CASE STUDIES OF DUAL LANGUAGE TEACHERS: CONCEPTUALIZATIONS ON THE COMPLEXITIES OF BILITERACY FOR TEACHER PREPARATION

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In support of growing numbers of dual language programs nationwide, dual language teachers must be prepared to work with dual language learners in achieving additive biliteracy. In this paper, the author/researcher utilized a multiple-case study design to explore six practicing dual language teachers' conceptualizations of biliteracy development with dual language learners. The study participants, from North Carolina and New Mexico, expressed essential considerations regarding linguistic complexities of additive biliteracy and academic language development in both Spanish and English; study results also include enlightening details regarding the participants' own linguistic and metalinguistic self-development processes related to biliteracy. In addition, the study's findings and discussions provide detailed recommendations for new ways to consider preparing dual language teachers for the specialized pedagogies necessary to support dual language learners' biliteracy and academic language development.

Keywords: academic language, biliteracy, dual language, English learners

Current and historical research confirms numerous linguistic, sociocultural, and academic benefits of dual language learning in K–12 classrooms, especially with language minority students (August, Spencer, Fenner, & Kozik, 2012; Collier, 1992). Theory related to dual language learners' increased metacognition in the context of 21st-century learning continues to confirm the importance of dual language schools (Barac, Bialystok, Castro, & Sanchez, 2014; Thomas & Collier, 2012). Given that U.S. communities and K–12 schools nationwide reflect increasing levels of linguistic and cultural diversity, the notion that biliterate students outperform their monolingual peers is significant for consideration within education reform (Cloud, Genesee, & Hamayan, 2000; Cummins, 1981; Escamilla et al., 2013; Howard, Sugarman, Christian, Lindholm-Leary, & Rogers, 2007; The George Washington University Center for Equity and Excellence in Education, 2010; Thomas & Collier, 2012). Scholarly discourse also reveals the importance of academic language and multilingual literacies development while simultaneously examining the implications for teaching and learning in today's schools (Molle, Sato, Boals, & Hedgspeth, 2015). In response to new understandings regarding the benefits of being biliterate, many school districts include dual language programs to support students' acquisition of two languages in an academic context, increasing the numbers of such programs nationwide (Center for Applied Linguistics, 2012; McKay, 2011).

Educators working in various roles with bilingual students share a strong consensus that dual language education is the most effective program structure for academic achievement (García, 2009; Grosjean, 2010; Thomas & Collier, 2012, 2014). Evidence-based findings along with field-based professionals' informal classroom observations support long-term analysis of student outcomes (Collier & Thomas, 2009; Thomas & Collier, 2012). Dual language educators are afforded repeated incidents of proof regarding language learning and metacognitive thinking skills that dual language students demonstrate

on a daily basis in their classrooms and in the communities they serve (Grojean & Li, 2013; Lachance, 2015). Therefore, as expected, current and ongoing research continues to solidify the principle that biliterate students have significantly increased academic achievement in K–12 schools nationwide (Escamilla et al., 2013; Thomas & Collier, 2012).

With the benefits of dual language in mind, it is also crucial to convey the limitless prospects for linguistic and sociocultural complexities associated with biliteracy development in the classroom (Beeman & Urow, 2013). Teaching and learning processes related to academic language development in one language are highly complex, so they can only multiply in dual language (Calderón, Slavin, & Sánchez, 2011). Thus, dual language teachers are positioned with needing multifaceted pedagogical skills to facilitate students' comprehension and application of two languages in the classroom context to support developing academic language proficiency in both (Collier, 1995a; DeFour, 2012; Freeman, Freeman, & Mercuri, 2005). Dual language teachers must develop and demonstrate a wide repertoire of scaffolding techniques and lesson approaches related to academic language development (ALD) and sociocultural communicative language used in day-to-day circumstances, including the context of school (Echevarria, Vogt, & Short, 2016; Zwiers & Crawford, 2011). Rendering an already formidable instructional task even more complex, many emergent bilingual students have vast ranges of rich and valuable home languages that, when appropriately considered in second language learning, serve as valuable resources for dual language classrooms. Consequently, it is essential that dual language teachers understand second language acquisition and biliteracy in deeper ways than do teachers instructing only in English (Guerrero, 1997; Reyes & Kleyn, 2010).

While the numbers of emergent bilingual students continue to grow, most teacher preparation programs have shown an emphasis on working with English learners. In her Foreword to Reyes & Kleyn (2010), Ofelia García expressed the importance of supporting students' biliteracy development in specialized and expanded ways, and targeted teacher preparation programs to take note:

> Many institutions of higher education have developed new teacher education programs in an effort to meet the mounted needs of this emergent bilingual school population. With a narrow focus on the teaching of English to ELLs and LEPs, many institutions have opted for Teaching English to Speakers of Other Languages (TESOL) programs that have shed all associations with bilingualism. (García, in Reyes & Kleyn, 2010, p. vii)

In tandem, there remains the concern about the availability of qualified teachers who are prepared for the unique requirements of dual language teaching (Freeman et al., 2005). Many states attempt to expand dual language programs and cannot find teachers from within the United States, impeding and even forbidding expansion efforts. States are continuously forced to turn to other countries to compensate for the shortage of qualified teachers (Associated Press, 2008; DeFour, 2012; Hutchison, 2005; Modern Language Association of America, 2007; Rhodes & Pufahl, 2009). While there are cultural and linguistic benefits to having native-speaking teachers, there also are challenges associated with this dependence on international faculty (Hutchison, 2005; Kissau, Yon, & Algozzine, 2011). Many are unprepared for the logistics of U.S. schooling. Some struggle with implementing authentic student-centered pedagogy and often stagnate with limited demonstrated understandings of their role in motivating students in the learning process (Haley & Ferro, 2011). School administrators nationwide continue to reach with desperation to find sufficient numbers of qualified dual language teachers who can deliver content standards while simultaneously addressing language development, in two languages, with dual language learners (García, 2009; Reyes & Kleyn, 2010; Thomas & Collier, 2014). Research suggests that dual language education is beneficial for all learners, especially language minority students. Relevant literature, however, also specifies numerous linguistic and sociocultural complexities associated with successful dual

language teaching and learning. As a result, there are irrefutable indications that dual language teachers need specific teacher preparation to address dual language learners' needs to develop language and content concepts and learning strategies in two languages.

Based on the work of Yin (2014), the purpose of this qualitative case study was twofold. First, it sought to closely examine a focus group of practicing dual language teachers' perceptions and conceptualizations regarding the linguistic complexities of biliteracy and academic language development from their classroom experiences. Second, it hoped to discover how these teachers' assertions may serve to shape preservice teacher education programs. More specifically, the study aimed to offer ways for teachers and teacher preparation programs to further understand and untangle the linguistic complexities of biliteracy at a more granular level within dual language education.

Additive Biliteracy

This study's construct was framed for biliteracy development with dual language learners to operationalize additive bilingual education paradigms that would guide academic language development in two languages (Collier, 1992; García, 2009; Guerrero, 1997; Wong-Fillmore, 2014). Cummins (1991) posited that when language learners are adding another language within their learning experiences, it is vital to avoid deactivating the learners' primary languages. Historically, patterns for many bilingual education programs in the United States were transitional, bending to the point of misguiding to oblige students' development of knowledge and language according to monolingual dominant-language norms (August & Hakuta, 1997; Ovando & Collier, 1998; Wong-Fillmore, 2014). Expanding the notion of additive biliteracy, two intersected concepts within the framework supporting the investigation of dual language teachers' conceptualizations of biliteracy were: (a) complex linguistic constructs in two languages with dual language learners, and (b) the density of academic language in two languages.

The study was framed to reflect recent scholarship supporting dual language learners' participation in value-added programs that result in enriching benefits for language-minority students (Escamilla et al., 2014). Acquisition, preservation, and development of students' bilingualism and biliteracy in both majority and minority languages promote equity within diglossic bilingual education, removing hierarchies between the two (see Figure 1). Thus, this study examined the linguistic complexities of biliteracy to guide the understanding that partner languages are honored, respectfully addressed, and authentically connected to teachers' and students' classroom experiences (García, 2009).

Figure 1. Additive Bilingual Education Framework (adapted from García [2009])
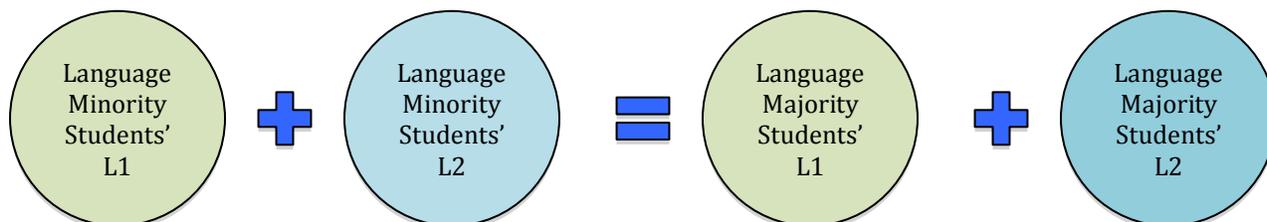
Guerrero's (1997) historical research on the importance of contextualized, cognitively demanding learning experiences for Spanish academic language proficiency solidified this study's construct. His work made a reasonable case that additive biliteracy in the context of dual language schooling requires teachers to understand subject matter while simultaneously attending to the significance of linguistic complexities. An important point Guerrero advances is that "Academic language proficiency is more than mere lexical representations associated with different aspects of the curriculum. It is an internalization and automatization of dealing with cognitively complex language at the level of discourse" (p. 68). Ultimately, his work indicates that dual language teachers must demonstrate knowledge and pedagogical skills to

untangle language functions, pragmatic conventions, and sociocultural aspects of pragmatic and academic discourse development in both languages.

Parallel to García's and Guerrero's research, Collier and Thomas's Prism Model for Bilingual Learners (2007) also supports the notion of additive biliteracy with dual language learners. The Prism Model's four components of sociocultural, linguistic, academic, and cognitive processes indicate that sustained responsiveness in these developmental areas is necessary for all learners to be successful. Furthermore, in dual language education, all aspects of the prism are addressed in both languages, doubling the model's components from four to eight (Collier & Thomas, 2007; Thomas & Collier, 2012). The Prism Model's linguistic tenet suggests that both language-minority and language-majority students dual language learners need specialized attention to comprehend linguistic constructs in both languages for biliteracy development. This would confirm that two-way dual language programs substantially increase *all* students' linguistic constructs for academic language development in both languages (Calderón, 2007; Calderón et al., 2011; Thomas & Collier, 2012).

Finally, this study's additive biliteracy framework included conceptual connections to the complexities of academic language. Theories from the World-Class Instructional Design and Assessment (WIDA) framework for language development (WIDA, 2007, 2012) were utilized to give structural emphasis to biliteracy development. Two significant elements within the WIDA framework for language development are Academic Language and Key Uses Can Do descriptors (WIDA, 2007, 2012). Connections within this study's framework targeted the relationships between vocabulary, sentence structure, and discourse patterns in the context of the content information in which they are learned and used in two languages (Gottleib & Ernst-Slavit, 2014; WIDA, 2007, 2012). Dual language teachers and dual language learners must demonstrate content-specific linguistic and cognitive competencies for vocabulary and discourse development, genre, and alignment in both languages. Therefore, teachers must understand the relationships of these elements in both languages in order to successfully scaffold them into teaching and learning with dual language learners.

Research Methods

To gain clarity from participants' perspectives, the study was focused on both the distinct linguistic complexities of biliteracy and academic language development (ALD) and teacher preparation programs for dual language teachers. The author/researcher conducted a qualitative, interpretive case study with a focus group comprising six dual language teachers (Erickson, 1986; Yin, 2014). Incorporating structural tenets from the Center for Applied Linguistics Guiding Principles for Dual Language Education research (Howard et al., 2007) the study's purpose was two dimensional—biliteracy and ALD—leading to the following research questions to guide the investigation:

1. What are the necessary considerations for dual language learners to develop biliteracy and ALD in both languages?
2. What recommendations can be made to teacher preparation programs to address the explicit and exceptional needs of teaching dual language learners?

Context

This study was situated in North Carolina, where dual language programs are expanding (The State Board of Education, North Carolina, 2013) and in New Mexico, where dual language programs have been in place for decades. Both states also have some form of bilingual endorsement for high school graduates (New Mexico Public Education Department, 2016a, 2016b; Public Schools of North Carolina, 2015a; 2015b; U.S. Department of Education Office of English Language Acquisition, 2015). The six focus group teacher participants (Yin, 2014) from both states taught in dual language programs with English- and Spanish-

speaking students. While other target languages were available in both states' dual language programs, this study focused on language-minority students and language-majority students in Spanish/English classroom settings. More specifically, both states had program models that supported varying structures for time percentages in target languages (i.e., 90/10, 80/20, 70/30, and 50/50).

Participants

Purposeful sampling (Merriam, 1997) resulted in a participant group consisting of six dual language teacher participants (see Table 1). Via personal recruitment, the author/researcher was able to include three participant teachers from North Carolina and three from New Mexico. Participants were selected based on how their program sites represented dual language models with language-minority and language-majority students using Spanish and English as the languages of instruction. The teachers' classrooms also represented a mixture of times spent in English and Spanish within their program models. The sampling targeted participants to represent a combination of native speakers of English and native speakers of Spanish, all with teacher licensure to teach in dual language classrooms as required by the states where they worked. More specifically, the study participants all taught in elementary dual language programs. The focus on elementary-level programs allowed for specific nuances to emerge relating to early developmental emergence of biliteracy and academic language in content-based instruction. The participating teachers were all biliterate and had a minimum of five years' experience in dual language classrooms. In addition, all six participants were female. Some participants within the focus group self-identified as Caucasian and some as Hispanic or Latina. In three cases, in which the participants' first language was English, details were revealed in the demographic portion of the data set (Seidman, 2013) to indicate they had studied abroad in Spanish-speaking countries either during or after their teacher preparation programs. Parallel to this, one participant, a native speaker of Spanish, also self-identified as having attended a bilingual school in her home country for her elementary and secondary education experiences. These nuances are so noted on Table 1.

Table 1 Teacher Participants

Study Name*	Teaching in	Native Language	DL Program Time Structure
Emily	North Carolina	English	90/10
Patricia	North Carolina	Spanish	90/10
Caroline	North Carolina	Spanish	70/30
Samantha	New Mexico	English	70/30
Rebecca	New Mexico	English	50/50
Cristina	New Mexico	Spanish	90/10

*All participant names used in this study are pseudonyms. Emily, Caroline, and Samantha participated in extensive language training in some form of study-abroad programs. Cristina attended a bilingual school for her K–12 education outside the United States.

Data Sources

With purposeful sampling (Merriam, 1997), the study's approach allowed for the exploration of the research questions in various dual language classroom settings, reflecting the communities where the school research sites were situated. The participants represented a deliberate sample to focus on practicing dual language teachers as a result of the author/researcher's fostered relationships with dual language educators in both states (Stringer, 2014). For case study data triangulation (Corbin & Strauss, 2008), multiple sources of onsite evidence were examined in the context where the data had been collected over a 12-month period. The data sources from each of the six participants were face-to-face interviews, artifacts and documents analysis, and participant observations in their classrooms.

Interviews. Focus group semi-structured, audio-recorded interviews were conducted onsite in all six teachers' classrooms. Each onsite interview ranged from 60 to 90 minutes. Interview recordings for each participant were transcribed, resulting in data transcriptions of 13–24 pages per participant. Utilizing Seidman's (2013) semi-structured interview protocol (see Appendix), the interview questions were based on the tenets of the Center for Applied Linguistics Guiding Principles for Dual Language Education (Howard et al., 2007) for exploring current dual language teachers' conceptualizations on biliteracy, academic language development, and teacher preparation. The interviews were conducted in the participants' language of choice and transcribed in both languages, as the author/researcher is fully biliterate in English and Spanish.

Artifacts and documentations. As part of the data triangulation, 375 photographs of artifacts and documentations regarding classroom-seating configurations with dual language learners, curricular materials, and classroom language supports were examined, coded, and analyzed. The artifacts and documentations were in both program languages of English and Spanish, and encompassed varying content-area subjects that included language arts, math, and science. Some artifacts were teacher-generated while others were supporting documents from site-based textbook adoptions. Artifacts and documentations also included text examples, classroom rubrics, and language supports across the content areas in both languages.

Participant observations. Data sources also included 60- to 90-minute participant observations in all six participants' schools in both North Carolina and New Mexico. The purpose of the face-to-face observations was to view the teachers in the context of their own environment and to capture deeper understandings of the participants as they functioned in the community and schools where they taught. The observations took place either while students were present or during the participants' planning period. Each of the six participants self-selected the time of the observations based on their individual schedules and time constraints. In accord with the purpose of this study, which was to focus on teachers' conceptualizations, the author/researcher did not interact with the students. Anecdotal records from the teachers' classrooms, including photographs without students, were kept to capture myriad details regarding classroom configurations, ancillary language supports, and other visible resources for literacy in both languages. The onsite observations provided a familiar environment for the participants, allowing for research observations while the participants accessed their own lexical schema based on where they teach and the dual language students with whom they work. This in turn added depth while examining the relationship between languages with dual language teachers as, from a research perspective, these teachers were considered linguistically sophisticated professionals (Merriam, 1997).

Data Analysis

In the interpretive case study (Merriam, 1997; Yin, 2014), the data were analyzed for case descriptions to gain clarity and construct explanations (Denzin & Lincoln, 2008; Yin, 2014). With multiple, contextualized, and triangulated data sources representing Spanish and English, numerous details for in-depth descriptions emerged for interpretation (Corbin & Strauss, 2008). Data analysis via the researcher's open-ended coding (Saldaña, 2016) resulted in preliminary data categories. Continued data analysis for refinement employed categorical culling, grouping, and re-coding processes, all leading to more precise emergent data patterns with distinct code markers. The integration of thematic and categorical structures from coding each participant's data led to data categories and subcategories within the holistic data set that allowed a response to the research questions (Corbin & Strauss, 2008). The results included details and participants' conceptualizations associated with biliteracy and academic language development in dual language classrooms.

Findings and Discussion

The study's findings as they relate to the research questions resulted in the formation of two data categories as connectors to a predominant thematic axis of preparing teachers for dual language classrooms (Corbin & Strauss, 2008; Saldaña, 2016). The data categories were: (a) students' biliteracy and ALD, and (b) teachers' self-development of biliteracy and ALD. Both categories had corresponding code markers from the data sources, supporting the streamlining of codes-to-assertions in the data set (Densin & Lincoln, 2008; Saldaña, 2016). Given the nature of the data categories, the emergent code markers from triangulated data sources were predominantly connected to students' biliteracy and ALD, whereas the interviews were the principal data source for the code markers from the second emergent data category, teachers' self-development of biliteracy and ALD (see Figures 2 and 3). The participants described the considerations necessary to conceptualize the complexities of biliteracy and ALD to include:
(a) grammatical competencies in both Spanish and English, (b) the relationship between the languages and the content areas, (c) the importance of exposure to rigorous academic language, (d) sociocultural markers within communication, and (e) the importance of considering discourse and writing patterns. From these five factors, the Grammatical Competency code marker in the first data category had a slightly increased frequency given the emphasis on grammatical concepts coded within the artifacts and documentations data. A noteworthy point with the categories and their code markers was the markers' frequencies within the data sources. While there was some noticed variation, the frequencies were mostly even in their distribution. This would serve to reveal the construct that the participants found each of the marked codes as important (see Figures 2 and 3).

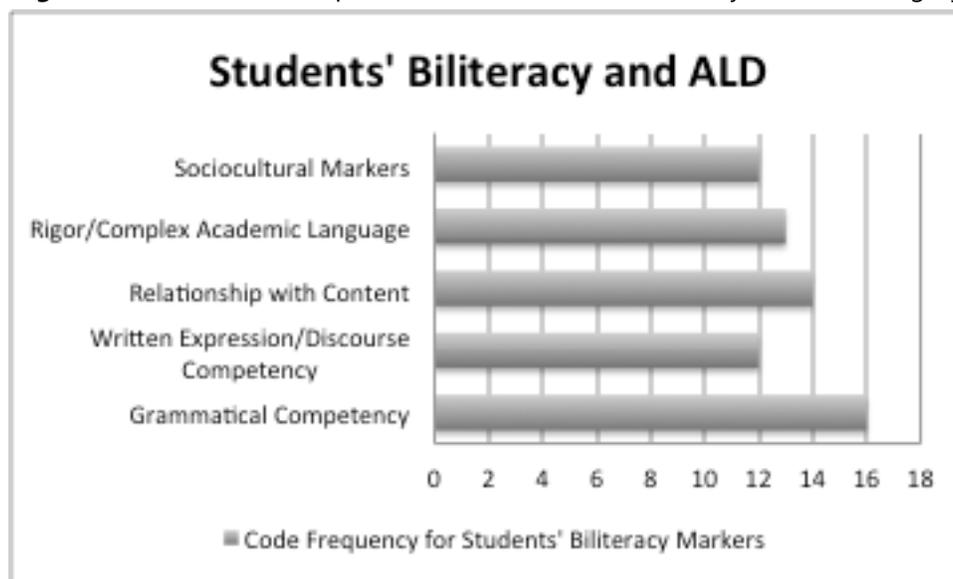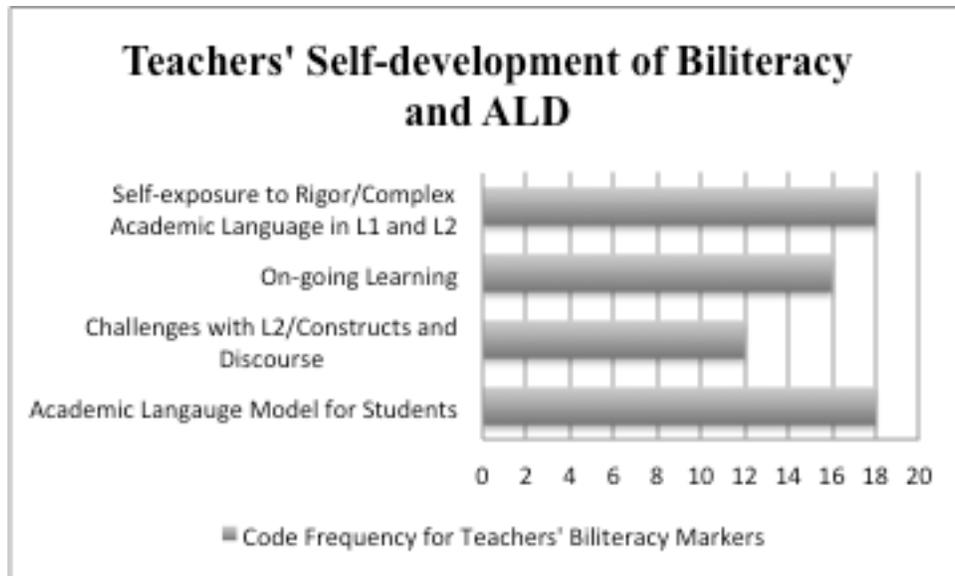**Figure 2.** Code Marker Frequencies for the Students' Biliteracy and ALD Category

Figure 3. Code Marker Frequencies for the Teachers' Self-Development
of Biliteracy and ALD Category

Teachers' Self-development of Biliteracy and ALD

In addition, the two data categories resulted in conceptual connections between dual language teachers' expressions regarding students' biliteracy and academic language development and their own self-development. Categorical overlapping codes occurred with the code markers of Grammatical Competency and Challenges with L2 Constructs and Discourse; recurrence also appeared with the code markers related to rigor and the complexities of academic language in both languages. Therefore, it would be reasonable to conclude from the conceptual connections within the dual language teachers' conceptualizations that the details associated with the code markers are noteworthy for teacher preparation.

The findings, with numerous details for in-depth descriptions, also demonstrated the complexities and nuances teachers expressed regarding pedagogical practices to clearly address the processes their students face while developing and expanding literacy skills in two languages. The participants' interviews and other classroom data captured some conceptualizations of what they saw as necessary considerations for dual language learners to develop academic language and biliteracy. In close relation to this, participant teachers conveyed their needs regarding self-development and ongoing language learning. Suggestions regarding teacher preparation also emerged from the interview data, joining the primary axial theme. The following sections, containing excerpts from the coded interview transcripts, demonstrate ideas expressed and the connections to the study's corresponding categories.

Students' Biliteracy and Academic Language Development

The process of learning academic language in two languages is highly complex and significant (Calderón et al., 2011; Guerrero, 1997; WIDA, 2012); based on the linguistic tenet from the Prism Model (Collier & Thomas, 2007), it is a fundamental process for second language acquisition in school, with additional nuances in dual language education. Particulars regarding explicit instruction for academic instruction have historically provided the details related to grammar, semantics, communicative language forms, and the role of translation in the process (Calderón, 2007; Krashen, 1985; Reyes & Kleyn, 2010; WIDA, 2012). There are, however, still some missing pieces to the dual language biliteracy puzzle. Directly related to this, Patricia, a native Spanish speaker, expressed her ideas regarding academic language and biliteracy in the context of a math lesson delivered in Spanish. She articulated the level of linguistic complexity required for consideration to accompany academic language development:

So, when students are reading a word problem the students have to face that the grammar is different. Maybe this is the way to express yourself when you write a word problem, so I have to take good care of this as well as just the math information. I may have to include some English words to solve the problems in Spanish. They would say it [the problem and the solution] in Spanish to understand different approaches. We try to construct it [the problem] together to get a universal language, a common understanding of math and Spanish.

Caroline, also a native Spanish speaker, expressed similar ideas regarding her considerations about the complexities of academic language and biliteracy in the context of her primarily Spanish-speaking classroom when she is delivering content-area concepts in Spanish. As she indicated:

When it comes to academic language and rigor, I can work with rigorous things in Spanish. I am Latina and [the students] know I understand Spanish very well. But, when I have to do science or social studies with them in English, there comes the struggle. I'm not a native English speaker so we all have to try hard in English. In my guided reading groups when we work on fluency and comprehension, that's another thing that is very hard for us. There are details with pronunciation and plurals, and verbs. These things matter for academic language.

Cristina, a native Spanish speaker, concurred, expressing her considerations regarding the complexities of biliteracy and language within her classroom as she refers to the math lessons she delivers in Spanish. She affirmed:

Academic language is challenging. If you know that a math concept is challenging because it has new vocabulary, and the concept itself is abstract, this is difficult for students to grasp. So, in terms of Spanish and English, I'm thinking when this [Spanish-speaking] child learns more English, he'll already know some concepts. He can use the English vocabulary to explain that concept or to work with another concept. Math has [a] rigorous vocabulary. There are words that the kids do not use as regular language.

With these examples and complexities in mind, the participants also expressed the importance of considering their own language development as a necessary and ongoing process.

Biliteracy and Teachers' Self-Development

When it comes to designing and delivering content-based lessons in either English or Spanish, the partner languages in this study, participants expressed clear ideas about the importance of self-development with regard to both languages. The following are some examples from the coded interview transcripts indicating this importance from the teachers' perspectives. Samantha, as a native English speaker, stated:

Teachers [in dual language] need to be highly literate in both languages. I've seen this time and time again where you teach Spanish [instruction] just because you're a Spanish speaker. This does not mean you are biliterate. You can also get the opposite in English, or you get a teacher who can't spell well [in both languages]. It's bilingual. This is important. You're a model in every area for these students. You have to be able to read, write, and speak both languages very well at a high level. I went to Nicaragua a few years ago to study. It's ongoing. Just because you speak Spanish or English doesn't mean you're at the necessary level in literacy in both languages. This is key.

In a similar connection, Rebecca, who is also a native speaker of English, indicated that:

I am always working on content in the target [partner] language. This is so important for anyone who is teaching in any language, to always be learning, maybe even with college coursework, so that they are always growing. Academic language is very different from social language. I have been teaching for almost 20 years and I'm not a native [Spanish] speaker. I don't pretend to be. So, I learn every day. And, when I'm teaching fifth-grade Spanish, I know this will be very challenging for me academically, intellectually. So, I travel in the summer. I need to be exposed [to Spanish] so that I understand literature or whatever there might be for me to teach in Spanish.

Emily, as a native English speaker thinking about the necessary considerations for her instruction with dual language and Spanish, expressed these thoughts:

I have to work really hard on my grammar! When I started to need to write in Spanish I had to really pay attention to my verb endings because when you're just conversing in Spanish and my grammar is broken, I'm very forgiven. People can understand what I'm saying anyway. It doesn't impede communication. But, when you are teaching in a dual language classroom, it [the Spanish grammar] has to be correct at all times. So, you have to get your "por" and "para" and your "es" and "está" and all those things correct. You don't get a pass anymore. After 10 years of teaching, I still have to learn.

Preparing Teachers for Dual Language Classrooms

The study's findings included details regarding the implementation of dual language classroom strategies, framed by additive biliteracy and attending to the complex linguistic constructs of Spanish and English (Calderón et al., 2011; Collier, 1995b; Escamilla et al., 2013; García, 2009; Guerrero, 1997). Participants described necessary considerations and made recommendations about teaching content-area concepts in two languages (Reyes & Kleyn, 2010). Likewise, there continued to be mention of the need to prepare dual language teachers before they enter the dual language teaching profession (García, 2009; Morales & Aldana, 2010). Current dual language teachers continued to express the need to have specialized teacher training in preservice programs. This is not to say that support for current teachers via professional development should be eliminated. Participants from both states who attended various teacher education programs throughout the United States still saw the need to solidify teacher preparation with professional development programs for polishing and deepening dual language teaching skills. Here are some participants' views on necessary considerations for teacher preparation.
Cristina expressed these thoughts on her training:

You know, I have this degree in bilingual education. Yet, I feel like I knew nothing about the real classroom when I graduated. I have learned through doing. I was unprepared, very unprepared. I even practiced at a bilingual school [while studying], but it was only a semester. I learned but it wasn't enough. It was mind-boggling. We learned things but not in detail. Some of the things we learned didn't really apply. You know, like a big emphasis on phonics and sounds but they are specific to only one particular language. We needed more.

Caroline added her views on the need for specialized dual language teacher preparation:

Teachers need to come into dual language already trained. It's not the same to just be fluent in Spanish or English or both. I say this because of my own experience. I'm fluent in both, and took linguistics and grammar in both languages and it still took me almost a whole year to figure out dual language. It's so much more. I needed to know more about biliteracy. I needed to know more about socio-cultural details [in dual language]. So I did struggle. Teachers need to know what happens in a [dual language] math class and so on. It was frustrating.

Emily expressed her ideas on teacher preparation this way:

I had been given a huge emphasis on ESL and had been teaching it for over 10 years. But dual language is simply, well, different. I needed to know more about the program structure [in a 90/10 setting] and how that changed my teaching. I also needed to know about co-teaching [in a 50/50 setting]. I wish somebody in my undergraduate program [names a school of education], which is supposed to be premier in the nation, would have mentioned that I could work with second language learners, and would do so. I wish I had a course, with a real syllabus, that was about students learning to read in chunks. I wished we talked about how writers in Latin America write and don't write linearly, like when we do a story and the opening sentence has three details and the closing sentence makes more circular discourse, because this is unfamiliar to native English speaking kids. Yet, they need to follow this kind of discourse pattern. I wish I had learned that before.

Cristina, Caroline, and Emily were in agreement that they required additional, specialized preparation as preservice teachers prior to working in dual language programs. The three expressed similar pedagogical aspects from their real-world dual language teaching they wished had been targeted in their education studies. While they approved of many portions of their courses, they also agreed that teacher preparation topics were too general, missing the overall mark for the actual tasks at hand. All three articulated a sense of being overwhelmingly behind on crucial knowledge and skills related to dual language pedagogies from the onset of their teaching experiences. They agreed that, with reshaped teacher preparation, these issues might have been avoided.

All study participants affirmed the need for additional clinical fieldwork with practicing dual language teachers, congruent with the concept of mentoring for strengthened teacher preparation (Darling-Hammond, 2012). Similarly, all six participants took the stance that they needed a broadened, more intensive focus on language acquisition with two languages and linguistic variations in languages' literacy patterns. Expanded aspects from the participants' standpoints specified the need for institutions of higher education to make adjustments to dual language teacher preparation as rapidly as possible, given that many school districts and states are looking to expand dual language schools (Center for Applied Linguistics, 2012). Participants also recognized challenges associated with processes for modifying coursework and program requirements. Examples included accreditation parameters, numerous university departments differing from one institution to another, leadership variation, and internal university councils that may be involved in shaping teacher preparation.

To sum up, each of the dual language teacher participants expressed ideas and thoughts that supported the need to address dual language via additive biliteracy in the context of both classroom teaching and teacher preparation. The participants' descriptions are poignant as they conveyed conceptualizations connected to the framing additive bilingual research as well as the concepts of linguistic constructs and complex ALD. Their responses are especially relevant in dual language to shift paradigms away from emergent bilinguals who are expected to function solely in monolingual mode (García, 2009; Grosjean, 2010; Guerrero, 1997). In response to the research questions, the study described practicing teachers' conceptualizations regarding additive biliteracy and ALD, giving importance to both languages for determining dual language lesson design and delivery. The participants' essential considerations and recommendations made conclusive assertions about how to shape teacher preparation in dual language education.

As teacher preparation programs continue to further develop ways to directly address dual language teachers' needs, the evidence gained from this study was meaningful. The findings revealed ways for reconsidered, balanced approaches for teachers working with English learners as well as with dual language learners. The participants presented detailed ideas and explanations of what they viewed as

necessary considerations with dual language learners' biliteracy and ALD through the practitioner lens of perspective (Collier & Thomas, 2009; Hamayan, Genesee, & Cloud, 2013; Molle et al., 2015; Thomas & Coller, 2012. In addition, the findings included teachers' considerations and reflections related to their own linguistic self-development and its impact on teaching and learning processes in dual language practices.

As theory suggests, the study supports the notion that ALD is a multifaceted process that is in fact doubled when language and academic development occurs in two languages (Collier & Thomas, 2007; WIDA, 2012). Connecting back to the study's research questions, the participants' points regarding the complexities and importance of biliteracy and ALD demonstrated their essential considerations in shaping their dual language pedagogies. What makes these findings unique was how the participants conceptualized the complexities of biliteracy and ALD in their own words based on the application of theoretical understandings in their classrooms (Lindholm-Leary, 2001; Morales & Aldana, 2010). Furthermore, the participants indicated that their pedagogies must include teachers' and students' sustained metalinguistics, with a focus on the relationships between the two languages and the content concepts. Thus, in addition to learning grammatical rules and isolated vocabulary, teachers and students need to take an active role in the ongoing thinking process that accompanies biliteracy and ADL in both languages (Zadina, 2014).

Another noteworthy distinction from the study's results is that both the North Carolina and the New Mexico teachers gave equal emphasis to conceptualizations on the complexity of students' biliteracy and ADL as well as teachers' self-development. Though participants represented a wide geographical span and distinct historical connections to dual language education, the teachers of both states concentrated equally on deep understandings of the various aspects of English and Spanish language structures, functions, and utilizations in the context of schooling. Furthermore, the participants work independently from one another, teaching in different schools and communities within both states, all expressing parallel and necessary considerations for dual language learners to develop academic language and biliteracy. The participants also described similar ideas about teacher preparation and the specifics on biliteracy, ADL, and other patterns of dual language pedagogy. The final, and significant, point concerns the complexities associated with biliteracy and dual language pedagogies, transitioning to the potential challenges associated with the recommendations for teacher preparation programs.

Conclusion and Recommendations

The study suggests that practicing dual language teachers recognize and affirm linguistic complexities of biliteracy and academic language development as essential considerations for their pedagogical practices. More specifically, the participants described four necessary considerations to conceptualize said complexities to include grammatical competencies in both Spanish and English: (a) familiarity with the relationship between the languages and the content areas, (b) recognition of the importance of exposure to rigorous academic language, (c) respect for sociocultural markers within communication, and (d) insistence on the importance of considering discourse and writing patterns. These granular-level considerations were what the participants expressed as the essential concepts that shaped short- and long-term goals within their dual language classrooms. In the same way, they authenticated the conceptualization that they are ongoing learners themselves with regard to language development. From here, the study results moved to make solid recommendations for teacher preparation programs, creating the axial theme of preparing teachers for dual language classrooms.

Based on the qualitative data collection and analysis, the study revealed the continued need for specialized preparation with dual language teachers. The resulting implications for practice include considerations for concrete solutions within teacher preparation. More specifically, teacher preparation for

dual language should encompass coursework on second language acquisition (SLA) and biliteracy with language-minority and language-majority students. The course contents would further examine SLA theory and principles through the lens of additive biliteracy and linguistic constructs with both languages, as opposed to viewing SLA from only the English learner perspective. Candidates would explore how two partner languages interact with one another in distinct ways with regard to discourse patterns, writing structures, and metalinguistic and sociocultural patterns with bilingual students (Bialystok, 2004).

Similarly, another practical solution for specialized coursework should include dual language teaching methods, emphasizing the importance of authentic materials as well as scaffolded instruction in two languages with changed language supports based on when students were L1 or L2 learners (Gibbons, 2015). A course on authentic assessment with dual language learners may also be necessary for changed teacher preparation, giving emphasis to the need to measure language progression in both partner languages. Aspects of student-centered measures for long-term assessment of language progression in two languages may serve as beneficial, supporting changed methodologies. In addition, the probable need exists for increased clinical fieldwork and internships in well-established dual language classrooms. Revised coursework might include substantially deepened dual language teacher mentor relationships in K–12 settings (Flores, Sheets, & Clark, 2011). This all-inclusive thinking suggests a practiced constancy to include theory and application of standards-based dual language principles (Howard et al., 2007). Even with concrete and specific recommendations, it should also be recognized that implementing such changes to teacher preparation may be substantially challenging for institutions of higher education. Faculty support to teach new courses along with larger scope alignment to programmatic accreditation are two examples of many such issues for further consideration.

Inservice dual language teachers may also need ways to maintain and even increase their own levels of academic language and biliteracy. They may benefit, for example, from summer study-abroad experiences with elements of pedagogical and academic language development as well as sociocultural communications development. Some international organizations and/or local community resources may offer teacher stipends to fund such professional development experiences. Teacher preparation programs should consider creative ways to look for grant funding specifically for such purposes. From a state education agency perspective, increased partnerships with teacher preparation programs could offer creative professional development options; for example, some newly created preservice course contents may be converted into brief learning modules for inservice teachers that could be delivered either virtually or in face-to-face settings. Such options of chunking time-consuming learning experiences may make them more manageable for teachers who are already faced with extreme time constraints. This type of learning may also facilitate a more palatable, small-steps approach to learning concepts that can then be directly applied with dual language learners.

The study outcomes, combined with prior research on the significance of dual language education and the national shortage of well-prepared dual language teachers, justify the next steps in transforming teacher education programs. The implications from this study are twofold. First, from the current dual language classroom perspective, the concepts and associated nuances within additive biliteracy and academic language development remain crucial points of pedagogical consideration. Teaching and learning in two languages with both language-minority and language-majority students requires unique approaches. Second, in order for dual language students to access curricular and linguistic concepts, dual language teachers must continue to place emphasis on the advancement of their own linguistic skills, both in English and the partner language. Ultimately, it is increasingly vital to address the specific nuances of dual language teaching and learning (Darling-Hammond, 2012; Herrera, Cabral, & Murry, 2013; Knight et al., 2014). In doing so, the numbers of prepared dual language teachers may increase, affording the expansion of more dual language programs nationwide. Then, by having more dual language programs at a national level, more students would have access to this highly effective educational configuration, broadening students' gains for academic and community success.

References

Associated Press (2008, September 13). States hire foreign teachers to ease shortages. *MSNBC News.* Retrieved from http://www.msnbc.msn.com/id/26691720/

August, D., & Hakuta, K. (Eds.). (1997). *Improving schooling for language-minority children A research agenda.* Washington, DC. National Academy Press.

August, D., Spencer, S., Fenner, D. S., & Kozik, P. (2012). *The evaluation of educators in effective schools and classrooms for all learners.* Washington, DC: American Federation of Teachers.

Barac, R., Bialystok, E., Castro, D.C., & Sanchez, M. (2014). The cognitive development of young dual language learners: A critical review. *Early Childhood Research Quarterly, 29*(4), 699–714.

Beeman, K., & Urow, C. (2013). *Teaching for biliteracy: Strengthening bridges between languages.* Philadelphia, PA: Caslon, Inc.

Bialystok, E. (2004). One mind, two languages: Bilingual language processing. *Language in Society, 33*(1), 124–127.

Calderón, M. E. (2007). *Teaching reading to English language learners, Grades 6–12: A framework for improving achievement in the content areas.* Thousand Oaks, CA: Corwin Press.

Calderón, M., Slavin, R., & Sánchez, M. (2011). Effective instruction for English learners. *Future of Children, 21*(1), 103–127.

Center for Applied Linguistics. (2102). *Directory of two-way bilingual immerson programs in the US.* Retrieved from http://www.cal.org/twi/directory

Cloud, N., Genesee, F., & Hamayan, E. (2000). *Dual language instruction: A handbook for enriched education.* Boston, MA: Heinle.

Collier, V.P. (1992). A synthesis of stuides examining long-term language minority student data on academic achievement. *Bilingual Research Journal, 16*(1–2), 187–212.

Collier, V. P. (1995a). *Acquiring a second language for school.* Washington, DC: National Clearinghouse for English Language Acquisition.

Collier, V. P. (1995b). *Promoting academic success for ESL students: Understanding second language acquistion for school.* Elizabeth, NJ: New Jersey Teachers of English to Speakers of Other Languages—Bilingual Educators.

Collier, V. P., & Thomas, W. P. (2007). Predicting second language academic success in English using the Prism Model. In J. Cummins & C. Davison (Eds.), *International handbook of English language teaching, Part 1* (pp.333–348). New York: Springer.

Collier, V. P., & Thomas, W. P. (2009). *Educating English learners for a transformed world.* Albuquerque, NM: Dual Language Education of New Mexico—Fuente Press.

Corbin, J., & Strauss, A. (2008). *Basics of qualitiatve research* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3–50). Los Angeles, CA: California State University; Evaluation, Dissemination, and Assessment Center.

Cummins, J. (1991). Interdependence of first- and second-laguage proficiency in blingual children. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 70–89). Cambridge, UK: Cambridge University Press.

Darling-Hammond, L. (2012). The right start: Creating a strong foundation for the teaching career. *Phi Delta Kappan, 94*, 8–13.

DeFour, M. (2012, September 23). Madison schools reaching overseas for bilingual teachers. *Wisconson State Journal*. Retrieved from http://host.madison.com/news/local/education/local_schools/madison-schools-reaching-overseas-for-bilingual-teachers/article_39b8cae2-0586-11e2-b68b-0019bb2963f4.html

Denzin, N., & Lincoln, Y. (Eds.). (2008). *Collecting and interpreting qualitative materials* (4th ed.). Thousand Oaks, CA: Sage Publications.

Echevarria, J., Vogt, M. E., & Short, D. L. (2016). *Making content comprehensible for English learners: The SIOP model* (5th ed.). Boston, MA: Allyn & Bacon.

Erickson, F. (1986). Qualitative methods in research on teaching. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.), (pp. 119–161). New York, NY: Macmillan.

Escamilla, K., Hopewell, S., Butvilofsky, S., Sparrow, W., Soltero-Gonzalez, L., Ruiz-Figueroa, O., & Escamilla, M. (2013). *Biliteracy from the start.* Philadelphia, PA: Caslon.

Flores, B. B., Sheets, R. H., & Clark, E. R. (Eds.). (2011). *Teacher preparation for bilingual student populations: Educar para transformar*. New York, NY: Routledge.

Freeman, Y. S., Freeman, D. E., & Mercuri, S. P. (2005). *Dual language essentials: For teachers and administrators.* Portsmouth, NH. Heinemann.

García, O. (2009). *Bilingual education in the 21st century: A global perspective.* West Sussex, UK: Wiley-Blackwell.

Gibbons, P. (2015). *Scaffolding language scaffolding learning: Teaching second language learners in the mainstream classroom* (2nd ed.). Portsmouth, NH: Heinemann.

Gottleib, M., & Ernst-Slavit, G. (2014). *Academic language in diverse classrooms: Definitions and contexts.* Thousand Oaks, CA: Corwin Press.

Grosjean, F. (2010). *Bilingual: Life and reality.* Cambridge, MA: Harvard University Press.

Grosjean, F., & Li, P. (2013). *The psycholinguistics of bilingualism.* Oxford, UK: Wiley-Blackwell.

Guerrero, M. (1997). Spanish academic language proficiency: The case of bilingual education teachers in the US. *Bilingual Research Journal, 21*(1), 25–43.

Haley, M., & Ferro, M. (2011). Understanding the perceptions of Arabic and Chinese teachers toward transitioning into U.S. schools. *Foreign Language Annals, 44*, 289–307.

Hamayan, E., Genesee, F., & Cloud, N. (2013). *Dual language instruction from A–Z: Practical guidance for teachers and administrators.* Portsmouth, NH: Heinemann.

Herrera, S. G., Cabral, R. M., & Murry, K. G. (2103). *Assessment accommodations for classroom teachers of culturally and linguistically diverse students* (2nd ed.). Boston, MA: Pearson.

Howard, E. R., Sugarman, J., Christian, D., Lindholm-Leary, K. J., & Rogers, D. (2007). *Guiding principles for dual language education* (2nd ed.). Washington, DC: Center for Applied Linguistics.

Hutchison, C. (2005). *Teaching in America: A cross-cultural guide for international teachers and their employers*. Dordrecht, The Netherlands: Springer.

Kissau, S., Yon, M., & Algozzine, B. (2011). The beliefs and behaviors of international and domestic foreign language teachers. *Journal of the National Council of Less Commonly Taught Languages, 10,* 21–56.

Knight, S. L., Lloyd, G. M., Arbaugh, F., Gamson, D., McDonald, S. P., Nolan Jr., J., & Whitney, A. E. (2014). Performance assessment of teaching: Implications for teacher education. *Journal of Teacher Education, 65*, 372–374.

Krashen, S. (1985). *The input hypothesis.* Harlow, UK: Longman.

Lachance, J. (2015, November). *North Carolina teacher preparation: Transformations for dual language learning.* Paper presented at La Cosecha Conference, Albuquerque, NM.

Lindholm-Leary, K. J. (2001). *Dual language education.* Clevedon, UK: Multilingual Matters.

McKay, D. W. (2011). Dual language programs on the rise. *Harvard Education Letter, 27*(2). Retrieved from http://hepg.org/hel-home/issues/27_2/helarticle/dual-language-programs-on-the-rise

Merriam, S. (1997). *Qualitative research and case study applications in education.* San Francisco, CA: Jossey-Bass.

Modern Language Association of America (2007). Foreign languages and higher education: New structures for a changed world. *Profession,* 234–245.

Molle, D., Sato, E., Boals, T., & Hedgspeth, C. A. (2015). *Multilingual learners and academic literacies: Sociocultural contexts of literacy development in adolescents.* New York, NY: Routledge.

Morales, P. Z., & Aldana, U. (2010). Learning in two languages: Programs with political promise. In P. Gándara & M. Hopkins (Eds.), *Forbidden language: English learners and restrictive language policies* (pp. 1591–74). New York, NY: Teachers College Press.

New Mexico Public Education Department. (2016a). *Districts and charter schools with state bilingual multicultural education programs.* Retrieved from http:// http://www.ped.state.nm.us/ BilingualMulticultural/dl10/Bilingual%20Directory%2010-11.pdf

New Mexico Public Education Department. (2016b). *House Bill 543.* Retrieved from http://ped.state.nm.us/ped/DDashDocs/BillAnalysis/HB0543.pdf

Ovando, C., & Collier, V. (1998). *Bilingual and ESL classrooms: Teaching in multicultural contexts.* Boston, MA: McGraw Hill.

Public Schools of North Carolina. (2015a). Dual language and immersion programs. Retrieved from http://wlnces.ncdpi.wikispaces.net/Dual+Language+%26+Immersion+Program

Public Schools of North Carolina. (2015b). Guidance for language instruction educational program (LIEP) services. Retrieved from http://eldnces.ncdpi.wikispaces.net/LEP+Coordinators

Rhodes, N., & Pufahl, I. (2009). Foreign language teaching in U.S. schools: Results of a national survey. Retrieved from http://www.cal.org/projects/Exec%20SumRosanna_111009.pdf

Reyes, S. A., & Kleyn, T. (2010). *Teaching in 2 languages: A guide for K–12 bilingual educators.* Thousand Oaks, CA: Corwin.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Seidman, I. (2013). *A guide for researchers in education and the social sciences* (4th ed.). New York, NY: Teachers College Press.

Stringer, E. T. (2014). *Action research* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.

The George Washington University Center for Equity and Excellence in Education (GWUCEE). (2010). *A review of the literature on academic English: Implications for K–12 language learners.* Retrieved from http://www.ceee.gwu.edu

The State Board of Education, North Carolina.(2013). *Preparing students for the world: Final report of the State Board of Education's task force on global education*. Retrieved from http://www.ncpublicschools .org/curriculum/globaled/

Thomas, W. P., & Collier, V.P. (2012). *Dual language education for a transformed world.* Albuquerque, NM: Fuente Press.

Thomas, W. P., & Collier, V. P. (2014). *Creating dual language schools for a transformed world: Administrators speak.* Albuquerque, NM: Fuente Press.

U.S. Department of Education Office of English Language Acquisition. (2015). *English learner tool kit*. Retrieved from https://www2.ed.gov/about/offices/list/oela/english-learner-toolkit/index.html

WIDA (World-Class Instructional Design and Assessment). (2007). *English language proficiency standards and resource guide, prekindergarten through Grade 12.* Madison, WI: Board of Regents of the University of Wisconsin on behalf of the WIDA Consortium.

WIDA (World-Class Instructional Design and Assessment). (2012). *The 2012 amplification of the English language development standards, kindergarten to Grade 12.* Madison, WI: Board of Regents of the University of Wisconsin on behalf of the WIDA Consortium.

Wolcott, H. F. (2001). *Writing up qualitative research* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Wong-Fillmore, L. (2014). English language learners at the crossroads of education reform. *TESOL Quarterly, 48*(3), 624–632.

Yin, R. (2014). *Case study research: Design and methods* (5th ed.). Los Angeles: Sage Publications, Inc.

Zadina, J. N. (2014). *Multiple pathways to the student brain.* San Francisco, CA: Jossey-Bass.

Zweirs, J., & Crawford, M. (2011). *Academic conversations: Classroom talk that fosters critical thinking and content understandings.* Portland, ME: Stenhouse Publishers.

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Appendix A—Focus Group Interview Protocol[1]

Interview Portion One: Life History

Interview questions:

1. Tell me a little bit about your background. Where are you from originally?
2. Tell me about your life before you became an educator.
3. Describe your experiences with language learning and any languages you speak.
4. Describe to me what you remember about your own experience learning another language (the settings).
5. Tell me how learning to read and write in another language was different from learning to speak.
6. How long have you been an educator?
7. When did you decide to become an educator?
8. How did you decide to become an educator with dual language?
9. Which levels of dual language have been included in your experiences?
10. Which target languages have been included in your experiences?
11. Which dual language program structures have been included in your experiences?

Interview Portion Two: Experiences and Considerations Connected to the Shapes of Biliteracy and Accessible Academic Language Development

Research question: What are the necessary considerations for dual language learners to develop academic language and biliteracy in both languages?
Interview questions:

1. How would you currently describe a typical day in the dual language classroom/office?
2. What are the top five things you feel you spend the *most* time doing at work?
3. Tell me some things about the student population with whom you work in dual language.
4. What kinds of differences do you see in the classroom from English learners versus native speakers of English?
5. How would you describe students' "academic language and rigor" both in English and the target language in your classroom?
6. How would you describe teachers' "academic language and rigor" both in English and the target language in your classroom (or program)?
7. Describe some of the easier aspects of the process of making academic language accessible to the students in your classroom (or program).
8. How would you describe some of the challenging aspects of this process?

Interview Portion Three: Reflections and Meaning

Research question: What recommendations can be made to teacher preparation programs to address the explicit and exceptional needs of teaching dual language learners?
Interview questions:

1. Looking back, in what ways do you feel your education program prepared you for working with dual language students?
2. In what ways do you wish your education program would have been different?
3. What would you change about the courses you took during your education program?
4. In what ways are your current practices (i.e., pedagogically, linguistically, administratively) different from when you first became an educator?
5. In describing being a dual language educator, what would you say is unique about it?
6. What do you believe to be the most important knowledge and skills related to being a dual language educator?
7. What would you tell future dual language teachers/administrators about the profession?
8. What would you tell teacher preparation program developers about the needs of teacher preparation for dual language education?

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[1]Adapted from Seidman, 2013.