Chapter Fifteen
Transforming Secondary Dual Language Teacher Preparation

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Introduction by Collier and Thomas: *Our next steps in expanding dual language programs at secondary level must be closely coordinated with the universities that serve the surrounding communities of each school district. Dual language teachers and administrators are in great demand. In this chapter, Dr. Joan Lachance challenges the field to expand secondary teacher preparation with specialized coursework that prepares dual language teachers to teach effectively and serve students with many diverse needs. Dual language pedagogy must include biliteracy development, rigorous multilingual/multicultural coursework, use of meaningful dual language materials across the subject areas, and authentic assessment.*

The National Dual Language Teacher Shortage

While research confirms that dual language programs strongly support academic growth for all students, the U.S. faces a national dilemma regarding the availability of qualified teachers who are prepared for the unique requirements of dual language teaching (Center for Applied Linguistics, 2012, 2017; Lachance, 2017a; Thomas & Collier, 2012). Numerous states across the U.S., including North Carolina, aim to expand dual language (DL) programs and simply cannot find enough DL teachers from their local areas, regions, or nationwide (U.S. Department of Education, 2015). DL teacher shortages often result in states continually being forced to use alternative licensure options (Center for Applied Linguistics, 2017). Therefore, state education agencies look to other countries to fill DL teacher vacancies as best they can (Associated Press, 2008; DeFour, 2012; Modern Language Association of America, 2007; Rhodes & Pufahl, 2009; Wilson, 2011). While there are cultural and linguistic benefits to having native-speaking teachers in U.S. DL classrooms, there are also noted challenges associated with this dependence on temporary international faculty (Hutchison, 2005; Kissau, Yon, & Algozzine, 2011).

In some cases, international teachers do not adapt to their post in the U.S., resulting in reduced classroom effectiveness, which in turn causes declined program enrollment or program elimination (Haley & Ferro, 2011). School, district, and state-level DL program administrators, while invested in supporting program expansion, are challenged with using additional human resources and limited time to provide professional development for visiting DL teachers. These same stakeholders are frequently dismayed when visiting teachers they have supported return to their countries earlier than planned due to maladjustment (Collier & Thomas, 2014). DL school administrators continue to search with desperation to find bilingual teachers who can deliver states' content standards in a language other than English with academic and pedagogical alignment and with full academic and cognitive rigor (Lachance, 2017b).

As U.S. schools produce increasing numbers of graduates of K-12 DL programs, this bilingual teacher shortage will diminish. School districts with long-term DL programs are now hiring their own DL graduates. Some school districts are creating DL program structures at high school level for students to enroll in dual-credit coursework for preparing teachers, with incentives to be hired in their local school district when they complete DL teacher preparation programs at the university (see Chapter 4).

The Unique Nature of Dual Language Academic Development in Secondary School

Central elements in language education include the notion that language learning with higher order cognition is developed through student-to-student interaction (Vygotsky, 1978; Walqui & van Lier, 2010; Zwiers & Crawford, 2011). Students' successful use of collaboration and collective learning in varying contexts is considered fundamental for cognitive, metacognitive, and metalinguistic advancement (Beeman & Urow, 2013; Cummins, 1991; Molle, Sato, Boals, & Hedgspeth, 2015). More so, middle and high school students' learning and language development requires specialized scaffolding (extra support to understand the meaning), which should include significant peer interaction with teacher-structured attention to language functions (Gibbons, 2015; World-class Instructional Design & Assessment, 2012). In content-based DL instruction with middle and high school students, collaboration and dynamic activities within students' zones of proximal development (the next steps that students are ready to take in their learning process; Vygotsky, 1978) are substantial key points to support increased language demands associated with rigorous secondary

school classrooms, high-stakes testing, and states' graduations requirements. Based on human-development research, adolescents and young adults are entirely and highly capable of complex analytic thinking. However, they need specialized support to process and accommodate peers' cultural and linguistic needs for successful academic learning through two languages in secondary school (Calderón, 2007; Lindholm-Leary, 2012).

In conjunction with the need for specialized scaffolding for secondary DL learning, van Lier (2004) maintains that students' self-concept greatly impacts learning and thinking processes. Adolescents and young adults see themselves in a certain way, forming an *internal* sense of self. Students also consider the *external* sense of self, simultaneously giving merit to others' opinions of how they are viewed and accepted (Ryan & Shim, 2008). Long-standing research supports the point that adolescents' notions of self, both internal and external, are intensified as adolescent and young adult learners pass through this momentous period in human development (Purkey, 1970; Vars, 1969). Uniquely, secondary school learners are also advantaged with having amplified imagination and higher levels of abstract thinking (Joseph, 2010; Manning & Bucher, 2012). For DL learning, secondary students' intellectual development and broad spectrum of thinking serves to fundamentally support biliteracy development in changed ways from elementary school settings (Grosjean & Li, 2013; Molle, Sato, Boals, & Hedgspeth, 2015). With this in mind, the continuation of DL programs from elementary to secondary school settings is crucial for metalinguistics and academic language development. Additionally, secondary school DL teachers can tap into their students' abstract, intellectual strengths to solidify students' collaboration. Teachers' use of such unique cognitive-developmental features further supports the higher demands of academic language development in secondary school (Cummins, 2014; Manning & Bucher, 2012).

Recommendations from Dual Language Educators in North Carolina and New Mexico

Given the research-based conclusions that DL education supports all students' learning, along with the national shortage of DL teachers, I chose to conduct a 3-year qualitative study to gain insights regarding teacher preparation from current DL educators' perspectives, K-12. In this study, I interviewed 34 DL educators from North Carolina and New Mexico to identify beneficial and unique teaching strategies in DL teaching, so that the findings of the study might inform the coursework needed in U.S. teacher education programs. This study, along with my experience in higher education with DL teacher preparation, informs my recommendations in this chapter for secondary DL teacher preparation programs.

The study was situated in the southeastern state of North Carolina and the southwestern state of New Mexico. North Carolina DL programs are expanding based on a formal policy of the North Carolina State Board of Education (2013). New Mexico was selected for the study because DL programs have been in place there for several decades. Both states also have some form of bilingual endorsement or seal for high school graduates (New Mexico Public Education Department, 2016a, 2016b; North Carolina Department of Public Instruction, 2017; U.S. Department of Education, 2015). The study's 34 teacher and administrator participants worked in DL programs with English- and Spanish-speaking students. While other partner languages were available in North Carolina's DL programs, this study focused on language-minority and language-majority students in Spanish/English program settings. Both interview data and classroom observation data were collected and analyzed. (See the Appendix at the end of this chapter for a short summary about the study participants, interviews, classroom observation, and data analyses, and see Lachance, 2017c, for details of the methodology of the study.)

Study participants expressed detailed examples of their educational backgrounds, prior teaching experiences, and the individual pathways that led them to be in DL education. While there was variation within participants' years of experience, location of post-secondary education and degrees, and current roles in DL programs, they all provided invaluable insight regarding the uniqueness of DL teaching and learning. More to the point, they provided very specific details for teacher preparation programs aligned with the study's goals and three research questions. These are: (1) What do you as DL educators conceptualize and identify as beneficial and unique in DL teaching and learning? (2) How were your conceptualizations developed during pre-service education program coursework? And, (3) What recommendations do you make to educator preparation programs/professional development programs to address the explicit needs of DL education? These experienced DL educators' recommendations are incorporated into the guidelines for secondary DL teacher preparation in this chapter.

The following sections, Core Themes One and Two, will explain concepts for preparing secondary DL teachers, while keeping our students at the heart and center of recommended pathways for teaching. Sociocultural theory is embedded throughout each individual topic (Vygotsky, 1978). DL teachers must be entirely committed to the fact that students' relationships with each other and with their teachers have a direct impact on the learning processes (Collier & Thomas, 2007). Likewise, while the topics are presented in linear fashion, it should be noted that they are all vastly interconnected. The last section of this chapter provides a suggested list of specialized coursework for secondary DL teachers.

Core Theme One: Preparing Teachers to Transform DL Classrooms

The following topics are categorized as areas that DL teachers will experience in the field. Above and beyond teachers' managing of daily routines and standard curricular procedures, DL teachers require specialized training unique to DL in order to fully demonstrate pedagogical and content-specific DL competencies.

Dual language pedagogy. For decades, researchers in various aspects of scholarship related to best practices with English learners, emergent bilinguals, and other language learning student populations have focused on the importance of specialized pedagogies for increased language acquisition. Frameworks such as Guided Language Acquisition Design (Project GLAD®) and the Sheltered Instruction Observation Protocol (SIOP®) model focus on peer-to-peer interaction and multidimensional pedagogies that facilitate students' use and application of new language in the context of school (de Jong & Bearse, 2014; Echevarría, Vogt, & Short, 2016; Orange County Department of Education, 2018). In the case of DL classes, these elements of student-centered interaction and strategic connections to content-based concepts in meaningful ways are literally doubled, given that students are acquiring two languages in oral and written form. DL teachers' considerations of students' communicative patterns related to meaning and content are essential while designing collaborative classroom activities (Collier & Thomas, 2007). Other specialized pedagogies include DL strategies for oral language development to support increased content-based writing skills across all subjects of the curriculum (Walqui & van Lier, 2010; Zwiers & Crawford, 2011).

An additional aspect of DL pedagogy includes national standards that serve as guiding principles for states' content and language development standards. In teacher preparation, institutions of higher education are required to demonstrate that teacher candidates are learning and later demonstrating pedagogical competencies that align with the content they will be licensed to teach.

One critical missing component in this mixture is the absence of national DL teacher preparation standards, which is addressed in detail at the conclusion of this chapter. Therefore, teacher preparation courses must focus on how said pedagogies are unique in DL settings, with special attention given to the interaction between content and language in DL classroom experiences and to the many varying needs of students attending DL classes.

Biliteracy development. The topic of biliteracy development also merits specialized attention in DL teacher preparation courses. In fact, it could be argued that this topic is so significant and multidimensional, it is worthy of an entire course even while it is simultaneously conceptually embedded in other coursework. K-12 DL teachers need to be ready for many variations in students' backgrounds with regard to prior learning patterns connected to literacy. In secondary classes some DL learners may have entered the DL program with some literacy basics in one language, others in two languages, and still others may have no foundational aspects of literacy in any language. Therefore, DL teachers must be prepared to support literacy development in two languages with all types of students (Flores, Sheets, & Clark, 2011; Guerrero, 1997).

At the secondary level, these different literacy levels may be greatly challenging to address, given the nature of high academic levels of each content area and the smaller number of years left to complete high school graduation requirements. Literacy development across the academic subject areas of science, social studies, mathematics, art, music, and physical education, as well as electives, require unique approaches to teaching (Collier & Thomas, 2014; Escamilla et al., 2013; Thomas & Collier, 2012).

Research confirms there is a robust, binding relationship between a reader and the text materials with which the learner is interacting (Bunch, Walqui, & Pearson, 2014). Therefore, DL teachers need to understand their students' cultural and linguistic backgrounds as well as varied linguistic repertoires and tap the resources and knowledge that the students bring to the classroom. This allows teachers to gain insights into the students' development of cross-disciplinary literacies in two languages. Figure 15.1 provides an example of aspects of content concepts, language materials, and contextual factors such as program location that shape student comprehension.

Figure 15.1.
Curricular support in a middle school science classroom
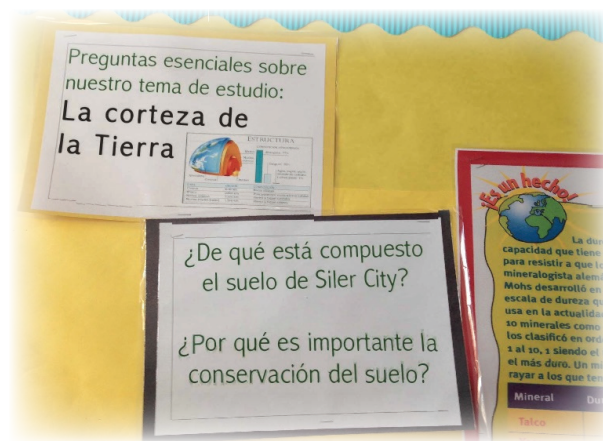
Multilingualism and rigor. Principles of metalinguistics and metacognition, as well as brain development, indicate the importance of rigor for all the DL content classes, including when taught through students' second language (Zadina, 2014). In order for students to master difficult and challenging content-based concepts, they must be taught through specialized DL pedagogies and highly individualized scaffolding (Gibbons, 2015), while being given ample opportunities for high levels of language use in the classroom. With states' graduation requirements and increased rigor within the high stakes testing processes, DL teachers will need to be amply prepared in their subject areas and be ready to provide many support systems for the rigorous concepts and text materials of each subject.

Authentic dual language materials. DL teachers need a wide range of academic text materials to support students' constructions of meaning (Calderón, Slavin, & Sánchez, 2011). Text materials combined with specialized pedagogical skills are necessary to facilitate students' comprehension and rich application of two languages while also attending to students' increasing proficiency in both academic languages (DeFour, 2012; Lindholm-Leary, 2012). DL teachers must recognize how sociocultural elements embedded in text materials and learning tasks influence DL learners' successful literacy development (Escamilla et al., 2013). These specialized skills are related to students' identities, level of reading comprehension, textual challenges, academic language development, and sociocultural communicative domains of secondary school language (Echevarría, Vogt, & Short, 2016; Walqui & van Lier, 2010; Zwiers & Crawford, 2011).

In addition to understanding the relationship between the reader and the text materials, DL teachers will need preparation to address the shortage of authentic DL materials in the field. Translating or modifying colossal quantities of existing texts and materials is no longer the only strategy (Bunch et al., 2014). Often times DL teachers will encounter schools and districts that approach DL resources by adapting monolingual curricular materials. In other words, districts may purchase a text book series that was originally written in English, and the translated versions of the text are exactly the same in the partner language, even though the curricular points to be made are quite different across the languages. Recent theory cautiously advises teachers to remember the deep, multifaceted relationship between the reader and the texts with which they are interacting. To choose authentic texts in the partner language, DL teachers will have to consider aspects including text features, the context of the reading materials, and the reading tasks themselves knowing they all greatly shape students' overall reading comprehension (Gottleib & Ernst-Slavit, 2014). In the case of DL learners with multilayered, dimensional language ranges (e.g. regional varieties, influence of socioeconomic status, first-generation or fifth-generation heritage speaker, and many other linguistic variations of experience with language use), literacy development is even more intensified when texts and materials are presented in highly contextual environments like those found in secondary-school classrooms (Molle et al., 2015). Therefore, pedagogical solutions to these complex learners' needs must honor varying linguistic ranges and adapt materials in authentic ways, and DL teachers must be prepared for the tasks at hand in working with diverse learners (Gibbons, 2015).

Authentic assessment. In K-12 classrooms, much attention has been given to high-stakes testing. Teachers, schools, and districts are often "graded" on effective education programs by examining students' standardized test results. However, there is also great emphasis placed on the mismatch between standardized testing and language learners (Herrera, Cabral & Murry, 2013). DL teachers must be prepared to discover a wide variety of ways to authentically capture what students know and what academic skills they can demonstrate in relation to content standards, academic language, and meeting graduation requirements. This is no easy task given the fact that states' high-stakes testing requirements will be superimposed on the assessment processes, often by measuring students' knowledge and skills with assessment tools designed for monolingual students (Gottleib &

Ernst-Slavit, 2014). Even when bilingual assessments of content are available, DL teachers will need dedicated preparation that supports the deconstruction of the assessment systems in their teaching environments, that understands layers of bias within whatever assessment tools are utilized, and that requires creative, potentially self-made options to compensate for assessment gaps in DL settings. Much like the topic of biliteracy, there should be an entire course dedicated to authentic assessment.

Core Theme Two: Transforming Dual Language Teacher Preparation

This next set of topics encompasses skill sets and areas of knowledge that should also be included in DL teacher preparation programs in university courses as well as in school districts' ongoing professional development. While they are not necessarily topics that manifest within the classroom context, each topic does in fact shape DL teachers' practice.

Teachers as ongoing learners. Language development is ever-changing and ongoing. Just as students are continuously expanding and deepening their language repertoires, so are DL teachers! It is crucial for DL teachers to always look for ways to enhance and strengthen their own language development in both languages. For some DL teachers, this may include things like traveling to other countries during summer breaks, with a specific language-learning goal attached to the traveling experiences. Other DL teachers may expand their language repertoires by intentionally reading advanced levels of literature or their subject specialty in their second language.

DL teachers may also need to prepare to teach at different grade-levels or schools. Even when teachers remain in one school and/or grade-level, they will certainly interact with DL learners with new needs on a regular basis. Therefore, it is always wise for teachers to "brush up" and stay current with subject-specific language that is associated with a current or new teaching assignment. DL teachers will also need to be prepared to evaluate new texts and materials for use in their classrooms.

Dual language program structures. The scope of DL programs across the United States is vast! Some states have a majority of their DL classrooms representing Spanish and English as partner languages. Other states have DL programs that include partner languages such as Arabic, Cherokee, French, German, Haitian Creole, Hindi, Japanese, Korean, Mandarin Chinese, Portuguese, Russian, Urdu, or Vietnamese. In addition to these linguistic variations there are also programmatic structural tenets that determine how much time and what portion of an instructional cycle is dedicated to instruction in English and which subject areas are taught in program partner languages. Many DL programs in the early elementary grades follow a 90:10, 80:20 or 50:50 division of instructional time in each language while secondary programs are organized by number of courses offered in each language. There may be variations for one-way and two-way DL programs. In each variation of the program structure options, DL teachers need to be prepared for the contexts in which they will work.

Likewise, they may also be asked by administrative teams and other district-level decision makers for recommendations on how to construct secondary feeder patterns for optimal K-12 articulation. This means middle school teachers must stay in touch with elementary and high school teachers, and vice versa. Eighth grade students often leap into graduation requirements in ninth grade, and many other connections across grade levels must be taken into account. Given that the majority of the current DL programs are at the elementary level (Center for Applied Linguistics, 2017) and that larger numbers of "accelerated" DL students will soon be coming to middle school, secondary DL teachers will need to develop new strategies with regard to vertical K-12 alignment.

Program evaluation and learner assessment. Parallel to the concepts associated with authentic assessment, DL teachers will need to demonstrate skills and competencies in DL program evaluations based on learners' outcomes. In order to be prepared to explain the advantages to parents and the school community, school and district administrators need teachers' insights as to how the secondary DL program benefits students. Immense pressures are associated with student levels of academic performance as a result of any given education program, but especially so with DL. To name a few, there are high school graduation requirements, biliteracy seal competencies, skill sets facilitating global readiness when entering the workforce, grade point averages for college admissions, and cost-effective educational solutions to closing the achievement gap. With all these in mind, DL teachers will need to demonstrate that they can collect, analyze, and articulate student outcomes to express short- and long-term academic and linguistic gains.

Historical/community factors. Another area of DL teacher preparation that is shaped by the broad scope of DL programs throughout the United States is that of historical and community factors (August & Hakuta, 1997). DL teachers will need to know how the school/program in which they work is situated in the community, including in-depth understandings of things like 1) community values associated with DL, 2) perceived benefits of DL for communities and families, 3) the history behind DL programs in the community, and 4) inclusive versus exclusive family/community member involvement in DL programs. Deep-seeded connections to culture, identity, language and power, systemic bias, and "white-washed" curricular patterns must be examined in DL teacher preparation courses. These are often quite sensitive in nature, yet must be addressed in honest and transparent ways, evoking social advocacy for equitable DL education programs.

Educators' sociocultural influences. All DL teachers need aspects of their preparation to include the examination of their own cultural, linguistic, and sociocultural backgrounds. Only then may they understand how to fully support students' sociocultural factors in the context of DL learning. Similarly, DL teachers need to understand how parents, school administrators, and other community members view the role of "the teacher." Cultural and community variations on the perceptions of teachers' roles will greatly shape ways in which DL teachers will approach parents, students, and the community at large. For example, a native English speaker who is teaching in a high school DL setting where the majority of the students' parents are native speakers of Spanish will need to know methods of communication that work well with the families. The same principle applies where a native Spanish-speaking teacher is living and working in a DL community that is primarily English speaking. Is an at-school "parent-night" preferred over an informational emailed newsletter? Should the teacher reach out to parents in social settings to reinforce relationships that therefore strengthen conversations about academics? Or not? What other community factors influence how parents perceive teachers? An awareness of these and many other sociocultural factors should be included in preparing DL teachers.

Parents: Demystifying dual language. Another equally important layer of DL teacher preparation and sociocultural considerations specifically points to demystifying DL programs with parents. After DL teachers closely examine their own sociocultural influences, as well as that of their students, they will need to understand how parents view DL education. The societal connections between language and power may shade and skew the "hows" and "whys" behind parents' election for their children to participate in DL classrooms. And teachers need to be prepared for many delicate and complex layers to this topic. Teacher preparation courses must address some controversial questions like these: Are language-minority parents viewing DL education as a "fix it" so their children will superficially retain a home language yet outwardly demonstrate a preference to English as the language of power? Will only the "advanced placement" language-majority students be seen as qualifying for DL in high school? What about native English-speaking students who are also

classified as within racial minorities—will they have equal access to secondary DL programs? These areas of consideration and others must be included in DL teacher preparation courses.

   "Home-grown" teachers. Teaching in DL programs requires special skills and knowledge, especially in the areas of academic language development and disciplinary literacies (Lachance, 2017c). As mentioned earlier in the chapter, there is a national shortage of DL teachers. In many states, the only way DL programs have been able to survive is because of organizations that invite international teachers to come to the United States on temporary employment work permits to teach in DL schools (Kissau, Yon, & Algozzine, 2011). Foreign-born faculty bring many valuable qualities to U.S. DL classrooms. Rich language repertoires, wide-ranging cultural influences, and adventurous personalities are only a few of the benefits of international visiting teachers. Yet, there are also some noteworthy challenges associated with an over-dependence on such teachers to keep DL afloat (Hutchison, 2005). Pedagogical disconnects with student-centered, standards-based (and often assessment-driven) instruction have proven difficult for many international teachers. The variations in needs among DL learners, who include English learners, emergent bilinguals, heritage speakers of the partner language, and native speakers of English, are often times new to teachers from outside the U.S. Even with specific faculty-orientation programs that attempt to help visiting teachers adjust to their US classrooms, many do not fulfill their teaching contracts, even though they are temporary (Boyle, August, Tabaku, Cole, & Simpson-Baird, 2015; Hutchison, 2005).

   An even more important reason for DL teachers to learn about this topic is so that they themselves can become ongoing recruiters in the field. They are in perfect positions to help secondary DL students understand the crucial shortage of DL teachers and help them learn about post-secondary options that may be available to them. School districts are proud to "grow their own" bilingual teachers (see Chapter 4). Higher-education faculty from the local universities may apply for grant programs to fund dual-credit courses for high school students interested in preparing to be teachers. A cohort approach establishes an ongoing pattern of multilingual secondary DL students entering teacher preparation programs and then returning to their home districts to "carry the torch" as new DL teachers. As such, and for additional reasons, the topic of clinical partnerships is a vital component of DL teacher preparation (Clarke, Triggs, & Nielsen, 2014).

   Institutions of higher education (IHEs) and school district collaboration: Clinical partnerships. Just as students who are learning languages need practice and application, so do teachers. Solid, ongoing partnerships between IHEs' teacher preparation programs and successful DL schools are imperative for new teacher mentorship (Darling-Hammond, 2012). DL teachers need numerous valuable clinical experiences with inspired cooperating teachers throughout the teacher preparation program. Real-world application of newly learned DL pedagogies should be present throughout teacher-preparation courses as opposed to an isolated semester of student teaching upon completion of all required coursework—just before teacher candidates are recommended for licensure. This is a challenge! DL teaching is a difficult task in any given situation, and especially for a clinical-teacher candidate. Practicing DL teachers who are willing to provide such mentorship will also need support in a variety of forms. School administrators will need to be creative in order to provide the necessary logistical frameworks for such partnerships. Keeping this in mind, IHEs intending to prepare DL teachers should be exceptionally deliberate about how clinical partnerships are formed and with whom.

Proposed Coursework: A Thematic Crosswalk

As a culmination of the previously mentioned topics, with in-depth descriptions of their impacts on shaping DL teacher preparation, this chapter also presents potential options for specific coursework

to address the specialized practices of DL teachers. This portion of the chapter is not an exhaustive list of courses for pre-service DL teachers but rather conceptual options for future considerations in teacher preparation. Consequently, they may also serve as areas for in-service DL teacher professional development. These specialized courses focused on dual language teaching could be offered combining teachers for Grades K-12, but when the teacher preparation program has a sufficient number of students for DL at secondary level, each course should move to a secondary DL focus. All of the courses listed below should be combined with licensure coursework for the age group that the teacher plans to specialize in.

Biliteracy and Second Language Acquisition in Dual Language Teaching. The focus of this course or courses would be for teacher candidates to fully explore the specialized processes of the development of reading and writing in two languages for the young adult. In the context of secondary programs, DL teachers will need dedicated learning to grasp the deep, inseparable relationships between secondary content concepts and young adult literacy patterns. Analyses of academic language demands, contextually dependent language functions, language progression, and developmentally appropriate cognition are a few of the concepts that may be found within this course. The topic of authentic DL materials also is embedded here.

Authentic Assessment for Dual Language Learners. DL teacher candidates require a course dedicated to student-centered, content-based learning and the measurement of language progression, over time, in two languages. As previously discussed, DL teachers will need to deconstruct existing systems of assessment and grading patterns in their DL setting and then reconstruct creative and innovative ways to capture students' academic and sociocultural gains. This course will explore these competencies. In the context of secondary programs, this course must also investigate the relationship between assessments and DL learners' graduation requirements.

Dual Language Methods and Advanced Pedagogies. DL teachers must demonstrate innovative ways to design and deliver dynamic student-centered instruction that facilitates DL learners' application and practice with new language. This means that DL teacher candidates will learn what students need to be engaged and actively participating in curricular concepts that encompass many levels of cognition, metacognition, and metalinguistics. This course will showcase student-centered methodologies via unit planning, including considerations for authentic assessment and other teaching and scaffolding strategies such as project-based learning—with grade-level nuances in mind.

Dual Language Clinicals and Internship. As referenced earlier, DL teacher preparation must include many entry points and various scenarios for teacher candidates to apply new theories, teaching methodologies, and freshly acquired DL pedagogies throughout their preparation (Lindholm-Leary, 2012; Reyes & Kleyn, 2010). Great consideration for strategic clinical experiences, with specific learning tasks and capstone assignments must be embedded across the coursework continuum. Ample clinical practices with leading mentor DL teachers in the field will support new teacher candidates in ways that will give them hands-on experiences that may not be learned in theoretical isolation. Simply put, teacher candidates must actually use best practices and new pedagogical concepts with students, in the context of a real DL classroom.

Teacher Preparation and Accreditation: A Call for National Dual Language Teacher Preparation Standards

As the popularity of DL programs in the United States rises and programs proliferate (Center for Applied Linguistics, 2017; Dual Language Schools Directory, 2018), there is no nationally systematized approach to preparing teachers to serve in DL settings. In most states, teacher preparation programs focus on developing competencies and skills to teach in English-medium classrooms or in classrooms where native-language instruction is provided as a temporary support while students acquire English (U.S. Department of Education, 2015). Even in the small portion of states that have established bilingual teacher preparation standards and defined pathways to bilingual teacher certification, it stands to reason that programs may need additional structure to authentically prepare DL teachers. DL pedagogies encompass highly specialized competencies to support secondary literacy and rigorous grade-level core content in a language other than English, along with the cross-cultural goals of DL programs (García, 2009; Howard et al., 2018).

In the absence of national DL teacher preparation standards, leaders in higher education across the country are left to work in an ad hoc fashion to meet increased market demands for teachers to serve in the growing number of DL schools. Many states, with excellent intentions, have resorted to designing DL teacher education "packages" of coursework that supplement another area of teacher licensure. For example, a teacher candidate may seek an initial elementary or secondary generalist credential supplemented with a concentration or minor in bilingual studies or a world language. Another common practice is for certified teachers already serving in the DL classroom to enroll in a certificate program at a university, with coursework in the area of DL education contributing toward a master's degree or continuing education credits. While these options serve to support the practice, it's argued that neither sufficiently prepares the DL teacher for the rigors of teaching core content in two languages to students from diverse linguistic and cultural backgrounds. What is needed is a set of national DL teacher preparation standards, framed by theory and best practices identified in the research. Theory and practice specific to DL should serve as the basis for DL teacher preparation curricula, benchmark assessments aligned to national accreditation standards, and full initial teacher certification in the area of DL education.

To conclude the chapter with an all-encompassing stance, it is increasingly vital to address the specific nuances of DL teaching and learning in ways that connect to national standards (Lachance, 2017b; Knight, Lloyd, Arbaugh, Gamson, McDonald, Nolan, and Whitney, 2014; Darling-Hammond, 2012; Herrera, Cabral, & Murry, 2013). In doing so, the numbers of formally prepared DL teachers may increase, affording the expansion of more DL programs nationwide. With this in mind, the field of teacher preparation needs to further address the specialized pedagogies associated with DL teaching and learning, such as those mentioned in this chapter. It stands to reason that the establishment of national standards for DL teacher preparation may facilitate potential pathways leading to accredited, stand-alone licensure programs (Council for the Accreditation of Educator Preparation, 2017; U.S. Department of Education, 2017).

Appendix

Overview of study participants, interviews, classroom observation, and data analyses

(See Lachance, 2017c, for more details on the methodology of the study.)

Study participants. The teachers and administrators interviewed had a minimum of five years of experience in K-12 education. Several participants serving secondary schools had prior teaching experience at the elementary level and were thus able to identify nuances with regard to secondary students' development and collaborative learning that are unique to secondary DL. The data sources from each of the participants included face-to-face interviews in Spanish and English and participant observation in classrooms and work settings.

Figure 15.2
Participants

	Female	Male	Role in Secondary School	K-12 DL Teacher	DL Administration/ Other
North Carolina	17	3	9	12	5
New Mexico	12	2	5	9	3

Note: All study participants were from DL programs with Spanish and English as the partner languages. The Administration/Other category included school principals, a DL organization director, state education agency curriculum consultants, and state-level professional development coordinators.

Interviews. Semi-structured, audio-recorded interviews were conducted on-site with all participants, ranging from 60 to 90 minutes in duration. The interview questions were based on the *Guiding Principles for Dual Language Education* (Howard et al., 2018), to explore current dual language educators' conceptualizations of teacher preparation. The interviews were conducted in the participants' language of choice and transcribed in both languages as the researcher is fully biliterate in English and Spanish.

Classroom observation and data analyses. Data sources also included 60-90 minute observations with teacher participants in their schools and classrooms both in North Carolina and New Mexico. Anecdotal records from teachers' classrooms were kept to capture details regarding classroom configurations, teacher-generated and district-adopted curricular materials, ancillary language supports across the content areas, and other visible resources for literacy and content development in both languages. The study results included participants' conceptualizations associated with academic language and content development in DL classrooms. Most importantly, the participants articulated strong recommendations for the field of teacher preparation.

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