine what reading/writing materials to provide to them.
Brenda	Front load vocabulary, TPR, visuals/realia
Rachel	Designated and integrated ELD time / Sentences frames
Julie	preview vocabulary, use hypothetical graphic organizers, sentence frames

The case study participant responses reflect the same trend seen in this study's 45 US educators in that they place an emphasis in instruction on making language understandable (visuals and comprehensible input) as well as providing supports for language output (sentence frames, vocabulary, TPR, graphic organizers). Only one participant, Ana, mentioned the use of conversation. In order to understand more fully

how participants incorporate academic conversation as one of their classroom approaches to addressing learning for ELLs I analyzed case study participant narratives from surveys, interviews, and course assignments. I report findings about the ways in which they describe academic conversation and suggest possible connections to their prior training and experiences as well as their school context. In finding four, I then analyze the ways in which they apply understanding of academic conversation in their class practices. Descriptions below of three case study participants highlight the contrasting ways in which participants conceptualize and describe academic conversations.

I chose case study participants to focus on based on differences in prior training and school contexts that may have influenced their conceptualization of academic conversation. The approaches to instructing ELLs may have been influenced by participant prior experience and training, including in some cases SIOP training which focuses on making language comprehensible and or in other cases GLAD training which involves scaffolding and differentiating academic language. Since these two specific programs were mentioned by case study participants, I chose to analyze George who had completed extensive SIOP training and Rachel and Ana who both utilized GLAD training in their building. I chose both Rachel and Ana because although they both had similar prior training and also came from schools that emphasized academic conversations as part of the district wide PD. They differed, however, in their roles in their building with Rachel being an instructional coach and Ana being a first grade dual language teacher. George, Rachel, and Ana have varying levels of school support for participating in the MOOC, however, I noted in finding one that school support was not as crucial as prior research supposed.

George

George teaches high school Social Studies to ELL students in St. Louis and is also the department head for the ESL teachers at his site. In addition to being certified in ESL, he has gone through district sponsored Sheltered Instruction Observation Protocol (SIOP) training for several years. The SIOP model encourages integration of language and content by adjusting instruction to build background knowledge and provide comprehensible input (<http://www.cal.org/siop/about/>). George's understanding of instruction for ELLs reflects the principles of SIOP when he states in his pre-survey that "So, I try to provide lessons that include building background knowledge" and in interview one he states that "We do our best to make the content comprehensible but we're still trying to teach the content". George describes academic language as students knowing and using the conventions of language and in several instances mentions the need to raise the academic skills of his students. For example, when asked about his motivation for taking the course in the pre-survey he says that he wants to "learn some new strategies to help build my students' academic skills". He goes into greater depth of his goals in interview one by describing the difference between academic and social English.

That is, I am trying to get my students to use more academic English. Some of my students, when you speak to them, their social English skills are quite good. Sometimes teachers who don't have any real expertise with ELLs will say to me, "Why is he in ESOL? He speaks fine," not understanding that there's a difference between social language and academic language. I signed up for the MOOC because I was interested in the concept of the academic conversation, the

academic language piece. Just help give me some more ideas of how to incorporate and train my students to use more academic English instead of just the social English.

Finally, when analyzing student work and language for assignment one, George notes that his students need more guidance and structure for having academic conversations. He reports his plan to include give sentence starters for conversations, rules for the etiquette of conversation, and time in lessons for conversation. In summary, George views academic language in terms of students using conventions of language that are deemed academic and contrasts this clearly with the social language that his students are already using.

Rachel

Rachel is an instructional coach in an elementary school in California. Her district emphasizes academic language as part of their PD focus this year. She has a CLAD (Crossculture, Language, and Academic Development) certificate embedded in her certification as required by the state of California and her district had widely used GLAD as an approach for working with ELLs. The GLAD approach is characterized by teachers' use of differentiated strategies within content instruction to support student academic language development so that they "are able to read and write grade-level text and access academic content" (<http://projectgladstudy.educationnorthwest.org/what-is-glad>). Although Rachel is not completely satisfied with the in-person MOOC meetings (see finding one), she does share that her school has recently started focusing on academic language. She describes the school practices related to academic conversation in interview one by sharing that,

Once a month we have instructional rounds to where the district comes and our leadership team, we all walk around to the different grade levels and classrooms and the focus is academic conversation. When we're there, in the classroom, during that time that is what we are listening for. Making sure that everybody is participating in an academic conversation and that we can see the progress of it.

When talking about her reasons for taking the course in interview one, Rachel shares that the course will help her to support teachers in “how to get the students talking together, how to group the students, and prompts to give the students” and when analyzing student conversation in her assignments, she notes that students are communicating and using evidence, but that improved questions could help them to dig deeper. Rachel’s description of academic language includes the language that students are actively using to engage with content to develop new ideas and content understanding. Although she is an instructional coach, she suggests that the role of the teacher is to provide effective prompts to develop discussion and scaffolds to support students in engaging in conversation. When describing an observation of a teacher that she has been working with in assignment three, she indicates that academic conversations are becoming part of routine practices at her school site.

Having the time to practice these conversation skills in class is definitely helping the students become more familiar with Academic Conversations and they are becoming a routine part of the class.

She is clearly part of a school community that is actively discussing, addressing, and reflecting on the use of student academic conversations.

In contrast to George, Rachel does not mention conventions of language but instead focuses on how students use the tools of conversation to develop content understanding and communicate ideas. Her conceptualization of academic language may be shaped by two prior factors. First, she has taken part in GLAD training, which emphasizes student understanding and access of grade level content. In addition, her school's support of academic conversations indicates that she has already had experience with and dialog about academic conversations at her site.

Ana

Ana is a first grade teacher in a dual language elementary school in New Mexico. Her school also utilizes the GLAD approach. Although she receives no explicit support for participating in the MOOC, her school has been working on academic conversations for over two years with the support of a Kellogg grant. The choice to focus on academic conversations was decided by the teachers and has been supported through ongoing half day professional development sessions, book study and colleague visitas (walk through peer observations). When describing the objectives for the course in interview one, Ana reflects her belief about the importance of student oral language and student ownership of conversation.

It's to use, use the oral language that we don't use in the classroom, and to give kids a voice, and to teach them how to have a conversation, and to teach yeah how to have a conversation, yeah in the different areas, like this week is comprehension, and to use it in the content areas.

Although she doesn't delve deeply into what student conversation looks like or requires, she does report that the exciting part of the course is when "the kids carry it", reflecting

her belief that the goal of academic conversation is to get students talking to each other about the content. In interview one, she also expresses support for student ownership of the conversation when sharing her takeaway of the course thus far,

I like the way, you know, he says to give the kids the ownership you know and not worry about the whole classroom. And once I heard that and I wasn't so worried about what was happening on the other side of the classroom.

When considering her role as a teacher, she expresses in assignment two that she will “continue to model and coach individual pairs of students during academic conversations.” Across interviews, surveys, and assignments, Ana explains how her work is part of her school’s larger work on academic conversations and how she is excited about that work. Similar to Rachel, she does not mention or consider the conventions of academic language, but instead focuses on the workings of a conversation and how to bring student voice to the forefront.

Summary

The way in which George conceptualizes academic language stands in contrast to the ways in which Rachel and Ana describe academic language. George highlights the difference between academic and social language and believes that he needs to teach students how to use academic conventions for the conversation to be successful. Rachel and Ana, on the other hand, are working in districts that have chosen to focus recently on academic conversations and they both emphasize the goal of getting students talking with each other, building ideas, and digging into content.

These contrasting views of language represent recent shifts in instruction and assessment of ELLs. George’s focus on the distinction between social and academic

language stems from prior second language research concluding that social language can be acquired in one to two years but that learning and using academic language can take four to seven years (Collier, 1987; Cummins, 1981; Hakuta, Butler & Witt, 2000). It is important to note, however, that current research moves beyond this notion of academic language by highlighting how academic language is defined in a variety of ways (Valdes, 2004) and suggesting that social and academic language are not necessarily mutually exclusive separate steps but in fact can be utilized in complementary ways (Bunch, 2006).

The English Language Proficiency Standards (ELPA 21) that have been adopted by 10 states, describe changes in conceptualizations of language on their website using the following graphic that compares the new ELP Standards with Old standards in their emphasis on texts, language development, and the integration of language and content.

Figure 11. ELP Standards retrieved from <http://www.elpa21.org/standards-initiatives/elp-standards>

George's focus on simplifying content and emphasizing accuracy of language represents beliefs characteristic of old standards and approaches to instructing ELLs. Rachel and Ana, on the other hand, do consider language that is focused on doing something with the language (comprehension, production, and interaction), but do not explicitly address the rigor of activities or level of texts.

In his work on student language in the classroom, Bunch (2014) deals with this complexity of language when describing "language of display" and "language of ideas". The language of display refers to the oral and written texts that students create to present academic ideas, while the language of ideas involves the all linguistic resources that students use to engage with a topic and may include language considered social language. Bunch suggests that students can productively engage with content using the language of ideas and then shift to the language of display as appropriate. He goes so far as to caution that

However, focusing prematurely on the final "answer" form prematurely also has the potential to stifle discussion, especially if students are preoccupied with constructing a minimally acceptable answer as quickly as possible, or if they are required to use "sentence frames" or other templates before they have had the chance to discuss their observations and interpretations (p. 82).

When thinking about the ways in which participants describe academic language, George appears to be overly focused on academic conventions and the ways in which students use the language of display. Although Rachel and Ana are also interested in students developing more precise and sophisticated language, they also value academic conversation as an opportunity for students to engage with content.

The ways in which participants view academic language prior to taking the course may be shaped by their prior training and school context. Research about PD in general suggests that course content should have coherence with teacher's prior ideas, but when considering PD for working with ELLs some teachers may have flawed, inaccurate, or potentially troubling notions that can limit their learning. Both Reeves (2006) and Karabenick and Noda (2004) report that teachers often held beliefs about language learning that were inconsistent with current research. In addition, Kibler and Roman's (2013) work with teachers in PD about the use of native language suggests that institutional support may shape teacher experiences and engagement with professional development for working with ELLs. Although their study looked at institutional practices related to native language use, the implications are useful for understanding how institutional practices in this study related to academic language may have shaped the ways in which participants approached the course content. Participants in this MOOC are clearly entering the course with a particular lens on academic language that is shaped by both personal and school prior experiences. In the next section, I present the ways in which participants report their use of academic conversation in the classroom and how it relates to the ways in which they have described academic conversation.

Finding Four

School context shapes user experience with the course which in turn shapes the way in which participants describe and approach the course content of academic conversations. Although it is useful to understand how participants describe academic conversations, ultimately, MOOC designers and school administrators supporting the MOOC are interested in how teachers are enacting course learning about academic

conversations in their practice. This section examines how participants' description of academic conversation is related to their use of academic conversations and the ways in which they apply learning in their setting. I analyzed course wide data (of 45 US educators who completed the first assignment) for trends and themes in application of course learning and then followed up with the six case study narratives that exemplified those trends in sample classrooms.

To first get a bird's eye view of how participants applied understanding of course content, I reviewed all 45 US K-12 educator responses to the question "In what ways have you already changed or do you intend to change your instructional practice with regard to the use of conversations to support language and content learning?" The most frequent responses to this question are listed by frequency codes in Table 12 below.

Table 12

Changes in Instructional Practice

Indicated change in practice	Frequency of mention
Time for conversation	18
Structures to support conversation	7
Rigor of conversation, thinking	3

Participants largely reported that they changed their practice by building time for conversation into their lessons as well as providing structures to support conversation.

I wanted to compare this initial finding with case study participant experiences, so I reviewed and coded the following data: pre-survey questions about motivation, motivation questions in interview one and two, and questions about course purpose in interview one and two. I specifically sought to capture how participants described academic conversations, how they used academic conversations, and if there was a relationship between the two. To capture the ways in which teachers described and used

academic conversations, I pulled any codes labeled conversation from interviews and assignments. I then coded each of these data sets using the following codes in Table 13. The codes are derived from the course description on the syllabus as stated below. The words in bold represent the course themes used for codes.

Course Description

This course is for teachers and others who work with English learners and other linguistically and culturally diverse students. The main focus of the course is helping teachers to use conversations to develop students' language, literacy, and thinking skills within content area classrooms. Conversations offer a host of academic, social, cognitive, and linguistic benefits, many of which you will see as you work with students and apply the ideas and reflections that emerge in the sessions.

The videos, readings, and assignments in this four-session course are meant to help you create a culture of conversation in your classroom, as well as explore how you can use conversations to teach the skills of interpretation, argumentation, and application—and the language used to enact these skills—across disciplines.

*assessment is not explicitly stated in the course description but because it is highlighted across the course, I decided to include it as one of the codes.

Table 13

Examples from Case Study Participant Data

	Example from participant data: description of academic conversation	Example from participant data: use of academic conversation
Conversation	To define what the specific conversation is and to learn how to use it in the classroom	Students worked on the "Talk and Turn Rules for Discussion" The rules are 1.

	as a tool	Make eye contact when talking or listening 2. Only one person talks at a time 3.Listen carefully 4. Switch role
Language	to help students develop a vocabulary that they need to develop if they want to go to college, academic vocabulary	In order to build up language, I think I could provide vocabulary, picture clues to help them use more academic talk.
Content	I guess to learn how to get them to talk in content areas	First we brainstormed a list of possible sports we could do at school. Then we broke up into 6 groups to research the benefits of the top 6
Culture of conversation	bring in those ELL students that they don't have the language structure. How we can bring them into the conversation as well, and so getting strategies and ideas for that.	need to continue having them share their warm ups with each other before we discuss them as a class.
Thinking	One of the goals was for them to speak more, and do more higher order thinking skills	they used evidence from the book, justified their reasoning, and were willing to listen to each other.
Assessment	conversation in a way that I can assess students	These short conversations allowed me to see their understanding of what a conversation is in their mind
Skills (argumentation, comprehension, application)	and to teach yeah how to have a conversation, yeah in the different areas, like this week is comprehension, and to use it in that content area	My students comprehension on academic conversation needs more structure and time
Literacy	the goal of it is to help us educators structure better and usage for comprehension	They need to focus on comprehension skills

The chart below displays the frequency of codes in interpretation (how participants described academic conversation in questions about course purpose and motivation) and in use of academic conversation (examples of use of conversation in assignments and interviews).

Figure 12. Code frequency by interpretation and use

The frequency of codes illustrates what participants emphasized when they talked about and used academic conversations. First, it is important to note the consistency in the ways participants describe and the ways that participants use academic conversations. Next, the code analysis shows where participants placed emphasis. Participants placed an overwhelming emphasis on the structure of conversations in both their descriptions and use. For example, when discussing motivation for the course, Veronica shared in interview one that she was interested in “To define what the specific conversation is and to learn how to use it in the classroom as a tool”. When considering how teachers used conversation structures in their practice, Brenda explained in course assignment three how she supported conversation structures and moves when stating that

We reviewed the ‘How we talk to our partners’ big chart. We also used the four L’s chart, look, lean in, lower your voice, and listen attentively as well as their paper charts that have stems for discussion.- elaborate and clarify, support, paraphrase and build on.

The next most prominent areas of emphasis were language and content. When considering that the course theme was the integration of language and content through academic conversations, this trend in participant descriptions and applications makes sense.

To support teacher reports about use of academic conversation, I analyzed course assignments to gain better understanding of their classroom practices and reflections about student academic conversations. Because assignments also asked for transcripts of student conversation, analysis of this artifact also gave small insights into student practices as well. I chose to look at assignment three because it occurred between interview one and interview two and therefore allows me to synthesize findings from all three pieces of data. Session three focused on the use of conversation to develop the skills of argumentation. The assignment for session three was described as,

The purpose of this assignment is to design a conversation task and prepare students to have effective conversations that emphasize and help them argue well and respectfully in a wide range of settings. Then gather a conversation sample and reflect on how well students used skills and language during the conversation.

The ways in which participants used conversation in their practice reflect the trend that occurs both course-wide and in the case study reports. Participants largely emphasize more time and structures to support conversation. Analysis of assignment three for two case study participants gives a closer look at the ways in which participants enact ideas about academic conversation in their classes. For this analysis, I chose to again focus on Julie and Ana as a way of continuing the narrative from finding two about the influences of school context on how participants engage with academic conversations. Working in

an environment that is not collaborative and not used to utilizing student conversations, Julie takes some initial but limited steps in incorporating conversation in her class. In contrast, Ana is working in a school that has supported academic conversation for several years and uses course learning to refine her practice.

Julie

As noted in finding two, Julie is working in a school that she describes as being not collaborative. In her own class, she also acknowledges that students are not used to having conversations beyond scripted language practice. Despite receiving financial support and live workshops to support her participation in the MOOC, the limitations of her context and prior experiences shapes the way she interprets academic conversation and uses it in her practice.

Julie applies some of her prior approaches about teaching ELLs, but begins to take steps in giving her students more opportunity to engage with language in authentic ways. At the onset of the course, Julie describes her existing approach to conversation as focused on practice of scripted language. In her pre-survey Julie shares the approaches that she uses to address ELL learning include “preview vocabulary, use hypothetical graphic organizers, sentence frames”. When speaking about her students language use in assignment one, she notes that

Most of the English language practice is scripted because my students are newcomers and don't have enough English skills to communicate. I would need to allow for more leeway in their conversations.

By interview one, however, Julie notes that this course has given her a new outlook on conversation when she shares that one takeaway from the course is the idea of “making it

more authentic for the kids” and “actually have a conversation instead of having a pre-scripted one and just practice reading it”. She compares this course with other PD that she had in the past that had the approach “Oh you should do partner A and partner B conversations but it’s all scripted, so they’re not thinking”.

In assignment three, seen in Appendix E, , Julie still uses some of her previous approaches, but shows evidence of beginning to try out what she learned from the course. She continues with her prior approach of providing the students with sentence frames and building background knowledge through reading and videos, but now gives students opportunity to use conversation beyond scripted practice. First of all, she uses the structure of an information gap in which she has students read different texts to establish a purpose for conversation. Although this structure is not explicitly addressed in this particular MOOC, it is a feature that was reinforced significantly in the MOOC the previous semester that Julie also participated in with the same instructor. In interview two, she describes her use of the information gap as a way to encourage purpose for conversation.

One of the things I liked was for them to not know everything. Having half the students read one book, and the other half reading the other book, and having the information gap where they actually have to share their knowledge. I think I will do that more, because before I would just have the whole class read the same thing, and we'd discuss. There is really not much to discuss when everyone knows everything.

To support students in developing an argument, she uses a balance scale for them to write their reasons and compare their importance. The balance scale that she describes is one

of the handouts that was described and posted in the course materials for session three.

The student conversation transcript below shows evidence of students creating their own responses and using language to share responses, although they do so in limited ways.

A: Paul Revere saved the people.

B: Phoebe saved George Washington.

A: Paul Revere saved weapons.

B: Phoebe stopped a spy.

A: Paul Revere told people the redcoats are coming.

In addition to trying out some of the ideas or concepts presented in the course, Julie's classroom assignment and reflections also display some evidence of changes in her approach while using course content. In interview one, she had reported that she gave her students sight word assessment and assigned them to texts based on their reading level. In lesson three, however, she contrasts that by noting that although students are reading at a third grade level, she gives them a fifth grade text (their appropriate grade level). In addition, in her second interview, she reflects that

I guess I learned they were able to compare and contrast other things. Normally we would just compare and contrast something that's easy, but I realized that they were able to talk about harder issues.

Data suggests that Julie applied course learning concretely through the use of course structures or materials (information gap structure and balance scale handout). Through these practices, she also gave students greater opportunity to use conversation as a tool for learning and provided them with more challenging texts and content. Although finding two presents the limitations of Julie's school context, she is able to individually take initial steps at changing her own practice by trying out course concepts. Her

students respond by using language to discuss content and moving beyond simple recitation of scripted language.

Ana

As discussed in finding two, Ana does not receive any explicit support from her district, but has been working with academic conversations for over two years through professional development at her school site. In her pre-survey response about how she addresses instruction for ELLs, she mentions “I use visuals and realia, also provide opportunities for my students to have a structured conversation, pair and share projects”. Ana enters the course with significant experience with academic conversations and comes from a collaborative school environment. In her assignment, she has several existing routines in place to support conversation. Her assignment posting can be seen in Appendix F.

Because Ana has already had prior experiences with academic conversations, the potential influence of course learning in her practice is not as marked as Julie. When describing the preparation for the lesson, she notes that she has already been addressing behaviors for discussion and that students are becoming aware of discussion behaviors. Although she is aware of conversation in lesson planning, she reports in interview two that the course supported her in her analysis of student language when saying “It showed us how to analyze a conversation. I think I got better at that, analyzing the language.” In her analysis of this lesson specifically, she notices “They were able to build on each other's previous words. E explained his supporting ideas and the reasons he had them. A also was able to state his ideas although his arguments were weaker.” While Ana comes to

the course already comfortable utilizing conversations in her practice, she expands her practice by now analyzing student language use with tools from the course.

Conversation as a Workshop, Workout, and Window

In session one, instructor Jeff Zwiers presents conversation as a workshop, workout and window. Conversations are a workshop when students use language to build up ideas into new products. Workout refers to using conversation to practice language, thinking, and content skills in a safe environment. Window refers to conversation as a tool by which teachers can view what students are thinking and learning.

Overall, teachers course wide report that they incorporate opportunities for conversation during instruction and are providing structures to support conversation practice. Using the analogy presented in the course, teachers are helping students use conversation to work out and practice language skills. Analysis of case study assignments, however, suggests that the extent to which teachers incorporate ideas from the course varies depending on their prior understanding and use of academic conversations. While Julie's mere incorporation of conversation activities is an important step for getting her students talking more than before, Ana was already including conversation opportunities but extends her work through analysis of student language during conversation.

There is less evidence, however, of participants supporting conversation as a workshop in which students build up new ideas or a window to understand student thinking. Participants overwhelmingly emphasize the structure or tools of conversation

as a way to practice language and conversation skills. For example, in assignment four Ana describes student language use by sharing that

The template they used allowed them to stay on task and use the language I expected to hear. This pair of students work well together. They are able to decide who and what each does to finish the task at hand.

In her instruction she provides a template to support turn taking and in her reflection she focuses on their use of turn taking. She emphasizes what they are doing with conversation, but does not address or reflect on the development of new ideas and thinking skills through the conversation. The work of Bunch (2014) related to language of ideas and language of display is useful to again analyze conversation. Although Ana is not concentrating on the language of display persay, she is emphasizing the structures used to support conversation rather than the ideas developed through conversation.

In searching for disconfirming evidence, I did note one example where a participant recognized the need for teachers to move beyond just getting students talking, but to also think about structures that will prompt meaningful conversations and development of ideas. When commenting on her work with a teacher that she is coaching, Rachel commented that

She noticed some very similar things, since beginning to have academic conversations in her classroom, her students are speaking a lot more. Now she is working on designing lessons that create the opportunity for those conversations. This means taking the time to think about the questions that will be posed to the students. The teachers meet as a grade level once a week and this is a perfect opportunity to plan certain lessons.

Rachel's observation suggests that while the mere act of getting students talking is a foundational step, careful preparation is needed to support students in using conversation to actually develop ideas. Although the teacher that she was working with was not currently doing this, she indicated that she was considering it for future planning. Finally, Rachel noted the importance for the teacher of having time with peer colleagues to develop question prompts and lessons to support meaningful conversations. This comment aligns with finding one which suggests that participants seek a community of learners to engage and develop their practice about academic conversations.

In addition, there is limited evidence of teachers using conversation as the course describes it as a "window into student language and content understanding". In the course assignments, participants are asked to record, transcribe, and reflect on student conversations about the session topic. Julie's reflection on student language in assignment three is

Students are able to come up with reasons is good. They have trouble articulating and expanding on ideas. I think the next step is to focus on one big idea and just build it up. It might be easier to focus on a topic that is easier or familiar to them, like should they be allowed to play video games at school.

In interview two, I asked Julie to share an example of the use of student conversation in her class and she described this same lesson. I prompted her to think about what she learned about students using the question "What did you learn about your students' either content understanding or their language development from the conversations that took place?" Julie's response in the interview presents a different reflection about student language than what she shared in the assignment.

I guess I learned they were able to compare and contrast other things. Normally we would just compare and contrast something that's easy, but I realized that they were able to talk about harder issues, but then I also scaffolded by, we watch videos about Paul Revere. I gave them other ways to learn the material besides reading the book, so I'm not sure how much of it was from the actual reading, but at least they were able to talk about it and come to some conclusions, and provide evidence of why.

Although in the assignment, Julie discusses making the content easier, when I prompt Julie to think about what she learned about student language and content understanding she realizes that they can in fact grapple with rigorous content using conversation as a tool. Although there is no evidence for why Julie changed her reflection, the wording of the question to probe about what she learned about student content understanding and language development did result in a more favorable view of student potential. Once again, an emphasis on students using language for developing ideas rather than just what they can produce could potentially be a useful frame for analysis of student language.

In searching for disconfirming evidence, however, I did find one participant who described the idea of language as a window. In interview one Veronica describes her takeaway from the course that

Yeah, those are just prioritizing, kind of evaluating the conversation and knowing how to evaluate it, too, that's another thing. I didn't know how to do that before. They have the right answer, okay, that's fine so they get it, they get the concept but that doesn't necessarily mean that they get it. I can see their process of thinking now, I have a better idea.

Veronica, however, only completed one assignment and did not finish the course so it is not clear whether she actually translated this idea into her practice. I did not find any substantial examples in case study participant interviews or assignments of the use of language as a way of assessing student language or content understanding. I also did not find evidence of teachers using assessment of student language to inform practice or share feedback with students.

Summary

Overall participants across the course are reporting greater use of time and supports for conversation in their classes. Although case study participants reporting of application of course learning vary depending on context and prior understandings about academic conversations, they also follow the trend of focusing on conversation as an opportunity to practice language. Previous research highlights the importance of oral language opportunities for ELLs (Genesee, Lindholm-Leary, Saunders & Christian, 2006) and that interaction with peers can support oral language proficiency (Farnsworth, 2012) and vocabulary development (Lesaux, Keiffer, Faller, & Kelly, 2010). Teachers' decision to dedicate time to encouraging student conversation is therefore an important step in supporting ELL language and literacy development. Case study participant reports suggest limited application of conversation as a workshop to build up ideas or a window to analyze student language development and content understanding.

Recommendations

Based on these findings, I suggest the following recommendations to further develop the use of MOOCs as a form of teacher PD. These recommendations span suggestions for both course designers as well as possible ideas for school level supports.

Table 14

Summary of Recommendations

Recommendations	
Recommendation 1	Develop school capacity to support participants by building a culture of collaboration and emphasizing academic conversations.
Recommendation 2	Explore further research about ways to promote a community of learners in and across digital learning spaces.
Recommendation 3	Incorporate course content that presents concepts of the language of display and language of ideas and encourages teachers to consider the appropriate role of each in academic conversations.

Recommendation One

In both finding one and finding two, participants express satisfaction with the flexibility and practical applications of the course, but also report that overall they lack a community of learners to support their experience in the course. When looking at case study examples, I found that explicit support of the MOOC did not necessarily contribute to participant's engagement and uptake of course learning, but that schools that focused on academic conversations and offered a collaborative environment for teacher learning provided the most supportive foundation for MOOC learning.

Based on these findings, I recommend that MOOC designers and schools both support development of these two principles in school sites. For school administrators, it may be helpful to offer incentives for taking the MOOC or time to complete the course work, but ultimately this support must be accompanied by practices that align with the content of the course. With regard to the school culture, we know that teacher learning is

most effective when there is collective participation (Wei, Darling-Hammond & Adamson, 2010), and schools can make efforts to provide a time and space for shared learning and place value on the act of learning together. In this study, Ana described her school's "visitas" or colleague walk throughs as a positive thing because teachers were learning from each other. In another example, Brenda described how her work as a coach who worked alongside a new teacher also taking the course resulted in dialog and application of academic conversations in lessons. The form of collaboration can vary, but ultimately teachers must believe that they are learning with colleagues rather than being evaluated by them and should have a space for dialog about new content and how to apply it in similar environments.

With regard to academic conversation, participants who had prior experiences with academic conversation shared a vision of conversation that was more aligned with the course objectives than participants who had other types of training or approaches to working with ELLs. From research, we know that coherence with prior ideas is a feature of effective PD for teachers (Garet, Porter, Desimone, Birman & Yoon, 2001) but that at times teachers may hold flawed ideas or misconceptions about working with ELLs. To complicate matters, the current research and discourse about working with ELLs is shifting from prior approaches which focused on simplifying texts and oral output ((Walqui & van Lier, 2010) to now emphasizing challenging texts and tasks (Wong-Fillmore, 2012) and gaining access to grade level content (Hakuta, Santos & Fang, 2013).

In order to most effectively apply course content in their practice, participant conceptualization of academic conversation should align with that which is presented in the course. Specifically, teachers should recognize the value of student's engaging in

meaningful tasks and using conversation to both practice language and build new ideas. In contexts where the school (either through teacher choice or administrator initiative) had chosen to focus on academic conversations, participants were willing to provide opportunity for student conversation on a regular basis and had routines in place to support such conversation. Administrators can support the course content by including academic conversation as part of PD or PLC content, including it in walk throughs or other observations, providing materials for teacher discussion or book clubs, or discussing it in staff meetings. Once again, the form of support is not necessarily important as long as the practices and discourse within the school reflect the vision of academic conversations as a “workshop, workout, and window” for language.

Recommendation Two

Finding one and two suggest that participants are seeking a community of learners to discuss and engage with the content of the MOOC. While school administrators can take steps to support a collaborative culture within their site, this solution may not be feasible or a reality of all sites. MOOCs, like other forms of digital learning, must also address this need for a community of learners. While by definition, cMOOCs focus on participants constructing knowledge, Milligan, Littlejohn, and Margaryan (2013) show that participants are still using peer discussion in limited ways to support learning in MOOCs. In this study, participants cited the peer evaluation process as the least effective feature of the course design. In future MOOC design and research, we must consider the question of how to promote shared learning and opportunities for collaboration in an online or hybrid space.

Since MOOCs are still relatively new and under-represented in research, this exploration could take the form of action research or self-study in which course designers try out new methods while simultaneously researching these aspects. In addition, MOOC research can benefit from research and findings in other digital spaces such as gaming communities and other online learning formats. While the findings may not necessarily be generalizable, new research could explore the potential of applying such findings within the MOOC realm.

There is a clear need for developing research and practices to support collaboration and a community of learners in online learning spaces such as MOOCs. While in-person support is also beneficial, research and development of practices to support shared learning experiences within MOOC course design are an important step in making MOOCs scalable across a large audience.

Recommendation Three

With regard to the content of the course, school administrators can help by emphasizing academic conversations in their institutional practices, but the MOOC itself can incorporate activities and content to support greater understanding about academic conversations. In this study, I framed participant understanding of student language in terms of language of display and language of ideas as presented by Bunch (2014). In this study, participants overall emphasized practice of language and conversation that focused on the forms and display of language and were limited in the extent to which they supported students using language to build up new ideas. Case study examples illuminated these findings with examples of teacher practices and reflections as well as student language samples.

While the course did present content about conversation as “workshops, workouts, and windows” in session one, this idea was not fully substantiated in the subsequent sessions or tools. Participants showed several examples of using conversation for students to work out or practice language, but shared few examples of using conversation to support students building up language and ideas or using conversation as a tool to assess and understand student language. One possible way to improve the understanding of academic conversation in the course is to include the article by Bunch (2014) as part of required reading and ask participants to reflect and respond to it on a discussion forum. In addition, the course can build upon the concept of conversation as “workshops, workouts, and windows” by incorporating this lens in all sessions through screencast presentations or example videos and analysis. The conversation analysis tool which is included in session two and session three does address student idea development, however, participants rarely mention the tool in their assignment reflection or interviews. Course assignments or peer activities could offer a way for participants to more fully utilize and practice this tool for analyzing student language and thinking about the development of ideas through conversation.

Limitations and Considerations

The implementation of these recommendations involves actions on the part of MOOC designers and researchers as well as school administrators or other MOOC consumers. While ideally all of these communities would be acting in unison and communicating regularly, this is not always the case. The suggestions assume cooperation and coherence among these various actors, but in reality additional steps may be necessary to forge relationships and joint efforts. UL has taken some initial steps to

begin the communication. In several districts, they have partnered with administrators to discuss and support teams of learners in the MOOC. During the summer of 2016, UL created and shared webinars for school sites including one about how to set up a hybrid MOOC and another that served as an introduction to fall MOOC course content. There is currently no feedback or research related to the use of these introduction webinars and the extent to which they support school site implementation of MOOCs, so analysis and evaluation of these and other measures to develop communication among MOOC designers and school sites will be useful.

Chapter Five

To: Understanding Language/SCALE
Stanford University
Stanford, California

From: Rebecca Bergey
Doctoral Candidate
University of Virginia
385 River Oaks Parkway, Apt 1075
San Jose, CA 95134

Dear Understanding Language Team,

I want to express my gratitude for giving me the opportunity to work with your organization over the last year and a half. This letter details findings and recommendations from a study of the MOOC titled “Integrating English Language Development and Content Area Learning: A Conversation Based-Approach”. The study included both quantitative and qualitative data analysis and sought to build upon initial findings conducted by your organization about MOOCs. I interviewed six case study participants and used their stories to support and explain trends in overall course participation. Although participants come to the course from all over the world, this study focused on the subset of participants who were K-12 educators in the United States.

Analysis of the data resulted in the following findings about the user experience in the course and participant interpretation and use of academic conversations.

1. Features of course design promoted opportunity for participant application of learning in practice, but did not adequately support development of a community of learners.
2. Although participants attributed the extent of their learning to individual effort, school context also played a large role. In particular, school practices that supported a culture of collaboration and emphasized academic language fostered meaningful course experiences.
3. Participant individual and school based experiences shape their interpretation of academic conversation and the extent to which they emphasize conversation as a tool to display language or to build up new ideas.
4. The way in which participants describe academic conversation is also related to the way in which they apply academic conversation in their practice. In reporting about classroom practice, participants overwhelmingly devote time and scaffolds to the development of student conversation, but vary in the degree to which they utilize conversations to support idea development and to assess student language.

Based on these findings, I propose the following recommendations which involve a joint effort between school district leaders and staff from Understanding Language.

Recommendation 1: Develop school capacity to support participants by building a culture of collaboration and emphasizing academic conversations.

Although previous MOOC research argues that participants in hybrid courses are more likely to complete MOOCs, I found that schools who offered time, meetings, or financial incentives for MOOC participation did not necessarily encourage a productive learning environment. Instead, schools that exhibited a collaborative working culture and that emphasized academic conversations throughout their site displayed promising practices for supporting teacher learning. Future efforts to support teacher learning in MOOCs should focus on these two areas. While schools may encourage collaboration in a variety of ways and formats, the end goal should be that teachers have an opportunity and support for discussing course content with colleagues who have similar interests and goals. The webinars about creating a hybrid MOOC that were developed and presented in the summer of 2016 are an important first step in supporting district level MOOC implementation, but should be expanded to include ideas about how to incorporate course content into collaborative learning experiences.

In addition, schools should find ways to incorporate course content into school practices. For example, in this course focused on academic conversations, administrators could offer PLC learning time to discuss the MOOC content and create and review lessons or student work about academic conversations. Follow-up could take the form of walk throughs, observations, or coaching to support reflection about the implementation of academic conversations.

Recommendation 2: Explore further research about ways to promote a community of learners in and across digital learning spaces.

Finding one and two suggest that the need for collective learning experiences which is a key element of in-person teacher PD also applies to PD that takes place in the digital realm. Although MOOCs are an attractive option for PD because of their potential to reach a large audience and flexibility to be used in a variety of settings, participants express a lack of community and opportunity for dialog as a challenge in their learning experience. While recommendation one focuses on school based measures to support a culture of collaboration, the MOOC itself can also improve and provide opportunities for collaboration among participants. The existing peer review process received low ratings from all participants and therefore should be reconsidered or revamped.

In addition, insights from research about other online training or learning communities should be explored and considered as possibility additions to course design. One possible community for exploring and developing these ideas with other organizations who face similar challenges is the Learning Forward Redesign PD Partnership <https://learningforward.org/learning-opportunities/redesign-pd>. Engaging with leaders in a variety of organizations on the forefront of digital learning will provide an opportunity to share and brainstorm ideas for shared challenges.

Recommendation 3: Incorporate course content that presents concepts of the language of display and language of ideas and encourages teachers to consider the position of each in academic conversations.

Teachers across the country enter the MOOC with varied prior experiences, learning, and beliefs about instructing ELLs. Many of them have been gone through university or district training using methods such as SIOP or sheltered instruction that emphasize simplifying language for ELLs or XXX which emphasizes isolated practice of language forms. As an organization, UL embodies the belief that language and content instruction are deeply intertwined and that ELL students should have access to rigorous content and language exposure. On the UL website, you state that “Moving forward, we aim to demonstrate ways in which students' English language proficiency and disciplinary knowledge can be developed simultaneously in the context of content instruction” (<http://ell.stanford.edu/about>).

In order to ensure that participants understand and incorporate this view of language learning, course content should provide more content and explicit statements regarding the integration of language and content. While participants overall are motivated to learn about language and content learning, analysis of case study assignments shows that participants are often focused primarily on language practice. Use of Bunch (2014) work about the language of ideas and language of display could be a useful frame for developing participant understanding. The existing Conversation Analysis Tool (CAT) provides helpful prompts about how students use language to build ideas and develop content understanding, but the case study participants did not frequently mention use of the tool in assignments or interviews. Once again, encouraging both in person site teams and online teams to work collaboratively using this tool could improve dialog and implementation of the tool as a way to reflect on student language use.

In summary, the MOOC in this study received praise from case study participants for the flexibility of the course and the quality of the content. As a form of PD, MOOCs offer a potential to address the need for preparing teachers to integrate language and content instruction. Some of these initial findings suggest that characteristics of effective in-person PD such as collective learning and coherence with participant's situation are also relevant for MOOCs, but that MOOCs have an added complexity in establishing a community of learners through the online setting. Levering your expertise in the integration of language and content instruction alongside district level support of collective learning environments can support the development of meaningful participant learning in MOOCs.

If you have any questions regarding these findings and recommendations, I am happy to discuss them through an in-person meeting.

Best regards,

Rebecca Bergey

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Appendix A: Pre-Survey and Assessment

Integrating English Language Development and Content Area Learning: A Conversation-Based Approach Pre-survey (Spring 2016)

Intro The main focus of the course to support language development and content area learning through classroom conversation. Together, we will explore how to support students in developing academic oral language and literacy. We want to start off with some questions to understand how you currently think about academic oral language and literacy.

Q1 How knowledgeable do you currently feel about supporting teachers/students in developing academic oral language and literacy?

- ☐ Not very knowledgeable (1)
- ☐ Somewhat knowledgeable (2)
- ☐ Knowledgeable (3)
- ☐ Very knowledgeable (4)
- ☐ Extremely knowledgeable (5)

Q2 How well prepared do you currently feel you are to support teachers/students to develop academic oral language and literacy in your/a real-life classroom?

- ☐ Not very well prepared (1)
- ☐ Somewhat well prepared (2)
- ☐ Well prepared (3)
- ☐ Very well prepared (4)
- ☐ Extremely well prepared (5)

Q3 To what extent do you modify instructional strategies to support language development?

- ☐ Not at all (1)
- ☐ A few modifications (2)
- ☐ Some modifications (3)
- ☐ Several modifications (4)
- ☐ Significant modifications (5)

Q4 How do you plan instruction to accommodate students who are English Language Learners? If you have specific strategies, describe 2-3 examples of those strategies that you currently use.

Q5 In one or two sentences, please describe why you are interested in this MOOC and your primary goals for the course. (For instance, what do you hope to learn from it? What is motivating you?)

Q6 Please indicate your main current job/position.

- ☐ Teacher (1)
- ☐ Teacher with leadership responsibility (department chair, coach, etc.) (2)
- ☐ Instructional coach (not teaching) (12)
- ☐ Counselor (13)
- ☐ School administrator (3)
- ☐ District administrator (4)
- ☐ Researcher (5)
- ☐ Professor (6)
- ☐ Other provider of adult education (7)
- ☐ Teacher in training / working on teaching degree or credential (8)
- ☐ Graduate student (not in teaching credential program) (9)
- ☐ Teacher aide (10)
- ☐ Other (11) _____

Q7 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 (1)
- ☐ Kindergarten (2)
- ☐ Grade 1 (3)
- ☐ Grade 2 (4)
- ☐ Grade 3 (5)
- ☐ Grade 4 (6)
- ☐ Grade 5 (7)
- ☐ Grade 6 (8)
- ☐ Grade 7 (9)
- ☐ Grade 8 (10)
- ☐ Grade 9 (11)
- ☐ Grade 10 (12)
- ☐ Grade 11 (13)
- ☐ Grade 12 (14)
- ☐ Undergraduate level (15)
- ☐ Graduate level (16)
- ☐ Other adult learners (17)
- ☐ N/A (18)

Q8 What is your subject or content area? Please check all that apply.

- ☐ Math (1)
- ☐ Science (2)
- ☐ Language Arts (3)
- ☐ Social Studies (including History, Psychology, Geography, Economics) (4)
- ☐ Self-contained (all subjects) (5)
- ☐ Bilingual education (e.g. Spanish-English, Mandarin-English) (6)
- ☐ English as a second language/ English language development (7)
- ☐ Foreign Language (8)
- ☐ Special education (9)
- ☐ Technology (10)
- ☐ Other (11) _____

Q9 What kind of school do you work with or in? Please check all that apply.

- ☐ Public (1)
- ☐ Private (2)
- ☐ Charter (3)
- ☐ Parochial (4)
- ☐ Magnet (5)
- ☐ International (6)
- ☐ Virtual or Online (7)
- ☐ Alternative or Continuation School (8)
- ☐ Community School (9)
- ☐ School through shelter, hospital, court, prison, etc. (10)
- ☐ Community College (or other Associate's degree or certificate granting college) (11)
- ☐ College (Bachelor's degree granting) or University (12)
- ☐ Adult Education/ vocational center (13)
- ☐ Language school (14)
- ☐ Local Education Authority, County/State/Regional/National office of education (15)
- ☐ Learning outside a school structure (e.g. home school, NGO/non-profit, tutoring) (16)
- ☐ Other (17) _____

Q10 Several school districts have partnered with us. 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 (1)
- ☐ New York City Public Schools (2)
- ☐ Los Angeles Unified School District (3)
- ☐ San Francisco Unified School District (4)
- ☐ Other school location (5) _____

Q11 How many years of experience do you have as an educator, directly working with students?

- ☐ 0 years (42)
- ☐ 1-5 years (1)
- ☐ 6-10 years (84)
- ☐ 11-15 years (85)
- ☐ 16-20 years (86)
- ☐ 21-25 years (87)
- ☐ 26-30 years (88)
- ☐ 30-35 years (89)
- ☐ 36-40 years (90)
- ☐ 41 years and more (91)
- ☐ N/A (92)

Q12 Do you currently work with English Language Learners (ELLs)?

- ☐ Yes (1)
- ☐ No (2)

If No Is Selected, Then Skip To Have you ever enrolled in an online c...

Q13 Please estimate what percentage (%) of your current students are ELLs? If not applicable, please select "N/A"

- ☐ 1-5% (1)
- ☐ 6-10% (e.g. 2 out of 20) (2)
- ☐ 11-25% (e.g. 3-5 out of 20) (3)
- ☐ 26-50% (e.g. 6-10 out of 20) (4)
- ☐ 51-75% (e.g. 11-15 out of 20) (5)
- ☐ 76-100% (e.g. 16-20 out of 20) (6)
- ☐ I don't know (7)
- ☐ N/A (8)

Q14 Please list the most common home language(s) for ELLs with which you are currently working. If not applicable, please select/type "N/A".

- ☐ Spanish (2)
- ☐ English (if not a home or primary language) (3)
- ☐ Arabic (4)
- ☐ Mandarin (Chinese) (5)
- ☐ Cantonese (Chinese) (6)
- ☐ Other Chinese languages (33)
- ☐ Korean (7)
- ☐ French (8)
- ☐ German (9)
- ☐ Russian (10)
- ☐ Vietnamese (11)
- ☐ Italian (12)
- ☐ American Sign Language (13)
- ☐ Native American languages (specify in Other) (32)
- ☐ Hindi (14)
- ☐ Thai (15)
- ☐ Hebrew (16)
- ☐ Japanese (17)
- ☐ Somali (18)
- ☐ Urdu (19)
- ☐ Portuguese (20)
- ☐ Malay (21)
- ☐ Tagalog (22)
- ☐ Punjabi / Panjabi (23)
- ☐ Greek (24)
- ☐ Hmong (25)
- ☐ Marathi (26)
- ☐ Norwegian (27)
- ☐ Dutch (28)
- ☐ Polish (29)
- ☐ N/A (31)
- ☐ Other (30) _____

Q15 How would you categorize the English language proficiency of your ELLs? (You may choose more than one)

- ☐ Beginner (1)
- ☐ Intermediate (medium proficiency) (2)
- ☐ Advanced (high proficiency) (3)

Q16 How many years of experience have you had working with ELLs in total?

- ☐ 1-5 years (2)
- ☐ 6-10 years (3)
- ☐ 11-15 years (4)
- ☐ 16-20 years (5)
- ☐ 21-25 years (6)
- ☐ 26-30 years (7)
- ☐ 31-35 years (9)
- ☐ 36-40 years (10)
- ☐ 41 years and more (8)
- ☐ N/A (11)

Q17 Have you ever enrolled in an online class before?

- ☐ Yes (1)
- ☐ No (2)

Q18 If you have enrolled in an online class before, please mark below the features of the online class that were present Please check all that apply.

- ☐ Assignments with classroom applications
- ☐ Learning teams
- ☐ Discussion forums
- ☐ Peer feedback
- ☐ Other _____

Q19 Have you ever taken any courses (either in-person or online) that addressed integration of language and content, conversation, or the needs of second language learners?

- ☐ Yes (1)
- ☐ No (2)

Q20 Which of the following courses have you taken before? Please check all that apply.

- ☐ Constructive Classroom Conversations: Mastering Language for College and Career Readiness (1)
- ☐ Learning from Your Students: A Lab Course in Formative Assessment Practice in the Era of the Common Core State Standards (2)
- ☐ Mastering Language for the Common Core State Standards: Focus on Mathematics in Elementary Grades (3)
- ☐ Supporting English Language Learners under New Standards (4)
- ☐ Using Complex Texts to Develop Language
- ☐ Learning as Evidence: Improving ELLs' Argumentation Skills through Formative Assessment Practices
- ☐ Using Communication-Focused Activities in Designated English Language Development Lessons
- ☐ N/A (5)

Q21 How did you hear about this course? Please select the main factor(s) which brought you here.

- ☐ Mentioned by a colleague or friend (1)
- ☐ In a newsletter or blog for educators (2)
- ☐ Through Understanding Language website (3)
- ☐ Through NovoEd platform (4)
- ☐ Through Stanford Online (5)
- ☐ Other (6) _____

Q22 About how many of your colleagues at your school are taking this course? If you have no colleagues, please answer "N/A".

- ☐ I am the only one (6)
- ☐ Fewer than 5 (1)
- ☐ Between 6 and 10 (2)
- ☐ More than 11 (3)
- ☐ Do not know (4)
- ☐ N/A (5)

Q23 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.

Q24 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.

Q25 Is there anything else you would like us to know about you?

Assessment:

Question 1:

This is an excerpt from a third grade class science class in which students were working on using agree and disagree statements in conversation. The teacher modeled the sentence prompts “I agree because” and “I disagree because” prior to giving the conversation prompt to partners to discuss. The conversation prompt was “Describe the sun’s change of position in the sky during one day”.

Student A: Um; I think it's like maybe where the Earth is maybe a little getting out of track maybe or the sun's changing a different kind of way.

Student B: Yeah; uh; the Earth is like moving

Student A: Yea

Student B: So it looks like the sun is changing

Student A: Yea; it looks like the sun is changing um but the Earth is actually moving. It is spinning around to make the um; so the sun is just staying still there but the earth is actually moving that makes it like the sun is actually changing its position.

Student B: I agree with that because the sun doesn't really move because like the earth moves because the sun doesn't move. Because if the Earth didn't move

Student A: We would be...

Student B Yea; it would be day here and night there forever

To what extent does this conversation demonstrate student use of conversation to develop an opinion and support it with evidence?

- ☐ Not effective (1)
- ☐ Somewhat effective (2)
- ☐ Very effective (3)

Extremely effective (4)

Please explain your reasons for your rating of degree of effectiveness above.

How would you modify instruction either prior to or after this lesson to support student use of conversation in order to develop an opinion and support it with evidence?

Q2. Analysis of classroom conversation

In the following conversation, the teacher is focusing on developing the conversation skill of clarifying so that students will work collaboratively on

strategies to solve a math problem. The conversation takes place between a pair of 3rd grade math students who are asked to discuss a strategy for solving a multi-step math problem. The teacher modeled the process that she expected students to follow which included: suggest a strategy, clarify the strategy, and then solve the problem. Please read and evaluate the following conversation.

Student A: Let's do number 2.

Student B: Let me read it while you erase it. So; write a multiplication number sentence for the array that you drew. OK; so; maybe we can do not just muffins; but we can do a different kind of food.

Student A: No; you're getting confused. It says for the array that you drew.

Student B: Oh; that we drew?

Student A: So 4 times 5

Student B: Maybe we can do like more what we did? Like we did .. we did? we had?

Student A: 20 blueberry muffins

Student B: 20 blueberry muffins; and

Student A: 4 trays

Student B: so now we can multiply it

Student A: now we can multiply 4 times 5 equals 10 because

Student B: Wait wait wait ..we had 20 blueberry muffins and 4 trays. We can . . . we didn't say anything about the number 5.

Student A: Yeah; so that's another good solution.

To what extent does this conversation demonstrate student use of conversation to interpret a math problem?

Not effective (1)

Somewhat effective (2)

Very effective (3)

Extremely effective (4)

Please explain your reasons for your rating of degree of effectiveness above.

How would you modify instruction either prior to or after this lesson to support student use of conversation in order to develop an opinion and support it with evidence?

Question 3:

This is an excerpt from a 6th grade English Language Arts Class with 2 beginner level English language learners. The teacher has presented three predetermined signal words (first, next, then) and given students picture prompts. Students are assigned to partners and asked to describe the picture prompts using the three signal words.

Student A: You start the story.

Student B: Look at girl in pink room; first.
 Student A: First the girl sleep.
 Student B: You mean the girl is sleeping.
 Student A: Yes; first the girl is sleeping in his bed.
 Student B: What next.
 Student B: Next; the girl come awake from sleep.
 Student A: Next; the girl let's call her Maria; wake up at seven.
 Student B: How do you know her modder says it is seven.
 Student A: The clock on the wall says seven.
 Student B: Do you think her modder yell to her at seven every day?
 Student A: I don't know; does your mother call you get up at seven?
 Student B: Yes; everyday call me awake early maybe seven maybe five; it is dark; even Sunday.
 Student A: I can sleep a long time on Saturday and Sunday
 Student B: You lucky.
 Student A: My sister always makes me food when I get up.
 Student B: What do she cook?

To what extent does this conversation demonstrate student use of conversation to apply learning?

- Not effective (1)
- Somewhat effective (2)
- Very effective (3)
- Extremely effective (4)

Please explain your reasons for your rating of degree of effectiveness above.

How would you modify instruction either prior to or after this lesson to support student use of conversation in order to develop an opinion and support it with evidence?

Question 4:

This is an excerpt from an 8th grade English Language Arts Class unit on media and representation and a conversation between an ELL and a native English speaker. The task is a think-pair-share based on the prompt: Why does representation in media matter (so what)?

Student A: The media makes people think of themselves as their appearances; and the same ideas get repeated.

Student B: For example on this show this character I think she was the boss and she was a woman; so she had to work extra hard she was a representative and tried to make everybody happy but then someone said I don't want to work for her; shes a woman and he went to go work for a man; so she was the one left

alone trying to figure out how to get the budget right they were just stereotyping her as not a leader.

Student A: That's on a lot of tv and in movies; if they are the boss they are mostly men. There are like three to five men for every woman. And if mostly writers and directors are men they will make shows for people like themselves; and they leave out the ladies.

Student B: Didn't history teach us that we could do anything? We got Harriet Tubman and Sojourner Truth!

Student A: I know; I was thinking; why is it still like this?

Student B: We should make a company that has women that write movies and we can show that ours are just as good. We just need money.

Student A: A lot of money.

To what extent does this conversation demonstrate student use of conversation to make a claim and support it with reasoning and evidence?

Not effective (1)

Somewhat effective (2)

Very effective (3)

Extremely effective (4)

Please explain your reasons for your rating of degree of effectiveness above.

How would you modify instruction either prior to or after this lesson to support student use of conversation in order to develop an opinion and support it with evidence?