

ASSET-BASED BILITERACY: RECENTERING EMERGENT BILINGUAL STUDENTS IN
DUAL LANGUAGE ENGLISH READING INSTRUCTION

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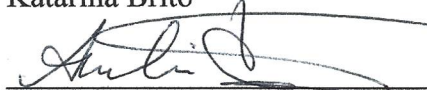
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Dedication

*Dedicado a la memoria de mi querida prima y madrina Marcela Martinez Mercado.
Siempre me hiciste sentir conectada con mis raíces desde lejos. Te siento aquí a mi lado igual
como estuviste en cada una de mis graduaciones, y comparto toda la alegría de este logro
contigo hasta el cielo.*

Abstract

As gentrifying dual language (DL) schools in the United States increasingly attract students with linguistic, racial, and socioeconomic privilege, a key consideration is whether these schools are intentionally supporting the specific needs and assets of emergent bilingual (EB) students from Latinx families. This dissertation of practice examined how an asset-based early literacy intervention in a first grade English DL classroom could recenter EB students through both structured literacy instruction and parent partnership, using a funds of knowledge framework. The 11-week Student Intervention explored how a teacher could actively build upon EB students' Spanish language and literacy competencies within small-group English reading instruction at the beginning of their formal bilingual education. Quantitative findings showed that explicitly grounding early English reading instruction in the transfer and non-transfer of Spanish literacy skills supported students' progress toward grade-level expectations for English decoding and letter sound knowledge. The parallel Parent Intervention centered parent voices through qualitative interviews. Findings indicated that Spanish-speaking families expressed unique capacities to support biliteracy learning grounded in Science of Reading-based practices. The implications from this study direct DL educators to deepen collaboration towards biliteracy by continuing to explore and incorporate elements of cross-linguistic transfer and families' funds of knowledge. Recommendations for student instruction, teacher professional development, family partnership, and research, within the context of early biliteracy, are discussed.

Keywords: biliteracy, dual language schools, emergent bilingual students, funds of knowledge, structured literacy

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Contents

Abstract	ii
Acknowledgements	iii
List of Tables	viii
List of Figures	ix
Glossary of Terms	x
Introduction	1
Intervention Overview	4
Section 1: Problem of Practice	7
Policy and Practice Context	9
Community Needs Assessment and the Case for Improvement	13
Positionality Statement	18
Section 2: Knowledge Review	20
Practice and Policy Review: Dual Language Education in the Context of Gentrification	21
Critical Race Theory and Interest Convergence in Education	21
Interest Convergence in Dual Language Schools	22
Interest Convergence and Latinx Students: Commodification of Resources	23
Translating the CRT lens to Biliteracy Experiences and Outcomes	26
The Case for Revamping the Intentionality of DL Biliteracy Instruction to Increase Equity	28
Grounding the Asset-Based Intervention in Existing Theory	30
Families and Biliteracy	32
Transfer Theory and Biliteracy	36
The Science of Reading and Biliteracy	39
Aligning the Theories and Problem of Practice	43
Aligning American University EdD Competencies to the Dissertation Process	45
Section 3: Theory of Action	47
Rationale for Funds of Knowledge Intervention Framework	48
Theory of Action Components	49

Aim Statement and Intended Impact.....	50
Logic Model.....	52
Section 4 Intervention and Methods	54
Intervention Context and Overview	55
Participant Selection and Demographics	56
Description of Instructional Intervention Components.....	62
Teacher Biliteracy Guide	62
Emergent Bilingual Student-Focused Small Group Instruction	64
Student Benchmark and Progress Monitoring Measures	65
Description of Parent Intervention Components.....	68
Parent Biliteracy Workshop.....	69
Parent Interviews	71
Parent Intervention Measures	72
Implementation and Analysis Procedures.....	72
Analysis Procedures.....	74
Analysis of Reflexivity and Limitations	76
Section 5 Analysis and Findings.....	80
Research Question 1a: Student Evidence to Date.....	81
Practitioner-Collected Evidence and Outputs	82
Quantitative Evidence and Outputs	85
Student Data Strengths and Needs Analysis	87
Research Question 1a: Findings.....	91
Research Question 1b: Parent Evidence to Date and Themes	95
Theme 1: Foundations of Spanish Literacy and Learning at Home	96
Theme 2: Reconciling Parental Support Roles Across Languages.....	107
Directions for Future Biliteracy Instruction Approaches.....	114
Section 6: Implications	116
Implications for Self	116
Implications for Ayala Elementary	120

Implications for Student Instruction	121
Implications for Teacher Professional Development.....	124
Implications for Parent Engagement.....	125
Implications for the Education Community.....	128
Conclusion	132
Section 7: Recommendations.....	134
Dissertation of Practice Summary	134
Recommendations for DL Teachers and Ayala Elementary.....	135
Recommendations for Myself and Fellow DL Teachers	135
Recommendations for Teacher Professional Development.....	136
Recommendations for Parent Engagement.....	137
Recommendations for the Broader Education Community	138
Recommendations for Future Research	138
Conclusion	139
Appendix A: Biliteracy Guide	141
Appendix B: Parent Biliteracy Guide	146
Appendix C : Sample Lesson Plan.....	156
Appendix D: Parent Biliteracy Workshop Slide Deck	160
Appendix E: Parent Intervention Interview Guide (Spanish)	163
Appendix F: Parent Intervention Interview Guide (English).....	165
Appendix G: Parent Consent Form (Spanish)	167
Appendix H : Parent Consent Form (English).....	169
Aappendix I: Analysis of MOY DIBELS Student Errors.....	171
Appendix J: Additional MOY DIBELS Score Charts for EB Students.....	172
References.....	173

List of Tables

Table 1: Student Participant Demographics	58
Table 2: Intervention Implementation and Data Collection Timeline	73
Table 3: Student Error Patterns in Letter-Sound Identification in MOY DIBELS Assessment.....	171

List of Figures

Figure 1: Intervention Logic Model.....	52
Figure 2: BOY and MOY DIBELS Scores Comparisons.....	86
Figure 3: MOY Word Reading Fluency, Oral Reading Fluency, and Reading Accuracy Scores for EB Students	172

Glossary of Terms

Biliteracy: The dynamic process of communicating “in two (or more) languages in or around writing” (Hornberger 1990, p. 213).

Dual language (DL) schools: Schools in which students learn academic content in English as well as a partner language. These programs are based on the pillars of bilingualism and biliteracy, grade-level academic achievement, and sociocultural competence (Howard et al., 2018). This dissertation focuses on Spanish-English DL schools.

Emergent bilingual (EB) students: Students who are developing their home language and English simultaneously. An alternative to the term “English language learner,” this term emphasizes the value and potential of students’ full linguistic resources, rather than just their need to learn English (García et al., 2008). This study focuses on EB students whose home language is Spanish.

Foundational literacy: Building foundations for the five components of reading: phonological awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000).

Funds of knowledge: The theory that students, especially those from marginalized backgrounds, are more likely to succeed when schools integrate their household and community resources (Moll et al., 1992). Within this framework, “everyday practices, including linguistic practices, are sites of knowledge construction” (García & Kleifgen, 2010, p. 95).

Latinx: A gender-inclusive term for people from the Latin American diaspora (Scharrón-del Río & Aja, 2020).

Orthography: A system of written language (Moats, 2020).

Phonemic Awareness: The awareness that words are made up of individual speech sounds, or phonemes, that map onto letters. (Moats, 2020). The ability to isolate and manipulate these sounds provides a foundation for successful reading and spelling (Cavazos, 2021; Moats, 2020).

Phonological Awareness: A broader term than phonemic awareness, phonological awareness includes the abilities to perceive and manipulate sounds in spoken language, including phonemes but also larger units such as syllables, onset-rime units, stress patterns, and word boundaries (Moats, 2020).

Phonics: The instruction of sound-symbol correspondences (Moats, 2020).

Translanguaging: “The deployment of a speaker’s full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages” (Otheguy et al., 2015, p. 281)

Science of Reading: The growing research base across psychology, education, and brain science around how students learn to read (The Reading League, n.d.; Petscher et al., 2020).

Simple View of Reading: The theory that skilled reading comprehension is the product of word recognition and language comprehension skills (Gough & Tunmer, 1986; Moats, 2020).

Structured literacy: A Science of Reading-based approach to language and literacy instruction that explicitly and systematically builds skills in phonemic awareness, phonics, morphology, syntax, and semantics (Cavazos, 2021; Moats, 2019).

Introduction

Across the United States, the population of students who speak a native language other than English is growing (National Center for Education Statistics, 2022). This group consists of approximately 5.1 million students in US schools, with the vast majority of these students speaking Spanish as their home language (National Center for Education Statistics, 2022). While English oral and literary proficiency represents a barrier for many of these students, they also possess an asset that is often overlooked: their proficiency in their native languages. Through an asset-based lens, we can picture these students as emergent bilinguals, or EB students, who are developing skills across two or more languages (García et al., 2008). An alternative to the term “English language learner,” this term emphasizes the value and potential of students’ full linguistic resources, rather than just their need to learn English (García et al., 2008). As US educators continue to improve our approaches to meeting this growing population’s needs, seeing and acting upon EB students’ unique multilingual strengths can make a difference in their educational trajectories.

Gabriela, a six-year-old girl who immigrated to Washington, D.C. from Cuba two years ago and a student in my first-grade classroom, is one of these EB students. Gabriela is incredibly spirited and strong-willed: her mother, Veronica, calls her “*una luchadora del inglés*,” a fighter when it comes to learning English. Veronica, who speaks very limited English, is along for this fight with her, but she is also ensuring that her native Spanish language, an essential piece of her culture, will remain when Gabriela does achieve English proficiency. She imagines an enriched, joyful, multilingual future for her daughter:

Nosotros como padres se lo vamos a mantener para que cuando ya ella sea una adulta tenga menos limitaciones que nosotros, se pueda comunicar mejor. Porque es muy bonito, muy bonito saber muchos idiomas, porque es muy bonito comunicarse con los

seres humanos. Para ser feliz en el país donde esté. Entre más tu conoces, más las puertas se abren al desarrollo, nos hace felices.

[We as parents are going to maintain [Spanish] for her, so that when she becomes an adult, she will have less limitations than us, she will be able to communicate better. Because it's very beautiful, very beautiful to know many languages, because it's very beautiful to communicate with other human beings. To be happy in whatever country she may be in. The more you know, the more doors open for growth. It makes us happy.]

Dual language (DL) schools are built on this same foundation of leveraging multilingualism for holistic student success. Centered on the pillars of bilingualism and biliteracy, grade-level academic achievement, and sociocultural competence, DL programs in the United States deliver instruction partially in English and partially in an additional language, most commonly Spanish (Howard et al., 2018). For EB students from Latinx backgrounds and Spanish-speaking homes like Gabriela, Spanish-English DL schools can be a powerful resource. In these schools, EB students can use bilingualism to sustain their cultural roots, while also gaining a research-proven academic advantage through learning in their native language (August & Shanahan, 2006; Lindholm-Leary, 2014; Lindholm-Leary & Genesee, 2010). National educational achievement statistics reflect the essential imperative for improving programs that accelerate EB students' academic achievement. Data from the National Assessment for Educational Progress has indicated that few EB students achieve proficiency in math and English reading in fourth grade, with proficiency rates decreasing in eighth grade (U.S. Department of Education, 2018). In Washington, D.C., where this dissertation of practice took place, only 1.5% of fourth grade students classified as English learners achieved English reading proficiency as compared with the 9% proficiency rate for English learners and 36% proficiency rate for all students nationwide (U.S. Department of Education, 2018). Given these sobering statistics, the need to grow and improve programs that provide specific academic advantages for EB students

is clear. Programs that take a bilingual approach can address these needs and support educators to see students' language background and competencies as assets rather than as deficits. With this mindset, DL schools can become antiracist spaces, actively working to disrupt the US educational system's foundations in White supremacy and English hegemony. Refining the promise and practice of Spanish-English DL education for the equitable education and empowerment of Latinx EB students from Spanish-speaking backgrounds was at the center of this dissertation of practice.

Despite controversial beginnings, DL education has a broad appeal that expands beyond EB learners. The model is meant to effectively support a diverse community of learners (Howard et al., 2018). Some district leaders and policymakers hope that DL schools can serve as effective tools for school integration in the increasingly segregated US education system (Hawkins, 2018; Williams & Brown, 2016). However, with the widening appeal of and the increasing demand for DL schools, there also comes a challenge. Some scholars have begun to frame this demographic change as a gentrification of DL schools, a process in which an influx of English-fluent students with more linguistic, White, and socioeconomic privilege are decreasing access for EB and other minoritized students (Dorner et al., 2021; Freire & Alemán, 2021; Valdez et al., 2016).

Researchers warn that gentrification of DL schools may not only be displacing students from bilingual programs but also distancing school leaders and educators from the purpose of culturally and academically uplifting EB students (Cervantes-Soon, 2014; Flores et al., 2021; Palmer, 2009; Valdés, 1997). As a DL teacher in Washington, DC, I noticed these trends of gentrification happening within my own classroom and school district (Stein, 2018; Williams, 2017), so I decided to ground my intervention in this context. My goal was to recenter the assets

and needs of Latinx EB students to ensure that equitable achievement remains at the heart of these schools, even as priorities and power dynamics may be shifting.

Intervention Overview

From my positionality as a first-grade English literacy teacher, I was particularly interested in approaching this task of recentering EB students during the formative period of learning to read. First grade is a particularly notable year at Ayala elementary, the DL school where my research took place. In Ayala's instructional model, first grade is when students transition from full Spanish immersion to formal bilingual instruction. During this year, students continue their Spanish literacy learning and also formally enter the realm of biliteracy learning, where they combine and organize their language and literacy knowledge across two languages of reading instruction. First grade and early literacy instruction is also at the center of national education conversations due to the growing interest in and implementation of the Science of Reading, or the growing research base across psychology, education, and brain science around how students learn to read (The Reading League, n.d.; Petscher et al., 2020). This research base centers around five components of literacy: phonological awareness, phonics, fluency, vocabulary, and comprehension (Cavazos, 2021; National Reading Panel, 2000). The Science of Reading also encourages the implementation of structured literacy instruction, which entails explicitly and systematically building skills in phonemic awareness, phonics, morphology, syntax, and semantics (Cavazos, 2021; Moats, 2019). The early implementation of structured literacy helps students master the process of decoding, or reading, words as they simultaneously build up their language comprehension abilities (Cavazos, 2021). Thus, this Science of Reading-based practice is essential to first-grade reading classrooms.

This dissertation builds upon Science of Reading research and its specific applications to EB students. While some researchers contend that Science of Reading practices place too much emphasis on structured literacy and word reading instruction to the detriment of EB students (Escamilla et al., 2022), these practices can and should be used with students across cultural and linguistic backgrounds (Cavazos, 2021; Vargas et al., 2021). Research shows that Science of Reading strategies are just as effective for EB students as native English speakers and that using these strategies to support student's word reading skills early on is in fact imperative for ensuring any reading disabilities are addressed as early as possible, rather than waiting to see if these students catch up later on (August & Shanahan, 2006; Cárdenas-Hagan, 2023; Cavazos, 2021; Vargas et al., 2021). Nonetheless, there are valid concerns about how these practices address the full needs and strengths of EB students and their multilingual contexts (Escamilla et al., 2022; Noguerón-Liu, 2020). Through my dissertation, I explored how to better align the foundations of the Science of Reading and English structured literacy instruction with EB students' assets by actively incorporating their foundations in Spanish language and literacy from their homes and early childhood classrooms. This idea led me to my overarching research question:

RQ 1. How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?

In response to this question, I organized my intervention into two parts, one instruction-based and one parent-based, in order to gain a full picture of what incorporating EB students' assets into instruction can look like in a first-grade English reading classroom. To measure the effects of these two intervention components, I broke down my research question into the following sub-questions:

RQ 1a. How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?

RQ 1b. What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

My intervention balanced taking action based on the information I already had about my EB students and keeping an open mind about what I did not know and how their families' input could expand and improve biliteracy instruction. Through this asset-based approach, I hoped to improve EB students' English reading outcomes, but also work towards the antiracist potential of DL schools. By rejecting English-only sentiments and cultural assimilation, and instead actively lifting up cultural and linguistic diversity in the service of empowering minoritized students, DL schools can be powerful drivers for equity in our stratified society. This dissertation celebrates the EB students, families, and DL educators who are not only *luchadores del inglés*, but also stewards of immigrant roots, languages, and cultures.

Section 1: Problem of Practice

Since the 1960s, bilingual Spanish-English education in the United States has seen a transformation from a controversial program for Latinx communities to an extremely popular and rapidly expanding educational model for families of all backgrounds. From its contentious early roots as both a remedy for the “linguistic deficiencies” of Latinx students and a radical act of affirmation for minoritized students, bilingual education has expanded to be widely sought-after by families, often of English-speaking, middle-class, and White backgrounds, who want to give their children a global advantage (Flores & García, 2017, p. 19). Many researchers liken this shift to gentrification (Dorner et al., 2021; Freire & Alemán, 2021; Valdez et al., 2016). Amidst this demographic change, researchers have warned about the risk of these programs reinforcing class- and race-based societal inequities (Palmer, 2009; Valdés, 1997), prioritizing the dominance of English over Spanish fluency and literacy (Nuñez & Palmer, 2017), and commodifying, rather than affirming and uplifting, the linguistic assets of Latinx students (Cervantes-Soon, 2014). Leveraging bilingual instruction for Spanish-dominant Latinx EB students’ academic achievement is one of the antiracist promises of DL schools, yet gentrification and its shifting of power dynamics bring into question whether DL schools are intentionally equipped to support the specific needs and assets of EB students (Valdés, 1997). Valdés (1997) compels us to acknowledge and engage with the implications of teaching within a context where “deep racial and linguistic divisions are present” and take action accordingly. As DL programs continue to expand across the country, it is imperative that DL educators recenter what it looks like in practice to holistically embrace the linguistic assets of EB students in service of antiracist ideals.

As a practitioner-researcher in a gentrifying high-poverty DL school in Washington, DC, I have had the opportunity to explore what it could look like to recenter EB students in this way. From my positionality as a first-grade English literacy teacher, I was particularly situated to approach this recentering within the practice of English reading instruction. In the school where my research took place, DL students receive their three years of early childhood education through an entirely Spanish-language curriculum. Thus, they learn the foundations of literacy in Spanish and then transition to Spanish-English bilingual instruction in first grade. Early literacy instruction in Spanish sets all students up for success in “breaking the code” of reading in other alphabetic languages, such as English (Estrellita, 2021). After teaching first grade English literacy for several years at this school, I noticed a pattern of English-dominant students with more racial and class privilege entering first grade with strong early literacy skills in both Spanish and English, while students of more marginalized backgrounds, primarily EB students from working class Spanish-speaking families, often showed English literacy gains later on. While these differences in biliteracy trajectories made sense given students’ varying home language experiences, I still wondered how I could more explicitly leverage the skills that EB students had already been exposed to in Spanish so that both my students and I could see how they applied to their overall bilingual reading growth. As a teacher, I wanted to explore how I could intentionally elevate the competencies and assets that EB students bring from their foundations in Spanish language and literacy, both from their early childhood experiences and their homes. Research shows that EB students who receive reading instruction in their native language gain significant academic advantages in both English and their native language (August & Shanahan, 2006; Lindholm-Leary, 2014; Lindholm-Leary & Genesee, 2010), and I wanted to be more intentional about how I explicitly supported this advantage in my English reading

instruction. I hoped this could accelerate my EB students' access to English literacy and the access to power it provides in the United States. Given this context, my problem of practice statement was as follows:

Problem/Needs Statement: Teachers of early English literacy in dual language elementary schools need instructional methods for emergent bilingual Latinx students that intentionally elevate their linguistic competencies and assets to ensure that dual language biliteracy instruction effectively serves as a tool for equitable achievement and outcomes.

Through addressing this problem of practice, I hoped to better align my DL classroom's early English literacy instruction with the full potential of my EB students and serve as a model for how other DL schools can do the same. This problem of practice was intended to capture one step towards the broader goal of DL schools reaching their antiracist potential: their capacity to academically accelerate and culturally sustain the Latinx communities they were originally built to serve. In this section, I describe the context of policy and practice in this realm, explain the urgency of improving biliteracy instruction within US DL schools, and explore my positionality as a researcher.

Policy and Practice Context

The history of DL education policy and practice in the United States provides important context for my intervention setting, a DL elementary school in Washington, DC. Dual language education advocates and researchers Thomas and Collier (2012) explain that, while the acceptance of linguistic diversity fluctuated between openness and restriction in the United States' early history, experimentation with bilingual schooling for both English learners and native English speakers began to spread through the 1960s and 1970s. In 1968, the federal Bilingual Education Act narrowed this experimentation within a certain goal: to utilize bilingual education primarily as a transitional tool with the intent of shepherding English learners into

English monolingual education as quickly as possible. While some schools continued to experiment with ‘maintenance’ approaches that aimed to continue students’ native-language exposure in Spanish-speaking and indigenous communities, ‘English-only’ sentiments also arose, questioning the government’s role in funding education in other languages.

Reauthorizations of the Bilingual Education Act in 1984 and 1994 helped hail a transformation of bilingual education from “remedial, compensatory models,” to programs with an “emphasis on enrichment and innovation,” beginning to highlight the benefits that these programs could also bring to native English speakers (Thomas & Collier, 2012, p.19). However, their gain in popularity has not been linear: as recently as 18 years ago, approximately 40% of the country’s multilingual learners, residing in California, Massachusetts, and Arizona, were banned from receiving native language support by English-only laws in their states (Mitchell, 2019). The push and pull between investing in or suppressing DL education highlights the tensions about whose bilingualism, that of White students or racialized students of color, is a value worth investing in versus a flaw to fix (Flores et al., 2021).

Washington, DC provided a fitting setting to explore these tensions as bilingual education continues to expand. In a policy report for New America, Garcia and Williams (2015) detailed the DL schooling context in Washington, DC, a rapidly changing city where an influx of gentrification has been met with a growth in multilingual students and increasingly visible racial and socioeconomic segregation. These researchers explain that amidst the expansion of DL schools nationwide, the District of Columbia Public Schools’ (DCPS) eight Spanish-English DL elementary schools arose from both community- and school-led advocacy efforts as well as Foreign Language Assistant Program grants. The DC school district has established four goals across all DL schools: biliteracy, bilingualism, academic achievement at or above grade level,

and cultural competency. These goals align with the foundational pillars of DL education established by the Center for Applied Linguistics (Howard et al., 2018). The eight DL schools are also connected through the overarching support of DCPS's Language Acquisition Department and a shared instructional superintendent, yet programmatic autonomy is intentionally maintained so that they can meet their communities' specific needs (Garcia & Williams, 2015). For example, schools vary in how they choose to apply the DL model. While some keep instruction evenly split between Spanish and English from pre-kindergarten through fifth grade, others, including my own research site, choose to frontload majority Spanish immersion from preschool through kindergarten and transition to bilingual instruction in first grade. The latter choice aligns with the idea of frontloading the "less socially prestigious" language early on, as it is "most subject to language loss" in our English-dominant society (Howard et al., 2018, p. 16). It also aligns with research suggesting that EB students achieve more academic gains if they begin their literacy learning in their native language (Howard et al., 2018). The four largest DCPS DL elementary schools, which serve about 75% of the city's DL elementary students, implement this early childhood Spanish immersion model (K. Brito, personal communication, February 27, 2023).

Mirroring emerging national trends, many of the DCPS DL programs are experiencing gentrification in the populations they serve (Stein, 2018; Williams, 2017). Many DL educators have noted how the increasing interest of English-dominant families and decreasing amount of affordable housing in the schools' surrounding neighborhoods have resulted in demographic shifts that are trending towards serving fewer native Spanish-speakers (Garcia & Williams, 2015). Data from the DC Dual Language Immersion Project (2019) estimates that DL programs across the city serve only approximately 20% of the city's 120,000 students that speak a

language other than English at home, a majority of whom speak Spanish. Shifts in Washington, DC's neighborhood affordability and access, driven by housing gentrification, mirror the increasing systematic exclusion of students from immigrant working-class families from DL schools; this stands at odds with many of these schools' ideals of racial equity and linguistic empowerment (Flores et al., 2021).

The DCPS school where I teach first grade English literacy and where my research took place is Ayala Elementary School (pseudonym). Ayala Elementary is a preschool through 5th grade Title I school that has about 440 students enrolled. The school serves a diverse student population: 56% Hispanic/Latinx, 17% Black, 15% White, 8% Asian, and 4% two or more races. Forty-six percent of students qualify as English language learners, or EB students. Families are attracted to the school's consistently strong ratings as well as the DL program, which gives families the option of enrolling their students in Spanish-English bilingual instruction. The DL program serves about two-thirds of the student body.

For students in the DL program, instruction is conducted fully in Spanish in early childhood, from preschool through kindergarten. During these three years, students receive Spanish literacy instruction through the *Creative Curriculum* (Teaching Strategies, 2023), *Heggerty* (Literacy Resources, 2023b), and *Fonética y Gramática* (Benchmark Education, 2022) curricula, which were developed specifically for bilingual and DL Spanish-English programs. In first grade, students transition to a 50-50 model, in which they receive literacy and social studies instruction in English for half of the day and then math and literacy instruction in Spanish for the other half. For most first grade DL students, this is their first year of formal English literacy instruction, although many students have already been exposed to the foundations of English language and literacy through the nature of living in an English-dominant society or in English-

speaking homes. The DL students whom I focus on in this dissertation of practice are those who are the first graders least likely to have English literacy exposure outside of school. These children are predominantly Latinx EB students, who are mainly exposed to Spanish at home and are simultaneously building upon their native language while also learning English. These students bring with them many language and literacy assets that they can draw upon in an English literacy classroom (August & Shanahan, 2006; Butviolosky et al., 2017; Lindholm-Leary & Hernandez, 2011). Yet they also need to learn many new literacy concepts that students in mainstream US classrooms are already exposed to by first grade, such as learning English letter sounds, irregular high-frequency words, and phonics patterns (Cárdenas-Hagan, 2020; Colorín Colorado, 2007). These students are whom DL programs were initially designed to benefit the most. It is important that DL educators continuously reflect on how our programs are prioritizing and addressing these students' needs and assets.

Community Needs Assessment and the Case for Improvement

Latinx EB students have many community resources and assets to build from at Ayala Elementary. Besides the research-proven assets of having Spanish-dominant students learn literacy skills in their native languages (Lindholm-Leary & Hernandez, 2011), DL programs provide an inherently culturally relevant and sustaining learning environment for EB students. At Ayala Elementary, a majority of teachers represent a diversity of Latinx and immigrant backgrounds, reflecting many of the cultural experiences of their students. These teacher demographics present a stark contrast to the representation of Latinx educators in other schools in the district. For example, within the same Washington, DC neighborhood that Ayala is in, Latinx children represent 58% of the student population, but the teaching force is only 15%

Latinx (EmpowerEd, 2020). Within Ayala's DL program, Spanish-dominant parents have a more direct avenue through which to support their students with academics than they might have at an English monolingual program. With the prevalence of bilingual and Latinx teachers, there is also more opportunity for deeper trust and relationships, as well as easier logistics for parent conferences or communicating about student challenges. Teachers at this school also communicate with parents that their literacy support in Spanish is beneficial to their students' overall literacy development, although many Spanish-speaking parents still express concerns about their abilities to support their children with their English literacy growth.

While long-term data shows that Spanish-dominant EB students in DL programs like Ayala Elementary's outperform their peers of similar backgrounds in English monolingual programs (Butvilofsky et al., 2017; Collier & Thomas, 2004; Lindholm-Leary & Hernandez 2011), sociocultural and academic equity challenges within DL programs themselves are still present, compelling educators to continue refining our approaches to DL education (Cervantes-Soon, 2014; Flores et al., 2021; López & Fránquiz, 2009; Nuñez & Palmer, 2017; Palmer, 2009; Valdés, 1997). Central to this dissertation is how DL schools are intentionally addressing inequities within a diverse student population by building upon the untapped potential and unmet English literacy needs of Spanish-dominant EB students. While this group theoretically stands to benefit the most from a Spanish-English DL program, it is not as simple as just providing instruction in both languages. Biliteracy researchers Escamilla and colleagues (2014) argue that educators need more specific and practical guidance on how to build upon students' multilingual abilities and how to act upon the growing research that shows that many literacy skills can transfer to, or map onto, other languages. This concept of cross-linguistic transfer is backed by research across language and literacy (Bialystok, 2005; Cummins, 1979; Pollard-Durodola &

Simmons, 2009). García and Kleifgen (2010) take a similar perspective, advocating for teachers of EB students to take on “translanguaging pedagogies” (p. 63). This pedagogical approach conceptualizes students’ language skills as dynamic and intertwined. Translanguaging means intentionally using “home language as a scaffold” when working towards English proficiency, rather than keeping different languages in silos (García & Kleifgen, 2010, p. 63). Rooting DL instruction in concepts like cross-linguistic transfer and translanguaging ensures that bilingual education is actively building upon EB students’ linguistic assets. This approach could help DL teachers like me accelerate EB students’ English reading outcomes.

First-grade English literacy teachers within DL program models like Ayala’s, which prioritize Spanish immersion in early childhood instruction before transitioning to bilingual instruction in first grade, need more specific guidance and systems for how to strategically teach to the potential of EB students with foundations in Spanish literacy. Without this guidance, DL teachers risk starting from the beginning with EB students, duplicating their previously held knowledge rather than engaging their “entire linguistic and sociocultural repertoires” (Espinosa & Ascenzi-Moreno, 2021). Applying instruction through an asset-based lens can not only accelerate EB students’ academic growth in English, but also support EB students who are struggling to learn to read. When schools lack instruction that is culturally and linguistically responsive to EB students’ unique competencies and needs, early reading difficulties might go unaddressed until later elementary years, when grade-level content has moved on to more rigorous reading activities (Center for Public Education, 2015; Gaab, 2017; Ortiz et al., 2011). If DL English teachers provide more asset-based instruction and actively consider how students’ skills are concurrently developing in Spanish, they could prompt more timely support of EB students with potential disabilities or reading challenges, regardless of their English language

proficiency level. Early support for students with reading challenges is essential. Research from the National Center on Improving Literacy shows that early identification of reading difficulties, such as dyslexia, are key for preventing and remediating students' reading problems that might be much more difficult to address later on (Petscher et al., 2019). Providing intervention early in a student's schooling is important, as reading interventions in third grade and above are less successful than those conducted in Pre-kindergarten through second grade (Petscher et al. 2019). Consideration of children's linguistic backgrounds adds another layer of importance to early identification and support, as belated identification of reading difficulties can lead to overrepresentation of EB students in special education (Gaab, 2017). Establishing guidance for applying asset-based translanguaging pedagogies and cross-linguistic transfer into early literacy instruction could help Ayala Elementary's teachers avoid these problems through responding to EB students' assets and needs.

At Ayala, I saw a specific need to build an asset-based approach within structured literacy small-group instruction. In its implementation of this Science of Reading-based practice across its early literacy classrooms, DCPS was lacking in specific instructional guidance and resources for teachers in DL programs. While Science of Reading research shows that a structured literacy approach helps EB students build strong foundations for reading success (Cavazos, 2021; Vargas et al., 2021), effective reading instruction should still be tailored with EB students' linguistic profiles in mind. In 2022, the year of this dissertation's implementation, DCPS introduced a new DL literacy assessment tool, Amplify's *mClass Lectura* (Amplify Education, 2023a), which could help foster this alignment between structured literacy and multilingual learning. This Science of Reading-aligned assessment measures students' foundational word reading and phonological awareness skills in Spanish. It also allows educators

to compare this data to students' development of these same key foundational skills in English through Amplify's *DIBELS* assessment (University of Oregon, 2018). This new tool is purported to provide a more holistic picture of EB students' literacy skills and highlight opportunities for instruction that considers cross-linguistic transfer (Amplify Education, 2023a). Thus, the implementation of this new tool provided a corresponding opportunity to explore how early literacy DL teachers can make strategic and impactful instructional decisions based on their increased knowledge of EB students' assets and needs.

The resources and challenges within Ayala Elementary's DL program demonstrated an opportunity for improved, more intentional instructional practices that ensure that EB students' assets and needs are being effectively served by the promise of bilingual education. In order to be a truly antiracist program, especially amidst growing popularity and gentrification, DL programs must examine how they are equitably serving students not only in comparison to monolingual programs, but within the diverse student groups they serve in their school buildings. Applying instructional differentiation that centers EB students and builds on their profiles of biliteracy is one key step. This means actively building upon their assets, such as the Spanish language and literacy skills that they have been exposed to in school and at home, as well as their needs, including access to English language and literacy skills that may be more unfamiliar to them than students from English-speaking homes. Giving DL teachers more nuanced guidance and structures through which to differentiate instruction for EB students as they learn to read in two languages will help students to embrace their cultural and linguistic assets to reach biliteracy proficiency faster. This type of instruction could simultaneously support students with the highest literacy learning needs to receive intensive and appropriate English and Spanish reading intervention as soon as possible.

Positionality Statement

As a child of immigrants who grew up speaking Spanish and embracing my family's Mexican culture at home, I have been intrigued by the concept of DL education since I was first exposed to it as a pre-service teacher. The power of validating and celebrating children's heritage and culture within a country that can do so much to alienate and oppress this connection is only bolstered by the research showing that bilingual education boosts academic outcomes for EB students, as well (Butvilofsky et al., 2017; Collier & Thomas, 2004; Lindholm-Leary & Hernandez 2011). As a DL teacher now, nothing brings me greater joy than seeing Latinx students exhibit pride in their roots and work hard to maintain their family's language. It is powerful to see children of all backgrounds appreciating diversity and learning from this perspective as well.

I pause to wonder how the idealistic project of integration in DL schools is going, however, when I see the academic opportunity gaps that persist within my classroom and school. Students with more racial, linguistic, and socioeconomic privilege are often outperforming many Latinx EB students early on; or they at least appear to be when we look only from my biased perspective as an English reading teacher. Dual language teachers at Ayala Elementary often say that students' reading skills across both languages generally "even out" around third grade, and that before then it is common to see students have a relative strength in reading in one language over the other. Teachers like me often rely on this happening implicitly, rather than intentionally and explicitly planning around and supporting students' skills across languages to ensure that students' pre-existing Spanish skills can truly elevate EB students' overall biliteracy skills.

As I began my dissertation journey, I wondered how this period of 'waiting' for students' skills to level out may impact teachers' identification and intervention in EB students' reading

challenges, especially when EB students' English language-learning adjustment might be assumed to be the cause of their reading challenges. I also wondered about how a knowledge/opportunity gap might widen as more privileged, English-dominant students jump into "reading to learn" versus "learning to read" more quickly and take advantage of the much wider collection of English reading resources versus Spanish resources available, both at school and in our English-dominant context in Washington, DC (Center for Public Education, 2015; Howard et al., 2018). Improving the alignment between English and Spanish literacy instruction, specifically for EB students, could help ensure that these students are making essential biliterate connections as early as possible, while ensuring that reading challenges are identified and remediated early on. If students develop strong foundational reading skills in their early elementary years, they are better prepared to succeed academically when they transition to "reading to learn" in third grade and beyond (Center for Public Education, 2015). To ensure that DL schools truly uplift EB students and their families, we need to plan for equity with intention and reliance on research-proven strategies for supporting EB student biliteracy.

As a first-grade DL English reading teacher, I had the opportunity to make an impact within this problem space. With direct access to the reading instruction of my 43 bilingual learners at my diverse, majority Latinx school, I had an opportunity to rethink how to intentionally plan for biliteracy knowledge transfer and how to support struggling readers. As both a teacher and researcher, my plan was to explore how aligned instruction and collaboration across English and Spanish languages and between myself and my EB students' families could support students' improved English literacy outcomes. The following section summarizes the research and frameworks that shaped this exploration.

Section 2

Knowledge Review

This section reviews the existing knowledge, policy, and theory that informed the creation of my intervention, guided by the question of how to accelerate early English literacy outcomes for EB Latinx students in DL schools by embracing their linguistic diversity and assets. I review the academic literature, bilingual education approaches, and evidence-based practices that illuminate the context of learning and teaching in present-day DL public schools and particularly in DL early literacy classrooms. First, I review the sociocultural challenges within the bilingual education practice and policy landscape in the context of changing demographics and increasing gentrification, exploring how these changes have impacted power dynamics and influenced academic outcomes. Second, I introduce a funds of knowledge framework, explaining how this research perspective can help DL educators intentionally draw upon Latinx EB students' community knowledge and culture. Third, I explore how cross-linguistic transfer theory, Science of Reading-based early literacy practices, and family partnership can be used as vehicles for elevating students' funds of knowledge and shaping more equitable practices and outcomes in DL schools. Last, I share the personal competencies that I sought to intentionally develop and leverage within myself as I executed an intervention that was grounded in antiracism and practical action. Through this knowledge review process and consequentially my intervention, I connect bodies of knowledge across sociology, sociocultural phenomena, and reading research to inform cross-disciplinary action.

Practice and Policy Review: Dual Language Education in the Context of Gentrification

As DL programs expand and diversify, it is important to reflect not only on the practical outcomes, but also on the socio-political implications. As Hernández (2021) states, “ideologies surrounding [DL] programs are naturally racialized and class-based as mirrors of larger societal forces,” and, as detailed in sections, the influx of gentrification calls us to consider how these larger forces are at play within DL classrooms like my own (p. 127). Before exploring the specifics of biliteracy instruction and the practices of DL education with a more localized, micro lens, it is important to contextualize the macro setting and trends of the systems within which Latinx EB DL students are existing. Critical Race Theory (CRT) provides an important framework for situating the demographic changes occurring within DL schools and forming a basis for why educators and policymakers need to approach these programs more mindfully as their popularity grows (Bell, 1980; Cervantes-Soon, 2014; Flores & García, 2017; Morales & Maravilla, 2019).

Critical Race Theory and Interest Convergence in Education

Critical race theory posits that structures of racism in the United States are inherent, normalized, and regenerative (Ladson-Billings, 1998). According to CRT, our current social and political order supports slow incremental progress, versus sweeping change that would truly dismantle the inequities of our racial order (Ladson-Billings, 1998). To apply this line of thinking, scholars rely on the tenants that (1) racism is normal and integrated in our country, (2) racial progress only happens when there is interest convergence and benefit for dominant White society, (3) race is socially constructed, (4) counter storytelling is a valuable way for people of color to counter deficit-based research, and (5) liberal ideology is flawed (Ladson-Billings,

1998). Critical race theory scholar Ladson-Billings (1998) explains that CRT can act as a “powerful explanatory tool” when applied to our historically inequitable public education system (p. 18).

Within the vast research base of applying the CRT tenants to education, one particular line of study is school desegregation. Derrick Bell (1980) used the concepts of critical race theory to explore how interest convergence serves as a main driver in legal and political moves towards school desegregation (most notably in *Brown v. Board of Education*). Interest convergence asserts that efforts towards integration, while supposedly benefitting both White people and people of color, are ultimately mainly implemented for the benefit of dominant White society (Bell, 1980). Seeing the trends in DL schools towards more racially, ethnically, and socioeconomically integrated settings, education scholars have begun to apply the concepts of CRT and interest convergence specifically within these programs, exploring whom these programs are benefitting the most as White families increasingly enroll.

Interest Convergence in Dual Language Schools: An Asset or a Barrier to Progress?

While some scholars find that interest convergence ultimately helps provide a high-quality education to minoritized students who otherwise might not have access, other scholars find that it detracts from addressing deeper inequities due to race, class, and power dynamics. In their study of a socioeconomically and racially mixed DL elementary school in Los Angeles, Morales and Maravilla (2019) conclude that DL programs simultaneously benefit both marginalized and dominant populations. After conducting interviews with school staff, these researchers concluded that middle-class White families’ advocacy for and willingness to participate in the bilingual model helped the community succeed. They also concluded that this

group of parents brought higher expectations that benefitted all students (although they might also detract from students with higher needs).

Morales and Maravilla (2019) claim that families in this setting served as commodities to each other in a way that ultimately benefitted all students and was better than the alternative scenario of segregated schools; however, many authors (Cervantes-Soon, 2014; Flores et al., 2021; Valdés, 1997) might disagree with settling for this conclusion. Morales and Maravilla speak about the more transactional benefits that diverse groups of families can afford to each other, but they did not further explore the topic of lingering attitudes and impacts of White supremacy, which might be the kinds of deeper, regenerative issues that CRT would call us to question more deeply. Morales and Maravilla (2019) acknowledge the ideas of Bell (1980) and Ladson-Billings (1998), stating that “as soon as the interests of White middle-class families become more important than the interests of communities of color, it is no longer mutually beneficial to continue the arrangement” (p. 146). As school populations continue to shift, it is important to directly evaluate this question of which communities’ interests are truly being centered and prioritized. In the following subsection, I explore how interest convergence affects Latinx minoritized students specifically, questioning how White supremacy continues to impact students of color even when they are benefitting from DL education and setting the stage for how biliteracy reading outcomes fit within this sociocultural context of race, ethnicity, socio-economic status, and power relations.

Interest Convergence and Latinx Students: Commodification of Resources

The main group whose best interests contrast and converge with the increasingly middle-class White interest in DL schools is the Latinx immigrant community, for whom this model of

education was first established. DL Spanish-English education has often been marketed as a benefit to the Latinx community through the “tropes of pride and profit,” affirming students’ self-esteem while also attracting families (mainly White, middle-class, and English-speaking) with more dominant cultural, social, and political capital who might “elevate” the quality of these schools (Flores & García, 2017, p. 16). This combination of bringing in pride and profit whilst meeting the needs of White families paints a picture of interest convergence that serves Latinx students well. Yet Flores and García (2017), both former bilingual educators themselves, argue that these tenets are not enough to combat the structural inequities that Latinx students still face. While Flores and García share some counterstories from Latinx parents and students about the many benefits of bilingual programs for their community, irrespective of White involvement, they also call for increased attention to how the best interests of the Latinx community are coming second to the interest of the White-middle class population.

Cervantes-Soon (2014) shares a similar warning against interest convergence, cautioning that the “uncritical implementation” of DL programs can lead to a “double-edged sword that commodifies Latin@’s linguistic resources” (p. 64). In her analysis of the rise of DL schools in North Carolina, she explains that when we only focus on dual language’s promising rewards of bilingualism, multiculturalism, and higher test scores for all students involved, we risk ignoring the continued reproduction of unequal power structures. Cervantes-Soon points out that even if English-speaking privileged parents are genuinely committed to justice, their own children’s interests will always come first. Additional power differentials lie in the curriculum, which has inherently centered a White Eurocentric perspective, and in the fact that English will likely remain as the language of power in the United States for the foreseeable future. These patterns point to the enduring influence of English hegemony, or the privileging of standard English and

its native speakers, even within spaces that intentionally aim to lift up multilingualism (Freire et al., 2022).

Seeing these patterns, it is important to question whether DL programs are “giving away” the cultural and familial value of Spanish for the “neoliberal goals” of an already-dominant group (Cervantes-Soon, 2014, p. 68). While Morales and Maravilla (2019) see the advocacy of White middle-class parents as an overall asset to DL schools, Cervantes-Soon (2014) claims that this “asymmetrical division of power and voice” is damaging to marginalized Latinx children who already experience a lack of representation in the United States’ systems of politics and power (p. 75). In contrast with Morales and Maravilla’s practical conclusion that interest convergence in DL programs is simply the best-case scenario we can settle for, Cervantes-Soon argues that we must not settle for the reification of social inequities that interest convergence leaves in its wake if un-confronted.

Freire and colleagues (2017) draw similar conclusions to Cervantes-Soon in their examination of dual language programs in Utah. The authors examined dual language state policy documents and promotional materials through a lens of Latinx Critical Race Theory, questioning how much Latinx interests have been upheld in this state’s rapidly expanding programs. Insofar as CRT defines Whiteness as property, Freire et al. claim that the skills of bilingualism only increase the privilege of White students without adding the same privilege for Latinx students, who are pressured to assimilate rather than retain their cultures and languages. This group of authors echoes Cervantes-Soon’s (2014) call to examine the differing power relationships between learners and language that are reified in DL schools as well as the commodification of the Spanish language. In this vein, Freire et al.’s examination of promotional documents for DL programs in Utah revealed a focus on otherizing Spanish as a useful exotic

ability for native English speakers rather than highlighting it as an essential piece of many Latinx families' cultures. In analyzing the language of DL policy documents, Freire et al. also noticed trends in uplifting the purpose of learning Spanish for the purposes of globalization and economic competitiveness, rather than ties to equity and heritage. Striking a balance between Morales and Maravilla (2019) and Cervantes-Soon's (2014) perspectives on interest convergence, Freire et al. conclude that interest convergence can benefit both White and Latinx groups only when DL program expansion focuses intentionally on serving Latinx communities, because expanding bilingualism and academic success for Latinx students will benefit the country's economy as a whole. In this vein, my dissertation explores how this centering of Latinx communities can happen in DL biliteracy instruction.

Translating the CRT lens to Biliteracy Experiences and Outcomes

The factors of interest convergence, power differentials, and English hegemony in DL schools that scholars have studied from a more sociological and theoretical lens also impact how academics, and specifically biliteracy, are taught to and experienced by students in these schools. In her studies of the dynamics within gentrifying DL schools, Palmer (2009) notes that the "fusion of two different groups of children, two different sets of expectations, is controversial" (p. 177). Taking into account the differences in race, class, and language amongst these student bodies, she wonders if it is possible to meet the needs of all groups at once, or if "[teachers] and [programs] inevitably end up serving the needs of dominant English-speaking children first" (Palmer, 2009, p. 177). López and Fránquiz (2009) have asked a similar question, specifically in the realm of DL programs' approaches to literacy. In their study, these authors explored how biliteracy programs need to adjust their literacy ideologies and resulting practices in response to

demographic changes and the increasing presence of English hegemony. López and Fránquiz (2009) found that while a commitment to “social justice and equitable language and literacy goals” was notable in discourse and policy, there was a “marked incongruence” in the actual translation of these ideals and beliefs into practice (p. 175). While schools in this study promoted the vision of using language as a resource, particularly for EB students, biliteracy instruction practices were actually quite rigid and separated between the two languages, often in a way that communicated that English literacy proficiency was the main, most desirable goal (López & Fránquiz, 2009). Following progressive approaches such as Alim and Paris’s (2014) Culturally Sustaining Pedagogy, DL education has the opportunity to “perpetuate and foster linguistic, literate, and cultural pluralism as part of the democratic project of schooling,” to give EB students access to power while also maintaining heritage and culture (p. 85). DL education offers EB students an avenue to capitalize upon their unique cultural and linguistic assets in service of better accessing English literacy while also keeping these assets sacred for their own sake. From my positionality as a first grade DL English literacy teacher, I see my charge as upholding EB students’ linguistic resources for their own sake while also taking on the practical charge of effectively and efficiently building up these students’ access to power and academic equity through English literacy in a system that prioritizes English hegemony.

While long term data shows that Spanish-dominant EB students in DL programs outperform their peers of similar backgrounds in English-only programs (August & Shanahan, 2006; Butviolosky et al., 2017; Collier & Thomas, 2004; Lindholm-Leary & Hernandez 2011), more limited research exists on how to improve students’ trajectories *within* these programs to ensure that their language skills are authentically being elevated and valued as a resource for deeper learning, particularly in Science of Reading-based instruction. In this vein, researchers

like Hopewell and Escamilla (2014) and García and Kleifgen (2010) have advocated for shifting how we discuss EB students' literacy abilities and progress, claiming that when we view their literacy skills through two different monolingual lenses, we overly-label these students as struggling readers and miss the full picture of their holistic bilingual skills. When we use English monolingual students' literacy development as the norm in our practices, students are not only incorrectly labeled as failing, but also potentially denied the opportunity to receive the linguistic supports they likely need, as well as the enrichment they should access with their multilingual grade-level reading skills (Hopewell & Escamilla, 2014). Recent and continuing conversations around holistic bilingualism (Butviolosky et al., 2017) and translanguaging (García & Kleifgen, 2019) highlight the need to reconceptualize biliteracy practices within diverse DL programs to ensure that these programs are not imposing deficit frames on Latinx EB students while taking advantage of their cultural resources. With more intentional practices aimed to meet the biliteracy learning needs of EB students, DL leaders and educators can ensure that their rhetoric around social justice and bilingualism is matched with effective biliteracy classroom instructional practices centered on EB students as school communities continue to change.

The Case for Revamping the Intentionality of DL Biliteracy Instruction to Increase Equity

As detailed in the Problem of Practice section, DL schools present a unique opportunity to meet the academic and cultural needs and assets of Latinx students of diverse backgrounds, even despite current equity challenges. When a program actively incorporates Latinx EB students' native language literacy, educators can begin to combat the “pervasive belief that Spanish is a root cause of underachievement for Spanish-speaking English language learners” and instead value it as a resource (Escamilla, 2006, p. 2329). Oftentimes, the practice of

presenting English monolingualism and English literacy development as the universal norm can set up EB students to be defined as abnormal and in need of catching up from the start of their schooling (Escamilla, 2006). Even within schools and districts that offer DL programs, the centrality of English scores and competencies can take precedence in a way that strengthens the narrative of EB students being ‘behind.’ Biliteracy instruction that is centered on EB students presents an opportunity to challenge this thinking and define a diversity of valued learning trajectories.

The opportunity to address the specific literacy assets and needs of EB students by intentionally integrating students' literacy abilities across languages within DL programs is promising, particularly in the context of national NAEP literacy data that calls for additional support of this student population (U.S. Department of Education, 2018). While my intent is not to characterize Spanish literacy as simply a vehicle for success in English-speaking society and systems, biliteracy instruction does present an opportunity for EB students to access the opportunities and power that English literacy brings more effectively, as well as ideally receive support if they are struggling to grasp the universal concepts of early alphabetic literacy that transcend languages. Culturally and linguistically diverse students are often underdiagnosed and untreated for reading disabilities until third grade and then over-diagnosed afterwards due to delayed intervention (Gaab, 2017). With a lack of appropriate assessment tools or subsequent culturally and linguistically responsive instruction, EB students are often over-referred to special education rather than receiving effective intervention within the early elementary general education setting (Ortiz et al., 2011). Considering students who do have documented disabilities, Martínez-Álvarez (2018) argues that EB students can and should be able to succeed in DL programs and become biliterate, but they often do not have the adequate supports or are

encouraged to disenroll. Ensuring that EB students with disabilities, as well as struggling EB readers who might be overidentified with disability labels later on due to insufficient early support, get the most targeted instruction is an essential challenge to solve in order to ensure that DL programs are inclusive, particularly for EB students who could stand to benefit the most from them, both culturally and academically.

If effective biliteracy instruction is delivered and monitored early on and holistically, particularly in service of Latinx EB students' assets and needs, DL programs can ensure that their instruction is meeting the moment of gentrification and demographic change with an intentional focus on equity and integrity to its roots and social justice ideals. While there are many aspects of DL education that we should be working to root intentionally in the assets and needs of the Latinx community, from curriculum content to language policies (Heiman & Nuñez-Janes, 2021), centering the assets and needs of Latinx EB students within foundational biliteracy instruction in order to highlight their holistic knowledge and also support reading difficulties early is one key area to address.

Grounding the Asset-Based Intervention in Existing Theory

The research I have surveyed shows that the present context of DL education calls for intervention that intentionally recenters Latinx EB students. In this vein, I chose funds of knowledge as a guiding theoretical framework to ground my asset-based practice. Funds of knowledge theory posits that students, especially those from marginalized backgrounds, are more likely to succeed when schools integrate their household and community resources (Moll et al., 1992). Within this framework, “everyday practices, including linguistic practices, are sites of knowledge construction” (García & Kleifgen, 2010, p. 95). In essence, a funds of knowledge

framework encourages educators to broaden their understanding of what students know and then build upon this holistic knowledge base actively. In this subsection, I survey what it means to uplift EB students' funds of knowledge in the context of existing research and what building upon this knowledge could look like in the context of early English literacy instruction in DL schools.

While funds of knowledge typically refers to knowledge acquired outside of school, I argue that EB students' Spanish linguistic and literacy skills acquired within their early childhood instruction also make up an important portion of their funds of knowledge. Emergent bilingual students who spend their early years in Spanish-immersion classrooms and Spanish-speaking homes might seem to have a disadvantage when they enter an English literacy classroom for the first time, because most of their existing language and literacy knowledge stems from a non-dominant culture. As detailed in previous sections, even within bilingual schools, Spanish skills can often be undervalued and deprioritized (López & Fránquiz, 2009). With the goal of centering Latinx EB students in early literacy instruction and keeping antiracism and equity at the heart of DL education, funds of knowledge calls us to actively take into account all the experiences that have shaped EB students' existing, holistic literacy knowledge. This perspective allows for intentionally centering EB students' assets and competencies, both those that they continue to gain at home and those that they have absorbed through Spanish immersion at school. Thus, the goal is not only to acknowledge students' cultural and linguistic diversity, but to sustain students' multiculturalism and multilingualism while also integrating these existing competencies with accelerated access to mainstream English (Alim & Paris, 2014; Cioè-Peña, 2022). While an early immersion in Spanish instruction is inherently rooted in building on EB students' community and cultural resources in order to give them an overall boost in their

literacy learning across languages, the work of integrating this knowledge needs to be done intentionally when students begin to learn in English as well.

To determine how teachers can integrate EB students' funds of knowledge within the specific context of early literacy, I explore funds of knowledge research and then connect it to transfer theory and Science of Reading research in order to provide a more holistic picture of how we can take into account students' language competencies and apply them towards concrete academic outcomes. I first review how funds of knowledge research has traditionally focused on family interviews and broadening the lens of what qualifies as a valuable skill and resource for learning, to inform the parent-facing component of my intervention. I then describe transfer theory and how it aligns to a variety of key biliteracy theories and practices, in order to connect funds of knowledge to the process of learning to read. This collective body of knowledge explores how Spanish language and literacy knowledge can support literacy learning in English and vice versa. Next, I examine how transfer theory can be aligned with the Science of Reading in service of effective biliteracy instruction in early elementary DL classrooms. I specifically focus on the aligned importance of phonics and phonemic awareness skills to both Spanish and English early reading proficiency and how we can better take advantage of these overlapping knowledge bases through intentional instruction. This focus aligns with the structured literacy approach and the needs of the first-semester first grade EB students who participated in my intervention during their transition from Spanish immersion to bilingual instruction.

Families and Biliteracy

At the heart of funds of knowledge theory are the resources and assets that students bring from their homes and families (Moll et al., 1992). In this subsection, I review existing research

on the inclusion and exclusion of EB students' families in their children's education, particularly within DL programs, in order to highlight the opportunity that lies in centering their linguistic and literacy resources. I argue that applying a funds of knowledge perspective can lead to more authentic and beneficial partnership to support their children's biliteracy success.

The importance of family involvement and partnership in their child's formal education has long been captured by research evidence. The value of EB students' families in their education is no different. Specifically, research shows that parent partnership correlates with improved attendance, academic achievement, learning attitudes, and graduation rates (García & Kleifgen, 2010). A funds of knowledge approach to this partnership advocates for relationships between schools and families are not a one-sided flow of information in which families are framed in a deficit perspective. Instead, this framework engages an anthropological perspective that intentionally questions "nonsymmetrical relations of power" (González et al., 2005, p. 42). Gonzalez and Moll (2002) conceptualize the importance of funds of knowledge as a building of bridges: bridges that allow students access to dominant culture and knowledge, but also "bridges that join community knowledge and school validation of that knowledge" (p. 624). Within DL programs, particularly those that begin with several early years of Spanish immersion, Latinx EB families have the advantage of creating an essential bridge to their native language.

Even so, research notes that the home practice that "most often comes under attack is the home language" (García & Kleifgen, 2010). The stigma that comes with not speaking English can be further impacted by assumptions tied to non-dominant racial identities, socio-economic status, cultural values, or education status. In their report on the National Literacy Panel on Language-Minority Children and Youth, August and Shanahan (2006) claim that schools often "underestimate and underutilize parents' interest, motivation, and potential contributions" with

regards to their EB child's educational growth (p. 15). Hernández (2021) adds that immigrant parents' cultural capital in DL programs "can be undervalued due to parents' social location" (p. 113). Hernández points out that parent involvement practices, which are mostly established within the lenses of dominant culture, often are not neutral or inherently conducive to equity. It is clear that EB students' families possess an important foundation of cultural resources, but mobilizing these resources also requires power and active steps towards inclusion within school systems (Hernández, 2021). Cioè-Peña (2022) argues that, while modern-day schools have made strides towards building inclusivity of students' identities within the classroom through movements like culturally sustaining pedagogy and culturally relevant pedagogies, the same authentic engagement with families, particularly those of marginalized identities, has often not been applied.

It is important to consider the dynamics of parent inclusion and assumed involvement in the particular context of linguistically, racially, and socioeconomically diverse DL schools. In her studies of such school climates, Hernández (2021) argues that parents' "attributed agency is ultimately stratified by language, class, and race" (p. 128). In a study of a diverse Los Angeles DL school, Jazmin Muro (2021) explores the dynamics in which intersections of race and class often create a dichotomy between parents in which the wealthier English-speaking families are seen as the "helpers" while working-class Spanish-speaking families are seen as the "helped" (p. 135). This dichotomy contributes to deficit perspectives of EB students and families.

Within efforts to build upon families' assets and involvement, and in keeping with González et al.'s (2005) call to interrogate power dynamics through funds of knowledge research, scholars and educators need to reflect on how schools can move beyond tendencies to tokenize families and work towards co-construction (Hernández, 2021). Researchers like

Auerbach (1995) have warned against the danger of asset-based perspectives backfiring, particularly when it comes to family literacy initiatives. Programs that couch themselves in the tropes of parents as children's first teachers, while well-intentioned, can also place undue weight or responsibility on families for students' reading success and failures (Auerbach, 1995). Tropes around seeing parents as learners or partners can similarly backfire, despite good intentions, when they fail to account for the complexity of the inequitable systems we exist within or continue to exist in a framework that inherently sees parents as problems to be fixed (Baquedano-López et al., 2014). Along these lines, when working towards improving educational outcomes for EB students and families, it is important to "make visible the unequal social structures underlying public education" while "[integrating] and [building] on the resources of Latino families to address these inequities" (Baquedano-López et al., 2014, p. 23).

Considering the many missteps and missed opportunities that characterize parent-school partnership, my goal in applying a funds of knowledge perspective was to put myself in a learner role, to seek out potentially overlooked connections between home and school literacy learning, and to reflect on how we can actively value the resources of immigrant families' linguistic resources in DL programs. DL programs show promise for helping shift the unequal power dynamics that exist for EB students' families in US public schools. Freire and Alemán (2021) argue that, within such efforts to foster equity, there exists a "need to acknowledge and document families' efforts to support their [DL] children academically in non-traditional forms" in order to uplift and build upon the role of EB students' communities in their success rather than supporting a "saviorist" perspective of bilingual schools (p. 266). I hoped to use a funds-of-knowledge perspective for not only the practical outcome of giving EB students more academic

advantages as they learn to read, but also as one pathway to combatting deficit framings of multilingual immigrant families.

For Latinx EB students in bilingual programs, their families hold a particular wealth of knowledge and resources related to their home languages and cultures. Creating opportunities for families and teachers to connect and reach mutual understanding around these funds of knowledge is essential in fostering students' academic growth and engagement. For my project, I explored how to incorporate and build upon families' funds of knowledge as students transition from Spanish into biliteracy instruction. While funds of knowledge research often emphasizes collecting student and family knowledge across cultural practices, traditions, or work experiences, I focused mostly on language and literacy knowledge and how it connected to my problem space of structured literacy instruction. What families are doing at home in terms of language and literacy is currently contributing to students' literacy learning across languages; however, explicitly connecting and increasing opportunities for this shared understanding between teachers and families can strengthen and fortify this home-school bridge.

Transfer Theory and Biliteracy

Funds of knowledge maps well onto the concept of transfer theory, which I use to explain how the knowledge of Spanish language and literacy can be actively integrated into English literacy learning. Transfer theory posits that new learning of knowledge and skills involves interaction with past learning and explores the conditions in which learning from one context can extend to another (National Research Council, 2000). When applied to bilingual and biliterate people, transfer theory overlaps with the concept of translanguaging, which Otheguy and colleagues (2015) define as “the deployment of a speaker’s full linguistic repertoire without

regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages” (p. 281). Translanguaging validates multilingual people’s unique processes of making meaning across spoken and written language and engages with the sociopolitical contexts of language (Otheguy et al., 2015). In order for effective cross-linguistic transfer to occur in classrooms, Guilamo (2022) argues that teachers must first establish “translanguaging stances, translanguaging spaces, and translanguaging pedagogical approaches” in order to affirm for EB students that their existing skills are “worthy of transfer and application.”

While honoring this tradition of taking into account EB students’ holistic linguistic repertoires, I have chosen to specifically zoom in on what this looks like in the context of cross-linguistic skills manifesting in early English reading. Cummins (1979) provides an important foundation for understanding the interactions between languages in this context: his theory of common underlying proficiency explains that proficiency in a child’s second language directly builds upon their abilities in their native language. Cummins adds that building upon EB students’ native language competencies is essential in successfully transferring their competencies to the second language. The opportunity for cross-linguistic transfer across language and literacy skills is clear, yet there is a need for more research into the specifics of how teachers can effectively facilitate such transfer within English structured literacy instruction (Mathes et al., 2007).

For transfer to occur, a strong initial learning experience based on conceptual understanding, rather than memorization, must occur (National Research Council, 2000). Many teachers are familiar with the concept of activating background knowledge at the beginning of a lesson—transfer theory supplies the foundation for this idea, asserting that “actively identifying

the relevant knowledge and strengths that students bring to a learning situation” allows teachers to build new knowledge and skills more effectively (National Research Council, 2000, p. 78). Researchers maintain that strategic prompting and planning to leverage prior learning results in transfer more often than relying on it happening organically (National Research Council, 2000). Given that many theorists see learning transfer as an “active, dynamic process rather than a passive end-product of a particular set of learning experiences,” (National Research Council, 2000, p.53), it follows that DL teachers should apply the same perspective to EB students learning to read in two languages simultaneously rather than relying solely on spontaneous transfer.

In a study comparing the foundational reading skill development of first graders ranging in bilingual and monolingual backgrounds, Bialystok et al. (2005) compared students’ vocabulary, decoding, and phonological skills, paying attention to any covariance, advantages, or disadvantages that appeared in different student groups’ data. This research team found that one major contribution of bilingualism was giving children a transferable foundation of understanding what reading is and how a system of print can translate to meaning. Second, they found that the potential of positive transfer increases when the two languages that the child is learning share the same system of symbols, such as the alphabetic system that English and Spanish share. In particular, they found a strong cross-linguistic correlation of phonological awareness skills, or the ability to manipulate the sounds in words, and the ability to decode nonsense words. These findings are promising indicators that EB students receiving their early childhood instruction in Spanish are building a strong foundation that will be beneficial to their literacy growth in English. Following transfer theory, these cross-linguistic connections must be made explicitly to be most effective.

The Science of Reading and Biliteracy

The knowledge of Spanish language and literacy that stems from EB students' cultures and communities is important in its own right, but it is also powerful because it is closely tied to the foundational competencies of English literacy established by the Science of Reading. An effective intervention that ensures cross-linguistic transfer and early English literacy success for EB students should be based in current reading research that considers the foundations of both English and Spanish literacies. Research from the 2006 National Literacy Panel on Language Minority Children and Youth has indicated that a focus on the five main components of reading, which include phonological awareness, phonics, reading fluency, vocabulary, and comprehension, is essential for all readers, whether they are native English speakers or not (August & Shanahan, 2006). More recent research reviews have continued to maintain this assertion and advocated for the use of Science of Reading and structured literacy practices with EB students to explicitly build upon all five components of reading (Cavazos, 2021; Vargas et al., 2021). In this subsection, I review the research on the interplay of biliteracy and the Science of Reading and consider how students' Spanish language and literacy knowledge serves as a resource in EB students' process of learning to read in English.

Key research in the Science of Reading posits that the ability to read is grounded in the Simple View of Reading, which depends upon an interplay of two main skill areas: language comprehension and word recognition (Gough & Tunmer, 1986; Moats, 2020). The word recognition portion, an essential focus of English literacy instruction in early elementary schooling, depends on phonological awareness, decoding skills, and automaticity (Moats, 2020). Researchers have determined that the Simple View of Reading applies in the same way to students with emerging English proficiency and that the same predictive reading risk indicators

apply to this group as well (Brice & Brice, 2009; Vargas et al., 2021). In a review of landmark studies on effective reading instruction for EB students, Vargas et al. (2021) determined that these students can attain the same word recognition abilities as their English monolingual peers “when they receive evidence-based instruction that is aligned with the Science of Reading” (p. 40). Within this instruction, an essential element is early intervention and support for English decoding and phonological awareness skills. Educators must take action to cement these skills in early elementary years rather than waiting for them to “‘catch up’ as they gain exposure to the language of instruction” (Vargas et al., 2021, p. 39). While the same elements of reading science apply to supporting EB students’ foundational literacy skills, strategically adjusting instruction for this population is an important and ongoing topic of research (August & Shanahan, 2006; Cavazos, 2021).

One key element in supporting early biliteracy success and analyzing early reading risk is phonological awareness instruction (Gaab, 2017; Petscher et al., 2020; Pollard-Durodola & Simmons, 2009). While Bialystok et al. (2005) note the positive transfer of phonological awareness skills from Spanish to English for EB students, researchers also point out the phonemic differences between these two languages that must be considered in order to support and clarify this transfer towards English reading proficiency (Brice & Brice, 2009; Cárdenas-Hagan, 2020; Pollard-Durodola & Simmons, 2009). In a study of kindergarten students with varying Spanish-English bilingual and English monolingual backgrounds, Brice and Brice (2009) found evidence of Spanish influence in EB students’ process of early English word reading, noting that future research should explore which phonemes, or sounds, pose the most challenge for these students to acquire in order to incorporate them into more targeted instruction. These challenging sounds likely align to the letters that make different sounds in

Spanish and English (such as the ‘j,’ ‘h’, or vowels) or the sounds that do not exist in the Spanish language (such as /th/, /sh/, /i/, or /u/) (Cárdenas-Hagan, 2020; Colorín Colorado, 2007). The Brice and Brice (2009) study further asserts that all bilingual students, even if they show early reading promise, should receive explicit instruction in phonological awareness elements that do not transfer from Spanish in order to reach the same levels of English reading achievement as English monolingual students (Brice & Brice, 2009). Cárdenas-Hagan (2020) also advocates for providing explicit instruction in the phonemic similarities and differences between Spanish and English sounds, and her text *Literacy Foundations for English Learners: A Comprehensive Guide to Evidence-Based Instruction* provided a model for how to apply this instruction in my intervention.

Another factor to consider when building foundational literacy skills and identifying early reading risk is decoding, or the process of applying letter-sound relationships to sound out and blend a written word (Gough & Tunmer, 1986; Moats, 2020; Petscher, 2020). As noted in the previous subsection, transfer of reading skills across languages is strong when print systems follow the same code, as English and Spanish do. While there are of course key differences between the two systems, students only need to learn the process of “breaking the code,” or decoding, once (Estrellita, 2021). Once a student knows that letters represent sounds and learns to blend those sounds together to produce a word, they can transfer these skills to other alphabetic languages (Pollard-Durodola & Simmons, 2009). English literacy of EB students should explicitly facilitate this transfer from Spanish to English by highlighting phonetic similarities (Cárdenas-Hagan, 2020). They should also provide additional instruction in the sounds, phonics patterns, and irregular words that do not exist in Spanish (Cárdenas-Hagan, 2020; Colorín Colorado, 2007).

Unlike English, Spanish has a shallow and transparent orthography, or system of written language (Moats, 2020; Seidenberg, 2019). This means that the patterns of sound-symbol correspondence used for Spanish decoding and spelling are very consistent with few irregularities (Seidenberg, 2019). Because of this, some early Spanish reading instruction practices differ from early English reading instruction, even though the same overall process of decoding applies. Due to the regular alphabetic structure of Spanish, early Spanish literacy instruction often focuses on the syllable unit, both in decoding instruction and phonological awareness activities (Pollard-Durodola & Simmons, 2009). Early Spanish literacy curricula such as *Fonética y Gramática* and *Heggerty*, which DCPS implements, focus on teaching students to orally segment and blend words through syllable units (Benchmark Education, 2022, Literacy Resources, 2023b). This practice differs in English science-based reading instruction: research recommends narrowing phonological awareness to a stronger focus on phonemic awareness instruction, since the English language is more orthographically complex (Kilpatrick, 2016). This means that more emphasis should be placed on blending, segmenting, and manipulating words at the individual sound-level in English reading instruction (Kilpatrick, 2016). For EB students, especially those in DL programs, the instructional implications of these linguistic and instructional differences include the need for more explicit English phoneme-level manipulation practice with specific attention to English-Spanish similarities and differences, both in phonemic awareness and decoding instruction (Pollard-Durodola & Simmons, 2009).

Alongside the foundational word recognition instruction that allows students to unlock the meaning of print, the need to expand vocabulary and oral language development for EB readers is also essential (August & Shanahan, 2006). As previously described, the Simple View of Reading necessitates both language comprehension and word recognition for strong reading

outcomes (Gough & Tunmer, 1986; Moats, 2020). Given the scope of this dissertation, I focused on adjusting word recognition instruction as a particular need in a DCPS DL school in which the study takes place. At the time of the study, DCPS was beginning to implement its *Paired Literacy* curriculum across English and Spanish classrooms to thematically connect comprehension, vocabulary, and writing curricula across languages. This collaborative model supports students' language comprehension as biliterate learners, bringing in the promise of translanguaging and connecting funds of knowledge across languages. My study addressed the outstanding word-recognition needs of EB students at Ayala Elementary to ensure that students had full access to both components of the Simple View of Reading through a biliteracy lens. My focus was informed by the Science of Reading-based recommendation of allotting early and structured word reading instruction, while simultaneously providing vocabulary and background knowledge support throughout the entire school day (August & Shanahan, 2006; Cavazos, 2021). More efficiency in aligning the word reading process across EB students' funds of language and literacy knowledge could give students more opportunities for richer text-based exposure to English vocabulary and comprehension earlier on.

Aligning the Theories and Problem of Practice

Funds of knowledge, transfer theory, and Science of Reading-based instructional practices are already embedded within the core context of DL programs like Ayala Elementary's. The foundational concept of Spanish-English DL schools implies a concrete valuing of Spanish-dominant students' funds of knowledge and its applications across languages of instruction. The aim of my intervention was to more intentionally apply these theories to how we support students' early biliteracy, particularly for the benefit of EB students who may need more support

in transferring their Spanish language and literacy skills to English reading proficiency. Through this process, it is essential that educators apply an asset-based perspective, actively building upon the rich knowledge that EB students have acquired through their families, communities, and Spanish immersion classrooms.

Particularly in a classroom setting in which students first officially transition from all Spanish instruction to biliteracy instruction, the opportunity is ripe to more clearly center the needs of Latinx EB students. This can be accomplished by building in specific supports that will integrate the knowledge they have around decoding and phonological awareness in Spanish to their experiences in the English literacy classroom. Implementing effective Science of Reading instruction and following up with any necessary intervention early on are key to avoiding third grade overdiagnosis of special education needs (Gaab, 2017). The possibilities of successful early remediation and support are promising: except for around 5% of children, most first graders have the capacity to learn to read fluently when given strong foundational instruction in word recognition and language comprehension (Moats, 2020). Rather than waiting for students to make biliteracy connections on their own or for struggling EB readers to fall far behind their grade-level peers, it is important to plan aligned, research-based literacy instruction across Spanish and English languages from the onset. When educators, families, and even students better use and understand the alignment of reading skills between Spanish and English, we can challenge the notion that all Latinx EB students are in urgent need of ‘catching up’ in English by instead valuing the assets that students can access from their early literacy experiences and home cultures.

Aligning American University EdD Competencies to the Dissertation Process

As a leader of my dissertation project and a developing education leader through the training of American University's EdD program, it was important to reflect on the competencies that I needed to ensure that my project was executed equitably, effectively, and sustainably. I focused on these program-wide core competencies: (1) commitment to antiracist beliefs and actions, and (2) aligning research methods, practice, and knowledge.

At the center of my work, I aimed to uphold a commitment to antiracist beliefs by applying an asset-based mindset. When working in education, it is easy to fall into the habit of comparing student groups or naming gaps and deficits rather than raising up students as individuals. As I worked to uplift Latinx EB students, I focused on the assets that these students embodied and focused on their increased academic success for its relevance to them as individuals, rather than in comparison to White middle class students, who typically are the assumed norm or standard. This included questioning when I was viewing my work or EB students' progress through a monolingual lens or placing unrealistic expectations that did not consider students' full language and literacy repertoires. While I set high expectations for my students, I also intentionally broadened my perspective around how students can show that they are meeting these expectations across languages and how I can reframe my markers of academic success in biliteracy.

I also aimed to uplift antiracism amidst the diversity of the DL school where I worked. While educators and families might often assume that diverse schools give students equal access and opportunities, there are many biases and unequal power dynamics that we often do not name and address, particularly as the forces of gentrification unfold. Within this process, it was important to focus on my personal awareness and not only focus on the flaws of the system but

also on the personal biases that I had internalized around English hegemony, classroom power dynamics, and whose funds of knowledge are most valuable. These biases were important to question from my positionality as an English teacher conducting research within my own classroom and as a Latina woman who has benefitted from and been shaped by Whiteness, higher education access, and linguistic privilege. I wanted to prioritize reflecting on this positionality as I taught and assessed my students, interviewed families, and drew conclusions about what kind of knowledge and skills were ‘valuable’ or ‘important.’

A second area of focus was on methodology and design thinking. As a researcher, I challenged myself to stretch beyond my personal observations, assumptions, and context, even as I was conducting a large part of this intervention within the silo of my own classroom. I aimed to expand my methodology by collecting and uplifting family input and qualitative data to ensure that my project represented the voices of community members who are not as frequently included as direct data sources in academic research studies. I aimed to complete a dissertation that would contribute to academic thinking, but also to complete an inclusive and antiracist process of design thinking that supported practical changes that could be directly implemented in DL schools to make a difference for EB students. The following section explains how I framed my theory of action for this research and change process.

Section 3

Theory of Action

My theory of action is based on the main assumptions that I drew from my knowledge review and details how I translated these research-based ideas into improved practice. First, I relied on the assumption that biliteracy education provides both academic and cultural assets to Latinx EB students (Butviolosky et al., 2017; Lindholm-Leary & Hernandez 2011). Spanish literacy should be cultivated in DL programs not just for the sake of English reading development, but also for its own value in deepening students' connections to Latinx culture. My second assumption was that gentrification and English hegemony have contributed to decentering the focus of DL programs on Latinx EB students and their families. Researchers have noted that the presence of interest convergence and the increasing presence of dominant social groups in DL schools call for a reexamination of whose needs are most tailored to within these spaces (Cervantes-Soon 2014; Flores & García, 2017; Flores et al., 2021; Freire et al. 2017). The final assumption from my knowledge review was based on transfer theory: when students engage in a new learning experience, it is mediated by and interacts with their prior learning (National Research Council, 2000). Specifically in the context of Spanish-English biliteracy, when Spanish-dominant children learn to read in English, they directly build upon their knowledge and skills in Spanish language and literacy (Bialystok et al., 2005; Cavazos, 2021; Cummins, 1979; Pollard-Durodola & Simmons, 2009).

Through my theory of action, I sought to align these research-based assumptions with a plan of action for increasing equity in DL instruction in a first-grade classroom by recentering the assets and needs of Latinx EB students and their families. My needs assessment highlighted the need for more intentional instructional approaches with EB students, particularly at their

transition from Spanish-only immersion in early childhood instruction to both Spanish and English literacy instruction in first grade.

Based on my conversations with DL program leaders and teachers in DCPS, as well as my review of research, the need to better align English and Spanish instruction for the success of Latinx EB students was clear. However, the resources for doing this in practice, particularly within English structured literacy instruction, were not clearly provided. Furthermore, the untapped potential of Spanish-speaking families in the unique context of biliteracy instruction emerged as an area to explore. These areas of opportunity aligned into an overarching theme that led to my actionable intervention. This theme was grounded in intentionally naming and building upon the existing assets and competencies of EB students and their families in the context of bilingual reading instruction and intervention.

Rationale for Funds of Knowledge Intervention Framework

The idea of clarifying and building from assets fell naturally within the theoretical framework of funds of knowledge (Moll et al., 1992). For Latinx EB students in DL programs, their families hold a particular wealth of knowledge and resources related to their home languages and cultures. At schools like Ayala Elementary, students are grounded in this knowledge throughout their early Spanish immersion instruction, bringing their foundations of Spanish literacy into their newly bilingual classrooms. Creating opportunities for students, families, and teachers to connect around and build upon these funds of knowledge is essential in fostering students' academic growth and engagement. My intervention explored how to integrate and build upon both students' and families' funds of knowledge as students transition from Spanish into biliteracy instruction. What students have learned in their formal Spanish literacy

instruction, as well as what families are doing at home in terms of language and literacy, contribute to bilingual learning transfer and foundational literacy growth. Explicitly connecting and increasing opportunities for families' shared understandings and cross-language transfer will fortify the bridges across English and Spanish at home and school.

As an early English literacy teacher, I hypothesized that I could build on EB students' funds of knowledge by gathering and uplifting existing competencies, rooted in their Spanish-based instruction and home cultures, from both students and families. My aim was to use bilingualism as a resource in action: to implement my learnings from participants' funds of knowledge in a way that actively accounted for the assets that EB students have access to, particularly as they transitioned to reading in English at school.

Theory of Action Components

The resulting theory of action for my project called for two intervention components, one instructional and one parent-facing, that both aligned to the goal of intentionally drawing upon and valuing EB students' assets in service of biliteracy growth.

The Instructional Intervention component relied on students' funds of knowledge by intentionally planning for biliteracy transfer in structured literacy lessons. If teachers more clearly understand what EB students bring into the English literacy classroom based on their foundations in Spanish literacy instruction, they can plan more targeted, asset-based lessons to encourage faster reading growth. Combining these ideas with Science of Reading-based practices, which are key for EB students' literacy growth (Vargas et al., 2021) but do not always center multilingual backgrounds (Escamilla et al., 2022), my project provides a means for educators to act more intentionally in supporting their Latinx EB students' biliteracy success.

The accompanying Parent Intervention component was based on centering families' funds of knowledge in tandem with their students'. If teachers build a stronger foundation of shared trust, understanding, and knowledge with parents of EB students, then they can work together more effectively to support their young readers. A combination of activities including interviews and a biliteracy workshop aimed to build more direct channels for teachers to share early literacy information with parents, and for teachers to learn and better understand how to incorporate families' assets into the early literacy learning process. The following subsections detail my project's theory of action statement and logic model.

Aim Statement and Intended Impact

The theory of action that guided my intervention was as follows:

IF WE (1) Recenter the needs/assets of Latinx EB students and their families through a funds of knowledge framework,

(2) Use the assumptions of transfer theory to prepare teacher guidance and instruction that better accounts for what literacy skills EB students already have from Spanish and what new English skills they need to learn that don't transfer from Spanish,

(3) And collaborate with EB students' parents through interviews and a biliteracy workshop during the first semester of students' transition from monolingual Spanish literacy to bilingual literacy instruction,

THEN WE (1) Will increase our intentional valuing of and capitalization on EB students' bilingual resources,

(2) And will see more equitable outcomes in reading skills in gentrifying DL schools.

Within this overall aim statement, I developed sub-goals for the stakeholders within my problem space:

Teacher: Using a self-created structured Biliteracy Guide, the English reading teacher will intentionally incorporate the specific needs and assets of EB students into instruction during the first 11 weeks of first grade, as this group transitions into formal English instruction for the first time. The teacher will implement small group structured literacy lessons based on the Guide and Science of Reading practices, regularly assessing students' progress through DIBELS progress monitoring tools (University of Oregon, 2018). By more deeply connecting with parents, the teacher will develop recommendations for biliteracy instruction that account for families' funds of knowledge.

Families: Spanish-speaking families of first grade EB students and their teachers will partner more effectively in the service of students' biliteracy growth. Families will feel more informed and empowered to participate in their students' biliteracy growth through improved communication and collaboration fostered by parent interviews and a fall biliteracy workshop.

Students: Spanish-dominant EB students in Ayala Elementary's first grade DL program will better connect their literacy skills across languages, with the support of both teachers and families. Students displaying on-grade-level foundational literacy skills in Spanish, as determined by the Amplify Lectura assessment, will be on track to reach on-grade-level performance based on the equivalent Amplify English DIBELS assessment by second grade. Students struggling to decode in both languages will be identified and supported with strategic intervention by the middle of first grade.

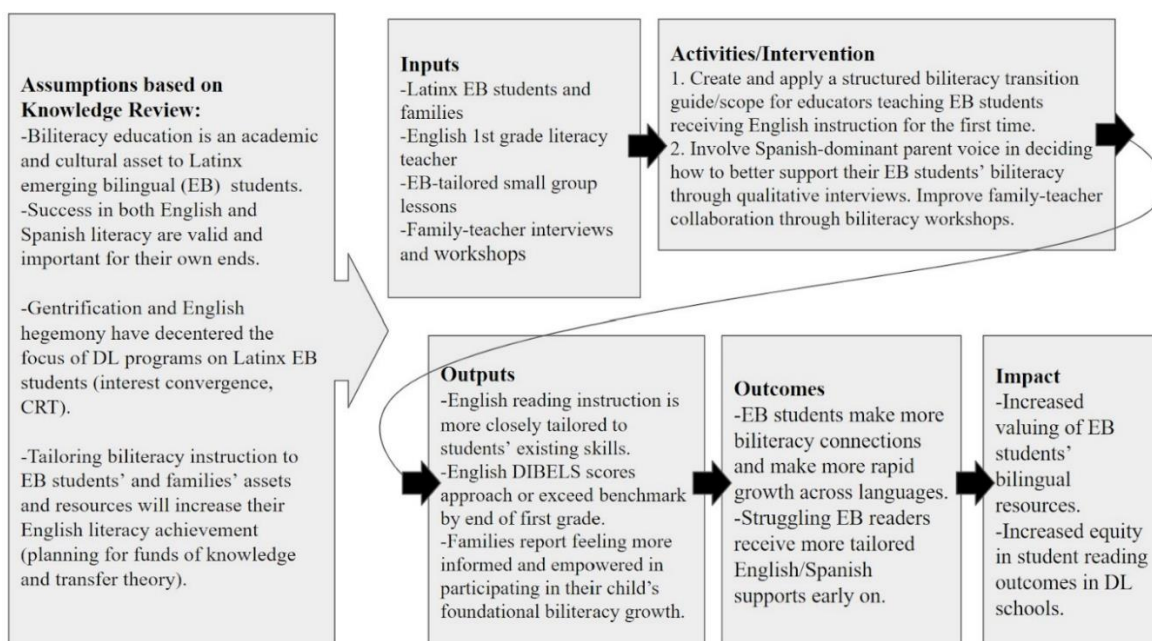
Logic Model

The following logic model illustrates the connections between my key assumptions, intervention components, and intended outputs, outcomes, and impact, as guided by the following research questions:

- RQ 1.** How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?
- RQ 1a.** How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?
- RQ 1b.** What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

Figure 1

Intervention Logic Model



This two-pronged intervention approach to aligning English and Spanish instruction and integrating both instructional and home support was intended to result in both quantitative and qualitative outputs and outcomes. Intervention success was measured by and reflected in both students' DIBELS literacy score data, interviews with students' families, and practitioner reflections and memos. The intervention would be considered successful when students attained increased English literacy skills. More broadly, success was defined by DL stakeholders' increased value of academic and cultural assets within both English and Spanish literacy instructional practices through partnership with students' families. The improved alignment of early biliteracy instruction was also intended to help stakeholders identify students at-risk for reading difficulties earlier, providing opportunities for more targeted instruction throughout first grade. The following Intervention and Methods section provides specific details of the implementation and assessment components of this intervention.

Section 4

Intervention and Methods

This section details the rationale, methodology, and concrete steps of my intervention and research plan. Through this intervention, my aim was to build upon the linguistic and familial funds of knowledge that Latinx EB students bring to DL schools like Ayala Elementary. Within DL programs, EB students have the benefits of attending a school that intentionally uplifts and affirms Latinx cultures and the Spanish language, being immersed in Spanish language instruction during early childhood, and living with family members who can support their Spanish language and literacy development at home. My goal was to design an intervention embedded within this already-existent context, building upon the competencies and assets of EB students, their families, and their school community. More specifically, I planned to intentionally capitalize on translanguaging and transfer theory to help translate EB students' strengths into reading achievement in English.

This mixed-methods intervention was completed as practitioner action research. While education practitioners are often engaged in informal cycles of practice-based inquiry and improvement, practitioner action research formalizes and systematizes this process (Anderson et al., 2007). Practitioner action research can more closely capture the lived experiences of teachers and students, offering a lens that more distanced researchers may not be able to. Additionally, this method is inherently tied to cycles of concrete action within schools, allowing research results to be translated into student outcomes throughout the process (Anderson et al., 2007). As a practitioner-researcher, I adapted and analyzed my own practice as a first grade DL English literacy teacher at Ayala Elementary, guided by my knowledge review and theory of action. I

collected evidence for the intervention's outcomes through both quantitative and qualitative methods, which are described in later subsections.

Intervention Context and Overview

As described in the Problem of Practice section, Ayala Elementary is a PreK3 through 5th grade Title I school within the DC Public Schools system, which offers both a Spanish-English DL strand and an all-English strand. My intervention specifically focused on first grade Latinx EB students and families within Ayala's DL program. This group of students typically enters first grade after three years of Spanish immersion from preschool through kindergarten. When EB students transition to Spanish-English bilingual schooling for the first time, receiving instruction in each language in a 50-50 model, this is often their first formal exposure to English literacy instruction. This unique background must be taken into consideration as teachers adapt instruction to their students' strengths and needs. While EB students within this schooling model might not possess all the English literacy skills that a first-grade teacher might expect within a traditional English monolingual school, they *do* possess a set of Spanish language and literacy competencies that contribute to overall foundational literacy development and must be intentionally catered to.

Parents and guardians of these EB students also served as important participants in this intervention, as their partnership in their child's literacy development is deeply important. In addition to the documented benefits of parent engagement in children's schooling (García & Kleifgen, 2010), Spanish-speaking parents with children in US DL schools have the unique advantage of supporting their students' schooling through their native languages. Parent advocacy has been key in driving current conversations about improving literacy outcomes and

incorporating Science of Reading findings into policy and practice; however, the elevation of these voices has not always included the perspectives of bilingual families in the conversation (Noguerón-Liu, 2020). My focus on EB students and their families was designed with equity in mind, recentering the needs of the learners for whom DL education brings the most promise and whose needs are often not fully met in typical English-dominant public school settings.

My intervention focused on the instruction and support that this group of EB students receives within their first-grade literacy experiences. As an independent variable, I modified the small group structured literacy instruction that students receive to examine how transfer theory could be leveraged to take into account their competencies from their years of Spanish literacy instruction. Another factor was leveraging the transferable Spanish language and literacy assets that these students have exposure to at home. Through more intentional partnerships with Spanish-speaking parents on students' biliteracy practices and goals, I hoped to see the results of these partnerships reflected in students' reading growth and in future biliteracy instruction opportunities.

Through this intervention, I aimed to influence EB students' English literacy outcomes as well as parent-teacher partnerships towards biliteracy. I tracked students' reading outcomes in English through assessment tools that DCPS already used, and I collected parent input through an independently created interview protocol. In the following subsections, I detail my participant demographics, intervention components, and data measurement and analysis plan.

Participant Selection and Demographics

Across two homerooms of 43 total students, I chose 16 focal EB students, for whom a selection of demographics is detailed in Table 1. I selected students who spoke primarily Spanish

at home and whose parents were primarily Spanish speakers or early emergent bilinguals themselves. While families' countries of origin varied, they were predominantly from El Salvador, though all children except two were born in the United States. Students who are marked with an asterisk in Table 1 are those whose parents were interviewed as part of the Parent Intervention component.

Table 1 also includes each student's beginning of year (BOY) scores for both Spanish and English foundational reading skills. This data is collected for all DL students in the district using the *mClass Amplify* online assessment system, which I describe in more detail later in this section (Amplify Education, 2023b). This assessment tool, based on the DIBELS foundational literacy assessment and its Spanish equivalent, captures students' skills across several foundational literacy components, such as phonological awareness, letter sound identification, and decoding, in both languages (Amplify Education, 2023a; University of Oregon, 2018). These subskills are combined into an overall score for each language, as represented in Table 1. Scores are categorized according to where they fall in comparison to a normed grade-level benchmark for that specific point in the school year. These color-coded categories include 'well-below grade-level' (red), 'below grade-level (yellow), 'at grad-level' (green), and 'above grade-level' (blue). As shown in Table 1, a majority of the selected EB students began the year at 'well-below grade-level' in both languages, although slightly more students began the year meeting the grade-level reading expectations in Spanish.

Table 1*Student Participant Demographics*

Student Pseudonym	Age	Family Country of Origin	Language Use at Home	BOY Spanish Literacy Score	BOY English Literacy Score
Alison	7	El Salvador	Spanish, English	Well below grade level	Well below grade level
Antonio	6	El Salvador	Spanish	Well below grade level	Well below grade level
Bryan	6	Guatemala, USA	Spanish, English	Well below grade level	Well below grade level
**Cesar	6	El Salvador	Spanish	Well below grade level	Well below grade level
Diana	6	El Salvador	Spanish	Well below grade level	Well below grade level
Ernesto	6	El Salvador, Mexico	Spanish	Well below grade level	Well below grade level
**Gabriela	6	Cuba	Spanish	Well below grade level	Well below grade level
**Jorge	6	El Salvador	Spanish	Well below grade level	Well below grade level
Luis	6	El Salvador	Spanish	Well below grade level	Well below grade level
Marcela	6	El Salvador	Spanish	Below grade level	Well below grade level
Maribel	6	El Salvador, North Korea	Spanish, Korean	At grade level	Well below grade level
**Natalia	6	El Salvador	Spanish	At grade level	Well below grade level
Olivia	6	Mexico, Germany	Spanish, English, German	At grade level	Well below grade level

Student Pseudonym	Age	Family Country of Origin	Language Use at Home	BOY Spanish Literacy Score	BOY English Literacy Score
Samuel	6	El Salvador, Dominican Republic	Spanish	At grade level	At grade level
**Victor	6	El Salvador	Spanish	Above grade level	At grade level
**Viviana	7	Colombia	Spanish	Above grade level	Above grade level

Note: The asterisk symbol (**) marks students whose parents were interviewed in the Parent Intervention.

BOY stands for “beginning of year.”

In addition to conducting the Instructional Intervention and tracking data for this group, I interviewed the mothers of six of these students throughout the 11 weeks of the instruction. I interviewed parents of students with a range of BOY biliteracy proficiency levels. Across the six interviewees’ children, some were presenting as emergent readers in both languages, and some were reading proficiently in Spanish but not English; others were reading proficiently in both English and Spanish. Specific BOY scores for these students (Cesar, Gabriela, Jorge, Natalia, Victor, and Viviana) are in Table 1. While these six families and students are not statistically representative of the experiences of all EB students in the class, I collected qualitative data that further illuminated EB students’ holistic literacy experiences beyond just what I could observe in the classroom and from quantitative data. This research design element reflects the traditions of action research by broadening our perceptions about what qualifies as expertise and lifting up marginalized voices (Fine & Torre, 2021). A brief description of each interviewed mother follows.

Cesar’s Mom: Telma moved to the United States about ten years ago with her now-husband. She and her husband conduct an independent business selling goods marketed towards the Latinx

community. She is still very close with her community in El Salvador, with the whole family traveling back frequently throughout the year. She lives with her husband and son, Cesar, and explains that she prioritizes raising Cesar with strong family and cultural values, while often relying on school and his extended time in the school's afterschool program to take the lead on his academic growth.

Gabriela's Mom: Gabriela's mom, Veronica, and her husband moved from Cuba to Washington D.C. for work two years ago, and plan to live in the United States for only a few years. Both Veronica and her husband work nine-to-five office jobs that are conducted fully in Spanish. Veronica explains that it has been hard for her to learn English, although she wants to try to learn alongside her daughter, who is one of the earliest learners of English within this intervention group of students.

Jorge's Mom: Jorge's mom, Cindy, moved to Washington D.C. nine years ago, fleeing community violence in El Salvador. She currently lives with her husband and son, with her father-in-law and sister living nearby and often supporting her with childcare. Cindy and her husband work as a cook and a server, respectively, at a restaurant in a nearby neighborhood. Before leaving El Salvador, Jorge's mom was training to be a kindergarten teacher and was halfway through her university schooling.

Natalia's Mom: Natalia's mom, Griselda, made what she described as "a very difficult journey by land" to the United States eleven years ago. She moved to Washington D.C. to be with her now-husband, who was working as a mechanic. Griselda explains that she has taken the primary role in caring for Natalia and her younger brother because her husband is much older than her and does not have the same energy level, after raising three daughters 30 years older than Natalia. During the week, Griselda is fully immersed in caring for her children while her

husband works as a mechanic, and during the weekends she works most of the day on Saturdays and Sundays, renting chairs and tables for events.

Victor's Mom: Victor's mom, Ana, and her husband moved to Washington, D.C. ten years ago, after meeting at church in El Salvador. Ana's husband works as a gardener, while she cares for Victor and his younger brother full-time, as well as her father who lives with them. Ana shares that she spent some time taking English classes but felt stuck and found it difficult to make progress. She's found it difficult to find work that fits within her children's school hours, and shares that she prioritizes having the time after school with her sons, working on learning activities that she extends beyond their daily homework.

Viviana's Mom: Viviana's mom, Luz, moved to Washington, D.C. from Colombia ten years ago after meeting her now-husband, who was already living in the United States, through a mutual friend. She moved with her four-year-old daughter from a previous relationship and later, married her new partner and had Viviana. Luz works independently as an accountant, while her husband works as a mechanic. She shares that she always loved learning and school, but never had the opportunity to learn English during her schooling in Colombia. With her daughters, she works to pass on her love of school while emphasizing how hard they should work to be bilingual and experience opportunities that she did not.

Adding to the academic achievement data, these mother's personal stories enhanced my understanding of students' holistic bilingual and educational journeys. Furthermore, the language and literacy experiences that they shared during the Parent Intervention interviews helped shape ideas for grounding future biliteracy instruction in EB students' funds of knowledge.

Description of Instructional Intervention Components

I designed the Instructional Intervention to address my first sub-question:

RQ1. How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?

RQ1a. How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?

As detailed in my theory of action, I hypothesized that approaching structured literacy instruction from a lens focused on EB students' existing funds of knowledge would support students in reaching English reading proficiency. Specifically, I set a goal that students displaying on-grade-level foundational literacy skills in Spanish, as determined by the mClass Lectura assessment, would be on track to reach on-grade-level English reading performance based on the equivalent Amplify English DIBELS assessment by second grade. While this outcome goal extended beyond the scope of my dissertation timeline, I measured progress towards this larger goal by analyzing student data at the end of the 11-week intervention. Additionally, I planned that students struggling to decode in both languages would be identified and supported with strategic intervention by the end of the intervention. Applying my findings about transfer theory, the Science of Reading, and funds of knowledge, I prepared a teacher Biliteracy Guide and conducted small group lessons for EB students based on this guide.

Teacher Biliteracy Guide

To guide the Instructional Intervention with students, I created a Biliteracy Guide, (See Appendix A) to support myself, and future teachers, to concretely picture the transferable funds

of knowledge and the specific needs that Spanish-dominant students are bringing into their bilingual foundational literacy learning environments. This tool was created with guidance from Cárdenas-Hagan (2020) and Colorín Colorado (2007) and through DCPS curricula analysis. The aim of the Biliteracy Guide was to highlight exactly which skills directly transfer from Spanish immersion literacy instruction in kindergarten, and which skills may require more explicit and repeated instruction in English for EB students in first grade. The Guide breaks down the foundational literacy skills that are covered in the first grade DCPS phonics curriculum, *Foundations* (Wilson Language Training Corporation, 2023), noting which of these skills or concepts have and have not been explicitly covered in kindergarten Spanish instruction. While many English letter sound and phonological awareness skills transfer over from Spanish, concepts such as English vowel sounds, irregular high-frequency words, and distinct phonics patterns may require more exposure for students with less exposure to English literacy and language at home (Bialystok, 2005; Cárdenas-Hagan, 2020; Colorín Colorado, 2007).

I designed the Biliteracy Guide to also address phonemic segmentation, or the oral separation of words into their individual sounds, with EB students (Pollard-Durodola & Simmons, 2009). This is an important skill that is not taught within traditional Spanish literacy instruction, including the Kindergarten *Fonética y Gramática* curriculum used in DCPS. While *Foundations* is not a phonemic awareness curriculum, it does emphasize the frequent practice of phonemic segmentation and introduces this skill early in the English Kindergarten curriculum (Wilson Language Training Corporation, 2018). To master this foundational English literacy skill, DL EB students likely need additional English phonemic segmentation exposure to gain fluency with this phonologically complex skill and to practice pronouncing individual sounds that may differ from Spanish (Cárdenas-Hagan, 2020; Pollard-Durodola & Simmons, 2009).

The Biliteracy Guide is intended to help teachers explicitly identify metalinguistic connections to highlight and explore with their EB students. The Guide differentiated my instruction in a way that centered the assets and needs of my students newest to formal English reading instruction throughout my intervention. I created a parent version of the Biliteracy Guide (see Appendix B), including pictorial representations of which sounds are and are not the same in the two languages, so that parents could also support biliteracy awareness and target the practice of certain transferable or non-transferable sounds at home. When teachers and families explicitly understand and incorporate the existing knowledge EB students have across languages, our mindsets and approaches shift to see what students are capable of and still need. Ideally, this shift in practice leads EB students to develop metalinguistic mindsets for themselves, recognizing their own assets and connections between their emerging language and literacy skills.

Emergent Bilingual Student-Focused Small Group Instruction

The Biliteracy Guide-based intervention took place within English structured literacy small-group instruction four times a week. The groups consisted of four to six students with similar needs. Students' strengths and needs were determined based upon BOY English and Spanish mClass Lectura assessment data. When grouping students, I took into account whether students were reading below, at, or above grade level in Spanish and how this compared to their reading skills in English. My EB students varied in their English and Spanish literacy skills, so they were spread across different needs-based groupings. A majority of EB students had the most emerging level of English language and literacy skills. These students were placed in the highest needs group, which is the group on which I most focused my practitioner memos.

Based on the Biliteracy Guide, my small group instruction initially focused on letter sounds that differ between English and Spanish, particularly the vowel sounds. During the first five weeks of instruction, I monitored students' automaticity with the non-transferable English letter sounds using a brief self-created tracker in addition to using the biweekly Amplify progress monitoring tool that I describe in the following subsection. Following students' emerging mastery of these new English letter sounds, I moved on to focus on differing digraphs, welded sounds, and double letters. As instruction progressed, I noted any unforeseen challenges or repeated error patterns that I had not predicted through the Biliteracy Guide to keep my instruction responsive to EB students' literacy needs.

Throughout 11 weeks of literacy instruction, I placed extra emphasis on the skills that did not transfer between English and Spanish to address my EB students' specific needs and built upon students' metalinguistic skills and awareness. Within each lesson, I encouraged students to compare sounds, vocabulary, and other literacy concepts between English and Spanish, and I explicitly explained when certain concepts did and did not transfer between the languages (See Appendix C for sample lesson for non-transferable letter sounds).

Student Benchmark and Progress Monitoring Measures

I used the DIBELS assessment to collect BOY and MOY data, which corresponded with the two benchmark points marking the beginning and end of my intervention. This tool was also used to collect progress monitoring data throughout the 11 weeks of intervention. The DIBELS testing battery was developed by the University of Oregon as a universal literacy screener, progress monitoring tool, and benchmarking tool (University of Oregon, 2018). The DIBELS assessment collects data on K-8th grade students' reading abilities through a series of one-minute

fluency activities that track letter identification, letter sound identification, nonsense word reading, phonemic awareness (specifically segmenting), word reading, and oral reading fluency. The creators of DIBELS assert that the tool has over 20 years of proven results in identifying and monitoring students at-risk of developing reading difficulties, and with new research-driven modifications, it is now specifically poised to meet dyslexia-screening requirements across many states' policies (Ives et al., 2019).

I selected this tool as my primary student data measure because it is already implemented within the DCPS student assessment routine, but also because it is oriented to measure skills aligned with foundational skills based on the Science of Reading. DIBELS measures key skills, such as letter naming fluency, nonsense word reading, and letter sound recognition, that give clear information on students' abilities to decode written language without the support of context. Additionally, the DIBELS assessment aligns with Amplify's mClass Lectura assessment, which measures foundational reading skills in Spanish in a way that is authentic to language differences but is still aligned to each of the subskills measured by DIBELS (Amplify Education, 2023a). This was beneficial in comparing students' BOY benchmark scores across the two languages, particularly in focusing on students' decoding and letter sound knowledge, which are key elements of structured literacy instruction.

The DIBELS student data is mainly presented in relation to criterion-referenced grade-level benchmarks at the beginning, middle, and end of the academic year (University of Oregon, 2018). It also allows for tracking and visualizing progress monitoring data, which I tracked throughout the 11 weeks of the intervention. At each progress monitoring checkpoint, I assessed students using the nonsense word fluency assessment, providing an efficient and holistic snapshot of students' letter sound and blending skills within the process of decoding words. For

this quick assessment, students were given one minute to sound-out and blend as many nonsense words as they could. The online Amplify tool tracked both how many letter sounds students read correctly as well as whether they correctly blended the whole word, providing a separate raw score for each. I determined this would be an effective progress monitoring tool for foundational literacy skills because it efficiently and effectively captured the basic elements of students' word reading abilities, measuring their letter-sound knowledge and application of phonemic awareness skills to blend sounds together. This DIBELS assessment aligns to the Science of Reading-based recommendations described in the Knowledge Review section. It is also a useful tool to measure how students are transferring their Spanish knowledge over to English. Because the process of recalling letter sounds and blending them together to read a word is essentially the same in both languages, this progress monitoring assessment captured whether students were improving in their English skills by connecting them to a process they had already been taught to do in Spanish.

As EB-focused student instruction progressed throughout the semester, I conducted student progress monitoring biweekly, in accordance with DCPS's regular district-wide guidance, and used it to modify my instruction accordingly. I used this tool to measure my Instructional Intervention goal that the focal EB students would approach grade-level English reading proficiency by MOY. While I paid special attention to students' grasp of transferable and non-transferable English reading concepts within small group instruction, the DIBELS tool provided a broader perspective of how EB students' English reading skills were progressing overall.

An additional instructional data measure included practitioner memos, as part of my process of reflexivity. Because I was a classroom teacher conducting action research based on

my own instructional practice, it was important to frequently pause to examine how my biases and positionality were showing up in how I conducted instruction and analyzed student data. Memos also provided an opportunity to capture qualitative data from small group lessons and keep track of students' progress-monitoring data. Through memos, I captured students' progress in making metalinguistic connections, tracked skills that were consistently challenging for students, and took notes on what activities were or were not effective in supporting student growth. Each week, I reflected on my practice through journaling or anecdotal notes. Reflecting on how students were responding to instruction and what I needed to adapt to meet students' particular needs was important to both their and my progress.

Description of Parent Intervention Components

Along with the Instructional Intervention, I developed a parallel Parent Intervention to address my second sub-question:

RQ 1. How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?

RQ1b. What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

Drawing upon the knowledge and experiences of families is at the core of a funds of knowledge framing, so I ensured that my intervention incorporated the Spanish language and literacy-based competencies that EB students were gathering at home. In the spirit of action research that aims to elevate the voices of groups not often included in leading research (Fine &

Torre, 2021), I sought to center my intervention learnings and outcomes not only on the quantitative data of my students and my insider experiences as a practitioner, but also on the family members who were raising these children and also experiencing the DL education system as participants. Cioè-Peña (2022) and Freire and Alemán (2021) have indicated that this inclusion and elevation of EB family voices can help fill a significant gap in existing research. I hypothesized that connecting with families through funds of knowledge-framed interviews would lead to future biliteracy instruction that was more inclusive and reflective of EB students' unique competencies and assets.

I collected qualitative data to highlight families' experiences authentically and to challenge my own perspectives and assumptions. Rather than trying to create a controlled or neutralized environment that relied only on concrete student achievement data, bringing in the qualitative experiences of parents as equal participants in their children's education allowed room for the biases, unique experiences, and human thought processes that made up the full experience of these students' schooling experiences (Cooley, 2013; Ravitch & Carl, 2019). I incorporated this qualitative parent component to complement the exploration of EB students' assets and needs that I could see within the classroom, seeking to broaden my perspective by considering the assets and needs represented by families and communities as well. I also planned for an additional opportunity for family-school biliteracy collaboration through a Parent Biliteracy Workshop.

Parent Biliteracy Workshop

To begin establishing connections and partnership with EB students' families, I started the parent-facing portion of the intervention with a mini-workshop on early biliteracy. This

Parent Biliteracy Workshop occurred within a parent conference structure built into Ayala Elementary's regular practice of beginning the year with "Academic Parent-Teacher Team (APTT)" meetings. This model was based upon guidance from the Flamboyant Foundation, a nonprofit organization focused on fostering family engagement in schools (Flamboyant Foundation, 2023). Within the APTT structure, all classroom parents were invited to meet as a group together with the grade-level team teachers, instead of attending traditional individual conferences. During this meeting, teachers selected select key academic skills that students were currently focusing on, reviewing class-wide data with parents relating to these particular skills, sharing and soliciting ideas on how to support students with these skills at home.

In accordance with my intervention focus on centering DL schools' practice on the needs of EB students and the unique aspects of biliteracy learning, I focused this APTT meeting on the concept of learning to read in two languages and how families could support their students as their skills simultaneously emerged in both Spanish and English. All DL families were still included in the meeting because, while this topic might be particularly important for EB students, the process of the Spanish-to-English transition applied to all returning DL students, whether Spanish-dominant or not. The Parent Workshop focused on describing the overall process of learning to read in two languages, highlighting similarities and differences in English and Spanish reading, and sharing ideas between teachers and parents on how to support literacy growth at home (see Appendix D for workshop slides).

During this meeting, I provided parents with the simplified version of the Biliteracy Guide for their own reference at home (see Appendix B). This picture-based document provided parents with a reference of which letter sounds did or did not overlap between English and Spanish and included reference images that students use in class to learn and remember each

letter sound in each languages. Letters that did not overlap in the two languages were starred to draw attention to which sounds students might benefit from reviewing more frequently at home.

Parent Interviews

After establishing initial communication and partnership with parents, through both the biliteracy workshop and home visits, which are an already-existing practice at Ayala Elementary, I interviewed a selection of parents of EB students with the goal of better understanding the funds of knowledge that they bring to their students' biliteracy education. By inviting in the perspectives of Latinx families who are experiencing gentrifying DL schools, I aimed to ensure that it is not just policymaker's voices or privileged families' voices telling the stories and shaping agendas for these programs.

I created an interview guide, informed by existing funds of knowledge protocols (González et al., 2005), focused on the assets that can apply to young students' literacy learning (See Appendix E for Spanish guide and Appendix F for English translation). The interview guide consists of three categories: (1) questions relating to general funds of knowledge and family background, (2) questions relating to culture-, language-, and literacy-specific funds of knowledge, and (3) questions relating to how families apply these funds of knowledge to their child's literacy learning as well as any gaps or needs that persist.

As detailed in the parent demographics subsection, I interviewed the mothers of six of the focal EB students. Interviews took place from October to December, primarily in-person, after the school day in my classroom. Two interviews (with the mothers of Victor and Cesar), were conducted online via Microsoft Teams, due to parents' after school schedules. All interviews were conducted in Spanish and lasted between 40 minutes to one hour. The Spanish-language

form used to obtain parents' consent is included in Appendix G, and the English translation is included in Appendix H.

Parent Intervention Measures

The measures for the family intervention component included the six family interviews and practitioner memos. The parent interviews and memos served as progress monitoring data as well as data that informed the intervention's implications and my future recommendations. My intention was to incorporate findings from family interviews into the semester's instruction as they emerged as well as process how my findings could inform future support of EB DL students and family collaboration practices. After conducting each interview and family event, I completed practitioner memos to reflect on any in-the-moment learnings, questions, and reactions. It was also important to reflect on any biases towards students' families and question how I was actively applying an asset-based mindset and seeking to create active partnership rather than just seeking to inform or control.

Implementation and Analysis Procedures

Table 2 provides a monthly overview of my intervention implementation and data collection process between September 2022 and January 2023, followed by a description of my analysis procedures for data that I collected.

Table 2*Intervention Implementation and Data Collection Timeline*

Month	Description of Activity	Description of Data Collection
September	<ul style="list-style-type: none"> -Parent-teacher introduction calls -Student baseline Assessments in English and Spanish -Grouping students into instructional groups based on English and Spanish data 	<i>Benchmark Data (Beginning of Intervention Measurement)</i> <ul style="list-style-type: none"> -DIBELS BOY assessment (regularly administered school-wide assessment in English) -mClass Lectura BOY assessment (regularly administered program-wide assessment in Spanish)
October	<ul style="list-style-type: none"> -Parent-teacher goal setting meetings during home visits -Parent biliteracy workshop in early October for all families -Small group instruction begins 	<i>Progress Monitoring Data (Instructional practice, student data, and family data)</i> <ul style="list-style-type: none"> -DIBELS Progress Monitoring -Practitioner reflexivity and instructional memos -Qualitative data from parent interviews (interview transcription, coding, and memos)
November	<ul style="list-style-type: none"> -Small group instruction -Parent interviews 	<i>Progress Monitoring Data (Instructional practice, student data, and family data)</i> <ul style="list-style-type: none"> -DIBELS Progress Monitoring -Practitioner reflexivity and instructional memos -Qualitative data from parent interviews (interview transcription, coding, and memos)
December	<ul style="list-style-type: none"> -Small group instruction -Parent interviews 	<i>Progress Monitoring Data (Instructional practice, student data, and family data)</i> <ul style="list-style-type: none"> -DIBELS Progress Monitoring -Practitioner reflexivity and instructional memos -Qualitative data from parent interviews (interview transcription and memos)
January	<ul style="list-style-type: none"> -End of intervention data collection in English and Spanish 	<i>Benchmark Data (End of Intervention Measurement)</i> <ul style="list-style-type: none"> -DIBELS MOY assessment -mClass Lectura MOY assessment

Analysis Procedures

At the beginning and end of my intervention, as well as throughout the progress monitoring checkpoints, I analyzed my various data sources to track progress towards the goals I established in my Theory of Action section and to reflect on how the findings aligned to my research questions. It was also important to self-reflect throughout the process on the universality and future actionability of my intervention. This included considering how applicable, feasible, and user-friendly the intervention that I was testing could be if applied in other DL classrooms.

Instructional Intervention Data Analysis Procedures. At the beginning of the intervention, I analyzed student benchmark data to determine students' relative strengths and weaknesses in decoding and phonemic awareness utilizing information from the DIBELS and Amplify Lectura assessments. I determined which skills were strengths across both or either language and which skills presented as relative weaknesses across both or either language. After grouping students based on similar strengths and needs within a biliteracy frame, I set goals for students' letter sound and decoding in English. As I collected progress monitoring data every other week, particularly focusing on English letter sound and decoding skills, I analyzed student progress plotlines, which were automatically created within the Amplify database and tracked students' progress towards the middle of year goal. Besides looking at students' overall scores, I noted whether students seemed to struggle with reading particular letter sounds or spelling patterns. Based on these trends and practitioner memos, I determined future small group instructional foci and adaptations.

At the conclusion of the 11-week intervention, after collecting MOY benchmark student data, I compared this data with students' BOY DIBELS scores. I focused on how students' pre- and post-intervention letter sound, decoding, and phonemic segmentation skills compared, since

these were focal area of the Biliteracy Guide and the tailored small group instruction. Also, I applied a holistic lens to see how students were progressing in English reading proficiency overall. I used the Amplify tool to determine how individual students' subskills and overall skills were categorized according to the normed benchmarks and to capture overall trends. The Amplify system also uses their color-band benchmarks as predictors of whether students will reach end of year proficiency (Amplify Education, 2020). This was important to analyze, since my overall, beyond-intervention, outcome goal was for students who were reading at grade-level in Spanish to be reading at grade-level in English by the end of the school year. This also served as an important checkpoint to track whether students struggling in English literacy were or were not struggling in Spanish, and how this would inform future, more targeted intervention. While an 11-week intervention may not provide enough time to reflect significant growth in student outcomes, the patterns of student progress that emerged in this time frame provided valuable information on the effects of the intervention on the intended goals of aligning students' Spanish and English literacy skills and informing how these skills developed in tandem.

Parent Intervention Data Analysis Procedures. To analyze the data from the Parent Intervention component, I analyzed the qualitative data from parent interviews to inform future opportunities for supporting EB students' biliteracy growth. To analyze the interview data, I created transcripts through Microsoft Teams, which is the application that I also used to audio-record each session. Interviews were transcribed in Spanish but coded in English. The transcripts were coded using NVivo's qualitative analysis software, allowing me to highlight families' responses according to different themes as well as collect and organize quotes within different categories. While I aimed to begin with a deductive coding process, searching for themes related to those I had found throughout my knowledge review, I mostly employed an inductive coding

approach, identifying themes in transcripts as they emerged. I searched for trends across parents' perceptions of bilingual education, ideas around biliteracy, home-based language and literacy assets, and concerns or barriers that connected to their children's English or overall literacy development. The trends and themes that emerged allowed me to reflect on the lessons I learned regarding how families' existing actions and resources were supporting their students' overall literacy growth. They also helped me identify outstanding needs that families shared. This allowed me to determine recommendations for future DL instruction and partnership with EB families aligned to their funds of knowledge.

Analysis of Reflexivity and Limitations

As the practitioner-researcher who was designing, delivering, and evaluating this intervention, I used reflexivity checkpoints, in the form of researcher memos, to both process my own biases throughout the process and inform whether the process was working along the way. This allowed me to make active adjustments throughout the intervention as necessary. Incorporating this qualitative data also helped me to process my subjective role within this project, and allowed me to acknowledge that I, as both a practitioner and researcher, was also an instrument that was filtering the information gathered through this intervention (Anderson, et al., 2007).

To complete these reflexivity checkpoints, I aimed to collect weekly anecdotal notes to reflect on the Instructional Intervention from my positionality as a teacher. These were meant to capture any challenges that emerged, the instructional choices that were or were not leading to student progress, and how students' funds of knowledge were emerging within instruction. I focused on completing these weekly notes after one specific student group, composed of Cesar,

Diana, Gabriela, and Luis, as this was the group with the highest English literacy and language needs and thus the group that I met with most frequently. However, I kept my reflexivity journal at my small-group instruction table so that I could note findings and thoughts that emerged across any instructional group.

These reflexivity checkpoints were also important in continuing to reflect on my insider-outsider role within this practitioner action research framework and on the limitations of my intervention. As a White, bilingual, middle class, Latina teacher pursuing a doctoral degree and completing research within my own classroom, it was important that I acknowledge the shared connections with my research participants as well as our differences (Dwyer & Buckle, 2009). As an insider, I shared a school community, goals for students' success, and cultural and linguistic roots in the Latinx community with my participants. Yet the differences in the linguistic, socioeconomic, educational, and racial privileges I have experienced also made me an outsider. This insider-outsider role gave me opportunities to connect with my participants, but also highlighted biases to reflect upon. Throughout the intervention, it was important for me to question any assumptions I was making of parents during my interviews, to reflect on whether I was viewing my students through an English monolingual lens of academic success, and to acknowledge the power dynamics that were created by my roles as a teacher and researcher.

The dual role of teacher and researcher created further limitations in the sense that I was teaching and researching within my own classroom of students and within the DL school where I was an employee. It is important to note that the increased reading proficiency of my EB students also represented my success as an employee, as student data has implications for my annual teacher evaluation. Even with having co-teachers complete DIBELS data collection, this bias of working to improve outcomes for my own students should be named. This teacher-

researcher dynamic could have also impacted the Parent Intervention and what parents chose to share with me during their interviews. While I emphasized the lack of educational risk for their students and the confidentiality of the interviews, families were still likely filtering their answers through the experiences of talking to their child's teacher, someone who oversaw their child's instruction and grades and might be judging how 'involved' or not they are in their child's education. To minimize this limitation, I focused on building trust with families throughout the semester, before and after interviews, through home visits and frequent communication, so that I could ensure a space where they felt comfortable giving honest answers.

An additional limitation came from the specificity of my research focus and intervention context. Particularly with the Student Intervention, I narrowed the framework of funds of knowledge to the very specific context of English structured literacy small-group instruction. I made this choice because I wanted to explore how teachers can take specific instructional action based on students' funds of knowledge, particularly within a first grade DL English literacy classroom context like my own and within DCPS's increasing focus on the Science of Reading. While this narrowed approach yielded specific, replicable actions, it could not capture the whole picture of the five components of literacy instruction that EB students need (National Reading Panel, 2000). It also did not capture the full extent and potential of students' funds of knowledge. I sought to broaden my approach to envisioning students' funds of knowledge by developing the Parent Intervention and looking beyond my own assumptions of what assets EB students bring into English literacy classrooms. Future research should extend this work, continuing to develop narrowed, actionable approaches to asset-based EB student instruction, while also broadening the narrative of the many resources and competencies that immigrant Latinx communities foster.

A final limitation lies in the demographic focus of this intervention. Creating equity in DL school outcomes does not mean just continuing to focus on the particular success of only EB students. True equity and antiracist practice in DL schools will come from uplifting all groups of students marginalized across race, class, language, and any other identity dimensions. Research has documented the exclusion of non-Latinx Black students from DL education as well as rhetoric that implies that certain groups cannot succeed within these models (Bauer et al., 2020; Martínez-Álvarez, 2018; Palmer, 2009; Parchia, 2000). While DL schools have the specific opportunity of supporting the academic and developmental success of EB students, full educational equity enables the success of all students. Future research should particularly continue to analyze how DL schools can facilitate access, academic success, and inclusion for non-Latinx Black students and students with disabilities. Elevating the linguistic and cultural assets of Latinx communities is just one essential piece of reimagining a more fair, antiracist school system. The following subsection analyzes the findings of this specific yet important research.

Section 5

Analysis and Findings

The goal of this intervention was to explore how DL teachers can embrace the linguistic diversity and assets of EB students to increase equity in reading instruction and outcomes. This section describes the evidence to date and findings that resulted from this intervention. The evidence and findings are presented in two main parts, mirroring the two sub-questions stemming from my guiding research question:

RQ 1. How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?

RQ 1a. How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?

RQ 1b. What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

Throughout this analysis, it was important to return to my theory of action, restated below:

IF WE (1) Recenter the needs/assets of Latinx EB students and their families through a funds of knowledge framework,
(2) Use the assumptions of transfer theory to prepare teacher guidance and instruction that better accounts for what literacy skills EB students already have from Spanish and what new English skills they need to learn that don't transfer from Spanish,

(3) And collaborate with EB students' parents through interviews and a biliteracy workshop during the first semester of students' transition from monolingual Spanish literacy to bilingual literacy instruction,

THEN WE (1) Will increase our intentional valuing of and capitalization on EB students' bilingual resources,

(2) And will see more equitable outcomes in reading skills in gentrifying DL schools.

Guided by this theory of action, I examined the impact of connecting EB students' competencies across languages, inside and outside of the classroom. The Instructional Intervention drew on funds of knowledge by experimenting with how a teacher could actively build upon students' existing competencies within English structured literacy instruction at the beginning of their formal bilingual education. These impacts were captured through student English literacy data and practitioner memos. The findings of my Parent Intervention were more forward-thinking, building awareness of the additional funds of knowledge that EB students can bring from their homes that will help educators further incorporate students' bilingual resources in future instruction. The following subsections detail the collected evidence and findings, organized by question.

Research Question 1a: Student Evidence to Date

RQ 1a. How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?

The intervention began with examining how a specific application of the funds of knowledge framework could impact student outcomes. Question 1a asked how building from students' known existing assets within language and literacy, primarily from their exposure to

Spanish language and literacy instruction in early childhood, through small group instruction influenced their reading proficiency in English. To investigate this question, I gathered student evidence using the Amplify DIBELS assessment tool as well as practitioner memos and anecdotal notes. This evidence is presented in narrative form as well as through descriptive data.

Practitioner-Collected Evidence and Outputs

The Instructional Intervention took place over 11 weeks throughout the first and second terms of the school year, from early October 2022 through early January 2023. Just before and after these points, beginning-of-year (BOY) and middle-of-year (MOY) benchmark data was collected by the first-grade teaching team for all DL students using the Amplify DIBELS and Lectura tools. Data was compared for each EB student across both languages, which then informed the arrangement of instructional groups. While some students who were “well-below” in both languages, such as Gabriela, Cesar, and Diana, were placed in daily groups with only EB students, other students, such as Maribel and Natalia, were placed in groups that continued to explicitly learn cross-language connections but took place three days a week and with a group of students from more linguistically-mixed backgrounds.

As the teacher of these small groups, I used the Biliteracy Guide to guide the scope and sequence of instruction. In the first weeks of instruction, which corresponded with the class wide Foundations phonics curriculum review of each letter sound, I explicitly taught each sound to students, adapting my approach depending on whether the sound was the same, similar, or different from the equivalent letter in Spanish. This structured and explicit approach to phonics instruction was aligned with Science of Reading-based recommendations and evidence, and it was differentiated with EB students’ backgrounds in mind (Cavazos, 2021). A lesson plan

example is included in Appendix C. Using the Biliteracy Guide, I explicitly connected sounds that were the same in both languages, and I highlighted how the process of blending sounds together to make a word was the same in both languages. Considering students' funds of knowledge that could be more quickly adapted across languages, I focused the bulk of my instruction on sounds and processes that would likely not be as familiar to EB students, such as segmenting words into individual phonemes, rather than into syllables as in Spanish literacy. I also focused on specific English phonemes such as /h/, /th/, /sh/, and short vowel sounds, which are not used in the Spanish language. The order of skills followed the Biliteracy Guide and the whole-class instruction in Foundations, but the number of days focused on each skill was tailored to how individual students were grasping each skill, as tracked by progress monitoring and practitioner memos.

As students spent more time in their small groups, they independently made metalinguistic connections across languages. Diana and Gabriela, both students who had the least oral fluency in English in the intervention group, quickly began organically sharing Spanish-English connections on their own. During decoding practice, they often compared how words would sound if they read them with the English versus Spanish sounds. When focusing on sounds that were different or uncommon in Spanish, such as the /j/ sound, Gabriela connected it to the /ch/ sound, a sound she already knows how to use in Spanish. This prompted us to explore how our mouth shapes and voice were similar when making these sounds. Diana often brought in the concept of 'hard' and 'soft' letter sounds, which is applied in Spanish for letters such as the 'c' and 'r' which can make different sounds depending on their positioning or syllable combinations. When we were explicitly discussing the differences between English and Spanish vowels, she expressed how the short /i/ sound in English is a 'softer' sound than in Spanish,

which helped her remember how to pronounce it differently when reading in our small group. These examples reflect how students actively applied their funds of knowledge from Spanish to English literacy, while expressing confidence in the value and relevance of their existing competencies.

As instruction progressed, certain activities were supportive of students' learning of English sounds and decoding with increased fluency. One frequent activity included the use of *Kid Lips* cards, which are picture cards created by *Tools 4 Reading* (Tools 4 Reading, 2022) that demonstrate children's mouth positioning for each English letter sound. This resource follows foundational research from Lindamood-Bell (Lindamood et al., 1992), which has encouraged educators to explore the sensory components of phonemes with emergent or struggling readers to support auditory processing and discrimination. I used the Kid Lips cards with students when teaching each letter sound and in our daily review. The students continuously referred to this tool, particularly for short vowel pronunciation. Short vowel isolation and phonemic segmentation activities from the *Heggerty* phonemic awareness curriculum also supported students in gaining fluency with English vowel pronunciations and transitioning between segmenting Spanish words into syllables and segmenting English words into individual phonemes. In addition, it was helpful to build in oral English pronunciation practice, particularly for the students with least English oral fluency. Students practiced repeating words with sounds that did not transfer from Spanish, such as vowels, /sh/, /th/, or /am/, as well as discussing word meanings. These quick extensions supported students in practicing unfamiliar sounds as well as attaching the essential element of meaning to the process of word reading.

Quantitative Evidence and Outputs

To measure whether the asset-focused biliteracy intervention influenced EB students' English reading proficiency, students' Amplify DIBELS scores from BOY and MOY were compared. A teacher who was not associated with the intervention project collected this data to increase objectivity. I also collected progress monitoring data for English letter sounds and decoding throughout the 11-week intervention that informed my instructional practice.

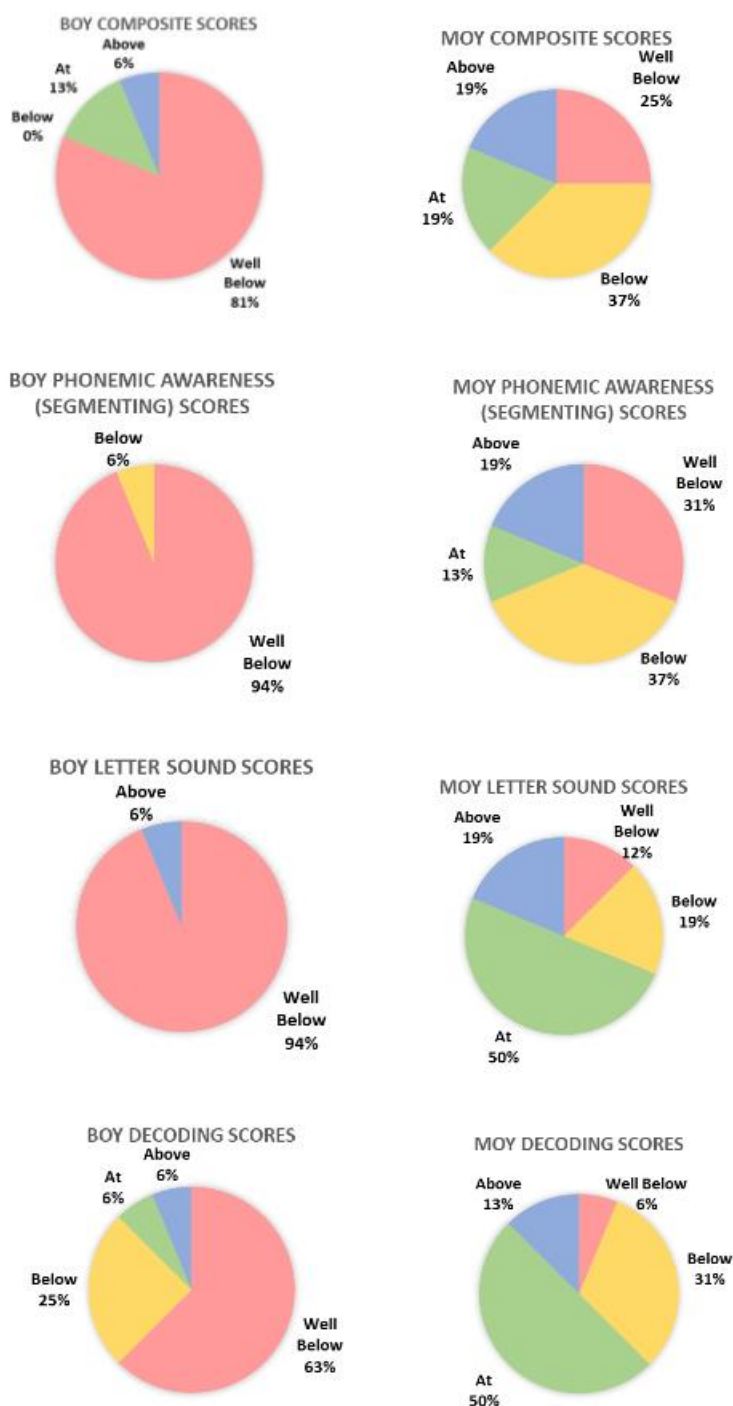
The one-minute subtests of the DIBELS assessment, which measure letter naming, oral segmenting, nonsense word reading, real word reading, and passage reading fluency, are combined to create a composite score that estimates students' overall early literacy skills (Amplify Education, 2020). Composite scores are normed for each point in the school year (beginning, middle, and end) according to set benchmarks for each subtest and composite. These benchmarks have been empirically validated to determine whether a student is 'above,' 'at,' 'below,' or 'well-below' a particular grade-level goal. These benchmark categories provide a picture of students' current achievement and predict how students will perform in future points in the year. In other words, students scoring 'at' or 'above benchmark' are likely to achieve grade-level reading goals by the end of the year; whereas students in the 'below' and 'well-below benchmark' categories are likely to continue scoring below grade-level standards without strategic instruction. Students in the 'well-below' categories are flagged as particularly at-risk and are likely to score in the bottom 20th percentile at the end of year.

The goal of the Instructional Intervention was to apply strategic, asset-based instruction in key areas of foundational literacy instruction, phonemic awareness, and decoding to move students from the 'below' and 'well-below' categories (in which 81% of EB students began the year) into the 'at' and 'above' categories. Figure 2 provides the 16 focal EB students' BOY and

MOY data for composite DIBELS scores as well as for the key structured literacy areas of segmentation, letter sounds, and decoding.

Figure 2

BOY and MOY DIBELS Scores Comparisons



Before describing the findings that follow from this bigger-picture data, I describe more specific trends of how EB students performed on the MOY assessments, highlighting the specific skills that students mastered or struggled with within the focus areas of phonemic segmentation, letter sounds, and decoding. The above data demonstrates growth across all Instructional Intervention focus areas, while also revealing an inventory of English literacy that should continue to be addressed in EB students' instruction.

Student Data Strengths and Needs Analysis

The Instructional Intervention targeted English phonemic segmentation because it differs from the practice of syllabic segmentation in Ayala's Kindergarten Spanish curriculum and is more cognitively complex than syllabic segmentation (Moats, 2020). Analysis of the focal EB students' MOY phonemic awareness data revealed that a majority of students were able to master segmentation of two- and three-phoneme words, such as "be," "who," "came," and "bought." Students demonstrated a conceptual grasp of the skill and did not try to segment words into syllables, even with longer words like "story" and "written." The majority of students' errors occurred within words beginning with vowel sounds, such as "allow" and "on," and words with vowel diphthong sounds such as "mouth" and "allow." Because vowel sounds are a key area of variance between spoken Spanish and English, these less-familiar syllable types and phonemes likely presented a challenge to EB students. Overall, students' mistakes were infrequent within the attempted words and significantly reduced from BOY. The main growth area for these students at MOY was automaticity, or the fluent application of the skill with limited lag-time or think-time. Many EB students continued to score 'below' or 'well-below' grade-level because they did not segment enough words within the one-minute window. An untimed phonemic

awareness assessment, such as the *Heggerty Phonemic Awareness Assessment* (Literacy Resources, 2023a), might have given more detailed information on students' phoneme-level skills and helped determine the root of students' challenges. Even so, an automaticity measure like the DIBELS phoneme segmenting subtest is important because it has implications for the speed of students' orthographic mapping and decoding (Moats, 2020).

The other key Instructional Intervention area was English letter sound and decoding instruction that focused on explicitly teaching cross-language connections and differences. Students made significant progress in their letter sound and decoding abilities, with most students who scored 'well below' benchmark at the beginning of the year moving to the 'below' or 'at' benchmark by the middle of the year. The grade-level MOY goals established by the DIBELS tool were for students to be able to correctly decode 14 nonsense words of increasing complexity within one minute and correctly read 52 letter sounds within the words they attempted. Most EB students were able to meet or exceed both goals, as demonstrated in Figure 2. To continue scoring in the 'well-below' letter sound category, students needed to read less than 41 sounds correctly. Jorge narrowly remained in this category, reading 40 letter sounds correctly. Antonio remained far below the goal, identifying five letter sounds correctly. In the decoding category, students in the 'well-below' category read less than 10 nonsense words correctly. Antonio was the only student scoring in this category, with no words decoded. Throughout these assessment results, students demonstrated their increased automaticity with non-transferable English sounds, such as short vowel sounds and the /h/ sound. In the BOY DIBELS tasks, EB students read words like "hab" as "ab" or words like "tib" as "teeb," reflecting their fluency with Spanish vowels and the silent 'h.' MOY data demonstrated students'

growing flexibility in differentiating these non-transferable sounds across two languages, resulting in higher English reading scores.

A closer analysis of students' error patterns in nonsense word reading revealed specific English phonics areas needing continued attention (see Appendix I). For example, vowel sound errors were still more frequently made by EB students, although this trend was significantly reduced from BOY scores. The English short /o/ sound also appeared to be a more common error among EB students; however, this error pattern appeared for native English speakers as well. The /o/ sound also might be more difficult to produce correctly since it is not as distinct, in both sound and mouth articulation, between the two languages in the same way that sounds like /i/ and /u/ are. Reversals between "b" and "d" were also similarly difficult for both groups of students, which is still a common and developmentally appropriate error for first graders, although the error seemed more frequent amongst EB students. One reason for EB students' frequent difficulty with correctly reading the /b/ sound might be that, in this particular DIBELS nonsense word list, this sound often came at the end of words, which is not linguistically common in Spanish (American Speech-Language-Hearing Association, n.d.; Vokic, 2011).

Similar to the phonemic segmentation task, the items in the nonsense word reading assessment increase in difficulty as the student progresses through the task. More fluent EB students who reached the point in the list where the nonsense words contained increasingly difficult spelling patterns such as long vowels (e.g., "hote," "nage," "nibe") or r-controlled vowels (e.g., "ter," "yar," "narm"), made more word reading errors than their English monolingual peers with similar fluency levels. At the midpoint in the school year, students had not been explicitly taught these vowel patterns; however, data indicated that some EB students might have been ready for this type of instruction or exposure. Complex vowel patterns are a

skill that advanced Spanish readers would benefit from practicing explicitly earlier on in first grade, since vowel sounds remain largely consistent in Spanish.

Some limitations to the nonsense word reading assessment resulted in an incomplete picture of EB students' phonics skills. For example, two phonics skills that are not included in the MOY DIBELS nonsense word reading list are digraphs and double vowels, both linguistic patterns with several differences between English and Spanish. While the /ch/ digraph is the same in both languages, the /sh/ and /th/ are sounds that are often uncommon for most Latin American Spanish speakers (Colorín Colorado, 2007). Double vowels also differ in the two languages: in Spanish they present as diphthongs (e.g., “baile,” “toalla”), with both vowels still being pronounced with varying stress, while in English they can produce one long vowel digraph sound (e.g., “boat,” “eat”) or a distinct diphthong sound (e.g., “coin,” “joy”) (Colorín Colorado, 2007). In addition to these omissions, there are also few words with consonant blends (e.g., “trip,” “stack”) towards the end of this list, which most students do not reach. While consonant blends do exist in Spanish orthography, several common English consonant blends, particularly those starting with the letter ‘s,’ do not appear in the Spanish language and could be difficult for EB students to pronounce (Colorín Colorado, 2007). From reviewing DIBELS research briefs and Amplify materials, a specific reason for omitting these spelling patterns in the MOY test was unclear. Including nonsense words with digraphs, double vowels, and more frequent blends in the MOY nonsense word list would provide a fuller picture of how EB students transition their foundational reading skills across the two languages.

Research Question 1a: Findings

The intended outcomes of this intervention were to increase the equity of English reading outcomes in a gentrifying DL school by differentiating and improving EB students' English literacy instruction, as well as to increase the intentional valuing of and capitalization on EB students' bilingual resources. Research shows that EB students are likely to underperform on English literacy benchmarks and proficiency tests as compared to English-dominant peers (García & Kleifgen, 2010; U.S. Department of Education, 2018). While these benchmarks have been normed through the lens of English monolingual students and often do not create a holistic picture of students' literacy skills (García & Kleifgen, 2010), they nevertheless represent progress towards full English literacy, a skill that will help EB students succeed in the US school system and beyond. The goal of this intervention was to capitalize on EB students' existing Spanish language and literacy skills and exposure, from both school and home, to increase their English achievement early in first grade. The asset-based small group instruction was meant to help students make biliteracy connections and comparisons more quickly as well as to identify students who may need more intensive support as early as possible. Early literacy intervention for EB students is essential for identifying and treating students at risk for reading challenges due to disability early, which addresses disproportionality issues in special education among minoritized students (Ortiz et al., 2011).

The evidence collected through this intervention shows progress towards achieving these instructional goals. Students scoring in the composite 'well-below' category decreased by 63%. I anticipated significant increases in EB students' composite scores after receiving formal English instruction for the first time, but I was more interested in the subtests that measured specific skills that heavily transferred between languages and were targeted in the intervention, namely

phonemic segmentation, letter sounds, and decoding. The most significant increases were observed in students' letter sound knowledge and decoding, with just two students scoring 'well-below' the letter sounds benchmark and one student scoring 'well-below' the decoding benchmark at MOY. Notably, Gabriela and Diana, who had the lowest oral English fluency and composite 'well-below' scores at BOY in both languages, nearly achieved grade-level standards for both letter sounds and decoding in English. These outcomes reflect the influence of small group instruction using the Biliteracy Guide.

In phonemic segmentation skills, students made more modest gains. While the percentage of students scoring in the 'well-below' category improved by 56%, the majority of EB students, 68%, still did not meet the grade-level goal. This was a skill that was included in small group instruction but was not tracked through the biweekly progress monitoring. Perhaps, increased exposure during weekly instruction or further oral practice with less familiar sounds such as consonant blends and long vowels, could support students' increased performance. These sound patterns are included in English segmenting tasks before students are introduced to the sounds in phonics instruction, so EB students who have not practiced the words orally as much as native English speakers may benefit from more explicit oral and auditory exposure. Because phoneme-level manipulation of words is both much more common in English than in Spanish early childhood instruction and more cognitively demanding than syllable-level manipulation, it follows that these EB students may need more exposure and time to build grade-level automaticity (Moats, 2020; Pollard-Durodola & Simmons, 2009).

Increasing equity through this intervention was operationalized as supporting students' increased English reading scores, along with identifying students who might need more intensive support across languages early in first grade, rather than 'waiting' for their reading profiles in

both languages to adjust and align. One student, Antonio, continued to score in the ‘well-below’ categories across all subtests except for phonemic awareness, with the same pattern reflected in his Spanish mClass Lectura scores. As a result, Antonio was flagged for daily one-on-one intervention in the areas of letter sounds and decoding in both languages, focusing on the letter sounds that overlap between the languages, as noted in the Biliteracy Guide. Further recommended action might include further screening for reading disabilities such as dyslexia, though even without a formalized disability label, targeted support can and should still proceed. At MOY, Antonio was scoring ‘well-below’ in all Amplify subtests, except an ‘above-benchmark’ score in Spanish syllabic segmentation and a ‘below-benchmark’ score in English phoneme segmentation. While Antonio’s relative strengths presented in phonemic awareness, which is typically an area of difficulty for readers with dyslexia (Mather & Wendling, 2011), his mid-first grade progress still merited further investigation, especially with the information available across both languages. Existing research encourages teachers of EB students like Antonio to look more deeply into reading risk, as dyslexia in Spanish literacy might not always show up in foundational word reading skills, due the transparency of the language, instead showing up in later skills such as spelling and reading fluency (Cárdenas-Hagan, 2023).

It is important that these MOY results are considered within EB students’ overall biliteracy trajectories, as they develop uniquely from English monolingual peers’. The findings of this intervention support teachers in setting high expectations and goals for EB students without discounting their holistic development and achievements across languages. While a more in-depth cross-language comparison was beyond the scope of this dissertation, a mid-year analysis of students’ English and Spanish reading profiles together would have created a fuller and more accurate picture of biliteracy.

Even so, creating systems for applying translanguaging and transfer theory into structured literacy instruction is an important demonstration how English DL teachers can actively value EB students' biliteracy trajectories. Creating these systems also shows how Science of Reading-based practices can incorporate the specific assets and needs of linguistically diverse students. The Instructional Intervention applied a structure for supporting EB students in using their full linguistic resources when learning to read in English, and the findings indicated that students grew in key English literacy outcomes.

Taking intentional steps to align students' literacy skills across languages is a key step towards increasing equity in diverse and gentrifying DL schools and defying the expected trends of low English literacy skills for EB students. This intervention and its results represent a specific, targeted example of how EB students' existing funds of knowledge can be directly incorporated into their daily English language and literacy instruction. Traditionally, the funds of knowledge framework calls on teachers to widen their perspectives of how and where knowledge construction happens and to challenge their assumptions about what kinds of knowledge are valid (González et al., 2005; Gonzalez & Moll, 2002). While my intervention began with a narrow and practical application of this concept, highlighting EB student knowledge that English literacy teachers might otherwise take for granted, it was important to also broaden my lens. While my Instructional Intervention was based upon the early childhood Spanish instruction that students had as well as the overall fact that they lived in Spanish-speaking households, speaking to EB students' parents about how else language and literacy unfolds in their lives was key in embodying a funds of knowledge framework. In the following subsection I detail my examination of how this capitalization on EB students' assets can be expanded by involving the

voices of their families and acknowledging the resources and competencies that teachers may not always observe.

Research Question 1b: Parent Evidence to Date and Themes

RQ 1b. What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

While research sub-question 1a explored a very specific application of how teachers can act upon EB students' funds of knowledge in service of biliteracy growth, sub-question 1b connected back to a more traditional approach to funds of knowledge research. The funds of knowledge framework is rooted in educators bridging the resources for learning that students bring from their homes and communities (Gonzalez & Moll, 2002). For EB students in DL programs, the bridge between the school and home through Spanish language and literacy is evident. However, to intentionally build upon these bridges, it is important that educators build from more than just their assumptions of families. The Parent Intervention was meant to intentionally activate these connections through building partnership with EB students' parents and centering these family's voices and contributions to biliteracy outcomes, as previous research has called for (Freire & Alemán, 2021). This subsection presents the findings of this work.

To investigate sub-question 1b, I first completed a Biliteracy Workshop with families at the beginning of the intervention to establish my partnership with parents and to build a shared understanding around early biliteracy. Thirteen EB students' parents attended this meeting, alongside other DL classroom parents. The meeting was conducted bilingually, with the grade-level team teachers presenting content on how students develop foundational reading skills in

both languages. Parents were also invited to ask questions and share ideas with each other regarding how they support their children's reading development at home. Only a few parents shared ideas, regardless of linguistic background. Natalia's mother, Griselda described her practice of dictations at home to support her daughter's writing development.

This workshop was intended to initiate conversations around biliteracy in addition to establishing partnership between parents and teachers. Beyond this more teacher-centered approach to incorporating students' and families' linguistic funds of knowledge, the majority of the Parent Intervention portion focused on collecting qualitative data directly from parents. Qualitative interviews were meant to explore what additional funds of knowledge EB students' parents were applying at home in terms of language and literacy. Centering the voices of families who play such an important role in the DL model was important, particularly because their contributions are not always documented or valued in the same way as English-dominant families' (Cioè-Peña, 2022; Freire & Alemán, 2021). Uplifting marginalized voices is especially salient in the context of the gentrification of DL school communities (Cervantes-Soon 2014; Flores & García, 2017; Flores et al., 2021; Freire et al. 2017).

Transcripts from the family interviews were coded, with two themes emerging. The first theme captures the foundations of Spanish literacy and learning that parents fostered in their homes. The second theme describes how parents reconciled their roles in supporting their young readers across languages. These themes are described in the following subsections.

Theme 1: Foundations of Spanish Literacy and Learning at Home

Interviews with EB students' families revealed their unifying commitments to supporting their children's early literacy learning as directly as they could, primarily in their native

language, Spanish. The patterns of how these six mothers activated their funds of knowledge towards literacy are captured in the following sub-themes: (1) weaving in Cultural and Personal Experiences; (2) practicing Spanish Phonics and Writing as a Pathway to Reading; and (3) promoting Mindsets for Perseverance Towards Bilingualism and Biliteracy.

Throughout these practices, families did not miss opportunities to activate their particular strengths in Spanish language and literacy in ways that they knew would impact their children's success in their bilingual educations. Importantly, many of the practices and routines that families shared were tied into the foundations of early reading development in any alphabetic language, highlighting the benefits of learning to read in a language that is as regular and transparent as Spanish. Families capitalized on the competencies they have as Spanish speakers and focused on how they could support their children's reading in the language that was comfortable for them. The following subsections describe the findings of how parents supported their students in their biliteracy development, both directly through Spanish literacy support and more indirectly through building mindsets for academic perseverance.

Sub-Theme 1: Cultural and Personal Experiences. The sub-theme of Cultural and Personal Experiences captures how families mobilized their backgrounds as Latin American immigrants as a source of both inspiration and practical ideas for supporting their children's Spanish literacy development. For all six mothers, the importance of supporting their children with their Spanish language and literacy skills was both personal and pragmatic, reflecting the unique value of DL schools to Latinx communities. Families stated that they chose a bilingual program to give their children an advantage in future careers and to give them access to what Veronica described as "*un idioma universal*," a universal language.

Overwhelmingly, however, interviewees began with the importance of Spanish to them as an essential piece of their culture. Ana rejected the notion of one-way cultural assimilation for her sons in this way:

Porque yo sé que ellos se adaptan, la de ellos aquí, pero también adaptan la de nosotros porque saben que venimos de otro lugar. Para mí es importante que ellos tengan un conocimiento y que los lleven juntos.

[Because I know that they adapt, to [their culture] here, but they also adapt ours, because they know that we come from another place. For me it's important that they have that knowledge and that they hold them together.]

Ana's notion of "[llevándolos] juntos," of holding the two languages and cultures together in tandem, was reflected by several other mothers. Cindy expressed that she wanted her son to speak Spanish as perfectly as possible and for him to always remember that it was his first language, while also developing his English, as "*el idioma de este país*," this country's language. For Luz and Griselda, Spanish represented their personal roots. They described it as part of their role as parents to maintain their culture through their children. All parents stressed speaking Spanish in their homes as a result, in addition to enrolling them in bilingual programs. These EB parents' language priorities reflect Alim and Paris's (2014) concept of culturally sustaining pedagogy, of maintaining cultural resources like language for their own sake and not simply as a tool for accessing dominant spaces. This intentional act of maintaining communal funds of knowledge represents resistance to the power of English hegemony to override the perceived value of Spanish, even in deliberately bilingual spaces like DL schools (López & Fránquiz, 2009).

These parents' deliberate maintenance of Spanish is important because language serves as the foundation of successful reading (Moats, 2020). Strong language foundations are important from the first basic connections of letters to sound to the comprehension of complex

vocabulary and text structures (Moats, 2020). In addition to maintaining Spanish at home, Ana and Cindy went beyond in furthering their children's language comprehension skills. Ana shared a constant emphasis on talking with her young sons in Spanish. She described taking her children on weekly walks to "*platicar*," chat. She asks her children to share about their days, or she picks a topic, like counting or observing the environment, reminding them that "*cuanto más practiques más vocabulario aprendes*" (the more you practice, the more vocabulary you learn). Cindy shared a similar idea, mentioning how she, her husband, and her sister were "*siempre hablando*," constantly talking, with Jorge on the weekends, when they had their days off.

Parents' experiences of growing up rooted in Latin American culture were present in how they approached language but also print. Their own experiences learning how to read appeared to be intertwined with how they viewed and supported their children's experiences of learning to read. When sharing about their early literacy experiences, most families recalled their relative ease in learning how to read, perhaps reflecting the transparent nature of Spanish that makes it easier to learn to fluently decode (Durgunoglu, 2002). They reported learning to read early in first grade or sometimes even before starting formal schooling, at home with a mother or grandmother. For example, for Cindy, schooling in El Salvador began in first grade and took place in either a five-hour morning or evening term. Many of her memories of learning to read revolved around her time with her family.

Cuando yo empecé, yo me acuerdo que yo lo veía fácil, a lo mejor porque, usted sabe que, bueno, al menos en los países de nosotros, está el abuelito, está la abuelita, está la tía, entonces nosotros vivimos involucrados. Bueno y era como, "ahora vamos a practicar," porque la escuela, era de 7am a 12pm, teníamos todo el resto del día.

[When I started [to read], I remember that I saw it as easy, maybe because, you know, that, well, at least in our countries, the grandpa is there, the grandma is there, the aunt is there, so we live in a mutually involved way. So it was like, "now we are going to practice," because school was from 7am to 12pm, we had the rest of the day.]

Griselda had a similar experience in El Salvador, explaining how she did not rely on school to learn to read—she had already learned it at home with her mother before entering first grade. She shared that her mother was “*responsable en ese sentido, de que no nos mandó así novatos a la escuela*” (responsible, in that sense, to not send us like novices to school). Based on this memory, Griselda wanted to do the same with her daughter, Natalia. Ana explained that she learned to read in school, but that her memories were similarly of ease, explaining that her schooling was “*bastante riguroso*” (quite rigorous) but also very rote and clear. She and the other Salvadoran mothers described memories of using the “*silabario*,” or the syllabary, a text that was used to practice each Spanish syllable type, which are then combined into words. These memories surrounding the process of learning to read—from reading with family to grasping the transparent nature of decoding to using the *silabario*—helped shape the funds of literacy knowledge that the interviewees now hold. The influence of these experiences showed up in parents’ direct support of their children’s Spanish reading, described in the following sub-theme. Collecting these cultural funds of knowledge from families was important in bridging later connections to how parents approached supporting their early bilingual readers and also in informing how foundational literacy contrasts and aligns across Spanish and English. Overall, the interviewees’ framing of their cultural and personal experiences reflected themes of maintaining cultural roots, preserving language and literacy as a family practice, and building off of Latin American cultural styles of instruction. They also reflected a theme in which the transparent alphabetic code of Spanish literacy made sense and simply clicked. The process of breaking the alphabetic code often does not happen as easily with English literacy due to its deep orthography (Durgunoglu, 2002), and, in many EB students’ case, due to a lack of English oral language comprehension (August et al., 2002). While childhood memories may not be fully

reliable, these parents' perceptions of how early reading developed for them may have impacted how they understood and supported their children's experiences of the process. The contrast between interviewees' memories of learning to decode easily, in Spanish, and their EB children's experiences of learning to read, in both Spanish and English, may have implications for the unique role EB parents take in supporting their children's biliteracy development. With the learning process that their children are going through, learning to read in the more orthographically complex and unfamiliar language of English, Parents may benefit from more information on where their own literacy knowledge does directly transfer, even with little knowledge of English. This is further explored in the second theme, Reconciling Parental Support Roles Across Languages, and the Implications section.

Sub-Theme 2: Phonics and Writing as Pathways to Reading. For many interviewees, their experiences learning to read in Spanish in their home countries seemed to shape their understandings and approaches to supporting their own children with the early stages of Spanish reading, particularly through phonics and writing. In drawing upon these experiences, the interviewees' actions often connected to the key foundations of alphabetic reading as supported by the Science of Reading, which emphasizes solidifying word reading skills through structured, explicit instruction to support the development of fluency, vocabulary, and comprehension (Cavazos, 2021). To achieve fluent word reading, it is essential that students cement the process of orthographic mapping, in which their knowledge of relationships between sounds and spelling patterns becomes automatic (Moats, 2020). The interviewees described how they explored orthography with their children by applying phonics, emphasizing sounding out words, and practicing correct spelling. While early reading practices in English can often mistakenly encourage memorization or guessing based off pictures or patterns, the transparency of the

Spanish language and parents' own orthography-focused early learning experiences seemed to foster practice that was well-aligned to the kinds of skills that are necessary for early English reading success as well. As a result, parents had established and continued to experiment with routines that directly and effectively support the foundations of biliteracy.

Some parents turned to their Spanish literacy roots to help their children solidify a conceptual and orthographic understanding of word reading that they didn't see them grasping in English. Cindy, who was studying to become a kindergarten teacher in El Salvador before fleeing community violence, noted differences between Spanish and English literacy instruction practices. She shared about her struggles trying to find something that worked for her son Jorge as she tried to adapt her own knowledge to support him. She explained how she saw his current understanding of English reading as a “*copia y pega*” (copy and paste) process that differed from how she saw reading in Spanish. She recounted how she often tried to practice with a pack of English ‘sight word’ cards that she purchased. Cindy noticed that Jorge could memorize and recognize their meanings, but then not read them in context or spell them on his own. She noticed that his understanding of reading as a process of memorization was not working. This is the same reason researchers warn educators to steer away from rote, visual memorization of words that doesn't draw attention to their individual speech-sound relationships (Moats, 2020). To support her son's solidification of decoding and orthography, Cindy decided to focus her support in a different direction and in a different language:

O sea, para mí, fue fácil, y yo me he puesto a pensar y digo, ¿Quizás voy a buscar ese silabario para apoyarlo, incentivarlo a Jorge? Ajá, ajá, sí, todos [lo usábamos.] Este también es porque el español es tan así como directo, las aprendes y las pones juntas y puedes leer, pero en inglés es más... En inglés yo he decidido, o sea, no meterme, porque mi pronunciación...

[I mean, for me, it was easy, and I've started to think and wondered, maybe I'll go find that syllabary to support him, to motivate Jorge? Yes, yes, everyone [used it]. It's also

because Spanish is so like direct, you learn them and you put them together and you can read, but in English it's more... In English I've decided, I mean, to not get involved, because my pronunciation...]

Most interviewees made a similar decision as Cindy did, to support their children with what they saw as their strong suit, Spanish literacy, often with tools and methods that they had used in their own childhoods. In addition to recalling the methods of the *silabario*, which is grounded in mastering orthographic mapping through syllables, and in some cases obtaining a copy of it to practice with their children, several mothers recalled learning through *dictados*, or word and sentence dictations, and using them at home. Veronica noticed that her daughter Gabriela was mostly “*inventando historias*,” inventing stories, when Veronica asked her daughter to read to her. Trying a common Latin American practice of strengthening reading skills through writing, Veronica became motivated to begin working on *dictados* in Spanish at home. This practice was motivated through her personal funds of knowledge, but also aligns with reading and brain research that has detailed the mutually-supportive relationship of spelling and reading (Martin-Chang et al., 2014; Rapp & Lipka, 2011). Veronica explained her reasoning for focusing on *dictados*, illuminating her thought process about the relationship between reading and writing:

Por ahí es donde viene escritura que está relacionado con lectura. Escribe porque está relacionando el sonido que está recibiendo en clase y luego que hace las palabras que uno le está dictando, entonces, escribirlo y luego practicar leyéndolo.

[That's the way writing comes that is related with reading. She writes because she is connecting the sounds she is learning in class and then after she makes the words that I am dictating to her, then, write it and practice reading it afterwards.]

Veronica and Griselda recounted their frequent process of dictating Spanish words and sentences with their daughters in notebooks or on whiteboards. This process is very similar to the one I conduct with these same students daily, in English, through the *Foundations* phonics curriculum,

for the same reasons of reinforcing the relationships of sounds and spelling patterns. Other parents, like Ana and Cindy, worked on this reading-writing relationship more organically, by enlisting their children to write them grocery lists or playing word-building games with syllables in Spanish. Cindy described her approach as, “*el método que usaban con nosotros, el antiguo,*” (the method that they used with us, the antiquated one). These methods of focusing on syllables and dictations, however, resonate with how traditional Spanish literacy is still taught with programs such as the *Fonética y Gramática* curriculum that is used in DCPS (Benchmark Education, 2022; Pollard-Durodola & Simmons, 2009). Moreover, many of these practices relate closely to the foundations of the Science of Reading, which emphasizes the explicit instruction of phonemic awareness and decoding, a practice that US schools have often detrimentally neglected (Cavazos, 2021).

Sub-Theme 3: Mindsets for Perseverance Towards Bilingualism and Biliteracy. In addition to the direct support for Spanish literacy that families described, a focus on building positive mindsets for reading, across any language, emerged across interviewees. Mothers described the routines they established and the anecdotes that they shared with their children with the purpose of building up their child’s desire to learn as well as the will to persevere through academic challenges, such as English reading and language difficulties.

These mindsets for perseverance were often founded in consistent routines that encouraged a love of and dedication to learning, in both English and Spanish. Griselda discussed setting up routines for reading with her daughter Natalia and intentionally fostering an appreciation for books. She signed up for the D.C. Public Library’s Books from Birth program to receive a monthly book in Spanish for each of her children. Griselda described how she has carefully cared for the books they have collected and transitioned from reading aloud to instead

listening as Natalia reads to her. Griselda explained how she was working on building up her own patience and dedicating intentional time as her daughter went through the stage of building independence, slowly reading books that Griselda could have finished “*en tiempo record*,” in record time. Ana similarly detailed working on building consistent routines at home for learning:

Vacaciones la pasan como que estuvieran en la escuela conmigo. Porque me gusta, mantenerlos como, como si tuvieran una rutina. Aunque no lo es lo mismo, pero mantenerla, sabe?

[They spend their vacations as if they were at school with me. Because I like that, maintaining, like, as if they had a routine. Even if it's not the same, but, maintaining it, you know?]

During Ana's “*escuela de mamá*,” mom school, she used educational workbooks that she found at stores like Target, sitting with her sons as they completed a certain amount of pages each day. Even if the books were almost always in English, she coached them on sounding out each word of the directions and activities out loud, piecing it together with the words she knew. Somewhere along this process, Ana noticed her son Victor's growing confidence in being able to read much more confidently and quickly in English, hearing him exclaim, “*ya conozco esta palabra!*” (I already know this word!). She continued to encourage these routines and has watched her son's enthusiasm and interest in learning grow. While her direct support with these English activities may have been limited, she set up the environment for Victor to expand his biliteracy skills, even before he formally began bilingual instruction in first grade.

All interviewees shared similar stories about their roles as parents in building positive attitudes towards learning and always striving for more, particularly when it came to bilingualism and biliteracy. The mothers spoke about their steadfast dedication to spending “*tiempo educativo*,” educational time, together as well as talking to their children about perseverance and the importance of working towards the best education they could have. Parents

often tied in their own stories of how difficult it was for them to experience frequent language barriers in daily life. Luz explained that *“lo único que le cuento a mis hijas es que no tuve la oportunidad de tener el inglés, ni siquiera el básico”* (the only thing I tell my daughters is that I never had the opportunity to have English, not even the basics). Luz shared this as a consistent motivator to encourage her children to remain focused on their bilingual studies. Along these lines, most parents spoke about the promise and potential that their children have to learn the language fully and quickly at their young ages, in contrast to their own experiences navigating a world in a foreign language as adults. Parents reported acting upon this opportunity by encouraging bilingual success early in their children's schooling. In building these mindsets for bilingual learning in their children, parents were activating their funds of knowledge not only through practical actions, as described previously, but also through the stories they told and the environments they created around language and literacy.

Following Freire and Alemán's (2021) call for highlighting the important roles that families play in making DL schools promising spaces for EB students, these parent narratives demonstrate the unique contributions they lend to their children's bilingual learning trajectories. In setting foundations for reading in Spanish at home, these interviewees drew upon the language and literacy funds of knowledge they held to sustain their children's attachment to their culture and support academic success. Within the realms that they couldn't directly support, namely English reading and academics, they intentionally encouraged mindsets for perseverance towards bilingualism and biliteracy, encouraging perseverance towards English without necessarily privileging it over their own roots. Amidst the challenges in DL education around the dominance of English hegemony in gentrifying communities (Lopez and Fránquiz, 2009; Palmer, 2009), these families were intentionally sustaining the cultural and linguistic roots that are necessary for

bilingual education to work. Furthermore, the sustenance of these roots has an academic impact. In actively providing reading support in their native language, parents are bolstering their children's Spanish academic success, but also supporting the pathway for transferring strong Spanish literacy skills to strong English literacy skills (Cummins, 1979). Theme 2 captures how interviewees themselves conceptualized this learning transfer and their contributions as parents across the two languages.

Theme 2: Reconciling Parental Support Roles Across Languages

As parents discussed their roles in their children's early literacy journeys, a dichotomy arose in how they saw their role when it came to Spanish versus English literacy, with their confidence and sense of efficacy varying between the two. While it was clear from the interviews that these EB students' families were working intentionally to establish and strengthen students' Spanish literacy skills in a way that supported foundational skills across both languages, the role of their limited English proficiency influenced whether parents mobilized or self-minimized their funds of knowledge across languages. The opportunity to support their students with Spanish literacy through their own competencies and resources encouraged confidence and action, contrary to the narrative that Latinx parents often internalize the deficit perspectives that are placed upon them in the US education system (Cioè-Peña, 2022; Torres & Hurtado-Vivas, 2011). Involvement in a DL school seemed to give these parents a unique opportunity to exercise a sense of efficacy that they might not encounter at an English monolingual school. Yet the influence of English as the language of power remained. Several parents, particularly those of struggling readers, still expressed doubts about whether what they were doing was enough to

support their children's success in school, where they would also be expected to achieve academic success in English.

As has been documented in research (Noguerón-Liu, 2020), these families were creative, flexible, and actively involved in how they sought to overcome their language barriers and ensure that their children were able to reach a level of bilingualism that sometimes seemed out of reach to them. For example, Griselda shared how she would ask her bilingual teenage stepdaughter to speak with Natalia at home whenever she came to visit, even if she would not understand what they were talking about. Cindy and Telma similarly shared about inviting over their neighbor's children, who were more fluent in English, to play with their sons, receiving extra language comprehension practice. Several parents shared about their daily efforts in using phone translation applications so that they could help their children with their homework. Families did what they could to fill in the gaps of what they could not offer. When it came to the gaps that did remain for families, some interviewees expressed confidence in moving forward while others had more hesitations.

Parents often referred to the weight of their children needing to succeed in their English fluency and academics, sometimes in ways they as parents could not directly support. However, these parents also considered the additional factor of their children attending a DL school, where 50% of the instructional day took place in Spanish. The school goal of Spanish academic proficiency facilitated a direct avenue for families to directly exert their influence and take on a perspective of confidence. Griselda and Luz emphasized that they wanted their children to learn their Spanish "*bien*" (well) because it was important to them culturally but also because it was an area they could directly monitor. Griselda explained that when Natalia read to her in English, she

might not comprehend her or be able to provide feedback; with Spanish it was different.

Veronica shared a similar idea:

El español sí es algo que lo trabajamos mucho, no porque nos interese que ella adquiera más un idioma sobre otros. Más la intención es que es donde estamos más cómodos. Nosotros como padres nos sentimos que podemos ayudarla allí, por suerte. En ese sentido, sí. Por suerte, con buena ortografía, con buena fonética para poderla entender y ayudar a separar también los sonidos como ustedes lo van a notar en clase, podemos explicar el idioma, podemos ayudarla más que el inglés.

[The Spanish is something that we work on a lot, not because it interests us that she acquires one language over another. The intention is more with where we are more comfortable. We as parents feel that we can help her there, luckily. In that sense, yes. Luckily, we have good orthography, good phonics skills to be able to understand, and to help her to separate the sounds too, like you will do in class, we can explain the language, we can help her more than with the English.]

In spite of this unique capacity to support their children in a way that might be less concretely valued at an English monolingual school, some parents still doubted that what they were doing was “*correcto*” (right) or “*suficiente*” (enough) to help their children succeed. When discussing how Ana’s son Victor prefers to play computer games and watch TV shows in Spanish at home, Ana wondered whether she was doing the right thing or the wrong thing in not pushing for more exposure to English. Cindy expressed similar doubts around not always knowing if it’s right or wrong to keep speaking Spanish at home, recalling times when Jorge has struggled socioemotionally when he wasn’t understood by peers and some adults at school, particularly when he spent his prekindergarten years at an English monolingual school. Griselda and Cindy shared about sometimes feeling “*impotentes*,” powerless to help when their children were stressed or frustrated because they could not understand their English homework or English-speaking peers.

Some parents' self-perceived linguistic deficit was manifested in their ideas and approaches to supporting their children with their English literacy growth, around which a theme of hesitancy emerged. Several interviewees noted that they understood some basics of English and the similarity in the reading processes, but they were self-conscious about their own pronunciations of English sounds and words. They expressed fear about reinforcing something incorrect with their children. For some parents, staying out of this battle and focusing on Spanish literacy and building mindsets for learning overall seemed sufficient, while for others it was not.

The impact and weight of this hesitancy towards English seemed to vary depending on students' reading proficiencies. For Luz and Ana, whose children began the year as high-performing Spanish readers and quickly transitioned their existing skills over to English, their diminished ability to directly support with English reading and academics was not as much of a concern as for parents of lower performing students. For Luz and Ana, the ease of learning to read in both languages seemed to mirror their own early literacy experiences. Luz shared that, during kindergarten, "*de un momento a otro ya nos leía [Viviana, en español]*" (from one moment to the other, [Viviana] was already reading to us [in Spanish]). Viviana further surprised her when she simply began to do the same in English, even before starting bilingual instruction in first grade. Viviana seemed to quickly pick up cues from her environment, observing her peers and middle school-aged sister as well as the media and environmental print around her, quickly absorbing English language and literacy competencies. As a result, for Luz, the presence and guidance she and her husband could offer Viviana, even with the linguistic limitations, was satisfactory. "*De verdad no nos sentimos tan complicado*" (It doesn't feel that complicated to us), she shared, "*nos sentimos bien y nos sentimos tranquilos*" (we feel good, and we feel at peace).

Parents whose children were struggling with reading overall, or with transitioning their reading skills from Spanish to English expressed more hesitation and feelings of shame. Cindy, for example, wondered if part of “*la culpa*,” the blame, for Jorge’s struggle with learning to read in either language fell on her and her husband, “*porque no [tienen] el tiempo que necesita*” (because they don’t have the time that he needs). For Griselda, whose daughter Natalia was doing well in Spanish literacy but struggled to gain the same fluency in English, these feelings seemed to weigh on her:

Me siento a veces un poco que estoy mal, porque en la tarea de inglés, yo casi no le sé, porque no, no puedo, porque no he estudiado mucho cuando he venido y a veces me siento como impotente porque a veces ella no termina. A veces me da pena porque me parece a mí que suena como si no le dedicamos el tiempo correspondiente a la niña.

[Sometimes I feel that I’m in the wrong, because with the English homework, I mostly don’t know how to do it, because I can’t, because I haven’t studied that much when I came here, and sometimes I feel, like, powerless because she sometimes doesn’t finish it. Sometimes I feel embarrassed because I feel like it sounds as if we didn’t dedicate her the appropriate amount of time.]

Some mothers shared concerns similar to Griselda’s, as they referred to the frustrations and stresses they themselves had experienced around communication barriers, empathizing with their children’s challenges. At the same time, they saw these barriers as something that would naturally be more short-lived, because they would soon adapt to the English-speaking and English-reading world much faster than they themselves had. Griselda shared that when it came to English, she regretted that she sometimes resigned herself to waiting for this time to arrive, for when Natalia would naturally pick up enough English fluency at school to be able to help herself.

As the interviewees reflected on this English proficiency turning point that they assumed would come for their children, due to their opportunity of learning English at a young age, they often brought up tropes of seeing their children as taking on ‘co-learner’ and then ‘teacher’ roles

in relation to their parents. Most parents brought up instances of motivating their children to practice their English reading and speaking through teaching their parents. Veronica explained that she had to push herself just as much as her daughter to keep learning and adjusting to the English language, “*esforzándose*,” forcing herself, to grow from the same beginning level as her daughter Gabriela. She expressed the duality of being in this position with her daughter. She explained that she often tells Gabriela “*igual me mata*,” that it kills her the same way to communicate across language barriers when the frustration becomes overwhelming. Yet she also recounted taking joy in the moments that she could learn together with, and sometimes from, Gabriela:

Entonces hay veces que yo me pongo en la casa y yo le digo, “dime algo que tú sepas en Inglés”. A veces ella me dice, “mami, estás aprendiendo mucho conmigo”. “Claro que tú vas a ser mi maestra”, le digo.

[And so there are times that at home I tell her, “tell me something that you know in English.” And sometimes she’ll say to me, “mami, you’re learning a lot with me.” “Of course, you’re going to be my teacher,” I tell her.]

Luz and Griselda shared similar anecdotes, marveling at the many things that their children could now teach them and capitalizing on this as another avenue through which to motivate their children to continue putting their best efforts into their English academics.

Overall, families' reflections demonstrated their valuing of bilingualism and trust in Ayala Elementary as a place that gave them increased opportunities to understand and contribute to their children’s schooling. For Cindy, it was like taking off “*un peso de encima*,” weight from her shoulders, to transition to Ayala Elementary after having her son in an English monolingual school where his teacher did not speak Spanish. Interviewees reported feeling mostly satisfied with their abilities to support their children academically, which sometimes included being resigned to, or accepting of, the existing English literacy barriers that they experienced. Veronica

expressed that, despite the language barriers, she did not need any other resources at home; instead, what she needed was for teachers to maintain “*la disciplina*,” the discipline of learning, in the classroom. She wanted Gabriela to take advantage of every minute of soaking up what she could not give her at home, the exposure to English: “*Ahí es donde necesitamos. Que el tiempo con usted sea mágico, porque aunque queramos, no podemos apoyarla en el inglés...Y yo me comprometo con mi idioma*” (That is what I need, that the time that she’s with you be magical because even if we really want to, we just can’t help with English. And we’ll do our part at home with our language).

This theme of Reconciling Parental Support Roles Across Languages highlighted the promise of DL schools for uplifting the funds of knowledge and contributions of Latinx families, but also the gaps that remain in fully affirming this idea for some parents, particularly those with students who are in the early stages of bilingualism and biliteracy. Cioè-Peña (2022) and Freire and Alemán (2021) have emphasized the need to do this ‘seeing’ and ‘affirming’ of EB students’ families through research, but educators also need to reflect on how to do this in the places where it matters most, within school communities themselves. Early biliteracy, where the value of these families’ language and literacy competencies is so clear, is a promising space in which to continue doing this work and breaking down the power of English hegemony.

This theme also revealed that while these parents were playing an integral role towards building transferable literacy in their students, access to English literacy was still perceived as a separate challenge rather than a piece of overall biliteracy that their Spanish practice was intertwined with. In the same way that teachers like me often do not conceptualize literacy through a holistic biliteracy lens, parents reflected this perspective as well. This perception demonstrated the need to continue building conversations through the overall lens of

translanguaging and around the more specific process of cross-linguistic transfer, not just with DL educators, but with all members of DL school communities. This will allow for EB students' full linguistic selves to be seen, valued, and built upon.

Directions for Future Biliteracy Instruction Approaches

By narrowing and then broadening the lens on the funds of knowledge that EB students bring into DL early English literacy classrooms, this intervention explored how teachers can already act upon the assets of students' Spanish literacy backgrounds through instruction and how they can expand this process by including the perspectives of Spanish-speaking families. Findings from the Instructional Intervention demonstrated how actively planning for cross-linguistic transfer of the Spanish literacy skills that students already had exposure to helped students make gains in English literacy, particularly in approaching and meeting grade-level benchmarks for letter-sound knowledge and decoding. Findings from the Parent Intervention highlighted how the language and literacy practices of Spanish-speaking families build upon this foundational literacy knowledge for students, especially through the avenues of Spanish phonics and writing support. Centering the voices of EB students' parents also showed the unique potential of DL schools to affirm the contributions of Latinx immigrant families while also underscoring continued areas of growth.

Implications of this two-pronged intervention center on how future early biliteracy instruction should continue to deepen collaboration across languages, both amongst teachers and with families. To continue building the metalinguistic confidence of early-stage English speakers like Diana and Gabriela, boosting the growth of fast learners like Victor and Viviana, and giving essential and timely support to students struggling to read across both languages like Antonio,

DL teachers must continue to seek out and build upon the connections between Spanish and English literacy, as well as explicitly teach to the differences that do exist. More intentional partnership with these students' parents can support this process by facilitating a shared understanding and mutual support. These implications, and how they apply to practitioners, the school community, and the broader education community are discussed in the following section.

Section 6

Implications

This dissertation was both an action-oriented attempt at building upon EB students' funds of knowledge and the beginning of an ongoing inquiry into how DL schools can continue refining a biliteracy instruction approach that captures EB students' holistic competencies. This section describes the implications of this work. First, I reflect on the implications for myself as an educator and leader: the learnings, challenges, and next steps that have resulted from this project. I then share the implications for the focal organization, Ayala Elementary, and the lessons that can inform future approaches to serving its students. Finally, I present implications for the broader education community, with the lens of continuing to shape equitable outcomes for EB students.

Implications for Self

Throughout the dissertation process, I aimed to focus on two of the American University EdD program's core competencies: (1) commitment to antiracist beliefs and actions, and (2) aligning research methods, practice, and knowledge. Returning to the goals I set for myself, I reflect on my lessons learned, challenges, and next steps in working towards becoming an equity-centered practitioner-researcher.

A personal aim of completing this project was to explore how I could more concretely embody my antiracist ideals of DL education, in centering linguistic and cultural diversity within a system designed to prioritize White dominant culture. As a teacher, I saw a shift in my practice in how I used language. I experienced joy in using more Spanish with my students and making it more visible, even if mine was the "English side" classroom. I saw an increase in students'

independently sharing metalinguistic connections during small group instruction, as well as translanguaging practices throughout the day. We engaged together as linguists, comparing words and sounds across languages. We also shared multilingual jokes and nicknames, creating a classroom space where expression in either language and often a mix of both was accepted. Our learning environment celebrated growth and risk-taking across languages. Taking the small steps as a part of this dissertation served in shifting my philosophy and my concrete instructional practice as a bilingual DL teacher. In making Spanish more visible and connecting with students through it, its holistic value to our identities shined through.

Alongside these changes, I still noticed my biases grounded in English hegemony continuing to emerge throughout the intervention, analysis, and writing process. I often caught myself centering my students' literacy instruction within my own English classroom and neglecting to prioritize communication with their Spanish literacy teachers. I also noticed myself making several assumptions about the English words that my EB students knew, viewing them from my default English monolingual instructional lens. In these moments I wondered how much meaning my EB students could be missing in my structured, word reading-focused literacy lessons and how this went against my ideals of teaching in a way that meets the full linguistic needs of EB students. I was grateful to my committee in how they pushed me to reflect on my written language as well, questioning me when I was positioning English as the "default" even as I was seeking to espouse ideals of linguistic equity. My training as a teacher, and particularly within structured literacy, has centered on the English monolingual experience, with courses, strategies, and trainings on supporting EB students often framed as supplemental components. As a result, it is important to keep reflecting on how I can continue to break down my

assumptions about whose educational trajectories are standard and whose are being positioned as deficient.

Giulamo (2022) explains that, to fully embrace EB students' bilingual trajectories and the potential of cross-linguistic transfer, educators must nurture "translanguaging stances, translanguaging spaces, and translanguaging pedagogical approaches that see, hear, and use students' full linguistic repertoires as worthy of transfer and application." Teachers must create classrooms where EB students' and their families' assets are actively seen and valued in order to build on them. As I move forward in my education career, I will continue creating these spaces where EB students' assets are not just explored as tools for success in the dominant worldview, but as gifts within themselves. Cioè-Peña (2022) warns against pushes for incorporating community knowledge that can, "easily [become] a call for resources mining, leading teachers to draw on these facets without replenishing them" (p. 59). This risk is particularly salient in gentrifying DL schools, where Latinx communities' linguistic and cultural resources can become an exploited commodity for the use of families with White and socioeconomic privilege (Cervantes-Soon, 2014). There must be a balance between capitalizing on Spanish language-literacy for EB students' academic advantage and nurturing it for its own sake. Accordingly, I will continue exploring how to shift from culturally responsive pedagogy to culturally sustaining pedagogy (Alim & Paris, 2014).

An advantage and a challenge of this dissertation was in my dual role of researcher and practitioner within my own workplace. The interplay of my daily research and practice for 11 weeks pushed me to be more present and reflective on my teaching. Oftentimes it was exhausting and imposed pressure or the need to find meaning in every moment of the instructional day.

Concluding this project, I am aware of my need for rest, self-care, and fostering communities of mutual support in teaching and equity work.

Another challenge of my dual role was confidently navigating it with my school colleagues as a researcher-practitioner. I often found myself feeling hesitant about overstepping my teaching role or getting involved in something that was not within the ‘scope’ of my teaching job. Teachers are on the front-line of education and are often the most acquainted with the most pressing challenges of educational equity and improvement. We also often tend to work within our own silos of our classrooms and assigned subjects, protecting our choices, safe spaces, and independence. This tendency to isolate may be especially limiting within DL contexts like my own, where two teachers in different classrooms with different focus languages are teaching the same skill of reading. To create the authentic “translanguaging spaces” that are needed for successful and cohesive DL biliteracy models (Guilamo, 2022), DL teachers must intentionally collaborate across languages of instruction.

A culture of seeking out and valuing teacher voice and collaborating as educators must come from school and system leaders and administrators; as well as from embracing this perspective as teachers ourselves. As a researcher-practitioner, I saw my tendency to work in a siloed format, to focus my work and reflections within my classroom and what I saw as my direct sphere of influence. I often compartmentalized and left my identity as a researcher within that space. However, the purpose of translating research to practice ensures that important learnings are not left within one research paper or one classroom. While I am proud of the work I did with my students, the connections I built with families, and the findings that I now hope to spread, I also hope to shift towards prioritizing collaboration throughout the process itself. This supports expanded impact, broadening my views and challenging my perspectives.

In terms of next steps, I plan to continue exploring how I can elevate equitable practices more holistically and more boldly, as a habit of my practice rather than just a specific and discrete project. I plan to continue working in DL and EB education for years to come. Embodying antiracist practice and research in this space requires approaching uncomfortable conversations, confronting biases, and prioritizing marginalized voices as DL school populations, like Ayala Elementary's in Washington, DC, continue to gentrify and potentially shift priorities towards students with linguistic, socioeconomic, and White privilege (Flores et al., 2021; Garcia & Williams, 2015). This is the charge of ensuring that DL schools are academically accelerating and culturally sustaining the Latinx communities they were designed to serve. This means sharing my observations of inequitable practices or outcomes amongst administrators and colleagues, challenging reductive comments about EB students' parents within the school building, and continuing to reflect upon my own biases and practice. This also means questioning my tendency to work independently or seek the comfort of my direct sphere of influence rather than applying and exercising a more organization-wide perspective. In future research, whether it is formal or not, I hope to explore how I can shift from a more isolated practitioner action research model to a more expansive and inclusive participant action research model.

Implications for Ayala Elementary

The analysis of my dissertation of practice findings indicated that positive change occurred in the realm of promoting biliteracy for EB students through a funds of knowledge framework within one teacher's classroom. To foster broader change, it is important to contextualize these outcomes within the broader organization. In this subsection, I present

implications for student instruction, teacher professional development, and parent partnership, all in the context of early biliteracy, for Ayala Elementary.

Implications for Student Instruction

During the implementation of this dissertation, the school organization was in the process of shifting kindergarten through second grade reading instruction towards structured literacy practices, as well as adapting to new informational and instructional tools (e.g., Amplify Lectura and the DCPS *Paired Literacy* curricula), which allow for more alignment between Spanish and English biliteracy. Creating systems for this alignment allows for translanguaging and cross-linguistic transfer to more actively and naturally take place. These initiatives also create space for centering the funds of knowledge of EB students, particularly in English-speaking classrooms where they might otherwise be disregarded. This dissertation's focus supported these organizational shifts, with implications for how kindergarten through second grade biliteracy instruction can improve.

During the 11-week asset-based Instructional Intervention, a majority of EB students showed growth in overall early English literacy skills, particularly in the subskills of decoding and letter sounds. This growth indicates that actively considering students' funds of knowledge grounded in Spanish language and literacy within the English classroom is an impactful practice. More specifically, it indicates that placing an increased focus on letter sound transfer between the languages and delivering explicit instruction on sounds that vary between Spanish and English supports EB students' English literacy learning. To continue encouraging this work in classrooms, tools like the Biliteracy Guide can be expanded to be applied to other grade levels'

phonics content or additional language and literacy topics such as grammar, syntax, or morphology.

The findings from the first grade MOY data also provided information about what Ayala must do to address the outstanding needs of EB students. First, students should continue receiving explicit phonemic segmenting practice. All first-grade students already receive daily phonemic awareness instruction through the *Heggerty* curriculum, but EB students would benefit from additional segmenting practice during small groups, as this skill differs from the corresponding Spanish skill of segmenting words into syllables. Phonemic segmentation practice is not only beneficial for early word reading—it is also key as students continue to learn more complex English spelling patterns (Moats, 2020). To further address this important skill, teachers at Ayala might consider using the untimed *Heggerty Phonemic Awareness Assessment* (Literacy Resources, 2023a) to give more substantial information on EB students’ particular phonemic awareness needs and to target instruction accordingly. The Instructional Intervention findings also highlight a continued need for vowel practice for EB students. After the intervention, EB students made fewer short vowel mistakes in the DIBELS nonsense word reading task, yet occasional vowel confusion, particularly as vowel pattern complexity increased, was still notable. This implies that students need even more support with adapting to these sounds. This can be addressed by orally practicing them through phonemic awareness activities, connecting them to mouth shapes, comparing them through reading and spelling, and attaching them with meaning through familiar vocabulary words.

The outcomes of this intervention also offer implications for how Ayala should continue to address English foundational literacy development and biliteracy as a whole. This project focused on specific skills for word reading. Research built upon the Simple View of Reading

indicates that these skills must be paired with strong language comprehension, particularly in the case of EB students (Gough & Tunmer, 1986; Cavazos, 2021). For EB and DL students, extra attention around cross-language transfer and oracy must be added in order to achieve full biliteracy (Guilamo, 2021). Middle of year DIBELS data revealed that EB students made growth in the targeted areas related to decoding, but the subtest performance on real word reading and oral passage-reading reflect students' outstanding needs in high-frequency word reading, oral fluency, and language comprehension (See Appendix J). Teachers and instructional coaches should collaborate on how these skills can be concurrently and strategically supported in early first grade. These skills should be addressed during English classroom blocks of close reading, writing, and social studies, as well as during small group instruction once EB students have mastered English word reading skills.

This intentional collaboration necessitates more learning and experimentation with language-building and translanguageing practices across teaching teams and involving English literacy, Spanish literacy, English language acquisition, and special education teachers in shared planning. Oftentimes at Ayala, a student might see three or four different teachers for language and literacy small groups throughout the week. Alignment around goals and shared practices between these teachers is important to foster as they work together towards effective biliteracy. This alignment is especially important for students with reading difficulties or who are newcomers, as these students often see the most teachers for targeted small groups.

Throughout these ongoing shifts, the challenge of changing teachers' mindsets and practices remains. Many teachers are not accustomed to teaching within structured literacy routines or processing and discussing data across languages. Implications for how to address this challenge are discussed in the following subsection.

Implications for Teacher Professional Development

While teacher training and professional development was not within the scope of my intervention, aligning asset-based instruction and best practices across a DL school is important for EB students to receive consistent instruction across different language-focus classrooms and grade levels. Throughout the 11 weeks of this project and as the district distributed resources like mClass Lectura, some cross-linguistic and cross-grade-level collaboration did occur, such as aligning focus areas between Spanish and English interventionists and BOY collaborative data meetings. This trend should be continued. For example, at the beginning of the year, literacy coaches held a DL-specific meeting to analyze students' reading profiles across languages. The team made general plans for progress monitoring; however, there was little time or guidance for specific planning or follow-up with future data meetings. In the future, Ayala should make time for more of these meetings, providing explicit guidance on how to analyze and compare student data, and sharing concrete resources for how to adjust instruction responsively. Systems leaders within DCPS should support this work for DL schools by ensuring that they have the support, through district-provided resources, and the time, on centralized professional development days, for this cross-language work. Without the practice of collaborating as teaching teams and using data, resources like the bilingual Amplify assessment tools, the *Paired Literacy* curriculum, and the Biliteracy Guide created for this intervention will not be used to their fullest potential.

In considering these proposed shifts, it is important to consider teacher burnout and capacity to process and apply system-level changes. Time for collaboration and training must be built in throughout the day to support teachers. Capacity should be built through instructional coaches to lessen the burden on teachers to integrate practices without support. Additionally, teachers must be invested in the 'why' before committing to changing their practices. At Ayala,

this mindset work has begun through literacy trainings and consultation from an American University professor and coach working with the administration. However, this work must be championed by staff from within the building, who are present in the building each day. Presentations on the processes of foundational literacy and cross-linguistic transfer for DL staff have been valuable, yet staff need continued guidance and time to apply and analyze these concepts within their concrete contexts.

Implications for Parent Engagement

Collaboration around biliteracy is important to foster amongst teachers as well as between teachers and families. The Parent Intervention highlighted this outstanding need but also the Spanish literacy support that EB students' families were already doing on their own through the lens of their personal and cultural funds of knowledge. At Ayala, many resources are in place to continue aligning this work and uplifting families' funds of knowledge. For example, there are many native Spanish-speaking teachers who can directly partner with EB students' families in their native language. Ayala also has a family engagement team, supported by the Flamboyant Foundation, and a full-time bilingual parent coordinator. With these resources, Ayala can build family partnerships for EB students' biliteracy growth in a way that many monolingual schools might not have capacity to. Understanding, acknowledging, and supporting the work that Spanish-speaking families are already doing in this realm will only further this advantage. This work of uplifting the voices and contributions of Spanish-speaking families must be intentional, as research has shown that US schools have historically privileged the engagement of families who share their language of power, English (Cioè-Peña, 2022; Hernández, 2021).

Family interview findings from the Parent Intervention indicated that EB students' parents express the capacity and desire to support their students with early reading; however, there is a gap in schools seeing and supporting these connections (Cioè-Peña, 2022; Freire & Alemán, 2021). At home, many EB students' parents were already working on Spanish literacy through dictations, syllable practice, language development, and reading practice, oftentimes with alignment to the foundations of the Science of Reading. Although the key tenets of the Science of Reading and the US-based perception of structured literacy have been developed through the lens of English monolingual literacy (Noguerón-Liu, 2020), their foundations apply across alphabetic languages (Cavazos, 2022; Pollard-Durodola & Simmons, 2009). The home support strategies that interviewees shared illuminated how the traditions of teaching Spanish literacy are particularly poised to support this cross-language overlap. The ways that parents supported their students with building syllabic awareness, understanding sound-letter connections, and strengthening their reading through spelling practice showed that the conclusions of the Science of Reading are not unique to English literacy learning or owned by any specific culture or language. Instead, these ideas present teachers and Spanish-speaking families with the opportunity to work towards the shared goal of breaking the code of alphabetic reading across languages.

The findings of the Reconciling Parental Support Roles Across Languages theme imply that families may need more support in seeing the bridges that they are building towards English literacy and biliteracy at home, even when they are supporting their children exclusively in their native language. Just as teachers must collaborate to build connections between languages, a similar awareness-building could support parents. For example, parents could learn how foundational support in Spanish directly builds on English literacy development rather than

viewing them as a dichotomy. Some interviewees communicated a feeling of lacking in their support for their children due to their Spanish monolingualism and their focus on Spanish rather than English academic support. DL Teachers should assure families that continued Spanish support is important and valued, and that any actions that support their EB students' knowledge, vocabulary, and fluency in Spanish will only strengthen their development while they learn to transfer their skills to English literacy in the classroom. This implication also connects to the overall charge of DL schools to continue breaking down assumptions of the superior value of English and elevating success in Spanish as a goal with its own inherent value (López & Fránquiz, 2009).

Teachers should also continue exploring resources or activities that encourage cross-language transfer at home. During my biliteracy workshop, I shared a parent-facing resource for letter sounds that did and did not overlap between the two languages that did not seem to be used very much. Teachers should continue to think creatively and work with families to discover practical and useful resources, particularly for students who are struggling to read in both languages and need as much targeted support as possible.

Beyond the specific context of early biliteracy, the findings of the Parent Intervention have implications tied to researchers' warnings about interest convergence and whose needs and contributions gentrifying DL schools are centering (Hernández, 2021; Morales & Maravilla, 2019; Palmer, 2009). In the context of serving a diverse group of parents, in which parents with White, linguistic, and socioeconomic privilege might be heard the loudest, Ayala Elementary and DL schools with similar populations should continue reflecting on how they elevate the voices of EB parents. This includes capitalizing on Spanish-speaking parents' abilities to support their students' biliteracy development, as this intervention aimed to do, and continuing to build an

overall school culture that values the voices and input of all families equitably. Throughout the Instructional or Parent Intervention, no family member mentioned issues of parental power dynamics or access to opportunities except for Antonio's grandmother. She approached me one day at dismissal after becoming frustrated with Antonio's lack of progress at home: "*Creo que otros niños aquí tienen acceso a tutores y cosas así. Pueden ayudarlos más en casa. Yo no soy capaz de hacer lo mismo*" (I think other kids here have access to tutors and things like that. They can help them more at home. I'm not able to do that). Antonio's grandmother's comment highlighted the intersection of language and class differences in Ayala's school demographics and their perceived correlation with different opportunities for academic success and support. In line with other DL scholar's recommendations (Hernández, 2021; Palmer, 2009; Valdés, 1997) the perception and impact of these power differentials merits further investigation and intervention. To build a fully inclusive and equitable school community, staff at Ayala Elementary should continue reflecting on power dynamics between teachers and parents, and among parents of different backgrounds to ensure that all parties' needs are represented and addressed.

Implications for the Education Community

While this project was localized within a very specific area of biliteracy in a specific DL school, it is also situated within the important and current conversation around early literacy instruction in US schools. For decades, researchers and educators have engaged in conversations around the 'reading wars' and what the 'correct' way to teach students of all backgrounds how to read is (Durán & Hikida, 2022). While decades of research supporting the National Reading Panel's conclusions on the five key components of literacy instruction have been well-

established and widely accepted (August & Shanahan, 2006; Cavazos, 2021), opinions across practice and research still vary in how to address and balance these components in modern-day US classrooms. The current conversation is largely centered on the Science of Reading, with major school districts, including DCPS, taking major steps to reshape and refocus early literacy education in a way that is more structured, explicit, and decoding-focused.

In the specific context of EB education, the dominance of Science of Reading rhetoric has met some resistance (Escamilla et al., 2022; Noguerón-Liu, 2020). Prominent researchers and practitioners in bilingual and EB education have established the National Committee on Effective Literacy to voice this resistance. Concerned about the “narrow approach of the science of reading” and the need to “expand thinking on literacy instruction” for EB students, this advocacy and research group argues that current pushes for Science of Reading-based pedagogy are largely reductive and too rote, leaving little room to address the unique needs and strengths of EB learners (National Committee for Effective Literacy, 2022). While the claims of the Science of Reading being narrow are aligned with misplaced assumptions that the Science of Reading pushes only for decontextualized and isolated phonics instruction, these calls for expanding and differentiating instruction are still valid and must be considered as schools continue to operationalize the recommendations from the Science of Reading into foundational literacy instruction for diverse student populations. Furthermore, it is important for scholars and practitioners to consider the unique positionality that Spanish-speaking EB students hold within this context, based on the transparency of their native language and its traditions of structured, syllabic instruction that fit well within the key tenants of the Science of Reading. Tapping into the language and literacy-based funds of knowledge that these students and their families hold can help build alignment between the Science of Reading and biliteracy instruction.

My dissertation of practice is one example of building EB student-centered differentiation into Science of Reading-based biliteracy instruction. Future approaches to asset-based differentiation in foundational biliteracy instruction should continue to focus on phonics and phonemic awareness instruction, while simultaneously emphasizing the co-development of the other key components of reading (fluency, vocabulary, and comprehension). These approaches should also focus on EB students' key needs in English language comprehension and oracy (Cavazos, 2021). In fact, an early and structured focus on the overlap and transfer between Spanish and English phonics and phonological awareness is vital to freeing students' capacity to focus on these language-based skills (Cavazos, 2022; Pollard-Durodola & Simmons, 2009). Dual language schools can align students' strong word reading foundations in the transparent language of Spanish with the more complicated language of English, to teach the overlaps and key differences in phonics and orthography explicitly, while also prioritizing language development. Supporting practices can include embedding vocabulary development, oracy practice, and encouragement of translanguageing throughout the school day. Within structured biliteracy small groups that target phonics and phonemic awareness, teachers can and should discuss the meaning of words that are being decoded and encourage discussion and comprehension built into decodable texts. Structured biliteracy instruction takes into account the aspects of reading development that are not natural to human development and must be explicitly taught; this in no way excludes the aspects of language development that are just as essential to complete literacy proficiency (Cavazos, 2021; Petscher, 2020).

Systems and resources for differentiating foundational literacy instruction for EB students must continue to be explored. For teachers to have the capacity to take explicit action based on EB students' existing funds of knowledge, schools and districts must provide the necessary

training, curriculum, and time for teachers, administrators, and staff. This includes building systems for ongoing professional development in biliteracy and creating space within the school day for collaboration between teachers of different languages. It also includes providing resources that already have the assets and needs of EB students built into them. These resources might include guidance on how to adapt curriculum to students' existing competencies, training on the specific areas of Spanish-English cross-linguistic literacy transfer, or interesting decodable texts that allow for phonics practice as well as oral discussion and concept development. Dual language teachers need the flexibility to respond to their unique groups of students; research-aligned resources for biliteracy can only make this goal more efficient and effective.

Parallel to this need to continue differentiating instruction for EB learners is the need to value the role of EB families. Findings from this project indicate that EB students' parents have the skills and desires to impact their children's holistic language and literacy development, even when it does not include specific English reading practice. Dual language programs' emphasis on biliteracy and bilingualism helps foster this partnership. This partnership and shared vision should be fostered more intentionally. Messages about the higher importance and prestige of English are everywhere in our society, inside and outside of school walls. Within this context, DL schools should thoroughly interrogate the messages they may be sending about languages, literacy, and their value through their interactions with parents. Families innately know and see the value of their languages and cultures; they need to know that schools also value and prioritize these funds of knowledge and this partnership.

Research across language development, neuroscience, and reading has indicated that, for DL EB learners, "program models might separate the languages of instruction, but linguistic

resources and codes will continue to seek connections” (Guilamo, 2021). Researchers and practitioners must continue to work together to explicitly foster these connections, which are grounded in EB students’ funds of knowledge, recognizing that many of these connections are being further deepened in their homes. Building upon these connections will help solidify the application of the Science of Reading to speakers of all alphabetic languages as well as illuminate the essential language and literacy instructional differentiation that must continue to be implemented for EB learners.

Conclusion

This dissertation of practice was grounded in uplifting marginalized groups and ensuring that DL schools actively work towards their antiracist potential. Within their model of fostering sociocultural competency, DL schools rely on the asset of bringing together linguistically diverse communities (Howard et al., 2018). The increasing linguistic, racial, and socioeconomic diversity in these schools is adding to this model by allowing students of all backgrounds to understand perspectives and experiences that are different than their own. Yet, as researchers have warned, this kind of diversity in DL schools does not exist in a vacuum: instead, it is intertwined with the hegemonic and unequal power dynamics that are cemented in broader US society (Cervantes-Soon, 2014; Flores et al., 2021; Palmer, 2009; Valdés, 1997). Thus, it is essential that educators, school leaders, and the broader research and education community be intentional in the implementation and expansion of DL education. In particular, the actions taken to support marginalized groups must be specific and aligned to research.

One avenue for specific action is in explicitly uplifting Latinx EB students and the assets that they have within themselves to succeed in this model, elevating their funds of knowledge

and the value of Spanish in a world that tends to prioritize White-dominant English hegemonic culture. My two-pronged intervention explored this opportunity for specific action by narrowing and broadening the lens on what applying these funds of knowledge can look like in an early biliteracy context. Doing this funds of knowledge-based work has resulted in implications for how DL teachers can align their practice for equity-minded biliteracy, how school leaders can establish systems to foster this alignment, how parents can support this process, and how the broader education community can apply this mindset within research sectors and beyond. In the following and final section, I translate these implications into recommendations for future practice and research.

Section 7

Recommendations

Dissertation of Practice Summary

As DL schools grow and diversify within gentrifying communities, it is important that they keep equity at the core of their work. Within the specific context of equity in DL early literacy instruction, I explored the following questions:

RQ 1. How does a teacher's use of an asset-based literacy intervention approach support EB students and their families in transitioning from Spanish literacy immersion to bilingual instruction?

RQ 1a. How does the teacher's asset-based approach influence EB students' English grade-level reading proficiency?

RQ 1b. What additional funds of knowledge are families mobilizing to support EB students' biliteracy growth and how can these inform future biliteracy instruction approaches?

Through an intervention that included English structured literacy instruction and parent interviews, I focused on how DL schools can build systems and practices for elevating EB students' funds of knowledge, particularly through building upon Spanish literacy and language knowledge. In DL schools that implement Spanish monolingual instruction during early childhood and then transition to bilingual Spanish-English instruction in first grade, intentionally planning to incorporate EB students' existing assets during this instructional transition supports these students in reaching their full biliteracy potential.

Quantitative student intervention findings showed that explicitly grounding English reading instruction in the transfer and non-transfer of Spanish literacy skills helped EB students

approach and meet grade-level expectations for English decoding and letter sound knowledge. Qualitative findings from EB parent interviews demonstrated Spanish-speaking parents' unique capabilities to support biliteracy learning that is grounded in Science of Reading-aligned practices. The implications of this dissertation encourage DL educators to deepen instructional collaboration towards biliteracy, with each other as well as with parents, by continuing to explore and incorporate elements of cross-linguistic transfer and EB students' funds of knowledge. In this final section, I share recommendations for fellow DL teachers, Ayala Elementary, and the broader education and research communities.

Recommendations for DL Teachers and Ayala Elementary

Recommendations for Myself and Fellow DL Teachers of English Literacy

1. Dual language teachers and staff should continue developing and applying the differentiated instructional scope from the Biliteracy Guide during small group lessons to support students in making metalinguistic connections across Spanish and English. This support should include differentiating phonics and phonological awareness instruction according to cross-linguistic transfer (or lack thereof). Teachers should add more frequent English phonemic segmentation and irregular word practice to support EB students' English word reading skills.
2. Teachers should incorporate oral language development and vocabulary within structured English literacy instruction. While language development and comprehension might be a focus during daily whole-group English language arts lessons, these core language activities should be built into structured literacy small groups as well, even if their focus is on phonics and phonemic awareness. For example, teachers could incorporate pictorial

visual supports with phonemic awareness auditory tasks. Other supports could include pre-teaching the meaning of words that will be decoded or pairing visuals and comprehension questions with decodable texts.

3. Teachers should collaborate strategically across both languages of instruction to support students who are struggling to read across languages with increased and targeted intervention. If students score ‘well-below’ grade level on the DIBELS assessment by the middle of the year, teachers should plan collaboratively to target transferable skills, such as letter sounds that are the same in both languages, while monitoring student progress consistently. For EB students in DL programs, language development might be ruled out as a factor of students’ reading challenges if students are struggling with foundational reading skills in both languages. A collaborative approach could ensure that the needs of students at highest reading risk are addressed accordingly.
4. Teachers should continue to explore biliteracy through an asset-based lens with students, explicitly highlighting and celebrating students’ metalinguistic awareness and translanguaging skills. Teachers should capitalize on creating a classroom culture around biliteracy to support EB students in internalizing their unique strengths.

Recommendations for Teacher Professional Development

1. Instructional leaders should plan monthly grade-level biliteracy meetings to facilitate collaborative data-analysis, co-planning across languages, and aligned intervention planning for at-risk readers. This professional collaboration supports students’ biliteracy progress and helps teachers broaden their mindsets about students’ skills beyond their specific instructional areas.

2. Instructional leaders should implement DL-specific professional development and follow-up coaching on topics such as biliteracy, cross-linguistic transfer, and translanguaging to build shared ownership of biliteracy and bilingual language development among teaching teams.

Recommendations for Parent Engagement

1. Administrators and teachers should facilitate annual biliteracy workshops for DL families on topics such as Spanish literacy immersion in Prekindergarten through Kindergarten, biliteracy transfer in grades 1-2, and translanguaging in grades 3-5. This can help build a shared understanding between families, teachers, and administrators around the benefits of DL instruction and the value of Spanish literacy and EB students' caregivers' roles in supporting it.
2. Administrators, teacher leaders, and parent leaders should plan biliteracy nights for families to encourage community-building and resource-sharing both among Spanish-speaking families and across lines of linguistic, racial, and socioeconomic differences. This might include showcases where students present their reading or writing in both languages, a bilingual story time with a connected family activity, or creating bilingual books together.
3. Teachers and administrators should continue discussing and planning to disrupt power imbalances that are noticed among families regarding their participation in academic support, school events, or parent voice forums such as the Parent-Teacher Organization. To seek out and incorporate Spanish-speaking families' funds of knowledge, DL school

teams should intentionally plan for this and address gaps in terms of who is most represented.

Recommendations for the Broader Education Community

1. School districts should prioritize access for and enrollment of EB students in DL schools. For the antiracist potential of DL schools to work, it is essential that EB students, particularly those who need the most support in adapting to an English-speaking system and society, such as newcomers to the country, be prioritized in enrolling in these programs.
2. English monolingual schools should adapt asset-based practices, as explored in this dissertation, to support EB students and incorporate their funds of knowledge.
3. Researchers and practitioners should work towards integrating conversations around the Science of Reading and biliteracy, rather than siloing the two frameworks. This is an opportunity to approach foundational literacy development with a more asset-based and differentiated approach and refute claims that the Science of Reading is one-size-fits-all or deficit-focused. Spanish-speaking families, students, and teachers are especially poised to be involved in this work, based on the transparency of the Spanish language and the structured literacy instruction that is embedded within many Latin American schooling traditions.

Recommendations for Future Research

1. Future research should continue to refine a framework for biliteracy across phonological awareness, phonics, fluency, vocabulary, and comprehension. This research should include investigation of how to align language development with foundational word

reading instruction. Incorporating funds of knowledge, translanguaging, and cross-linguistic transfer frameworks into Science of Reading research can help inform asset-based instruction across all five areas of foundational literacy, responding to EB students' strengths and needs.

2. Future research should investigate biliteracy intervention strategies for EB students who are struggling to read in both languages. If teachers are provided with more resources and guidance for this, they can implement interventions that build upon EB students' bilingual exposure and are subsequently more efficient.
3. Future research should continue to explore how both DL and English-monolingual schools can affirm and uplift the role that EB students' families play in their children's education. This could include an investigation of counter stories or effective school practices.

Conclusion

Bilingual education scholar Guadalupe Valdés (2021) calls on researchers and practitioners to continue lovingly critiquing and refining DL education, to focus on finding the “magic sauce” of what, specifically, unlocks the promise of bilingual education for linguistically minoritized children (p. 275). With this dissertation, I worked towards continuing to clarify the specific actions within bilingual education that can make DL schools promising tools for equity and antiracism, particularly as they expand and diversify. The intentions to value EB students' funds of knowledge and full linguistic repertoires are at the heart of DL education, and the academic and culturally sustaining potential of these intentions are validated by research. As

bilingual education moves forward, it is important that these intentions and research continue to inspire specific and intentional action.

Appendix A

Biliteracy Guide

How to use this guide:

When students transition from all-Spanish literacy instruction to bilingual literacy instruction, they have a lot of new skills to learn, but they also have many key foundational skills to build upon. Spanish is a very transparent language, meaning that it is usually easy to consistently decode once you have mastered each letter's sound. Spanish immersion instruction gives students a strong foundation in decoding words as well as many phonemic awareness skills. If we guide students to leverage these skills as they learn to read in English, they will be able to make biliteracy connections and growth faster.

The aim of this guide is to highlight exactly which skills 'transfer' over from Spanish literacy, and which skills might require more explicit and repeated instruction, especially for emergent bilingual students who are primarily exposed to Spanish language and literacy at home. With this knowledge, you can explicitly guide students to make [metalinguistic connections](#) and leverage their superpowers as bilingual learners. Linked throughout this guide are sample small group lesson plans, texts, and other resources to help emergent bilingual students make connections across languages and gain extra exposure to skills that do not map directly from Spanish to English. More texts and resources will be linked in the fall. Additional simple decodable texts will be added in the last column to give students more practice with skills that might be the newest or most difficult for Spanish-dominant students.

First Grade Foundational Biliteracy Guide, based on Foundations 1 Curriculum

Unit	Weeks	Foundations 1 Key Concepts	Transferable skills taught in Spanish in K	Similar skill taught in Spanish, needs explicit bridging	Skill not taught (or differing) in Spanish in Kinder, needs explicit instruction
1	1	Letter Sounds/ Formation t, b, f n, m i, u c, o	t tomate /t/ b bicicleta /b/ f fosil /f/ n nido /n/ m mapa /m/ c canoa /c/ When teaching transferable sounds, leverage cognates (cognate list linked)		Short i Short u Short o *Spanish has 5 consistent vowel sounds, while English has 14+, few of which overlap.

	2	a, g d, s e, r p, j	*d delfin /d/ s sol /s/ p puma /p/	-g sound: words that start with ga-, go-, gu- start with the same /g/ sound in both languages. -ge- and gi- start with /h/ sound in Spanish and /j/ in English	Short a Short e j r
	3	l, h, k v, w y, x z, q	l limón /l/ k karate /k/ w Washington /w/ y yoyo /y/	x	h (makes no sound in Spanish) v (Spanish articulation: /b/) z (Spanish articulation: /s/) q ('qu' Spanish articulation: /k/)
2	2	-Blending and segmenting CVCs -Sentence dictation -Trick words: the, and, is, his, of	-Sentence dictation and capitalization/punctuation procedures	-Blending/segmenting happens mostly at the syllable level in Spanish (i.e. mapa=ma-pa). Students may need extra practice working at the phoneme (single sound) level (i.e. map=m-a-p).	-Trick word resource: Heart Words
3	2	-Digraphs: ch, sh, th, wh, ck -Question marks	ch chaleco /ch/	-Question mark differences between Spanish and English writing	sh (may be frequently confused with /ch/ by Spanish speakers)

		-Trick words: as, has, to, into, we, he, she, be, me, for, or			th (th digraph does not exist in Spanish, but the /th/ sound does exist in some words like ' <i>dedo</i> ' or ' <i>lodo</i> ') wh ck
4	2	-Bonus letters -Glued sound: all -Varied punctuation -Trick words: you, your, I, they, was, one, said			-Double letters ll in Spanish vs. English -Changing vowel sounds: all
5	1	-Glued sounds: am, an -Trick words: from, have, do, does			-nasal /a/ sound
6	3	-Suffix -s -Trick words: were, are, who, what, when, where, there, here		Suffix -s has consistent /s/ sound in Spanish but has same use (plurals and modifying verbs)	-s /z/ sound as a suffix
7	3	-Glued sounds: ang, ing, one, ung, ank, ink, onk, unk -Trick words: why, by, my, try, put, two, too, very, also, some, come			-ng -Changing vowel sounds
8	2	-Consonant/ digraph blends -R-controlled vowels: ar, or, er, ir, ur -Trick words: would, could, should, her, over, number			-r- controlled vowels -Some blends do not exist in Spanish and

					may need extra practice, for example sl, sm, sts, scr, spr, str
9	2	-Closed syllables vs. open -Vowel teams: ai, ay, ee, ea, ey, oi, oy -Trick words: say, says, see, between, each	oi oy	-syllable types, division process is same so students can use same routines taught in K -syllable type differences	- Vowel teams are taught as diphthongs (diptongos) in Spanish. Some sound <i>similar</i> but have different pronunciations, extra oral and reading practice will be beneficial
10	3	-Double blends (words w/ 5 sounds) -Suffixes: -s, -ed, -ing -Vowel teams: oa, oe, ow, ou, oo, ue, ew, au,aw -Trick words: any, many, how, now, down, out, about, our		-S plural ending is used but makes a consistent /s/ sound, versus the variation in English	- ed and -ing endings - Most vowel teams
11	3	-Silent e: CVCe words -Long vowel sounds -Trick words: friend, other, another, none, nothing			- CVCe syllable types - Long vowel sounds
12	3	-Multisyllable words -Syllable division to read and spell -Trick words: people, month, little, been, own, want, Mr. Mrs.	-Using syllable division to spell multisyllable words		

13	3	-Suffixes with multisyllable words -suffixe -es -Trick words: work, word, write, being, their, first, look, good, new	-Adding suffixes to multisyllable words		-use of '-es' for suffixes
14	2	-Review -Trick words: water, called, day, may, way			



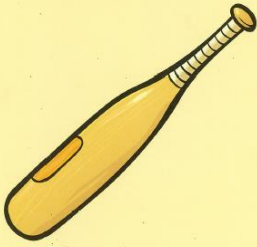

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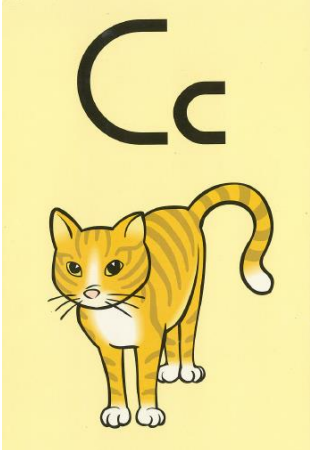

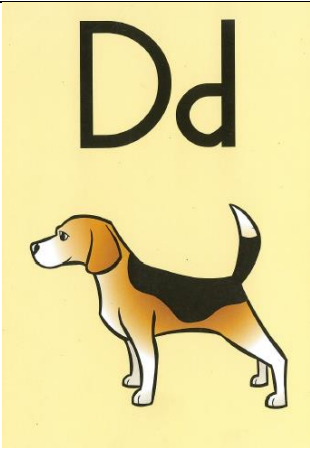

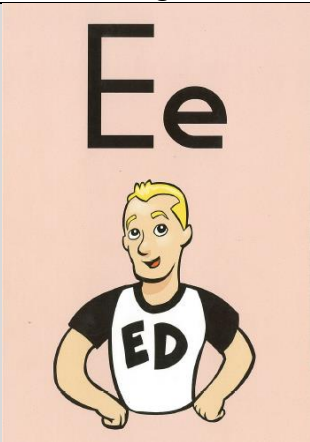

American Speech-Language-Hearing Association, n.d.; Benchmark Education, 2022; Cárdenas-Hagan, 2020; Colorín Colorado, 2007, Wilson Language Training Corporation, 2016; Wilson Language Training Corporation, 2018

Appendix B

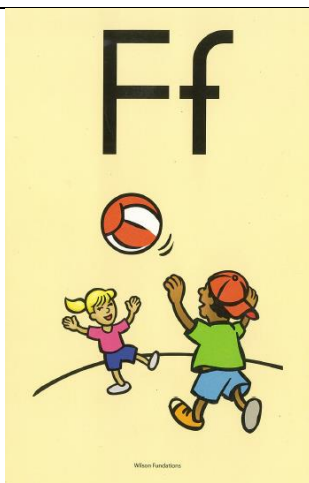
Parent Biliteracy Guide

Letters that are starred make different sounds in English and Spanish. Letters in white boxes make the same sound in both languages. English letter sound pictures are reproduced from the Foundations Level 1 curriculum (Wilson Language Training Corporation, 2016). Spanish images are stock photos but use the key words from *Fonética y Gramática* (Benchmark Education, 2022).

<p>* a</p>	<p>Aa</p>  <p>a apple /a/</p>	 <p>abeja</p>
<p>b</p>	<p>Bb</p>  <p>b bat /b/</p>	 <p>bicicleta</p>

C	 <p>c cat /c/</p>	 <p>canoa</p>
d	 <p>d dog /d/</p>	 <p>delfin</p>
*e	 <p>e Ed /e/</p>	 <p>elefante</p>

f

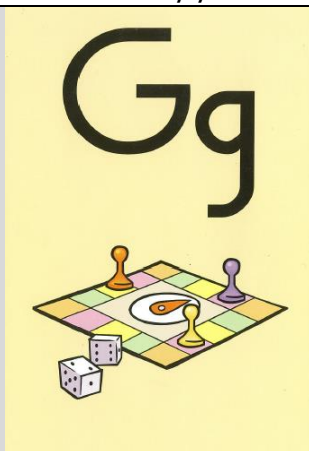


f fun /f/

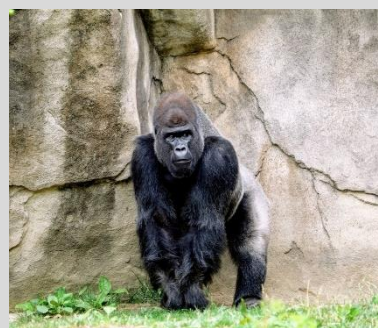


fossil

*g



g game /g/



gorila

*h



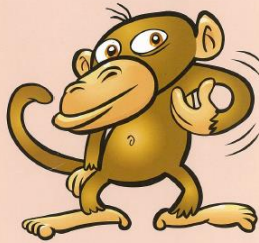
h hat /h/



hoja

*i

Ii



i itch /i/



iguana

*j

Jj



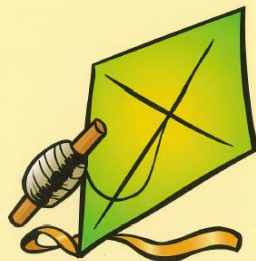
j jug /j/



jabali

K

Kk



k kite /k/



karate

l

Li



l lamp /l/



Limon



llave

m

Mm



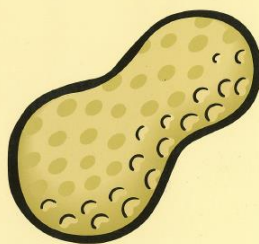
m man /m/



mapa

n







Nn

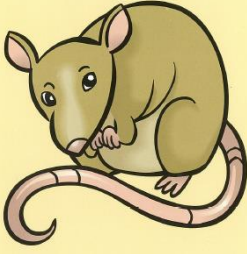












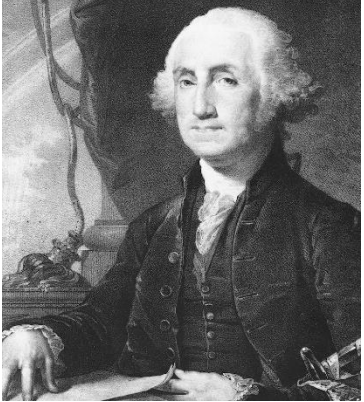
n nut /n/









nido

<p>* O</p>	<p>Oo</p>  <p>o octopus /o/</p>	 <p>oso</p>
<p>p</p>	<p>Pp</p>  <p>p pan /p/</p>	 <p>puma</p>
<p>* qu</p>	<p>Qu qu</p>  <p>qu queen /qu/</p>	 <p>queso</p>

<p>*r</p>	<p>Rr</p>  <p>r rat /r/</p>	 <p>rinoceronte</p>
<p>s</p>	<p>Ss</p>  <p>s snake /s/</p>	 <p>sol</p>
<p>t</p>	<p>Tt</p>  <p>t top /t/</p>	 <p>tomate</p>

<p>* U</p>	<p>Uu</p>  <p>u up /u/</p>	 <p>uvas</p>
<p>* V</p>	<p>Vv</p>  <p>v van /v/</p>	 <p>vela</p>
<p>W</p>	<p>Ww</p>  <p>w wind /w/</p>	 <p>Washington</p>

<p>*X</p>	<p>Xx</p>  <p>x fox /x/</p>	 <p>xilófono</p>
<p>y</p>	<p>Yy</p>  <p>y yellow /y/</p>	 <p>yoyo</p>
<p>*Z</p>	<p>Zz</p>  <p>z zebra /z/</p>	 <p>zorro</p>

ch

ch



ch - chin - /ch/

ch chin /ch/



chaleco

*sh

sh



Wilson Foundation

sh ship /sh/

*th

th



Wilson Foundation

th thumb /th/

Appendix C

Sample Lesson Plans

Needs-Based Small Group Instruction: Word Recognition Planning Template

Students: _____

Specific Instructional Goal(s): Students will be able to identify, produce, and read the short /i/ sound.

Students will be able to make metalinguistic connections between English and Spanish decoding.

Materials/Prep: Letter tiles or cards, white board/markers, short i word cards, text

	Day 1
Hear-It (4 min): <i>Prioritize 1-2 high-leverage phonological awareness skills, training to mastery.</i>	Blend phonemes: i-f (if), h-i-p (hip), ch-i-ll (chill), m-i-x (mix), s-i-ck (sick), s-w-i-m (swim), f-i-b (fib) Segment phonemes: it, in, pill, zip, fin, bit, chip, wish Identify Middle Sound: fit, bib, meat, pin, feet, fish **discuss/model any word meanings as necessary to support students' vocabulary growth
Review-It (3 min): <i>Review the concepts taught the previous day with sound drills, etc.</i>	Review Drill: Sound identification drill with familiar letters (<i>i.e.</i> t, b, f, n, m, i) Review Drill: Sound-to-letter drill with familiar letters (teacher produces sound, students write or find corresponding letter) Review Heart Word: is (Resource: Heart Word Magic - Read and Spell High Frequency Words Really Great Reading)
New Skill/Decode-It (4 min): <i>Explicitly teach, model, and allow students to practice decoding skills.</i>	Introduce focus skill: short /i/ <i>T: We will focus on a new English letter sound. Listen to and repeat these words and see if you know which sound we are learning about: itch, in, igloo.</i> <i>What sound do all these words begin with? Right! /i/. This is a vowel sound. When I make this sound, my mouth is open in a smile, let's try it together, /iii/.</i> <i>(Show i Foundations card) The letter i makes the /i/ sound in English, like in 'itch.' What sound does this letter make in Spanish? (connect to 'iguana' in Spanish). We make this sound in English too, but it is made by different letters. (discuss/write examples like 'mi' and 'me' or 'si' and 'see')</i>

	<p><i>In English, the i makes a very different sound than in Spanish, so it's important that we practice and remember this sound! I can hear /i/ in the beginning of words like itch, in, and igloo. I can also hear it in the middle of fin, bit, and bin. Can you think of any words with the /i/ sound?</i></p> <p><i>Let's try to read some words with the /i/ sound.</i></p> <p>Guided Practice: Build words and decode together (in, if, it, bit, fib, fit, fin, fib)</p>
<p>Spell-It (3 min): Explicitly teach, model, and allow students to practice encoding skills.</p>	<p>T: <i>Let's write (or build) some words with the /i/ sound. To spell them, we will tap out the sounds then think of the letter that makes each sound. (Model then do guided practice)</i></p> <p>in, it, if, fin, bit, fib, bib, tin</p>
<p>Read-It (4 min): Allow students to practice, with corrective feedback, reading.</p>	<p>Text reading: Read attached text and complete activities</p> <p>*Support students by modeling fluent reading after student decode each sentence.</p> <p>*Discuss word meanings as needed</p>
<p>Comprehend-It (2 min): Ask students a question(s) based on the text.</p>	<p>Ask recall/higher order questions based on the text read. (Examples: How do you know the mitt didn't fit? Why does the baby need a bib that fits? What do fish use their fins for?)</p>
<p>Progress Monitoring <i>Jot down progress monitoring notes and/or data, with reflections for next week's lessons:</i></p>	

References: This lesson plan is adapted from and informed by Cárdenas-Hagan (2020), the *DC Reading Clinic*, and DC Public Schools

Word Cards to practice automatic reading:

in

it

tin

if

bit

fin

fib

fit

big

bin

bib

did

Silly Questions (Read the question then circle yes or no):

1. Did the mitt fit? yes no



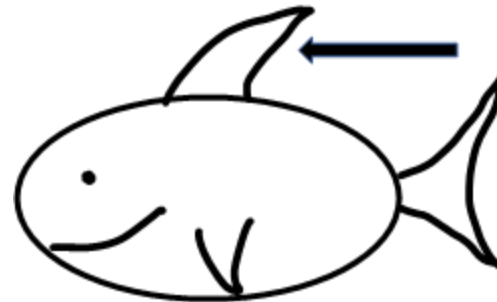
2. Is the bib big? yes no



3. Did it fit in a bin? yes no

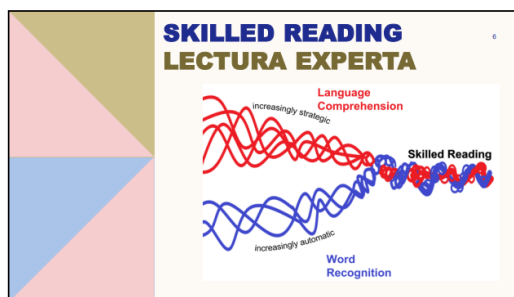
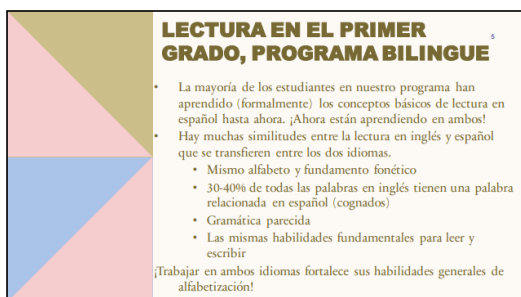
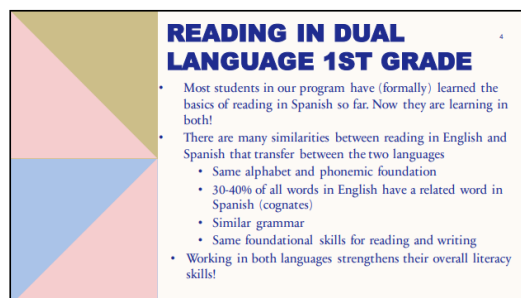
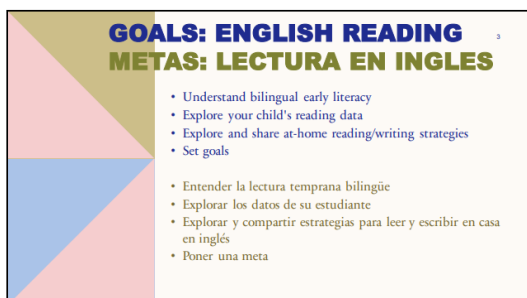
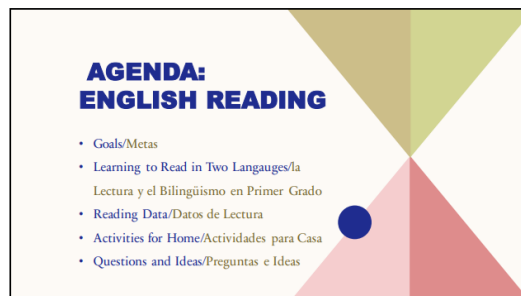


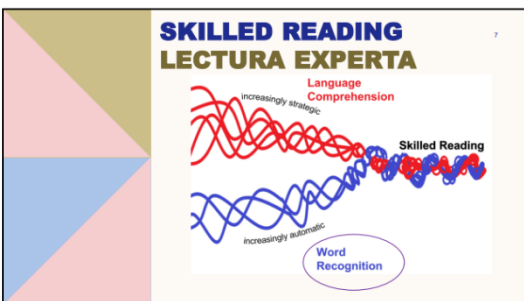
3. Is it a fin? yes no



Appendix D

Parent Biliteracy Workshop Slide Deck





DIBELS READING ASSESSMENT RESULTS

	Composite	Phonemic Awareness (PAC)	Letter Sounds (LSS)	Decoding (DC)	Word Reading (WR)	Reading Fluency (RF)
Well Below Benchmark	57% 10 Students	59% 14 Students	62% 10 Students	48% 10 Students	50% 10 Students	53% 10 Students
Below Benchmark	5% 1 Student	31% 10 Students	9% 1 Student	19% 11 Students	9% 5 Students	5% 3 Students
At Benchmark	19% 11 Students	9% 5 Students	12% 7 Students	24% 14 Students	16% 9 Students	17% 10 Students
Above Benchmark	19% 11 Students	2% 1 Student	17% 10 Students	9% 5 Students	26% 10 Students	24% 14 Students

LOOK THROUGH YOUR CHILD'S DATA SHEETS: PUT A STAR ON A STRENGTH AND A CIRCLE AROUND AN AREA OF GROWTH

REVISE LAS HOJAS DE DATOS DE SU HIJO: PONGA UNA ESTRELLA EN UNA ÁREA DE FUERZA Y UN CÍRCULO ALREDEDOR DE UN ÁREA DE CRECIMIENTO

WHAT TO PRACTICE AT HOME: LETTER SOUNDS

• Goal: Recognize English letter sounds automatically

Emphasize sounds that are different in English (the starred letters)!

*i	Ii	iguana
*j	Jj	jirafa
k	Kk	karateka

QUE PRACTICAR EN CASA: SONIDOS DE LAS LETRAS

• Meta: Reconocer los sonidos de las letras en inglés automáticamente

Pon énfasis en las letras que tienen sonidos diferentes en Inglés!

*i	Ii	iguana
*j	Jj	jirafa
k	Kk	karateka

WHAT TO PRACTICE AT HOME: SPELLING WITH ENGLISH LETTER SOUNDS

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

**QUE PRACTICAR EN CASA:
ORTOGRAFÍA CON LOS
SONIDOS DE LAS LETRAS
EN INGLÉS**

**SPELLING PRACTICE HELPS BUILD
AUTOMATIC READING SKILLS!**

Student photos removed

**¡LA PRÁCTICA DE LA ORTOGRAFÍA AYUDA A
CONSTRUIR HABILIDADES DE LECTURA
AUTOMÁTICA!**

Student photos removed

**WHAT TO PRACTICE AT
HOME: READ AT HOME
AND TALK ABOUT IT!**

Student photos removed

**QUÉ PRACTICAR EN CASA:
¡LEER EN CASA Y HABLAR
DE LO QUE LEEN!**

Student photos removed

**WHAT TO PRACTICE AT HOME:
IREADY READING**

**QUÉ PRACTICAR EN CASA: IREADY
READING**

**WHAT TO PRACTICE AT
HOME: IDEAS?
QUESTIONS?**

**QUÉ PRACTICAR EN
CASA: IDEAS?
PREGUNTAS?**

Appendix E

Parent Intervention Interview Guide (Spanish)

Guía de entrevista para padres

Objetivo: ¿Qué fondos de conocimiento están aportando las familias a las experiencias con la lectura de sus hijos, y cómo los están implementando? ¿Cómo pueden continuar apoyando sus trayectorias de alfabetización bilingüe durante su transición al aprendizaje en español y en inglés? ¿Qué necesidades/oportunidades destacadas se reflejan?

Preguntas

Fondos de Conocimiento Generales/Antecedentes

¿Puedes contarme sobre tu familia?

¿Cómo llegaste a vivir a DC?

¿Cuánto tiempo ha estado aquí tu familia?

¿Ya había algún familiar o amigo en la zona?

¿Cómo es un día típico para su familia?

Cuentame sobre experiencias laborales, actividades en el hogar, redes de amigos/familiares, rutinas...

¿Cuáles son algunas de las cosas que les gusta hacer juntos como familia?

¿Qué es lo que generalmente espera de las experiencias escolares de sus hijos?

¿Qué es lo más importante para usted cuando se trata de su educación?

Fondos del Conocimiento Culturales, Lingüísticos, y Académicos

¿Cómo fue tu experiencia con la lectura cuando eras niño? ¿Cómo eran las oportunidades educativas donde creciste?

¿Sientes que la lectura fue algo que aprendiste/practicaste en casa/en tu comunidad o solo en la escuela?

¿Por qué eligió un programa bilingüe para su hijo?

¿Por qué es importante para usted que su hijo crezca hablando tanto inglés como español?

¿Cuáles son algunas de las cosas que hace su familia que se relacionan o mantienen su cultura familiar (iglesia, comida, familia, idioma, comunidad...)?

¿Ve alguna conexión con la alfabetización o el lenguaje en estas actividades?

¿Cómo se usan los idiomas en su casa (español/inglés/ambos/entre quiénes)?

¿Qué idiomas usa su hijo en casa y cuándo (es decir, cuando juega, interactúa con otros miembros de la familia versus otros niños, etc.)?

¿Cómo cree que su hijo se siente acerca de su uso/habilidades en español e inglés?

Aplicación de fondos de conocimiento al aprendizaje de la lectoescritura de los niños: activos y necesidades

Cuénteme más acerca de cuál ha sido la experiencia de su hijo hasta ahora con el aprendizaje de la lectura.

¿Qué libros les encanta leer?

Hábleme de un momento en que se sintió realmente involucrado con la educación de lectura de su hijo.

¿Qué estrategias ha probado para animar a su hijo a leer por su cuenta?

¿Cómo cree que la inscripción de su hijo en un programa de PreK y Kindergarten totalmente en español afectó esto?

¿Está satisfecho con su nivel de participación en este proceso de aprender a leer?

¿Cree que sus propias experiencias en la escuela o aprender a leer afectan la forma en que apoya a su hijo con la lectura? ¿Si es así, cómo?

(*Si tienen estudiantes mayores del programa bilingüe) ¿Cómo fue la experiencia de su hijo mayor al aprender a leer en dos idiomas? ¿Usted o ellos experimentaron algún desafío?

(*Si no tienen estudiantes mayores del programa bilingüe) ¿Prevé algún desafío a medida que su hijo comience a aprender a leer en inglés y en español?

¿Qué información se ha compartido con usted acerca de cómo los niños desarrollan las habilidades de lectura en dos idiomas?

¿A su hijo le gusta jugar juegos de tableta o mirar televisión? ¿Qué les gusta jugar/ver?

¿Alguno de estos programas tiene lectura/escritura/ABC/canciones/etc.?

¿Existen otras formas que se le ocurran en que su hijo practica la lectura, la escritura o el lenguaje en casa?

¿De qué otra manera usted u otras personas en el hogar apoyan a su hijo con su aprendizaje académico o tareas?

¿Cuál es la parte más difícil de ayudar a su hijo a aprender a leer?

¿Qué desafíos predice o le preocupan cuando comienzan a leer en inglés?

¿Qué recursos o apoyo le gustaría tener a medida que su hijo aprende a leer bilingüe?

¿De qué otra manera le gustaría participar en el aprendizaje o el salón de clases de su hijo?

Appendix F

Parent Intervention Interview Guide (English)

Parent Interview Guide (English Version)

Aim: What assets/funds of knowledge are families bringing into their child's literacy journey and how are they implementing them? How can these continue to support their biliteracy trajectories as they transition to learning in both Spanish and English? What outstanding needs/opportunities are reflected?

Questions (potential follow-up/prompting questions are indented)

General Funds of Knowledge/background

Can you tell me about your family's background?

How did you come to live in DC?

How long has your family been here?

Were any family or friends already in the area?

What does a typical day look like for your family?

Probe about work experiences, home activities, friend/family networks. Routines...

What are some things you like to do together as a family?

What are you generally hoping for out of your children's school experiences?

What is most important to you when it comes to their education?

Cultural/Linguistic/Literacy Funds of Knowledge

What was your experience with reading like as a child? What were educational opportunities like where you grew up?

Do you feel that reading was something you learned/practiced at home/in your community or just at school?

Why did you choose a bilingual program for your child?

Why is it important for you that your child grows up speaking both English and Spanish?

What are some things your family does that relate to or uphold your family's cultural background (church, food, family, language, community...)?

Do you see any connections to literacy or language in these activities?

How is language used in the family (Spanish/English/both/between whom)?

What languages does your child use at home and when (i.e. when playing, interacting with extended family members versus other children, etc.)?

How do you think your child feels about their Spanish and English use/abilities?

Applying funds of knowledge child's literacy learning: Assets and needs

Tell me more about what your child's experience has been so far with learning to read.

What is a book they love to read or talk about?

Tell me about a time you felt really engaged in your child's literacy education.

What strategies have you tried to encourage your child to read on their own?

How do you think your child being enrolled in all-Spanish PreK and Kindergarten impacted this?

Have you been satisfied with your level of involvement as they learn to read?

Do you think your own experiences with school or learning to read affect how you support your child with reading? If so, how?

(If they have older bilingual program students) What was your older child's experience learning to read in two languages like? Did you or they experience any challenges?

(If they do not have older bilingual program students) Do you foresee any challenges as your child starts learning to read in English as well as Spanish?

What information has been shared with you about how children develop biliteracy, or reading skills in two languages?

Does your child like to play any tablet games or watch TV? What do they like to play/watch?

Do any of these programs have reading/writing/ABCs/songs/etc.?

Are there any other ways you can think of that your child practices reading, writing, or language skills at home?

How else do you or others in the home support your child with their academic learning or homework?

What is the hardest part of helping your child as they learn to read?

What challenges do you predict or worry about as they begin to read in English?

What resources or support would you like to have as your child learns to read bilingually?

How else would you want to be involved in your child's learning or classroom?

Appendix G

Parent Consent Form (Spanish)

Consentimiento para Participar en la Investigación

Identificación de Investigadores y Propósito del Estudio

Se le pide que participe en un estudio de investigación realizado por Francesca Smith de la Universidad American. El propósito de este estudio es investigar estrategias de instrucción y colaboración con familias que apoyan efectivamente a los estudiantes latinos/o de orígenes hispanohablantes en programas bilingües. Este estudio contribuirá a la finalización de la tesis en el programa de doctorado en educación de la investigadora.

Procedimientos de Investigación

Si decide participar en este estudio de investigación, se le pedirá que firme este formulario de consentimiento después de que la investigadora haya respondido cualquier pregunta que pueda tener sobre el estudio y su participación. Su participación en este estudio incluye una entrevista con la investigadora y completar un cuestionario en su hogar o en un lugar comunitario cerca de la escuela de su hijo. La entrevista se centrará en sus perspectivas y experiencias como padre de un estudiante bilingüe que está aprendiendo a leer.

Con su consentimiento, su entrevista se grabará en audio y se transcribirá con fines de investigación. La investigadora anonimizará las transcripciones de las entrevistas de los participantes para su posterior análisis. Todas las grabaciones y transcripciones de audio permanecerán confidenciales y anónimas y solo serán accesibles para el investigador. Todas las grabaciones y transcripciones serán destruidas al finalizar la investigación. Puede elegir que su entrevista no se grabe en audio, en cuyo caso la investigadora registrará sus perspectivas y experiencias usando notas escritas a mano durante su entrevista.

Tiempo requerido

La participación en este estudio requerirá de 30-45 minutos de su tiempo para la sesión de entrevista y 10 minutos para el cuestionario 8 semanas después.

Riesgos

La investigadora no percibe más que riesgos mínimos de su participación en este estudio. La investigadora percibe que los siguientes son posibles riesgos derivados de su participación en este estudio: potencial molestia emocional, de compartir anécdotas personales con la maestra de su hijo o discutir los desafíos de su hijo en la escuela, por ejemplo. La investigadora buscará reducir el riesgo y el malestar manteniendo todos los registros de entrevistas y cuestionarios privados. Las citas e ideas de su entrevista serán usadas en la investigación, pero serán compartidas sólo con un seudónimo.

Beneficios

Los beneficios potenciales de la participación en este estudio podrían incluir estar más informados sobre el progreso de su hijo en la escuela, construir una relación más estrecha con la maestra de su estudiante y tener más aporte sobre la experiencia de primer grado de su hijo.

Confidencialidad

Los resultados de esta investigación se presentarán en una defensa de tesis y conferencias de estudiantes. Los resultados de este proyecto se codificarán de tal manera que la identidad del entrevistado no se adjuntará a la forma final de este estudio. La investigadora conserva el derecho de usar y publicar datos no identificables. Aunque las respuestas individuales son confidenciales, los datos agregados se presentarán en promedios o generalizaciones sobre las respuestas en su conjunto. Todos los datos se almacenarán en una ubicación segura accesible solo para la investigadora. Al finalizar el estudio, toda la información que coincide con los encuestados individuales con sus respuestas, incluidas las grabaciones de audio, será destruida.

Participación y Retiro

Su participación es totalmente voluntaria. Usted es libre de elegir no participar. Si decide participar, puede retirarse en cualquier momento sin consecuencias de ningún tipo. También puede negarse a responder cualquier pregunta individual sin consecuencias.

Preguntas Sobre el Estudio

Si tiene preguntas o preocupaciones durante el tiempo de su participación en este estudio, o después de su finalización, o si desea recibir una copia de los resultados agregados finales de este estudio, por favor póngase en contacto con:

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Preguntas sobre sus derechos como participante en la investigación:

Matt Zembrzski
Coordinador del IRB
Universidad Americana
(202)885-3447
irb@american.edu

Dación de Consentimiento

He leído este formulario de consentimiento y entiendo lo que se está solicitando de mí como participante en este estudio. Consiento libremente para participar. Me han dado respuestas satisfactorias a mis preguntas. El investigador me proporcionó una copia del formulario. Certifico que tengo al menos 18 años de edad.

☐ Doy consentimiento para ser grabado en audio durante mi entrevista. ____ (iniciales)

Nombre del Participante (Impreso)

Nombre del Participante (Firmado)

Fecha

Nombre del Investigador (Firmado)

Fecha

Appendix H**Parent Consent Form (English)****Consent to Participate in Research****Identification of Investigators & Purpose of Study**

You are being asked to participate in a research study conducted by *Francesca Smith* from American University. The purpose of this study is to investigate instructional strategies and family partnership practices that effectively support Latina/o dual language students from Spanish-speaking backgrounds. This study will contribute to the researcher's completion of her dissertation of practice in the Doctor of Education program.

Research Procedures

If you decide to participate in this research study, you will be asked to sign this consent form after the researcher has answered any questions that you might have about the study and your participation. Your participation in this study includes one interview with the researcher, and completing a questionnaire in your home or in a community location near your child's school. The interview will focus on your perspectives and experiences as a parent of a bilingual student learning to read.

Per your consent, your interview will be audio-recorded and transcribed for research purposes. The researcher will anonymize participant interview transcripts for further analysis. All audio recordings and transcripts will remain confidential and anonymous and will only be accessible to the researcher. All recordings and transcriptions will be destroyed upon research completion. You may choose not to have your interview audio-recorded, in which case the researcher will record your perspectives and experiences using hand-written notes during your interview.

Time Required

Participation in this study will require 30-45 minutes/hours of your time for the interview session and 10 minutes for the questionnaire 8 weeks later.

Risks

The investigator does not perceive more than minimal risks from your involvement in this study. The investigator perceives the following are possible risks arising from your involvement with this study: potential emotional discomfort, from sharing personal anecdotes with your child's teacher or discussing your child's challenges in school, for example. The researcher will seek to reduce risk and discomfort by keeping all interview and questionnaire records private. Quotes and ideas from your interview will be anonymized in the research, shared only with a pseudonym.

Benefits

Potential benefits from participation in this study might include being more informed about your child's progress in school, building a closer relationship with your student's teacher, and having more input on your child's first grade experience. If you choose not to participate, your child's instruction and your relationship with your child's teacher will not be negatively impacted.

Confidentiality

The results of this research will be presented at a dissertation defense and student conferences. The results of this project will be coded in such a way that the respondent's identity will not be attached to the final form of this study. The researcher retains the right to use and publish non-identifiable data. While individual responses are confidential, aggregate data will be presented representing averages or generalizations about the responses as a whole. All data will be stored in a secure location accessible only to the researcher. Upon completion of the study, all information that matches up individual respondents with their answers, including audio recordings, will be destroyed.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. You may also refuse to answer any individual question without consequences.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

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Questions about Your Rights as a Research Subject

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Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

☐ I give consent to be audio taped during my interview. _____ (initials)

Name of Participant (Printed)

Name of Participant (Signed)

Date

Name of Researcher (Signed)

Date

Appendix I

Analysis of MOY DIBELS Student Errors

Table 3

Student Error Patterns in Letter-Sound Identification in MOY DIBELS Assessment

Letter Sound	Total Student Errors	% Error made by EB students	% Error made by non-EB students
a	10	70%	30%
e	10	70%	30%
i	10	70%	30%
o	30	63%	37%
u	7	57%	43%
b	25	48%	52%
d	8	63%	37%
p	8	25%	75%
m	3	67%	33%
s	1	100%	0%
long vowels	22	45%	55%

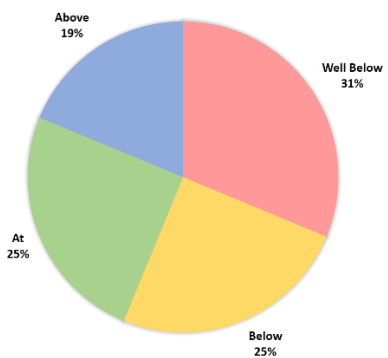
Appendix J

Additional MOY DIBELS Score Charts for EB Students

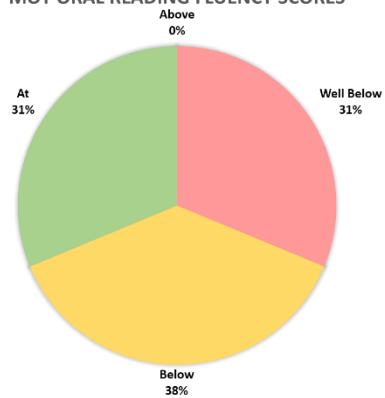
Figure 3

MOY Word Reading Fluency, Oral Reading Fluency, and Reading Accuracy Scores for EB Students

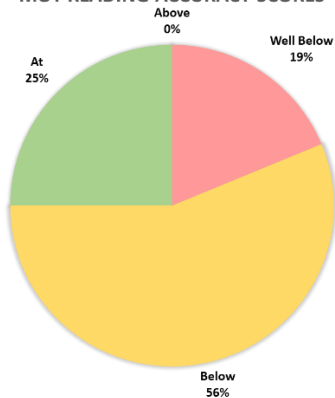
MOY WORD READING FLUENCY SCORES



MOY ORAL READING FLUENCY SCORES



MOY READING ACCURACY SCORES



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