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THE IMPACT OF A DUAL LANGUAGE ENVIRONMENT ON SOCIAL AND
EMOTIONAL COMPETENCY

By
Anne H. Parker

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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Approval Page

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Abstract

THE IMPACT OF A DUAL LANGUAGE ENVIRONMENT ON SOCIAL AND EMOTIONAL COMPETENCY. Parker, Anne H., 2021: Dissertation, Gardner-Webb University.

As SEL is intentionally embedded into a student's school experience, it is important to explore contexts in which SEL can be further enhanced. Because the bilingual brain has shown high correlation to social and emotional behaviors, this study examined the dual language environment and the impact on a student's SEL. The setting is a K-5 global and dual language immersion school, and the study examined the social and emotional competency of students learning in the K-3 dual language immersion cohorts compared to K-3 students in the traditional learning cohorts. The study used the Devereux Student Strength Assessment (DESSA)-Mini from Aperture Education to assess the student's social and emotional total (SET). Teachers and parents assessed students using the DESSA-Mini, a brief SEL rating form. The data were analyzed for significant impact of the dual language environment on SEL. Additionally, a K-3 teacher focus group was facilitated and responses were coded and analyzed for increased social and emotional behaviors from the K-3 dual language student cohort. Data outcomes were presented to the school setting and the District Administration. First and third grade student data did not demonstrate a significant SEL impact. However, through overall examined research and data analysis, it is concluded that a DLI instructional model is an effective pathway to support SEL.

Keywords: dual language model, bilingual brain, social and emotional skills, Devereux Student Strength Assessment (DESSA)

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Chapter 1: Introduction

While still relatively thin, research is beginning to evolve on bilingual advantages, especially the potential impact it can have on the social and emotional learning (SEL) of young individuals. This study examined connections between acquiring and using two or more languages and the impacts on an individual's social and emotional competencies. Additionally, dual language instructional models were explored as the context of language learning and any enhanced social and emotional outcomes.

SEL

SEL is defined by Collaborative of Academic, Social, and Emotional Learning (CASEL, 2020) as,

The process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy toward others, establish and maintain positive relationships, and make responsible decisions. (para. 1)

CASEL research underscores that socially and emotionally competent children are skilled with a strong sense of self-awareness and the ability to self-regulate. Additionally, they are experienced at navigating healthy relationships with others and demonstrating responsible decision-making. These skills are vital for student academic and behavioral development and are often viewed as drivers of success in school, post-high school, and in the workplace (CASEL, 2020).

Research shows social and emotional skills have always been an integral part of a school's environment but are now more clearly defined and practiced (CASEL, 2020; Aperture Education, 2020). The concept of SEL originated in 1967 when Karen

McCown, a researcher of emotional intelligence, founded Neuva, a California school dedicated to blending academic and emotional development. In 1978, McCown published *Self-Science*, research that emphasized the need for SEL to be intentionally taught. She concluded that SEL was not just an innate skill; it could be purposely taught with curriculum and modeling (McCown, 2020). Over the next 2 decades, McCown and colleagues published ample research refining the SEL methodology. In 1997, she founded Six Seconds, a nonprofit organization that focuses on developing emotional intelligence (McCown, 2020).

The concept of SEL was propelled into popular culture with Goleman's (1995) first edition of *Emotional Intelligence: Why it Can Matter More than IQ*. Goleman (1995) argued, based on the research of Peter Salovey and John Mayer, that intelligence quotient (IQ) accounts for only 20% of a person's success in life. The other 80% is grounded in one's social and emotional IQ (Goleman, 1995). Goleman's (1995) research emphasized that both types of intelligence, IQ and social and emotional IQ, need to work synchronously to be fully effective. Goleman (1995) stated, "Investing in one side doesn't mean abandoning the other. In fact, research has found that social and emotional learning enables and improves cognitive development. This is not an either-or situation" (para. 14). Schools that focus on the whole child, rather than simply content or academic achievement, miss the most important part of child growth and development.

As Goleman's (1995) beliefs entered SEL discussions, there were only a few well-designed school-based SEL programs; and most had a reactive approach, implemented only to solve a problem such as reducing dropouts, substance abuse, and school violence. Fast forward to the present. With many evidence-based programs

existing, research has amplified the effectiveness of SEL programs serving as interventions that equip students with skills to navigate various life circumstances. Goleman stated, “Along with the case for SEL as a prevention and promotion strategy, another benefit has emerged: social and emotional learning facilitates academic learning” (McCown, 2020, para. 13). In other words, developing social and emotional intelligence is a precursor for maximizing student growth and development.

A student’s emotions and relationships directly affect the brain’s ability to learn and how acquired knowledge is applied through school, family, and social contexts. Emotions can heavily promote an active interest in learning with sustained engagement. In contrast, unmanaged stress and poor emotional self-regulation can interfere with attention and contribute to disruptive behaviors (CASEL, 2020). Goleman (1995) described when a child trying to learn is caught up in a distressing emotion, the emotional brain centers for learning are temporarily disrupted. The child’s attention becomes preoccupied with whatever is the source of conflict. Because attention is itself a limited capacity, the child has that much less ability to hear, understand, or remember what a teacher or a text is saying. In short, there is a direct link between emotions and learning (Goleman, 1995). Weissberg (2020) stated, “Learning is an intrinsically social and interactive process. It takes place in collaboration with one’s teachers in the company of one’s peers, and with the support of one’s family. Relationships are the engine of learning” (p. 24).

While implementing a school-wide program dedicated to SEL goals has proven to be beneficial, increased research suggests that bilingual students, individuals who are fluent in two languages, are able to demonstrate stronger social and emotional skills when

compared to monolingual students. It is known that the human mind is fully equipped to learn more than one language, but research has increasingly focused on the benefits of bilingualism and changes that occur. Buchweitz and Prat (2013) concluded children who learn and process a second language, whether early after birth or later in life, experience structural and functional changes within the brain. Most research connecting bilingualism and its ability to enhance an individual's SEL begins with the brain and how an individual's basal ganglia are affected (Buchweitz & Prat, 2013). The brain's basal ganglia is a set of brain structures interconnected with other regions to receive and transmit functions, including control of voluntary movements, cognition, and emotion. An individual's basal ganglia are highly activated during language selection, triggering functions not only responsible for "selecting correct language rules, but also for choosing the correct phonemes and words between two or more languages, and possibly, whenever applicable, also the correct concepts" (Buchweitz & Prat, 2013, p. 444). Research emphasized when studying the brain's basal ganglia and the acquisition of a second language, discussions should not be limited to just language rule processing. When language is studied beyond grammatical rules, such as words, concepts, and motoric functions that promote comprehensive articulation, it is concluded that language processing contributes to a variety of functions, such as attentional and executive functional control (Buchweitz & Prat, 2013). Executive functions are defined as a set of processes necessary for the cognitive control of thought and behavior, including an individual's social and emotional skills.

When examining bilingual acquisition and contexts in which it can be acquired, Thomas and Collier (2003) argued that schools implementing dual language immersion

(DLI) instructional models are demonstrating success with students becoming bilingual. In DLI programs, language is not taught as a subject; it is the vehicle in which core instruction is delivered. Thomas and Collier (2003) demonstrated the most effective way for children to acquire a second language is to integrate instruction into the curriculum children are already learning. For example, in a dual language classroom, students might engage in a hands-on science lesson in the target language. In this way, learning becomes even more purposeful and relevant to students. They will become more invested and engaged to achieve academically while learning a new language at the same time (Participate Learning, 2020).

The intentional classroom instruction around the researched benefits of bilingualism is yielding many positive outcomes, both short and long term. Hernandez (2013) stated, “People who speak two or more languages have significantly better cognitive abilities, both academically and emotionally, than those who speak one” (p. 373). Social research has also concluded that language learning enhances one’s ability to empathize, or to see a situation from another’s perspective. In speaking another language, you do not just learn new words and sounds, but also new ideas. It is seeing the world through a different lens, as the language you speak affects the way you conceptualize your surroundings, strengthening social and emotional competence (Jones, 2018). Because dual language instruction is guided by teachers who have a great appreciation and respect for pluralistic cultures and provide a nurturing environment in which students are learning a new language, the link to enhanced social and emotional skills cannot go unnoticed (McCabe et al., 2013).

The impact of bilingualism on SEL, researched by Blanco-Elorrieta and

Pylkkänen (2016), outlines the activation of the executive function regions when language switching and its impact on cognitive control. The overlap in brain regions activated for language switching and cognitive control implies that the same mechanisms are involved in both activities and that these shared processes give insight to bilinguals and the strong connection to enhanced social and emotional skills. Learning to keep two languages separate leads to an improvement when one is selecting goal-relevant information from goal-irrelevant information (Bialystok, 2015). Using these cognitive control networks for bilingual language processing may prime students for other purposes, providing an explanation for behavioral differences between monolinguals and bilinguals found in nonverbal conflict tasks such as listening, problem-solving, and persistence--skills that are highly correlated with a student's social and emotional competence (Aperture Education, 2020). Understanding language is one of the most complicated tasks the brain performs. Alban (2016) emphasized, "Learning a second language provides benefits such as higher intelligence, memory and concentration. Language is so complex that as a brain is learning a new language, it is also getting a good workout" (p. 4).

Purpose of Study

SEL is a growing concept but can be difficult to teach with consistent intention. Research shows that while SEL programs are much needed and a timely aid to fulfilling the school's main mission, included are obstacles such as adequate teacher training and the constant juggle of what to prioritize (Haymovitz et al., 2018).

School District A, where the case study occurred, encourages classroom instruction to incorporate eight social and emotional skills, modeled after the Compass

Advantage Framework (Appendix A), a researched-based model by Dr. Marilyn Price-Mitchell. The model promotes interconnected competencies (creativity, empathy, curiosity, sociability, resilience, self-awareness, integrity, and resourcefulness) as proven drivers of personal, academic, career, and life success (Roots of Action, 2020). These skills are modeled by teachers and students as aligned to school-wide behavior frameworks, and teachers are encouraged to use supporting resources provided by the district's counseling staff. Classroom resources include videos, lessons, and group activities that promote and model the core Compass skills. There is a commitment to purposeful teaching of social and emotional skills within the school day, but there is also an acknowledgment that academic testing and other accountability measures compete with effective implementation.

With research suggesting bilingual students exhibit amplified social and emotional behaviors compared to monolingual students, it is critical that school districts explore many options, not just implementing SEL programs in efforts to teach/enhance social and emotional competence. Recent studies have concluded bilingual students demonstrate increased cognitive and social-emotional skills due to activated brain functions when transitioning between the native and additive language(s); therefore, it is timely that dual language classrooms are explored as potential pathways to promote SEL for students. The purpose of this study was to examine SEL with students enrolled in School District A's dual language instructional model compared to students in the same grade level who are enrolled in a traditional classroom model.

Research Questions

The research was guided using the following questions:

1. How does the SEL of students enrolled in the DLI model compare to the SEL of monolingual speaking students enrolled in the traditional model at the same school? (Quantitative)
2. How do parent observations of the DLI students' social and emotional skills compare to parent observations of students participating in the traditional model? (Quantitative)
3. What SEL observations have teachers made regarding the DLI student cohort? (Qualitative)

Significance of Study

School District A began its first DLI program in 2017-2018. The first cohort of kindergarten is currently in third grade. With advanced research on the importance of SEL and connections to language, it was appropriate for a study to be conducted to examine if there is improved SEL for students participating in the dual language cohort compared to students who are in the traditional model. Research outcomes will be shared with the case study location, Fox Elementary, and school district leadership to determine the benefits of bilingual students' SEL from participating in the dual language model.

Setting of Study

The study took place at Fox Elementary located in School District A, a medium-sized city school district serving over 5,400 students. There are six elementary schools, one middle school, and one high school located in the district. Approximately one third of School District A's students are Hispanic, approximately one-third are White, and just under one-third are African-American. Due to the high percentage of free and reduced lunch families, District A receives a federal grant, qualifying all students to eat breakfast

and lunch at no charge.

Fox Elementary is an elementary school with 21 core classroom teachers serving 416 students in kindergarten through fifth grade. The student population reflects the community it serves: 48% are Hispanic, 28% are White, 19% are African American, and 5% are Multi-Racial. Fox Elementary is a two-way DLI school serving 50% of students in the Spanish-English immersion program and 50% in the traditional instructional model. The two-way model combines native speakers of English with native speakers of Spanish, the target language for the immersion program. The mixture of students can vary, but the goal is for all students to become bilingual, biliterate, and bicultural (Collier & Thomas, 2017).

Overview of Methodology

The research targeted students in kindergarten, as well as first-, second-, and third-grade students enrolled at Fox Elementary. Since the teaching of SEL is a district expectation, School District A has committed to collecting data to measure success and areas of improvement. The Devereux Student Strength Assessment (DESSA), a standardized, strength-based behavior rating scale for children and youth in Grades K-12, was the instrument used to measure SEL of identified students in the study. The assessment has eight SEL competencies that are aligned to the Compass traits and instructional resources that are implemented in School District A (Aperture Education, 2020). Figure 1 illustrates the DESSA and Compass Advantage Crosswalk.

Figure 1*Compass Advantage Framework and DESSA Crosswalk*

Roots of Action's <i>The Compass Advantage Framework</i> Crosswalk with the DESSA								
<p><i>The Compass Advantage</i> framework is, "designed to foster the development and integration of a child's mind, body, heart, and spirit. Created by researcher and developmental psychologist, Marilyn Price-Mitchell, Ph.D., eight core abilities form an internal compass that helps kids become pilots of their own lives." (https://www.rootsofaction.com/explore/)</p> <p>The majority of the <i>Compass Advantage</i> framework's eight core abilities are aligned to one or more of the Devereux Student Strengths Assessment's (DESSA) eight scales. The tables below illustrate the overall alignment between the <i>Compass Advantage</i> framework and the DESSA.</p>								
The Compass Advantage Core Abilities	DESSA Scales							
	Self-Awareness	Self-Management	Social-Awareness	Relationship Skills	Goal-Directed Behavior	Personal Responsibility	Decision Making	Optimistic Thinking
Empathy			X					
Curiosity					X		X	
Sociability		X	X	X				
Resilience					X			X
Self-Awareness	X							
Integrity						X		
Resourcefulness					X		X	
Creativity								

Note. The majority of the *Compass Advantage* traits align to one or more of DESSA's eight scales. Having a strong understanding of both will assist with planning for and supporting a school's SEL program (Aperture Education, 2020).

With nearly one million assessments completed, the DESSA is taking its place as the top standard when it comes to screening, assessing, and strengthening social-emotional competence for youth, Grades K-12 (Aperture Education, 2020). DESSA author Paul LeBuffe stated, "Our assessments are used by educators, parents and guardians to measure the social-emotional competence of youth—and can be completed in just five to eight minutes" (LeBuffe et al., 2017). DESSA assessments can be used to provide actionable, sound data which can support school climate and equitable practices, combat chronic absenteeism, and predict certain behavioral infractions. The goal is to strengthen students' social and emotional skills leading to successful and productive lives

(LeBuffe et al., 2017).

This study used the DESSA-Mini to measure and compare social and emotional levels of bilingual and monolingual students in the same grade level at the midpoint of the school year. With only eight items, the DESSA-Mini is a behavior rating scale that can be completed by teachers in just 1 minute (LeBuffe et al., 2017). The DESSA and the DESSA-Mini use a format that is common to many behavior rating scales, measuring the frequency of a student's behavior relative to a standardized reference group. The DESSA-Mini is completed by indicating for each item how often the student performed a specific positive behavior over the previous 4 weeks. Items are converted to a *t* score, referred to as the social-emotional total (SET; Aperture Education, 2020).

This study also examined teacher and parent observations of the DLI program as related to student SEL. For teachers, a focus group was conducted to gain perspectives of the dual language program and the impact on student SEL. Parents also completed the DESSA-Mini, offering the home environment perspective of their child's social and emotional development.

Definition of Terms

SEL

The process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (Aperture Education, 2020).

Bilingualism

Bilingualism (or more generally, multilingualism) is the phenomenon of speaking and understanding two or more languages. The term can refer to individuals (individual

bilingualism) as well as an entire society (social bilingualism).

Biliterate

The ability to read and write with proficiency in two languages (Howard et al., 2007).

DLI

Any program that provides literacy and content instruction to all students through two languages and promotes bilingualism and biliteracy, grade-level academic achievement, and sociocultural competence—a term encompassing identity development, cross-cultural competence, and multicultural appreciation—for all students. Dual language programs can be either one-way or two-way, depending on the student population (Howard et al., 2007).

Two-Way Dual Language Program

Refers to the group of students participating in the program as being from both of the languages used in the program model. Two-way programs support two language groups of students to become bilingual, bicultural, and biliterate (Howard et al., 2007).

One-Way Dual Language Program

Refers to the group of students participating in the program as being all from only one of the two languages used in the program model. One-way programs support one language group of students to become bilingual, bicultural, and biliterate (Howard et al., 2007).

IQ

A detailed assessment of reasoning, language, and memory (Goleman, 1995).

EQ

The ability to understand, use, and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict (Goleman, 1995).

DESSA Assessment

A 72-item, standardized, norm-referenced behavior rating scale that assesses the social-emotional competencies that serve as protective factors for children in kindergarten through the eighth grade (Aperture Education, 2020).

DESSA-Mini

A brief, 8-item version of the DESSA that provides a snapshot of a student's social and emotional competence. The DESSA-Mini was designed to be used for universal screening of social and emotional competence and ongoing progress monitoring (Aperture Education, 2020).

SET

The DESSA-Mini provides one score, the SET, which summarizes a student's overall social and emotional competence. This is used for initial screening and progress monitoring for all children (Aperture Education, 2020).

Raw Scores

The raw score for each DESSA scale provides little information about the overall level of the child's performance. Because the number of items comprising the various scales differs, raw scores cannot be directly compared (Aperture Education, 2020).

T Scores

Each DESSA *t* score is a standard score set to have a mean of 50 and a standard

deviation of 10. Like the percentile scores, *t* scores are based on the ratings received by the children in the standardization sample. In contrast to percentile scores, however, DESSA *t* scores have the same meaning throughout their range. *T* scores should always be used when reporting the DESSA results and when comparing scores earned on the various scales (Aperture Education, 2020).

Percentile Scores

DESSA raw scores are converted to percentile scores using the appropriate norms tables. Percentile scores compare the child's behavior to that of other children who have been rated using the DESSA. The percentile score indicates the percentage of children in the standardization sample who earned the same or lower raw score (Aperture Education, 2020).

Scale Description

High scores (*t* scores of 60 and above) are referred to as strengths. This range of scores is indicated by gray shading on the Individual Student Profile. *T* scores that fall between 41 and 59 inclusive are described as typical. Low scores (*t* scores of 40 and below) are described as a need for instruction. This range of scores is indicated by red shading on the Individual Student Profile. Children with scores in this range can be considered at risk for exhibiting or developing social-emotional problems. On each scale, approximately 16% of the children in the standardization sample received scores in the need for instruction range. It is recommended that a plan be developed and implemented to assist the child in developing these important skills (Aperture Education, 2020).

Summary

This study highlights the evolving need to provide intentional SEL for all

students. While barriers exist and can prevent quality SEL programs from being effectively implemented, seeking additional programs or strategies is one approach to advance a student's social and emotional competence. Further exploring the researched benefits of bilingualism and how the brain's structures and functions enhance thoughts and behaviors presents evidence that providing strong dual language instructional contexts can have many advantages, including SEL enhancement.

Chapter 2 is a review of literature that provides an overview of social and emotional competence, the bilingual impact on brain functions, and the benefits of a strong DLI model. It also includes an overview of recent studies measuring a student's social and emotional competence. Chapter 3 provides a description of the methodology used, and Chapter 4 provides an explanation of the data analysis. Chapter 5 provides an analysis of the data as it relates to other studies, the implication for practice, and recommendations for further research.

Chapter 2: Literature Review

Overview

The study was initiated by researching instructional pathways and strategies to cultivate a student's SEL. From the findings, this study focused on bilingualism (in a dual language context) and how using more than one language impacts brain structure and functions, leading to enhanced social and emotional competence. To frame the literature review, the importance of an individual's social and emotional competence must be first understood.

Social Competence

Social competence encompasses social, emotional, cognitive, and behavioral skills. Research broadly suggests that an individual's personal development and eventual adult well-being are greatly influenced by SEL processes, such as effectively regulating emotions and externalizing productive behaviors (Frey et al., 2019). Without question, the educational setting is charged with advancing core knowledge while also being held accountable for academic achievement; however, over the last few decades, many researchers have also viewed SEL as an instructional component, critical to adequately preparing students for successful adulthood, both intellectually and socially.

As research has deepened, there is agreement that successful outcomes at school and eventually the workplace are leveraged with an individual's cognitive skills, especially social and emotional regulation, which includes self-awareness and social awareness, being goal-directed, and having problem-solving skills and optimistic thinking. It is also suggested that the attainment and application of these skills are most easily observed in an educational setting (Aperture Education, 2020). As studies continue

to occur on the impact and need for intentional social and emotional instruction, educators share that achievement is driven not just by intellectual ability but also the level of a student's social and emotional competency.

A recent study by Jones et al. (2015) found that a child's social competency was predictive of late adolescence and early adulthood outcomes ranging from a healthy and productive life to substance abuse and/or crime. The goal was to examine what can be assessed upon entering school when plans for addressing concerns or enhancing skills are first created.

The project first collected data when children were attending kindergarten; initial data collection for the first cohort took place in 1991. Final follow-up data were collected 19 years later, when participants were aged approximately 25 years. Participation from the original sample was high, and we found no differential response in analyses considering a range of baseline variables. The results suggest that perceived early social competence at least serves as a marker for important long-term outcomes and at most is instrumental in influencing other development factors that collectively affect an individual's life course. (Jones et al., 2015, para. 15)

Another study examined five high-performing high school students who were caught violating the zero-tolerance policy of smoking while at a school-sponsored, statewide competition. The students were very remorseful and, in hindsight, knew their actions were against school policy and would have lasting consequences. The point is that academic achievements alone are not enough when high stakes decisions need to be made. The ability to see long-term consequences from short-term actions is much

stronger when an individual has a strong social and emotional competency; therefore, studies conclude that SEL is not simply helping students stay out of trouble, but also developing skills that can be applied to any life situation (Frey et al., 2019).

Language and Thought

When these findings are rooted in the context of bilingualism, it can be theorized that when navigating two or more languages, the skills needed to apply the appropriate contextual language also trigger additional executive functions, specifically the brain regions that ignite social and emotional skills. To support the study, the literature analysis examined the relationship between bilingualism and SEL. To build understanding, Vygotsky's (1978) theory on thinking and speech and its relation to the executive region of the bilingual brain were explored. Studies (to be detailed later) demonstrate how the overlapping of executive skills improves performance with noncognitive skills, including self-awareness and social awareness, the ability to establish goals/problem solve, and overall optimistic thinking. Additionally, the DLI model will be examined further as an appropriate educational setting to create a prime learning environment for additive language, leading to improved social and emotional competency.

Lev Vygotsky (1896-1934), a Russian psychologist and social constructivist, heavily influenced the world's understanding of human development. While he theorized and advanced many concepts, his underlying core belief was that "higher functions of the human mind originate as actual relationships between individuals" (Vygotsky, 1978, p. 57). Vygotsky claimed that human beings differ from other animals in that they acquire cultural means that restructure cerebral organizations and behaviors (van der Veer & Zavershneva, 2018). He emphasized the most fundamental acquired tool is language, a

belief threaded throughout his last (and most notable) book, *Thinking and Speech* (Vygotsky, 1978).

Vygotsky's (1978) work did not receive attention in the United States until 1962 when *Thinking and Speech* was translated into additional languages and introduced into the Western world. The English version entitled *Language and Thought* was immediately noticed for providing alternatives to another well-known psychologist, Jean Piaget, and his more individualistic view of child development (van der Veer & Zavershneva, 2018). Piaget argued that age and body development precede learning (Piaget's Theory, 2013). Piaget stressed that a child's biological changes are what make learning possible (Piaget's Theory, 2013). In contrast, Vygotsky argued that higher level thought processes, including social and emotional competency, develop from language interactions between two or more individuals (Hopwood, 2013). Vygotsky (1978) theorized that a person's cognitive development progresses when language is internalized. Eventually, through interactions with a more knowledgeable helper, these processes are advanced into stronger and more effective mental systems. Related to the study, this underpins the idea that learning a new language with core content as the instructional vehicle can enhance an individual's ability to connect with others and make learning more meaningful.

Zone of Proximal Development

The zone of proximal development (ZPD) is described as an overarching concept that integrates the main tenets of Vygotsky's (1978) theory on human development. Vygotsky and Robbins (2012) contended that an individual's performance can be described in terms of two levels, an actual developmental level and a level of potential development. "A student's actual developmental level is indicative of what a student can

do independently, whereas the level of potential development reflects what a student can do with support or assistance” (Ionin et al., 2008, p. 32). The distance between these two levels is described as the ZPD and is the space where learning occurs. According to Ionin et al. (2008),

A child's zone of proximal development (ZPD) is the conceptual and psychological area where the most productive learning can take place. Vygotsky theorized that the ZPD is determined by the interactive relationship between a child and someone assisting (teacher or higher-level peer) during problem solving. A knowledgeable teacher or peer is able to detect when students enter their ZPDs and are ready to advance to new concepts based on prior learning. (p. 65)

Bodrova and Leong (2020) noted that Vygotsky used the word “zone” because he wanted to reflect a continuum as opposed to a defined point on a scale. Vygotsky (1978) argued the next zone is achieved through purposeful interactions between the student and a more capable teacher or peer. Vygotsky believed that “only by actively processing and negotiating the meanings contained in the social action can the learner fully internalize and become an independent user of what has been acquired within the zone” (Eun, 2017, p. 20). Using this understanding of ZPD, it is critical that during student instruction, the teacher (or more capable peer) focuses on functions that are primed and ready to advance.

When defining ZPD, it is also important to consider the relationship between each participant (student and teacher) and the social context. From the beginning of Vygotsky’s (1978) study of human development, all beliefs were rooted in the integrated system of human functioning. He rejected the strict separation of the individual and the

social, which he defined as dyadic interactions between two people (Vygotsky, 1978). Vygotsky (1978) noted that the degree of interaction depends on both individuals' ages and developmental levels. This supports the idea that the ZPD is not stationary. It is flexible and mobile, continuously adjusting based on content and the level and quality of support (Ionin et al., 2008).

“When outlining the development of an individual’s emotions, Vygotsky specifically pointed out the synthesis of affective and intellectual processes in development” (Eun, 2017, p. 26). As student SEL is currently a top discussion among educators, researchers are giving more attention to emotional ZPDs. During the social and emotional ZPD, Vygotsky confirmed that “it is not just the cognitive structures that become altered stemming from interactions in the zone. The entire system of human functioning, including the cognitive as well as the psychosocial and affective structure, changes” (Eun, 2017, p. 26). In the context of learning an additional language embedded with instructional content, this underscores the belief that purposeful interactions between a teacher and student affect both cognitive and emotional behaviors; therefore, it can be reasoned that language *and* content ZPDs become a space where an individual’s emotional intelligence is developed.

To further support understanding of the interactions during the ZPD and the connection to bilingualism, Vygotsky proposed three types of speech take place: “social (interactive talking and typical from the age of two), private (self-directed and audible and typical from age three), and inner (self-directed and hidden)” (Ionin et al., 2008, p. 576). Inner speech is typical around age 7 and is viewed as a self-regulating function. In social speech, the child and adult are engaged in interactive talking. Within these

interactions, words are exchanged and procedures are suggested for solving a problem, leading to confidence and perseverance (Ionin et al., 2008). In the classroom, this type of speech is initially facilitated by the teacher, who is equipped with more knowledge and may eventually transition to being led by the student (i.e., group leaders, peer helpers). Vygotsky's (1978) ZPD theory highlighted that during these social interactions, both the adult and student acquire the ability to monitor and adjust as needed.

The adult learns to regulate his or her actions and language allowing the child to gain mastery of the task, and the child learns how to be regulated by the adult. It is during this process that private self-directed speech emerges. (Ionin et al., 2008, p. 567)

This speech is described as audible language children use to guide themselves through a problem and apply to their actions. Studies show that the private speech children use comes directly from their previous social speech (interactive talking) experiences.

Throughout his work, Vygotsky emphasized that private speech, where the child talks aloud to himself, is the critical link to

profound reconstruction of the whole behavior of the child. These verbal stimuli are directing the planning and organizing of the mental field in which the child is operating, which ultimately results in changes to the brain functions of attention and memory. (Vygotsky & Robbins, 2012, p. 25)

It is suggested that the function of words assists the child in controlling attention.

Vygotsky and Robbins (2012) stated, "the history of the child's attention is the history of the development of the organization of his behavior" (p. 153).

By age 7, a child's private audible speech transitions to inner speech, which

Vygotsky (1978) considered the most advanced level of the relationship between speech and thinking. He referred to inner speech as “an internal plane of verbal thinking” (Vygotsky & Robbins, 2012, p. 279). It is formed by both the previous social and private speech experiences by the child and other individuals. While it does begin in a child’s early development, many researchers believe it is weak and unstable until adolescence. Vygotsky and Robbins (2012) believed that inner speech is not the interior aspect of external speech; it is a function in itself. It still remains speech (i.e., thought connected with words), but “while in external speech--thought is embodied in words, in inner speech words die as they bring forth thought. Inner speech is to a large extent thinking in pure meanings” (Vygotsky & Robbins, 2012, p. 149). Concluding that children use speech to talk themselves through experiences when problem-solving, it can be reasoned that a child’s private and inner speech eventually immerses into thought, shaping future social behaviors (Ionin et al., 2008). As Vygotsky and Robbins (2012) examined the specific process of thought and speech that occurs during interactive experiences, he believed intentional social interactions between a student and adult are antecedents to framing children’s thoughts when internalizing problem-solving strategies. He claimed that instead of an “unexpected discovery by the child” (Ionin et al., 2008, p. 560), the learning process consists of a lengthy complex development. This underscores the role of language as a decisive component of thought and behavior development. According to Ionin et al. (2008),

From the onset, children use language to communicate with others. In regard to the child/adult interaction, the adult's intention is to direct, control, and guide the child's behavior with respect to a whole range of life's events, from learning how

to ride a bike to learning long division. Vygotsky believed that gradually, children begin to use language not only for the sole purpose of communicating but also to guide, plan, and monitor themselves in social and emotional learning. (p. 566)

Scaffolding

The concept of scaffold instruction is anchored in Vygotsky's (1978) belief that social interaction is a needed support system for an individual's language and thought development. Liskowski et al. (2008) broadened the belief, positing that the act of more knowledgeable people trying to help the less knowledgeable may be the primary reason for human communication. Liskowski et al. argued that as early as infancy, humans can understand when a more knowledgeable individual gives verbal and hand gestures to increase understanding of a concept. By age 2, a child can begin to comprehend communicative intentions from adults as an act to purposely engage and assist with a need or task (Liskowski et al., 2008). Liskowski et al. maintained that as an individual develops in age and ability, social interactions to assist become more intentional as tasks become more advanced.

Using this general framework to help define communication intentions, “scaffolding (or guiding) interactions could be seen as the crucial link between communication directed toward learning intentions and individual development, including social and emotional growth” (Leone, 2011, p. 478). Leone (2011) claimed that scaffolding was the “exclusively human opportunity” (p.480) not only to receive imparted knowledge but to internalize the new information and act. In the context of bilingualism and dual language programs, it is critical that scaffolding be used as an instructional strategy to support acquiring the target language and understand appropriate

language contexts.

For a full understanding of how scaffolding language learning and new content can impact social and emotional behaviors, it is important that the phases of scaffolding are explored. Each phase advances the social skills, especially the student's ability to self-regulate. In 1988, Tharp and Gallimore proposed a summary of Vygotsky's theoretical assumptions on scaffolding, dividing it into four phases. In the first phase, a more knowledgeable individual (parent, teacher, peers) detects that the child's current capacities are not enough to complete a given task. The support is cooperative with the expectation the child demonstrates their best effort. During the second phase, the teacher analyzes the effort determining the support needed so the learner can eventually cope with the task unassisted. It is noted that even if the learner can manage without support, it does not always mean there is deep understanding. The third phase is ensuring the child can transition current learning to the next zone level and apply the skills to more complex tasks. The fourth phase is the student engaging in the more advanced tasks and realizing that previously mastered routines and learning are not enough as the task is more difficult. This makes space for accepting support from the teacher (or more advanced individual) to begin a new cycle of scaffolding processes (Tharp & Gallimore, 1988). Again, operating two languages when new content/language is scaffolded only aids social and emotional skills.

While many factors impact successful scaffolding, Leone (2011) suggested the most critical influences are the social signals between the teacher and the learner. The ability for the learner and teacher to effectively understand each other's body language, emotions, gestures, etc. impacts the level of scaffolding success. Social signals such as

the child frequently looking at the helper often communicate a need for support; however, the child pausing and looking away could indicate deep thinking about the task as opposed to not knowing what to do and needing support. In scaffolding interactions, “when the helper disregards social and emotional signals of efficacy coming from the less knowledgeable ones, the effect of their actions could be detrimental or even humiliating for receivers, notwithstanding the helper’s intentions” (Leone, 2011, p. 478). This punctuates the need for intentional understanding between both the learner and helper for the most productive learning to occur.

Vygotsky (1978) viewed the child from birth as a social/emotional being and an integral part of the lives around them. Vygotsky (1978) believed that a child’s thinking begins in the form of social interactions with others; therefore, “the child does not begin as an isolated independent being who is gradually socialized from the outside into adult ways of thinking. Instead, thinking is transformed from previous social interactions into individual thinking” (Gredler & Shields, 2008, p. 107).

Long-Term Implications

The personal contact and the environmental context in which the young child develops speech and thought are extremely important. Any social environment is helpful, but there is consensus among researchers that a classroom setting has a forceful influence on the child’s speech and thinking. The social interactions between the child and the more advanced helper (teacher or peer) are structured and have purposeful outcomes (Gredler & Shields, 2008). The importance of parents, teachers, and/or peers talking with children cannot be overemphasized. As previously acknowledged, “the child cannot develop articulate speech on his own. Cooperation with adults nudges the child onto a

new path of communication, to mastering speech leading to thinking and behaviors” (Vygotsky et al., 1982, p. 272). In contrast, the absence of opportunities for dialogue leads to impoverished forms of speaking and therefore impoverished ways of thinking. If children are not allowed multiple opportunities to dialogue throughout the day with more knowledgeable individuals, conversation cannot function as a source of language development leading to brain growth and development of social and emotional skills (Gredler & Shields, 2008). It is concluded that cooperation and conversation with more abled adults or peers are essential in the development of a child’s speech and contribute to the systemic construction of the child’s thinking and social skills.

The Bilingual Brain: How Speech and Thought Affect SEL

Understanding Vygotsky’s (1978) theory of language as a driver of high-level thought, it is not surprising that studies focused on the bilingual brain and increased cognitive functioning demonstrate positive effects on a person’s social and emotional competency. The idea that bilingualism can significantly alter cognitive functioning is not new; what is new is that this effect might be positive. Assertions on the consequences of bilingualism on intellectual performance became the norm in the late 19th century as immigration from Europe to North America increased. Gould (1981) described a scene in which immigrants to the United States who landed at Ellis Island were given IQ tests in English. Not surprisingly, they performed poorly and were declared mentally unfit and secondary. This attitude persisted well into the 20th century. Gould stated, “Studies comparing IQ scores on the Stanford-Binet test of intelligence invariably reported IQ deficits for bilinguals or children who were exposed to non-English languages in the home” (p. 252). The verbal bias of this test, which was always administered in English,

never entered the discussion.

The watershed moment occurred when Peal and Lambert (1962) published a study overturning previous beliefs about the harmful consequences of bilingualism. Their study was the first to pay careful attention to research design and methodology, comparing groups of children in the two languages who were matched on important variables, such as socioeconomic level, age, and level of fluency for both languages with the bilingual students. Their study involved 10-year-old English-French bilingual children and French monolingual children. The testing took place in the classroom and was divided into five sessions of 1 hour each, spaced 1 week apart. Verbal and nonverbal intelligence tests and measures of attitudes to the English and French communities were successfully administered (Peal & Lambert, 1962).

Peal and Lambert hypothesized that monolinguals and bilinguals would score similarly on measures of nonverbal intelligence but that monolinguals would score higher than bilinguals on tests of verbal intelligence (Bialystok, 2015). Contrary to their predictions, the bilingual children performed better on virtually all tests, including nonverbal intelligence. In particular, a bilingual advantage was found for tests involving mental reorganization and problem-solving, which is highlighted in the literature as critical roles within the brain's social and emotional functions. Peal and Lambert (1962) concluded that the bilingual advantage was in mental flexibility, the social learning ability to shift a course of thought or action according to the changing demands of a situation (Bialystok, 2015).

There is strong evidence of a critical connection between language development and social and emotional regulation in young children. Modeling purposeful language

and having frequent interactions are critically important, not just for immediate language support but also because the ability to produce strong speech impacts not just academics but social and emotional competency. However, to fully understand the correlation, it is important to identify and discuss the link bridging an individual's language and social and emotional regulation: executive functioning.

Executive Function

Executive function is a set of mental skills that include working memory, adaptable thinking, self-control, time management, and organization. Bialystok (2015) believed that even though executive abilities are divided into separate subcomponents, there are frequent interactions when abilities are activated, impacting an individual's performance.

Although there are still unknowns regarding the timeline of skill development with children, studies broadly define executive function as a set of key cognitive skills "underpinning successful goal directed behavior, and linked to educational academic attainment and social and emotional competency" (St Clair-Thompson & Gathercole, 2006, p. 747). When measuring an individual's executive function skills, most researchers focus on the following areas:

- (i) Executive-loaded working memory. Working memory is a system for temporarily holding and manipulating information as part of a wide range of essential cognitive tasks such as learning, reasoning, and comprehending. The key feature in assessing executive-loaded working memory is requiring both processing and storage of that processing, often measured using complex span tasks.
- (ii) Fluency/reconstruction. These measures require participants to generate

items around a particular theme, to test the efficiency and flexibility of search processes. (iii) Inhibition. This refers to the deliberate, controlled suppression of responses. (iv) Set shifting/switching. These measures require the ability to change/adapt mental set when required, including the ability to change/alternate a strategy in a positive manner or abandon a strategy in response to negative feedback. (v) Planning/problem-solving. This emphasized the person's ability to develop goals, work out strategies, monitor performance and generate new solutions. (Arffa, 2007, p. 972)

When there are measures of high performance with executive function skills, data also suggest the individual has a strong ability to self-regulate. Hanno and Surrain (2019) defined self-regulation as an umbrella term for cognitive, emotional, and behavioral processes, all of which are relevant to this study as bilingualism and its impact on SEL are examined. Because executive functions and self-regulation have a close relationship, it is important to include additional skills that are frequently described in social and emotional literature; for example, delay of gratification, persistence, grit, coping, and resilience are often referenced (Salmon et al., 2016).

To understand the impact of bilingualism on executive functions, Hernandez (2013) explained how neural activity is involved in language switching. Hernandez described when switching from one language to another, brain mechanisms are activated including the emotional control center, expressive language and for managing higher level executive functions (Lehr, 2020). Connecting to Vygotsky's (1978) theory of language and thought, executive functions become the linchpin between language and advanced thinking, leading to advanced social and emotional output. When the language

control center is activated, other executive functions are also prompted to select the right information and articulate the correct language. In essence, evidence suggests when bilinguals are selecting languages, the activated mechanisms are also linked to increased SEL.

Bialystok (2015) further explained the bilingual advantage, defining the joint activation as “constant competition for language selection, causing bilinguals to control attention to language representations and language processing in a way not required for monolinguals. Without such control, there would be the constant risk of intrusion from the non-target language” (p. 7). This also suggests that using cognitive control networks for processing more than one language may also prime systems for other purposes, providing an additional explanation for SEL differences between monolinguals and bilinguals.

Additionally, neuroimaging research has shown that the brain regions triggered during language activation, such as the frontal lobe, are the same areas that engage executive function for response selection, task switching, and inhibition of distractors. These functions are all measures of social and emotional competency, thus advanced skills in these areas enhance an individual’s ability to demonstrate strong social and emotional skills. This is further evidence that bilinguals’ use of two languages requires regular control of cross-language interference, which results in their constant use of the associated neural pathways (Bialystok, 2015). Some of the most compelling evidence for language coactivation comes from studying an individual’s eye movements. Understanding that a person tends to look at things they are thinking, talking, or hearing about, Marian and Shook (2012) described,

A Russian-English bilingual person asked to “pick up a marker” from a set of objects would look more at a stamp than someone who doesn’t know Russian, because the Russian word for “stamp,” “marka,” sounds like the English word he or she heard, “marker.” In cases like this, language co-activation occurs because what the listener hears could map onto words in either language. Furthermore, language co-activation is so automatic that people consider words in both languages even without overt similarity. For example, when Chinese-English bilingual people judge how alike two English words are in meaning, their brain responses are affected by whether or not the Chinese translations of those words are written similarly. Even though the task does not require the bilingual people to engage their Chinese, they do so anyway. (para. 3)

Using this evidence, it is overwhelmingly suggested that bilinguals experience greater demands on the executive system than monolinguals, even when language production appears to be equivalent. Because of this, researchers believe that bilingualism begins to mold executive functions through its constant recruitment for language selection while also activating other brain regions. While there is evidence demonstrating degrees of impact, researchers commonly agree that any enhancement of “executive function is not trivial as it is a major predictor of academic success and academic success predicts emotional intelligence and long-term health” (Bialystok, 2015, p. 12). With this understanding, it is important to review studies demonstrating the positive impact of bilingualism and its relation to executive functions that enhance social/emotional skills.

The Stroop task, developed in 1935, is a “neuropsychological test extensively

used to assess the ability to inhibit cognitive interference that occurs when the processing of a specific stimulus feature impedes the simultaneous process of a second stimulus attribute, well-known as the Stroop Effect” (Scarpina & Tagini, 2017, p. 1). When completing, individuals are shown a color word written in a font of a color different from the color named by the word (e.g., green written in red font) and asked to name the color of the font, not read the word. When this occurs, the participant must then make an adjustment to ignore one of the two stimuli. Hernandez (2013) shared when giving the Stroop task to elementary students, bilinguals showed an advantage over their monolingual peers. With the increased ability to eliminate other stimuli, bilinguals have a greater selective attention capacity to target the color of the font and eliminate any distractors. It is reasoned that monolinguals may show a higher Stroop effect because of a greater automaticity with reading, and the ability to eliminate distractions may not be as strong (Scarpina & Tagini, 2017).

Instead of inhibition, some researchers have proposed that the main source of the bilingual advantage is close monitoring on tasks, which requires an individual to hold a rule in mind over a set of procedures. In some sense, “inhibition is included in monitoring, as when shifting across options, the irrelevant cue or response must be suppressed” (Bialystok, 2015, p. 13). Research documents the bilingual advantage with both inhibition and close monitoring appearing when using the Dimensional Change Card Sort task, a well-established assessment of executive function for preschool children (Cox et al., 2016). In the Dimensional Change Card Sort, children are given a series of cards to sort by one dimension (e.g., shape) and then asked to switch and sort by a different dimension (e.g., color). Young children often find this difficult and fail to reclassify the

stimuli in the second sorting round. Successful performance requires that children ignore the previous dimension (inhibition) and shift attention to the newly relevant dimension (monitoring), and being bilingual often gives an advantage with the required skills (Bialystok, 2015). Studies also suggest that bilinguals perform better when executive functions are activated and they are able to demonstrate cognitive flexibility. When asked to match on color and then organize by shape, flexibility is required to quickly choose the correct stimulus. The executive function scoring is based on a combination of accuracy and reaction time, and bilinguals consistently demonstrate an advantage by their advanced ability to eliminate distractors and quickly adapt to changing task requests (Cox et al., 2016).

Research investigating bilingual advantages in inhibition, monitoring, working memory, and flexibility tend to use tasks based on specific aspects of cognitive processing, in part because “the goal is to identify one component of executive function as uniquely responsible for developmental differences in bilingual children” (Bialystok, 2015, p. 13). Using this approach, no single component has emerged as decisive. Studies do suggest when bilinguals are receiving conflicting information, the activation of both languages triggers executive functions, cross-activating to suppress noncritical stimuli. When bilinguals perform better on the aforementioned skills, it is likely that the social and emotional skills are acutely enhanced, allowing for higher social and emotional competence.

Other studies have taken a broader approach and used tasks or situations that incorporate more integrated reasoning abilities. Bialystok (2015) highlighted this by suggesting that bilingual children have an increased ability to understand others’ mental

states, otherwise known as theory of mind (Piaget, 2013). As the prefrontal cortex develops in children through adolescence, the ability to have strong theory of mind evolves. This is due to the prefrontal cortex, which is responsible for many executive functions, aiding an individual's ability to understand other perspectives and have improved social/emotional regulation. Having theory of mind allows one to think deeply about mental states, your own and others. With a stronger theory of mind comes an increased ability to build a strong social and emotional competency.

False-belief tasks have been a key test of social cognition development, specifically theory of mind, for more than 2 decades. Bialystok (2015) explained that when participating in a false-belief task,

a child is given a situation and must be able to demonstrate an alternative perspective, other than their own. They must be able to understand that another child must be mistaken with a scenario change when they fully understand what occurred. (para. 3)

Theory of mind studies have revealed as early as 3 years old, bilinguals outperform monolingual children of the same age in standard false-belief tasks. These studies discussed varied factors that give reason to the higher performance of bilinguals, such as greater understanding that concepts have different labels or an enhanced awareness of others' perspectives (Rubio-Fernández, 2017). A standard false-belief task was used by Wimmer and Perner (1983) to examine children's abilities to predict the thoughts or behaviors of someone holding a false belief. In the "unexpected transfer" false-belief task, children are told that a boy puts chocolate in Box A. In his absence, his mother takes the chocolate from Box A and puts it into Box B. The children are then asked where the

boy will look for the chocolate when he returns. According to Wimmer and Perner's interpretation, only when children can represent the boy's wrong belief separately from what they know themselves to be reality, will they be able to pass the task. In the classic false-belief Sally-Anne task, children are presented with two puppets, Sally and Anne, who are playing with a toy. When Sally and Anne are finished, they place the toy in a box, and Sally leaves the room. Without Sally knowing, Anne moves the toy to another box. For children ages 7 and older, when asked where they think Sally will look for the toy, most monolinguals and bilinguals responded the same--typically that Sally will look in the original container (Goetz, 2003). When testing children 6 and under, bilinguals consistently demonstrate more success. It is reasoned that the triggered advancement with executive control allowing bilinguals to inhibit their own perspective develops earlier than their monolingual peers. In general, "language learning itself can promote the development of children's theory of mind- their understanding of other people's mental states and intentions" (Pyers & Senghas, 2009, p. 142). The ability to have perspectives other than your own and demonstrate empathy is measured in this study, categorized as self-awareness and social awareness.

Bilingual children must develop an early sensitivity to the language knowledge of others and adjust their languages accordingly. Although research continues to evolve in false-belief reasoning, there is agreement that bilinguals' awareness that others do not always speak the same language might be an early indicator of appreciating perspectives other than their own (Kovács & Mehler, 2009). "Moreover, this early form of perspective taking is combined with an early developed executive control system that is necessary to focus on the target language and avoid interference from the contextually inappropriate

linguistic system” (Kovács & Mehler, 2009, p. 89). When others do not know the same languages, bilingual children naturally begin to pay attention to the linguistic knowledge of those with whom they are interacting. Because of this heightened awareness, it is suggested that bilingual children have an advantage over monolingual children in understanding that other people have mental states that could differ from their own.

It is likely that a bilingual student’s strong ability to understand others and their mental states further strengthens social and emotional competency. Kinzler (2016) stated, Children living in multilingual environments have social experiences that provide routine practice in considering the perspectives of others. They have to think about who speaks which language to whom, who understands which content, and the times and places in which different languages are spoken. (para. 3)

Even bilingual children who do not begin learning their second language until they are exposed to it in a daycare or school context quickly acquire a strong sense of matching their language to their linguistic partners and situations. In a study demonstrating enhanced social connections, bilingual children in kindergarten, first grade, and second grade were asked to explain the rules of a particular game to a blindfolded listener. They performed significantly better than their monolingual peers (Genesee et al., 1975). Consistent with Goetz (2003) bilinguals did not assist by demonstrating a linguistic advantage to the blindfolded peer, but instead appeared to be perceptive to the listeners’ needs and applied them to an improved social interaction.

In a supporting study completed by Ikizer and Ramírez-Esparza (2018), data collected through self-reporting social interactions showed adolescent bilinguals reported higher social flexibility than monolinguals. The study used the Trait Emotional

Intelligence Questionnaire (TEIQue), a well-established instrument for emotional intelligence (Petrides, 2009). The questionnaire included four dimensions (well-being, self-control, emotionality, sociability) and was composed of 16 facets (i.e., adaptability, impulse control, self-esteem, stress management), all items that fit with the definition of social flexibility. Analysis of 465 monolinguals and 206 bilinguals who participated in the TEIQue demonstrated that bilinguals' social flexibility gave them an advantage over monolinguals in the self-reported frequency of social interactions. The study concluded that as bilinguals alternate between two languages, they also alternate between two cultural worlds, providing tools to adapt to different social environments. When this occurs, it facilitates the frequency of social interactions (Ikizer & Ramírez-Esparza, 2018).

As evidenced, research shows a brain's executive functions supporting SEL are enhanced when there is one or more added language. The precise timetable for these developments and the explanations for how it progresses may differ; but the evidence is consistent that when bilingual children are navigating more than one language, they are able to behave with intention, especially in an environment where social interaction is promoted.

Dual Language Models

Most English language learners in North Carolina receive traditional pull-out English as a Second Language (ESL) instruction but spend the majority of the day in a classroom led by a general education teacher who likely has not received the necessary training to address their needs (Kinzler, 2016). While English learner programs are the most common form of language instruction in North Carolina, evidence from the state's

well-implemented and structured DLI programs demonstrate this method as being the single most effective form of foreign language instruction for K-12 students (Collier & Thomas, 2017). According to the North Carolina Department of Public Instruction (2020), there are currently more than 200 dual language programs across all eight state regions, in 42 districts and six charter schools.

Though the target languages of the DLI programs may vary, the goals are similar: “to promote bilingualism and biliteracy, academic achievement at or above grade level, and cross-cultural competence for all students” (North Carolina Department of Public Instruction, 2020, para. 5). The focus of dual language models is to help students become proficient in the target language while mastering subject content across all disciplines. In DLI programs, language is not taught as a subject; it is the vehicle in which core instruction is delivered. Research from Collier and Thomas (2017) showed the most effective way for children to acquire a second language is to integrate instruction into the curriculum children are already learning. DLI programs are vastly different from the methods by which a student would normally acquire a new language. Students are not taking a class specifically to learn a new language in small increments. Instead, they master that language while learning science, math, social studies, and language arts at the same time. They also use the language to develop relationships with peers and teachers.

The two dual language models most implemented across the country are described as one-way and two-way immersion programs. One-way immersion programs typically serve children coming from English-speaking homes into an environment where the target language is primarily used. Content is delivered in the target language, and English language arts is introduced in second grade or later (Participate Learning, 2020).

The two-way model combines native speakers of English with native speakers of the target language. There are a variety of models, and percentages like 90/10 and 50/50 are used to refer to how much of the instruction is conducted in the target language versus how much is given in English. For example, one school might have 90/10 in kindergarten and first grade and then move to 50/50 for second through fifth grade, while another school may start at 50/50 in kindergarten and continue with that model through the fifth grade. Instruction is provided in both English and the target language. This can be implemented by alternating the instruction by switching languages from morning instruction to afternoon instruction or alternating the instructional language each day. Additionally, the two-way model can be a strong bilingual teacher who can alternate instruction between English and the target language or a team-teaching model with each classroom (environment, resources, student materials, etc.) reflective of the native or target language (Collier & Thomas, 2017). Regardless of one- or two-way immersion, research shows that “the effect of learning a second language on first-language skills has been positive, and the loss of instructional time in English has never been shown to have negative effects on the achievement of the first language” (Bournot-Trites & Tellowitz, 2002, p. 27).

Collier and Thomas’s (2017) research highlighted North Carolina as an exemplary model for benefits achieved by students enrolled in a well-implemented, two-way dual language instruction program, which has a 25-year history in North Carolina. Dual language programs originated as a state initiative with the governor’s office calling for elementary schools to develop programs to teach foreign languages, beginning in kindergarten. The first two-way dual language program welcoming English learners as

well as native English speakers began in 1997 at Collinswood Elementary School in Charlotte, North Carolina. The Spanish-English dual language program enrolled approximately 50% Spanish and 50% English speakers. The program grew, expanding through fifth grade and becoming a school-wide model. After several years of successful implementation, “Collinswood Elementary School organized and hosted the first state conference on dual language education, and the seeds were planted for other schools in the state to consider this two-way model” (Collier & Thomas, 2017, p. 8).

Collinswood transitioned its name to Collinswood Language Academy and became known as a K-8 dual language school that produced some of the highest achievement scores (reading, math, and science) in North Carolina. They attributed the high academic and behavioral success to the benefits of being a school-wide dual language school. In a 2014 interview, the principal maintained that in addition to bilingualism, “the high expectation of inclusiveness and purposeful instructional strategies embedded throughout are critical. There is a strong sense of social culture and connectivity promoted in this environment which leads to better student achievement, both academically and socially” (Maxwell, 2014, p. 1). Because social interactions, attention, and self-control affect readiness for learning, success in school involves both social-emotional and intellectual skills.

Collier and Thomas’s (2017) North Carolina dual language study focused on 2008-2009 end-of-grade achievement data in both reading and math. The study collected data from seven school districts with two-way dual language classes that had participated in DLI for a minimum of 4 years. Eleven of the 12 two-way schools were English/Spanish, with the other being Mandarin Chinese/English. Two schools, Collinswood and

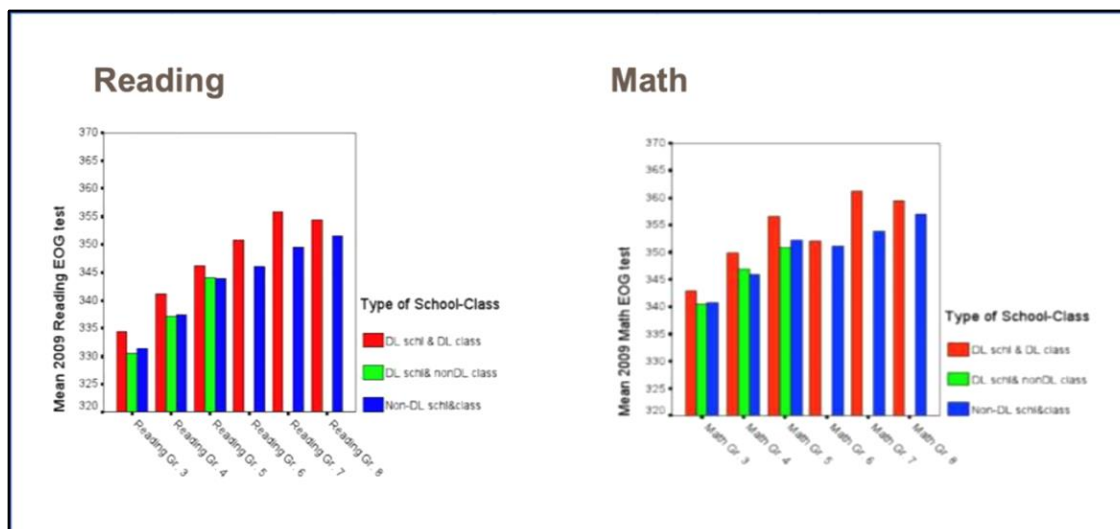
Oaklawn in Charlotte were school-wide programs (K-8); the other participants represented a portion of the total school, with dual language classes at each grade level. The study represented schools from urban, suburban, and rural areas as well as students with low-income backgrounds (Collier & Thomas, 2017). The sample size was large, with a total of 85,662 students. The following is the number of students within each subgroup:

1. English learners (N=9,834)
2. Language minority students who were never classified as English learners (N=6,635)
3. Non-language minority native English speakers:
 - a. Whites (N=33,095)
 - b. African Americans (N=32,155)
 - c. Other (N=3943)

Figure 2 shows the mean score of the 2009 North Carolina end-of-grade tests in both reading and math. The study's student achievement data are organized by grade levels, type of school (dual language school or not), and class (dual language class or not).

Figure 2

2009 North Carolina End-of-Grade Tests in Both Reading and Math



Note. On average across all grades, students not in dual language classes scored 2.7 points lower per year than students in dual language classes, when in the same school. On average across all grades, students in non-dual language schools scored 2.1 points lower per year than students attending language classes. Since dual language classes significantly increase student achievement for all subgroups, the findings of this study strongly favor dual language classes for all students (Collier & Thomas, 2017).

Dual Language Classrooms

In order to provide appropriate instruction in a dual language model, classroom teachers are tasked with creating opportunities to learn and practice language skills embedded in both academic learning and SEL. Collier and Thomas (2017) viewed dual language classrooms as vehicles for language and thought development. When executed with productive purpose, this instructional environment influences a student's self-awareness and social awareness, which ultimately impacts the level of SEL competency (Participate Learning, 2020).

It is critical that teachers use intentional teaching strategies to establish a culture of thinking through the daily use of routines and interactive teaching. Teachers need to identify and establish a student's ZPD quickly, allowing language and cognition to work together. "Scaffolding for language diverse learners includes adaptive teaching, involving decisions that teachers make moment by moment to redirect literacy activity, add tailored supports, and assess kinds and levels of assistance needed at different points of difficulty" (de Oliveira & Athanases, 2017, p. 125). For bilingual learners in a dual language environment, an ultimate scaffolding goal is developing their metacognition, which is thinking about their own thinking and actions (Howard et al., 2007). Collier and Thomas (2017) explained a best practice for accomplishing this is when teachers structure paired learning effectively. When done well, it has the potential to develop language, content knowledge, and social skills among students. For young children, frequent interactions help develop competency in social skills, a potential precursor for additional learning (Riley & Jones, 2010).

The increase of DLI classrooms has prompted evaluations of current instructional practices with language and content (McWayne et al., 2013). In a study of 24 kindergarten students, six students in four different dual language classrooms, McWayne et al. (2013) spent 1 academic semester studying language support practices through classroom observations and teacher interviews. McWayne et al. specifically examined the student's instructional environment and how it supports language and thought development. The scaffolding of new learning was facilitated by both teachers and more knowledgeable peers. Their overarching finding was that student understanding and application of learned skills were dependent on the intentionality of interactions between

student and teacher and/or peer(s). In short, to scaffold dual language learning and provide a rich instructional environment, teachers must be intentional with their planning and practices of both academic and SEL. When viewed through Vygotsky's (1978) theory on speech leading to thought and behaviors, scaffolding can be considered the linchpin that helps to determine the level of social competency. The stronger the use of purposeful scaffolding interactions between a more knowledgeable helper and bilingual learner, the increased probability the ZPD will be reached for solid learning (Kelly, 2015).

Researchers have found that observing the teacher-student relationship is necessary to fully understand the concept of scaffolding. The conclusion is that teaching involves more than just the teacher modeling or the child imitating.

The process of scaffolding included the social context because it considered both the learner and the one who is more knowledgeable. They saw that the social and emotional environment was just as important to learning and needed to be considered as well. (Kelly, 2015, para. 10)

Vygotsky (1978) believed that the social environment was a key factor in language development. Without the classroom strategy of intentional social interactions, dual language learners will have a much more difficult time reaching their ZPD enabling them to learn an additional language and new content (Kelly, 2015).

An additional study further emphasized how scaffolding plays a critical role in bilingual language development. When Kelly (2015) and his team observed 75 students across four, second-grade dual language classrooms, it was evident that for "students to learn language and content through collaborative pair work in a bilingual context, it is

necessary to have a teacher who understands the complex interaction of language, concepts, and social development in young children” (para. 12). When in a dual language classroom, teachers should carefully consider the language practices of all students to appropriately find the learner’s ZPD and scaffold new learning. When interactions are planned effectively, successful teacher/peer engagement occurs, leading to improved language skills, resulting in improved social and emotional behaviors.

Researchers constantly strive to better understand bilingual students and how the use of two languages can influence thought and behaviors (Ionin et al., 2008). The dual language instructional model of learning content through language promotes frequent language switching, using different types of talking such as the previously mentioned interactive, private, and inner speech (Vygotsky, 1978).

Intrigued with this concept, Storch and Aldossari (2013) examined the role of private speech in children while solving a problem in a dual language classroom. Their observations suggested bilingual learners often resort to the first language with private speech because it facilitates meaning-making processes while aiding comprehension, concept formation, and production of the second language. They emphasized that “bilingual students accomplish this by thinking about first language equivalents; making connections between first and second language concepts, sounds, and structures; paraphrasing and translating to and from the first language” (Storch & Aldossari, 2013, p. 32). In an additional study, English-speaking learners of French and Spanish were instructed to use only the second language to complete a grammar task. When completing, the students talked to themselves in the first language to translate the text, recall grammar rules, review the task, and plan what to say in the second language. From

this observation, Jiménez-Jiménez (2015) pointed out, “both languages act as complementary cognitive resources, and specifically in the case of early bilinguals, a balanced exposure to two languages may result in both languages forming part of their verbal thinking processes” (p. 277). When learning the new language skills and content, overlapping brain functions are activated, leading to improved social and emotional behaviors.

Code-Switching in a Dual Language Classroom

From birth, children acquire the rules for socialization through language. When living in a bilingual or multilingual speech community, this is accomplished through social observations and interactions. The greater the child’s social awareness, the easier it is to determine appropriate and relatable behaviors with other cultures.

Dual language instructional models naturally invite acceptance of multiple languages and cultures. With this understanding, dual language classrooms are environments where social flexibility has the potential to thrive (Collier & Thomas, 2017). Ikizer and Ramírez-Esparza (2018) found that bilingualism does provide an advantage in code-switching (also social flexibility), which is defined as the ability to switch with ease and adapt between different social environments and read social cues in each presented environment.

The most common reasons for code-switching include: a) the context of borrowing, b) the semantic element, i.e., in some cases the equivalent "does not quite fit", c) the borrowing is seen as the "fastest choice" or what comes first into the mind, d) not knowing the equivalent in the source language, e) including everyone in the conversation, e) socializing through small talk, f) performing a

specific speech act, and g) observing the rules of politeness. The child presupposes his interlocutor will understand the reasons for language alternation, e.g. to include everyone in the conversation, or in instances of borrowing, its meaning. (Klapicová, 2017, p. 23)

Code-switching, a common bilingual practice, occurs not only with adults but also with young children. While many researchers have studied code-switching behaviors to better understand language acquisition processes, few studies have examined connections between code-switching and a bilingual's linguistic and social competence. Earlier studies have not always yielded favorable results, contending code-switching was a result of students being confused or linguistically incompetent (Yow et al., 2018). Recent studies, however, have provided differing and more complex evidence. Yow et al. (2018) suggested that bilingual children purposely code-switch between two languages and developing language systems, frequently toggling back and forth with fluidity.

Case studies have found that children's code-switching behavior illustrates a good understanding of the grammatical systems of both languages. For example, in a study of English-French bilingual children (five-seven years old) displayed code-switching patterns largely similar to that of adult counterparts, suggesting they are skillful with grammatical systems and practice language switching based on situations and audiences. (Yow et al., 2018, para. 12)

Additionally, recent studies in kindergarten and first-grade DLI classrooms concluded students, even while still acquiring linguistic competency, often code-switched to connect with the interlocutor (teacher or peer) and the context of the instructional environment. Findings showed even though the bilingual children practiced simplistic

code-switching, the intentional efforts reflected their awareness of social norms. This supports the aforementioned studies concluding bilingual children have enhanced self-awareness and social awareness. As a result, the enhancement with social competence when operating the two language systems appears to strengthen the ability to code-switch appropriately. This underscores that code-switching is facilitated with intention, practiced more to align with social contexts as opposed to being linguistically inept (Yow et al., 2018).

Bilingual speakers may switch from one language to express their feelings toward the topics under discussion, or they may engage in code-switching to fit in, as is common with many teenagers (Ikizer & Ramírez-Esparza, 2018). When this is the outcome for bilingual social interactions, it seems inevitable that the pluralistic environment implemented in a bilingual instructional setting will have a positive impact on language and thinking interactions.

When intentional, a dual language classroom provides an inclusive environment of diverse languages and cultures (Collier & Thomas, 2017). This successful approach to teaching supports Vygotsky's (1978) theory that higher forms of mental activities are derived from social and cultural contexts. These social interactions among bilingual learners enhance executive brain functions, including active listening and showing empathy with peers (Molinsky, 2012). "Code-switching requires far more than the right mind-set, information, and motivation. It requires a capacity to manage the psychological challenges that arise when someone tries to translate cultural knowledge into action" (Molinsky, 2012, p. 142). In a DLI classroom setting, culturally fluent students are able to enter a new context, master the norms, and feel comfortable doing so. When looking at

soft skills needed for the workforce and adult leadership, Molinsky (2012) believed that “learning to be effective at cultural code-switching is the key to becoming a truly global leader” (p. 143).

Lindholm-Leary’s (2016) study on elementary student perspectives on bilingualism and social interactions showed that dual language students believe they can think about information across languages, enabling them to think in more creative ways, ultimately leading to a more confident school experience. Students were also asked about their perspectives of bilingualism with respect to social relationships. Almost every student (96%) believed they have a better understanding of target language students compared to their peers in non-DLI programs.

Most students agreed that learning the target language helps them to understand more about the people who speak this language, i.e., Spanish speakers or Chinese speakers (89%), and that the readings and topics they have studied have provided them with a better understanding of these people (86%). Most students also report that they have the target language skills to converse with others (90%) and to express feelings in interactions with others (85%). (Lindholm-Leary, 2016, p. 68)

The functions used by bilingual children with processing information (and eliminating distractors) while extracting meaning from conversation involve enhanced attention and executive control (Lindholm-Leary, 2016). The results of Lindholm-Leary’s (2016) investigation provided support for the position that exposure to more than one language facilitates children's awareness of social interactions with cognitive and emotional benefits.

Summary

Vygotsky viewed human development as a social process in which children acquire their “values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society” (McLeod, 2018, p. 1).

Vygotsky’s (1978) view of interactive talking and its relationship to the development of higher level thinking in children is significant to bilingual learners and this study.

Vygotsky suggested that a person’s level of speech strongly affects independence and self-directed problem-solving, both behaviors that impact social and emotional competency (Ionin et al., 2008). This is meaningful for bilinguals as they often navigate more than one language when reaching their ZPD with learning, especially in a dual language classroom.

New research in language learning is uncovering a multitude of benefits enjoyed by children involved in bilingual education systems. With the growth of two-way DLI programs, children from both monolingual and bilingual backgrounds can enjoy the many advantages that come with speaking and writing in two or more languages. The American Council of Teaching Foreign Language (2020) affirmed that learning a second or third language supports higher academic achievement and increases problem-solving abilities in both children and adolescents. This supports literature findings that bilingual learning increases executive function and self-regulation when bilingual brains are learning to systematically switch between languages.

According to Maxwell (2014),

The ability to speak a second language has become a valuable asset as our society becomes increasingly diverse in the 21st century. From schools and hospitals to

banks and tech companies, organizations around the world are aware of this cultural diversity and often seek out potential candidates who can meet the challenges of tomorrow. (p. 1)

Few studies track dual language learners' social-emotional development over time, and what does exist is often complicated by consistent definitions of dual language learners and the knowledge level and range of languages.

Though research specific to dual language programs and SEL is slim, there is evidence that learning an additional language and a dual language instructional environment enhance executive functions which have a direct correlation to social and emotional competency. This study explored a local dual language instructional model, examining the impact of learning a second language and any potential influence on SEL. In turn, I highlight additional pathways, i.e., dual language programs, to improve these skills in children.

Chapter 3: Methodology

Introduction

Social and emotional competence is the ability to understand, manage, and express an individual's everyday life experiences. The capacity to self-regulate and enable successful management of social and emotional development includes demonstrating strong self-awareness and social awareness, control of impulsivity, the ability to form relationships, having goal-directed behavior, and adapting to circumstances (CASEL, 2020).

As the DLI model is studied as a pathway to enhance SEL, the value of social and emotional skills for successful academic learning cannot be underscored enough. DLI teachers can naturally foster skills through interpersonal and student-centered instruction throughout the school day. Highlighted DLI instructional practices, such as scaffolding and code-switching, create opportunities for students to engage in learning through language-based interactions, leading to experiences that impact cognitive and emotional behaviors (Participate Learning, 2020).

Research has shown that processes, earlier believed to be just “thinking,” are now seen as phenomena in which the cognitive and emotional aspects work synergistically (Perry et al., 2006). Grounded in Vygotsky's (1978) theory that language is the antecedent to one's development of thought and behaviors, this study measured any social and emotional advancements in a school setting where students learning a second language in a DLI cohort are compared to their matched monolingual cohort, learning in a traditional setting.

Participants

Fox Elementary is a K-5 school of approximately 400 students and 50 staff members. The school offers two magnet programs, global studies and DLI with the target language being Spanish. All K-5 students participate in global studies, where each grade level is assigned a region of focus to integrate within the core content. This specific study will focus on the DLI program where accepted magnet students in Grades K-3 received 50/50 Spanish and English instruction. The DLI cohort alternates daily instruction between Spanish and English. Acceptance to the magnet programs has the same criteria as admission to all schools in the district, thus the magnet application process monitors enrollment numbers as the whole district has access to apply. If application numbers exceed the cap, the district implements the lottery method. Below is the 2020-2021 student population for the dual language and traditional cohorts at Fox Elementary.

Table 1

Number of Students in Each Model (DLI or Traditional) Per Grade Level

Grade level	DLI student cohort (two classrooms per grade level)	Traditional instruction student cohort (two classrooms per grade level)
Kindergarten	39	27
First grade	36	27
Second grade	35	30
Third grade	35	33

The selection of students for the study was based on 2020-2021 DLI and traditional student cohorts at Fox Elementary. There are four classrooms per grade level; two are a DLI classroom model and two are a traditional classroom model. All students in Grades K-3 (DLI and traditional) at Fox Elementary were included in the study using the DESSA-Mini. Additional identifying information, including demographics, was not

needed for the study to be completed. The matched sample groups were enrolled at the same school in the same grade level and had exposure to the same state core instructional standards. The identifying difference was the DLI students alternate each school day with instruction in English or Spanish. The content vehicle never stopped; the only change was language delivery. The comparing cohort was a traditional instructional model of English only. The level of bilingualism varied among all students, given some students have had birth to kindergarten exposure with an additional language. If the district decides to scale the DLI programs, that was not a factor that can be controlled for; therefore, it was not controlled in the study.

Additionally, the study examined the level of teacher satisfaction of the DLI program as related to SEL. For the eight teachers (one English and one Spanish teacher per each DLI cohort) in Grades K-3, a focus group was conducted to gather teacher perspectives of the dual language program and the impact on student SEL. Beginning with the first kindergarten cohort in 2017-2018, Fox Elementary has added the DLI model to the next grade level each year. The first cohort is currently in third grade. The district collaborates with the company Participate to host visiting international faculty for the targeted language Spanish classrooms.

Table 2

DLI Spanish Teacher: Years of Teaching Experience and Years at Fox Elementary

Teacher	Years of teaching experience	Teaching experience at Fox Elementary
K	11	4
First grade	10	3
Second grade	15	2
Third grade	5	1

The Spanish kindergarten teacher has 11 years of teaching experience and has been at Fox Elementary for 4 years. The Spanish first-grade teacher has 10 years of teaching experience and has been at Fox Elementary for 3 years. The Spanish second-grade teacher has 15 years of teaching experience and has been at Fox Elementary for 2 years. Last, the Spanish third-grade teacher has 5 years of teaching experience and has been at Fox Elementary for 1 year.

Table 3

DLI English Teacher: Years of Teaching Experience and Years at Fox Elementary

Teacher	Years of teaching experience	Teaching experience at Fox Elementary
K	30	30
First grade	28	15
Second grade	4	4
Third grade	1	1

The English teachers supporting the DLI cohort have varying experiences in education. The kindergarten teacher has 30 years of teaching experience, all completed at Fox Elementary. The first-grade teacher has 28 years of teaching experience and has been at Fox Elementary for 15 years. Both the kindergarten and first-grade teachers have been a part of the DLI magnet program since the beginning and are instrumental with implementation. The second-grade teacher began her teaching career at Fox Elementary 4 years ago, and the third-grade teacher began her first year as a teacher in the fall of 2020 at Fox Elementary.

In addition to the DLI cohort teachers (English and Spanish), additional staff members who frequently interact with DLI students were involved in the focus group. This included the ESL teacher, the art and PE teachers, and the assistant principal.

Due to COVID-19, students had the option to learn either remotely or on campus 5 days a week. Parents/guardians who had a child learning on campus, in the DLI or traditional setting, also used the DESSA-Mini to rate social and emotional behaviors observed from their child. This gathered parent/guardian perspectives of SEL from students in the DLI setting compared to students learning in the traditional classrooms.

Case Study Research Questions and Procedures

This study used both qualitative and quantitative measures to examine SEL of students who were participating in a dual language classroom compared to monolingual students in a traditional classroom setting. Each of the matched cohorts of students were in the same grade level at the same school. This mixed methods study was guided by the following research questions. Outlined are the questions, formats used for data collection, instrument used to measure, and how the information is displayed and analyzed.

Research Question 1

How does the SEL of students enrolled in the DLI model compare to the SEL of monolingual speaking students enrolled in the traditional model at the same school?

(Quantitative)

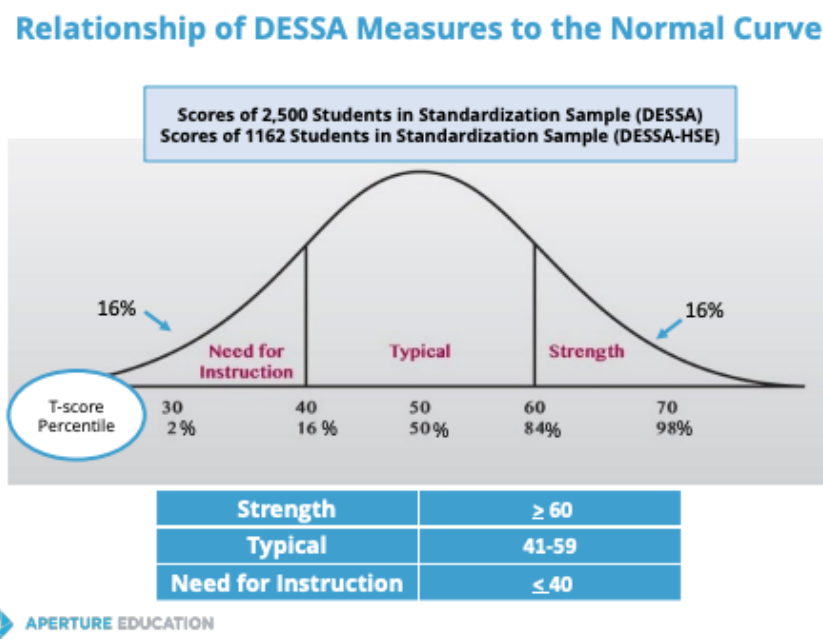
The DESSA can be used to provide sound, actionable data to support school climate and equitable practices, combat chronic absenteeism, and predict certain behavioral infractions. The goal is to strengthen students' social and emotional skills, leading to successful and productive lives (DESSA, 2017). The DESSA is both nationally standardized and norm-referenced, with a standardization sample of n=2494 (Aperture Education, 2020).

The assessment tool used for this study was the DESSA-Mini (Aperture

Education, 2020). With only eight items, the DESSA-Mini is a behavior rating scale that can be completed by teachers in 1 minute (LeBuffe et al., 2017). This strength-based assessment system, which includes four interchangeable brief forms and a longer full assessment when needed, is now being used to assess approximately 500,000 children each year in the United States and in countries such as Australia, Canada, Mexico, Qatar, South Africa, and the United Kingdom (LeBuffe et al., 2017). The DESSA utilizes three descriptive terms to help interpret a student's assessment results. The SET for a student is categorized into one of the following: the "strength," "typical," or "need for instruction" range (Aperture Education, 2020).

Figure 3

Relationship of DESSA Measures to the Normal Curve



Note. The model reflects standardized DESSA scores from students in K-12. The model is divided into three areas: strength, typical, and need for instruction. If students score 40 or below on the SET, there is a need for specific intervention (Aperture Education, 2020).

High SET scores (≥ 60) on the DESSA and the DESSA-Mini reflect social and emotional strengths. The middle range of scores (41-59) represents the typical range; most students receive scores in this range. Low SET scores (≤ 40) on the DESSA and DESSA-Mini reflect a need for instruction, meaning the student would benefit from additional social and emotional instruction to help build their skill set (Aperture Education, 2020). The research did note there is potential to incorporate rater bias into assessment scores because each item requires interpretation, reflection, and judgment by the rater. In other words, behavior rating scale scores are likely to reflect characteristics of the rater as well as the student being rated (Hoyt, 2000).

The DESSA tool enables educators to tailor social and emotional instruction so students receive the individualized support they need to improve. After assessments and data analysis are complete, information should be shared with the individual student and parents, allowing for meaningful feedback. LeBuffe et al. (2017) explained, “Students who receive the results are often very interested to learn where their strengths and areas of need exist” (Aperture Education, 2020, para. 7.) The DESSA gives students a better understanding of themselves and promotes self-awareness—a key social and emotional skill. Additionally, analysis of combined school data can support school-wide decisions to best support students’ social and emotional needs.

The DESSA, middle-of-the-year (MOY) testing window was confirmed with all participating classrooms in the district. The teachers completed the DESSA-Mini Form 2 (Appendix B) for each child in their classroom. Additional training resources and support strategies were shared for all staff members to ensure the validity of the assessment. This is the second year utilizing the tool; however, seamless training and implementation have

been disrupted by remote learning since the spring of 2020. The expectation was that the trainings via digital webinars were revisited by each school to address any questions and limit assessment concerns prior to the testing window.

After 4 weeks of the school district's second instructional semester, all participating teachers at Fox Elementary assessed the on-campus students using the DESSA-Mini. Under regular instructional environments, progress monitoring and SEL interventions would have been implemented for students having an SET score of 40 or below on the beginning-of-year DESSA. However, when narrowing the student sample to students being on campus only 2 days a week due to COVID-19, it was difficult to analyze student data with fidelity. To increase validity and to best align with the DESSA intent, this study focused on students in the DLI and traditional classroom cohorts who were learning on campus 4 days a week.

The DESSA SET compared students in the study using the standard t score that was calculated using the researched-based DESSA system. The t score has a mean of 50 and a standard deviation of 10. This score is to be used when comparing the DESSA across students and across rates and time (Aperture Education, 2020). The SET score was compared between the DLI cohort and the monolingual, traditional cohort using a t test. Student names and other identifiers were removed by the district prior to the researcher analyzing the data. Since the data were examined as a cohort and used no personal identifiers, parent permission was not required. Additionally, this was a district-implemented assessment that does not require parent permission to assess and progress monitor.

Research Question 2

How do parent observations of the DLI students' social and emotional skills compare to parent observations of students participating in the traditional model?

The digital DESSA-Mini Form 2 (Appendix B) for parents was distributed to parents/guardians whose students are participating in face-to-face instruction at the time of the study. It was the same instrument administered by teachers, with the eight questions aligned to a behavior rating scale. With an accompanying explanation of the study, the DESSA-Mini form was sent home for the parent/guardian to complete. Once forms were returned, the student ratings were entered into the DESSA online platform. The data from the parent perspective displayed the SET score indicating a level of strength, typical, or need of instruction for the student's SEL. Student and parent names and other identifiers were removed by the district prior to the researcher analyzing the data. The SET scores were analyzed using a *t* test to compare social and emotional ratings from DLI parents with parent/guardians of traditional classrooms.

Research Question 3

What SEL observations have teachers made regarding the DLI student cohort?
(Qualitative)

A focus group was facilitated for staff members who frequently interact with the DLI students at Fox Elementary. This group included all DLI teachers (English and Spanish), the school ESL teacher, two specialist teachers (art and PE), and the assistant principal. The structured discussion gathered information regarding SEL observed in the classroom. The focus group was facilitated via the digital platform Zoom, and all responses were kept confidential to protect for open and honest discussion. The focus

group transcript was examined for consistent social and emotional behaviors observed from students learning in the DLI program. As results were analyzed, a coding system was used to assign themes using the Compass Advantage and DESSA Crosswalk (Appendix C). The focus group questions (Appendix D) were validated by a team in District A using the Lawshe method. This not only validated the instrument but also gave an opportunity for feedback and/or revisions.

Summary

The purpose of this study was to compare the social and emotional competency in DLI students at Fox Elementary to students in a traditional classroom in the same grade level at the same school. These findings will support future conversations for District A when exploring methods to strengthen social and emotional skills for all students.

Chapter 4: Results

Overview

With the elevated research suggesting adulthood success is directly correlated with a student's social and emotional competency, exploring additional pathways to enhance those social and emotional skills in a school setting is timely. Focusing on SEL yields strong benefits in academic accomplishments, attendance rates, positive behaviors, and long-term productivity (Participate Learning, 2020).

SEL shapes children's developing neural circuitry, particularly the executive functions which manage working memory (what we hold in our minds as we learn) and inhibits disruptive emotional impulses. SEL boosts academic achievement but even more significantly, the increased learning can be attributed to improvements in attention and working memory, key functions of the frontal lobe. This strongly suggests that neuroplasticity the shaping of the brain through repeated experiences, plays a key role in the benefits from SEL. (Goleman, 2014, p. 25)

As education transitions from scripted programs to focusing on infusing social and emotional skills into daily instruction, there is growing research and resources to support school and district-wide initiatives. For the current study, Aperture Education's (2020) research and resources, the Compass Advantage Framework, and the DESSA have anchored the next steps in supporting School District A's social and emotional instructional focus with students. Acknowledging School District A has a continued and productive focus on SEL, seeking additional pathways to support the district became a personal interest. As social and emotional development has been further explored, the

correlation between bilingualism and social and emotional intelligence is frequently demonstrated. Specifically, with school-age students, studies highlight the bilingual brain and how it functions differently than when navigating just one language. Brain structural changes trigger skills such as attention, decision-making, empathy, and advanced problem-solving when learning a second language.

The researcher examined a DLI instructional model as the bilingual context in School District A and studied its impact on students' social and emotional skills. The setting of the study, Fox Elementary, was selected because it offers a DLI two-way 50:50 model. Three research questions were studied, and the statistics and focus group results presented are based on collected data from the study at Fox Elementary School in School District A.

Research Question 1

How does the SEL of students enrolled in the DLI model compare to the SEL of students enrolled in the traditional model at the same school?

Data were collected from the MOY DESSA administered to all kindergarten through sixth-grade students in School District A. For the study being conducted at Fox Elementary, data were collected in kindergarten through third grade, from both the dual language and traditional student cohorts. Using the DESSA-Mini student data report generated by the Aperture Education assessment platform, the DESSA *t* score for each student was collected. The *t* score is a standard score set to have a mean of 50 and a standard deviation of 10. *T* scores are based on the ratings received by the children in the standardization sample. DESSA *t* scores have the same meaning throughout their range. *T* scores should always be used when reporting the DESSA results and when comparing

scores earned on the various scales (Aperture Education, 2020). The DESSA-Mini does not give data related to specific social and emotional skills compared to the full DESSA; therefore, the information provided were the DESSA descriptive ranges: strength, typical, or need for instruction. Comparisons can be made by students and classes. When comparing the mean SET t scores from the dual language student cohorts and traditional learning cohorts, a t test was used to test for significance.

Kindergarten

Results from the kindergarten dual language and traditional cohorts were analyzed with 40 dual language and 28 traditional student participants. At the MOY assessment window, the district was transitioning to a weekly hybrid model, with 2 days of on-campus instruction and 3 days participating virtually. Teachers assessed students who had attended class on campus full-time (4 days per week) prior to the brief transition to remote learning. Using the Aperture Education platform, a DESSA classroom report was generated for the two dual language classrooms and the two traditional classrooms. Each of the reports indicates the SET t score for students. Though the SET mean of Variable 1 (dual language) is higher than that of Variable 2 (traditional), it cannot be concluded that the population corresponding to Variable 1 (dual language) has a higher mean than the population corresponding to Variable 2 (traditional). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 4

Kindergarten Dual Language and Traditional Student Cohorts t Test: Two Sample

Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	56.575	54.78571429
Variance	80.76346154	67.28571429
Observations	40	28
Pooled variance	75.24983766	
Hypothesized mean difference	0	
df	66	
t stat	0.837107949	
P(T<=t) one-tail	0.202776431	
t critical one-tail	1.668270514	
P(T<=t) two-tail	0.405552863	
t critical two-tail	1.996564419	

Using the degree of freedom value as 66 and a 5% level of significance, a look at the t value distribution table gives a value of .837. Comparing this value against the computed value of 1.996 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and they are not by chance. This concludes that the DLI environment has made a significant impact on SEL in kindergarten at Fox Elementary.

First Grade

In first grade, the Variable 2 (traditional) cohort of 38 students' mean is higher than that of the Variable 1 (dual language) cohort of 30 students; but it still cannot be concluded that the population corresponding to Variable 2 (traditional) has a higher mean than the population corresponding to Variable 1 (dual language). The problem was established by assuming the null hypothesis that the mean is the same between the two

sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 5

First Grade Dual Language and Traditional Student Cohorts t Test: Two Sample

Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	45.84210526	58.36666667
Variance	34.7311522	72.79195402
Observations	38	30
Pooled variance	51.45483785	
Hypothesized mean difference	0	
df	66	
t stat (Value)	-7.14903443	
P(T<=t) one-tail	4.39693E-10	
t critical one-tail	1.668270514	
P(T<=t) two-tail	8.79386E-10	
t critical two-tail	1.996564419	

Using the degree of freedom value as 66 and a 5% level of significance, a look at the t value distribution table gives a value of -7.149. Comparing this value against the computed value of 1.996 indicates that the calculated t value is less than the table value at a significance level of 5%. Therefore, it is not safe to reject the null hypothesis that there is no difference between means. The population set does not have intrinsic differences. This concludes that the DLI environment has not made a significant impact on SEL in first grade.

Second Grade

Second grade is comprised of 37 dual language students and 28 traditional students. Though the mean of Variable 1, the dual language cohort, is higher than that of Variable 2, the traditional cohort, the study cannot conclude that the population corresponding to Variable 1 (dual language) has a higher mean than the population

corresponding to Variable 2 (traditional). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 6

Second Grade Dual Language and Traditional Student Cohorts t Test: Two Sample

Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	51.45945946	51.35714286
Variance	13.14414414	176.3862434
Observations	37	28
Pooled variance	83.10504382	
Hypothesized mean difference	0	
df	63	
t stat	0.044808006	
P(T<=t) one-tail	0.482201035	
t critical one-tail	1.669402222	
P(T<=t) two-tail	0.96440207	
t critical two-tail	1.998340543	

Using the degree of freedom value as 63 and a 5% level of significance, a look at the t value distribution table gives a value of 0.044. Comparing this value against the computed value of 1.998 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and they are not by chance. This concludes that the DLI environment has made a significant impact on SEL in second grade.

Third Grade

In third grade, though the mean of Variable 2, the traditional cohort, is higher than

that of Variable 1, the dual language cohort, the study cannot conclude that the population corresponding to Variable 2 (traditional) has a higher mean than the population corresponding to Variable 1 (dual language). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 7

Third Grade Dual Language Student Cohort and Traditional Student Cohort t Test: Two Sample Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	49.51428571	59.26666667
Variance	43.37478992	180.2022989
Observations	35	30
Pooled variance	106.3588813	
Hypothesized mean difference	0	
df	63	
t stat	-3.800683876	
P(T<=t) one-tail	0.000163903	
t critical one-tail	1.669402222	
P(T<=t) two-tail	0.000327806	
t critical two-tail	1.998340543	

Using the degree of freedom value as 63 and a 5% level of significance, a look at the t value distribution table gives a value of -3.800. Comparing this value against the computed value of 1.998 indicates that the calculated t value is less than the table value at a significance level of 5%. Therefore, it is not safe to reject the null hypothesis that there is no difference between means. The population set does not have intrinsic differences. Using the DESSA, this concludes that the DLI environment has not made a significant impact on SEL in third grade.

Combining Grades K-3 as a single dual language cohort and a K-3 traditional cohort, the mean of Variable 2 (traditional) is higher than that of Variable 1 (dual language). The data reflect 150 dual language and 116 traditional cohort students. It cannot be concluded that the population corresponding to Variable 2 (traditional) has a higher mean than the population corresponding to Variable 1 (dual language). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 8

K-3 Dual Language Student Cohort and Traditional Student Cohort t Test

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	50.94666667	56.04310345
Variance	58.53404922	130.8589955
Observations	150	116
Pooled variance	90.03923415	
Hypothesized mean difference	0	
df	264	
t stat	-4.343947332	
P(T<=t) one-tail	9.98728E-06	
t critical one-tail	1.65064591	
P(T<=t) two-tail	1.99746E-05	
t critical two-tail	1.968990497	

Using the degree of freedom value as 264 and a 5% level of significance, a look at the t value distribution table gives a value of -4.343. Comparing this value against the computed value of 1.968 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and

they are not by chance. This concludes that the DLI environment has not made a significant impact on SEL in a K-3 cohort. It can be stated that for each of the K-3 cohorts, the SET mean fell within the descriptive “typical” range for the MOY assessment.

Research Question 2

How do parent observations of the DLI students’ social and emotional skills compare to parent observations of students participating in the traditional model?

The study analyzed data received from parents regarding their child’s social and emotional skills while being enrolled at Fox Elementary. For any student rated earlier by the DLI teacher, the parent was invited to assess their child using the same DESSA-Mini Form 2. For each kindergarten through third-grade student (DLI and traditional) who were learning on-campus *and* assessed during the MOY window by their teacher, a background letter and DESSA-Mini Form 2 were sent home inviting the parent/guardian to complete the 8-question DESSA survey. A time frame of 1 week was given to return the form to school.

Table 9

Parent Survey Participants: Dual Language and Traditional Cohorts

Grade level	Number of dual language cohort parents	Number of traditional cohort parents
K	35	25
First grade	23	24
Second grade	32	27
Third grade	24	31

Once DESSA forms were returned, the parent data were entered into the online DESSA platform, resulting in a normed SET for each student. As with the teacher

assessment, the DESSA-Mini produces the SET that aligns with the descriptive ranges of strength, typical, or need for instruction. Only the full DESSA reports itemized data aligned with specific social and emotional competencies (i.e., empathy, goal-driven, self-awareness). A t test was used to analyze parent responses from students participating in the dual language program over the same time frame compared to parent data of students participating in the traditional environment.

Kindergarten

Though the mean of Variable 1 (dual language) is higher than that of Variable 2 (traditional), we cannot conclude that the population corresponding to Variable 1 (dual language) has a higher mean than the population corresponding to Variable 2 (traditional). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 10

Parent: Kindergarten Dual Language and Traditional Student Cohorts t Test: Two Sample Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	57.97142857	57.44
Variance	62.08739496	42.17333333
Observations	35	25
Pooled variance	53.8470936	
Hypothesized mean difference	0	
df	58	
t stat	0.276561784	
P(T<=t) one-tail	0.391549895	
t critical one-tail	1.671552762	
P(T<=t) two-tail	0.783099791	
t critical two-tail	2.001717484	

Using the degree of freedom value as 58 and a 5% level of significance, a look at the t value distribution table gives a value of 0.276. Comparing this value against the computed value of 2.001 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and they are not by chance. This concludes that when using the DESSA survey, parents of students participating in the dual language program observed higher social and emotional skills demonstrated compared to parents of students in the traditional instructional setting.

First Grade

Though the mean of Variable 1 (dual language) is higher than that of Variable 2 (traditional), it cannot be concluded that the population corresponding to Variable 1 (dual language) has a higher mean than the population corresponding to Variable 2 (traditional). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 11

Parent: First Grade Dual Language Student Cohort and Traditional Student Cohort t

Test: Two Sample Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	51.56521739	51.41666667
Variance	177.3478261	247.9057971
Observations	23	24
Pooled variance	213.410789	
Hypothesized mean difference	0	
df	45	
t stat	0.03484875	
P(T<=t) one-tail	0.486177237	
t critical one-tail	1.679427393	
P(T<=t) two-tail	0.972354474	
t critical two-tail	2.014103389	

Using the degree of freedom value as 45 and a 5% level of significance, a look at the t value distribution table gives a value of 0.034. Comparing this value against the computed value of 2.014 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and they are not by chance. This concludes that when using the DESSA survey, parents of students participating in the dual language program observed social and emotional skills demonstrated more frequently compared to parents of students in the traditional instructional setting.

Second Grade

Though the mean of Variable 1 (dual language) is higher than that of Variable 2 (traditional), the study cannot conclude that the population corresponding to Variable 1

has a higher mean than the population corresponding to Variable 2. The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 12

Parent: Second Grade Dual Language and Traditional Student Cohorts t Test: Two Sample Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	49.15625	59.74074074
Variance	80.78125	215.968661
Observations	32	27
Pooled variance	142.4456831	
Hypothesized mean difference	0	
df	57	
t stat	-3.393721397	
P(T<=t) one-tail	0.000630134	
t critical one-tail	1.672028888	
P(T<=t) two-tail	0.001260268	
t critical two-tail	2.002465459	

Using the degree of freedom value as 57 and a 5% level of significance, a look at the t value distribution table gives a value of -3.393. Comparing this value against the computed value of 2.002 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is not safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and they are not by chance. This concludes that when using the DESSA survey, parents of students participating in the second-grade dual language program observed less social and emotional skills demonstrated compared to parents of students in the traditional instructional setting.

Third Grade

Though the mean of Variable 1 (dual language) is higher than that of Variable 2 (traditional), the data cannot conclude that the population corresponding to Variable 1 (dual language) has a higher mean than the population corresponding to Variable 2 (traditional). The problem was established by assuming the null hypothesis that the mean is the same between the two sample variables, and a t test was conducted to test if the hypothesis was plausible.

Table 13

Parent: Third Grade Dual Language and Traditional Student Cohorts t Test: Two Sample Assuming Equal Variances

	Variable 1 (dual language)	Variable 2 (traditional)
Mean	57.25	54.41935484
Variance	72.19565217	26.58494624
Observations	24	31
Pooled variance	46.37827145	
Hypothesized mean difference	0	
df	53	
t stat	1.528738754	
P(T<=t) one-tail	0.066138026	
t critical one-tail	1.674116237	
P(T<=t) two-tail	0.132276052	
t critical two-tail	2.005745995	

Using the degree of freedom value as 53 and a 5% level of significance, a look at the t value distribution table gives a value of 1.528. Comparing this value against the computed value of 2.005 indicates that the calculated t value is greater than the table value at a significance level of 5%. Therefore, it is safe to reject the null hypothesis that there is no difference between means. The population set has intrinsic differences, and

they are not by chance. This concludes that when using the DESSA survey, parents of students participating in the third-grade dual language program observed social and emotional skills demonstrated more frequently compared to parents of students in the traditional instructional setting.

With each of the K-3 dual language and traditional cohorts, the SET mean fell within the “typical” descriptive range. While second grade did not align with the proposed theory, the majority of the parent data did reflect research suggesting bilingual students demonstrate advanced social and emotional skills when compared to monolingual students (Aperture Education, 2020).

Research Question 3

What SEL observations have teachers made regarding the DLI student cohort?

Demonstrated by research, strong social and emotional skills continue to be explored and argued by many as essential to leading a productive life. Specific to school-age children who are bilingual, studies show that schools employing a consistent and intentional focus on social and emotional skills yield positive student outcomes, both academically and behaviorally. When designed with intention and integrated into the school day, the positive impacts can transform a student’s learning environment (Aperture Education, 2020). Below are focus group responses, both individual and collective, to the second research question.

The focus group took place via Zoom, and the 12 participants included the K-3 English and Spanish teachers in the dual language cohorts. The PE, art, and ESL teachers who serve both DLI and traditional students also participated. The assistant principal was invited to join for administrative perspective. The focus group began with a brief

overview of the study and an explanation of the group discussion process. SEL was defined for consistent understanding throughout the session. Following are focus group questions and responses.

Focus Group Question 1: From Your Observations, How Are Inner-Core Skills From the Compass Advantage Framework (Appendix A) Being Implemented at Fox Elementary?

Teacher A, a staff member who was part of the DLI program when it began at Fox Elementary, initiated the response by sharing the school's focus on SEL had elevated the last 2 years from staff using district-endorsed SEL resources. It was also added that 2020-2021 was the first (full) year of administering the DESSA, which assists in guiding school-wide and classroom SEL decisions. Teacher B stated,

Our kids are exposed to a multicultural classroom, including various books, foods, clothing, and traditions every day. While I may not teach the core Compass skills in isolation, there is a constant focus on the Compass skills. When DL students are learning new things, instruction is interactive with movements and visuals to support the new language. Because of this, I have very little discipline concerns; Students are focused, curious and ready to learn.

Teacher C pivoted to COVID-19 and the impact it has had on the DLI program. The group agreed, emphasizing many SEL skills were naturally integrated into lessons due to new instructional formats. While all grade levels mentioned flexibility as an observed SEL skill, the third-grade DLI team strongly emphasized their cohort's enhanced ability to adapt to the unique school year. Teacher C stated, "The need for perseverance, resourcefulness, flexibility has been modeled with our students—almost

daily.” With this being the first year of DLI in third grade, the teachers highlighted the smooth transitions from in-person learning to remote (and back again). The group felt strongly the DLI 50:50 model, with students alternating classrooms and instructional language (Spanish or English) each day, contributed to the quick adaption to new schedules and varied modes of instructional delivery.

An example of empathy was mentioned by Participant D:

Being on zoom is extremely difficult, especially with young ones. The students are so caring and want each other to be successful. I don’t have to intentionally ask; the students have an awareness and want to help others. I love hearing them try to direct another student on how to “mute” or “unmute” when having difficulty with the platform. They become very animated.

Overall, it was evident that Compass skills are being taught, but not in isolation. All examples were behaviors resulting from the inclusive dual language classroom environment or instructional strategies used to support language learning. Specific lessons were not mentioned; and at times, the focus group interchanged social and emotional terms, but responses still aligned with the Compass Advantage Framework and DESSA Crosswalk (Appendix C).

Focus Group Question 2: SEL Is an Umbrella Term for Many Behaviors and Skills. When Teaching, What Social and Emotional Behaviors Do You Observe When You Students Are Learning Content Via the Second Language?

When the group was asked to name one SEL skill that was most frequently observed, eight participants stated, “empathy for others.” Their common belief was learning another language, and inviting all cultures to be part of the community in a DLI

classroom translates into positive interactions and relationships. Three participants stated that “persistence” was the social and emotional skill most frequently observed among DLI students. It was stressed that learning a second language is not easy, yet the students are goal-driven to learn Spanish. One teacher commented they have heard students reference their second language as, “my superpower.” One teacher felt strongly that “decision-making” was the most pronounced social and emotional skill demonstrated among her DLI students. It was emphasized that making decisions is an intentional process that is integrated into all facets of the school day.

A highly noted behavior threaded throughout the group discussion was strong classroom engagement. Both core and specialist teachers had few discipline concerns among the DLI students and frequently observed strong group engagement or high time-on-task when students were working with partners or individually. Teacher E, a school-wide specialist teacher, stated,

I was teaching a new concept this week and placed students in pairs. As I walked around interacting, students were toggling between speaking English and Spanish. In one pair, one student was scaffolding directions for the other, using strategies of movement and switching between English and Spanish. When I encourage the students to speak Spanish (at their comfort level) when collaborating on group tasks, there is a sense of unity with accomplishing goals. This is more apparent with the dual language classrooms.

Focus Group Question 3: Please Share Examples of Instructional Strategies That Are Highly Effective With Dual Language Students. Explain.

When discussing instructional strategies utilized to deliver content in both

languages, the group emphasized that DLI teaching partners are committed to aligned instructional techniques; therefore, students are exposed to consistent instructional strategies in both the English and Spanish classrooms. Scaffolding, a research-based instructional method, was mentioned at least once by nine participants. There was group agreement that scaffolding new content promoted self-regulation and confidence (valued SEL skills) in DLI students. Paired learning was another strategy used by the teachers. Not only does it promote academic conversations and collaboration among students, but it also supports authentic language practice, noted one participant. The kindergarten and first-grade teachers referenced how small group instruction is commonly used in the DLI model; therefore, DLI students having the ability to monitor their own learning when working with others is a valued social and emotional skill. This can be difficult when struggling with new content *and* a new language, but DLI students are persistent with “getting it right,” shared Teacher E. Teacher F highlighted Total Physical Response, a language learning strategy that was first used in the dual language program. The strategy, often used with new language instruction to support quick vocabulary identification, was shared through the school’s professional learning communities, once observed as highly effective. When learning new languages or new vocabulary in the students’ native language, associating words with movement can be an effective strategy for full understanding, transferring to authentic application.

Participant G added a more global view of an intentional strategy and focused on the labeling and visuals purposely placed throughout Fox Elementary:

Beginning in the foyer and front office, the visuals and labeling of items automatically invite a safe learning environment for everyone. It invites curiosity,

attention to detail, and a feeling of inclusiveness for all Fox Elementary families, whether in the Dual Language program or not. While not a specific instructional strategy in the classroom, the impact is widened to include everyone.

Focus Group Question 4: How Has the Dual Language Model Impacted Student Learning, Both Academically and Social and Emotionally, at Fox Elementary?

The question was responded to quickly, with group members giving positive affirmation of the dual language program. Participant F mentioned standardized testing and acknowledged there has not been a substantial academic impact, as the first cohort is only in third grade. This aligns with Collier and Thomas's (2017) research suggesting there are often early academic lags with dual language students, and only around fourth grade do DLI students begin to outperform academically compared to their monolingual peers. One specific comment stood out. Teacher C shared that having taught for 28 years in two different school districts and multiple grade levels (K-5), she felt that teaching in the DL/ I program had been the toughest years of her career but also the most rewarding. Teacher H shared that being part of the dual Language community meant "students working together for a common goal. There is a sense of feeling safe to take risks and holding each other accountable for learning.". Participant J discussed an "I can" attitude with dual language students that often had not been experienced in traditional settings. The group was unanimous in their perception of the dual language instructional model. It was more than just language addition. The strategies used for language instruction, the heightened global awareness, and the welcoming of everyone are the guiding principles by which the DLI model is designed.

FGQ5: What Do You Believe Are the Overall Strengths of the Dual Language Classroom Environments at Fox Elementary?

Vygotsky (1978) believed that an individual's speech (acquisition and use) is the antecedent to thoughts and learned behaviors. Having experience of teaching in the traditional model and dual language model, Participant D added,

The dual language program is just overall a positive environment. The strategies we use to teach Spanish encourage positive student behaviors. The room is very welcoming. Bottom line...the students are better engaged; they are better behaved; they are more attentive.

Teacher H shared another observation. While the dual language program has not seen huge gains with standardized data, there is a noticeable improvement in self-discipline and student attendance. Additionally, there is strong parent support for student learning. Teacher H stated,

Even though parents (especially if non-English speaking) may not be able to directly assist student instruction, they are still very involved and supportive. During the COVID-19 school disruption, while many DLI families decided to learn at home, the family support student learning was evident.

It was evident from the overall group responses that the dual language instructional environment is well received and respected at Fox Elementary.

Focus Group Question 6: What Recommendations for Improvement Do You Have for the Dual Language Model at Fox Elementary?

Teacher E immediately shared a scenario of "lessons learned." She discussed a previous student who received services for math and speech; and while making advances

in those areas, it was obvious that being frequently pulled out of the class to receive services disrupted the consistency of language instruction and the smooth transition between the two classrooms. The teachers quickly adjusted the program the next year to mitigate any amount of time that is out of the classroom. Additionally, the counselor works closely with teachers to ensure attendance is monitored, helping to maximize the amount of time students are in class learning.

Also, the group suggested additional professional development for kindergarten and first-grade teachers to help discern whether the delayed language learning is the typical lag or a disability. Research suggests it can be difficult to distinguish between typical language struggles and a true disability when the student is early in the language learning process (Kelly, 2015).

Teacher A recommended additional personnel support in the K-2 classrooms. While the program is very beneficial, it was expressed that more staff would be extremely helpful when facilitating small groups. And last, from a global perspective, it was recommended to provide a school-wide Spanish class that would be included in the rotation of specialist classes (i.e., art, music, PE). This would enhance DLI students' skills but also allow traditional cohort students to learn common vocabulary and simple phrases to encourage an inclusive environment.

While some data did not align with the examined research, there are social and emotional enhancements with students participating in the dual language program at Fox Elementary. The parent DESSA data and focus group results strongly aligned with research supporting the hypothesis that learning a new language (in the context of a dual language program) advances a student's social and emotional behaviors.

Chapter 5: Discussion

Overview

Due to society's growing focus on the development of social and emotional skills, the origin of the study began with an interest in exploring new pathways to enhance SEL for students in School District A. As research targeting SEL was examined, the relationship between bilingualism and social and emotional skills was consistently highlighted. Studies often connected language acquisition with enhanced social and emotional competencies.

Over the last few decades, research has increased connecting increased cognitive abilities and social skills among bilingual students. One example is empathy. Studies suggest that increased cognitive abilities (caused by structural brain changes when language learning) may help children develop skills needed to understand that objects or contexts can be represented more than one way. This translates to the ability to understand others' perspectives (Goetz, 2003). Additionally, young bilingual children frequently model alternate ways to connect with others they cannot understand much earlier than monolingual children. This includes animated movement, looking for visual cues, and being persistently curious. Data from Fox Elementary DLI teachers echoed the research findings when sharing how their students demonstrate a strong sense of understanding needs when interacting with their classmates.

Additionally, bilingual students frequently score higher than monolingual peers on tests of cognitive ability, including mental flexibility, nonverbal problem-solving tasks, understanding the conventional origin of names, and distinguishing between semantic and phonetic similarities (Eun, 2017). One reason for the advantage is the

bilingual brain and its ability to reduce interferences between the two languages, in order to speak only one.

For this research study, the DLI program at Fox Elementary was selected to compare the social and emotional competency of students in the dual language cohort to students at the same grade level but learning in the traditional cohort. Because social and emotional development has been an ongoing district focus and teachers had prior experience with administering the DESSA, the research process was authentic and few barriers were encountered. Following are research questions and additional analysis of outcomes.

Research Question 1

How does the SEL of students enrolled in the DLI model compare to the SEL of students enrolled in the traditional model at the same school?

Using the DESSA data, only two grade levels (kindergarten and second) concluded with significance that students in the dual language program demonstrated higher social and emotional competency compared to the traditional learning students in the same grade level. The DESSA-Mini, the abbreviated DESSA with eight questions, is normed and widely endorsed. Having confidence in the assessment tool, the fact that first- and third-grade data did not conclude higher SETs was interesting. Critical factors that may have influenced the unexpected outcomes are disrupted home and school environments due to the 2021 pandemic. Globally, students were faced with a blend of at-home learning and face-to-face instruction; some students opting out of on-campus learning even when given the option. The experience has proven to test many skills of students, teachers, and parents--perseverance being one of them. Specifically, with the

dual language model, students have experienced a critical learning adjustment with alternating days in English and Spanish. When students were on campus 2 days and at home 2 days, this decreased the amount of language instruction by half.

Additionally, the first-grade Spanish (DLI) teacher moved back to her home country mid-semester, adding another disruption to the school environment. Having been with the students on alternating days, the English (DLI) teacher assessed all students in the first-grade DLI cohort. While the specific DLI teacher was not controlled for in the setting (data were analyzed as a student cohort), it was an unforeseen factor that may have impacted behaviors.

While first- and third-grade DESSA data did not align with examined research, studies show that bilingualism does not lead to learning barriers, either academically or behaviorally. In fact, research demonstrates the complete opposite. Bilingual students frequently model advantages with attention to learning, teasing out important variables when problem-solving, and understanding there can be two different interpretations of the same stimulus. The ability to understand others' perspectives and having empathy are frequently highlighted. Overall, there is a strong incentive to support and scale the dual language instructional model in School District A.

Research Question 2

How do parent observations of the DLI students' social and emotional skills compare to parent observations of students participating in the traditional model?

Analysis of the DESSA data submitted by parents suggested social and emotional skills were observed with significance from dual language students compared to traditional learning students in the same grade levels. This aligns with research

concluding that parent awareness and support of students' social and emotional development are critical. Just as schools need to be intentional, so do home environments.

The parent data reflect research affirming that bilingual youth excel at social skills. One reasoning is bilingual family members often have wide social networks, including diverse cultures. Being curious and accepting of multiple languages and cultures is a skill set often nurtured in bilingual households (Hernandez, 2013).

Selma Elementary, a North Carolina dual language school and valued collaborator with Fox Elementary, has been implementing their DLI program for 11 years. The school is often highlighted by Participate Learning for its strong parent partnerships. Starting the program as the school literacy coach, the now principal emphasized how important parent engagement is to the success of their program, especially student outcomes:

Becoming a Dual Language model has led to a unifying vision for the school. Family and curriculum nights bring together parents and families and celebrate the cultures represented in the school. We receive positive feedback from families feeling included and appreciating the continued respect for both the native and new language learned. (Participate Learning, 2020, para. 7)

In terms of closing the achievement gap, dual language is doing it in a way that is much better than our typical ESL programs. When children are encouraged to continue speaking in their native language at home, I think they're able to leverage it as they're learning English. (Participate Learning, 2020, para. 9)

Fox Elementary's vision is aligned with research supporting native language use at home. "To the extent that bilingualism can be encouraged without the loss of a home/native language, children are more likely to retain strong ties with their culture and

develop strong ties with new cultures” (Salmon, 2011, p. 128). Most importantly, when the home environment and celebration of languages and cultures match the school environment, children are more likely to transfer modeled social skills to all areas of life.

Research Question 3

What SEL observations have teachers made regarding the DLI student cohort?

This was the most powerful data outcome, as participant responses strongly aligned with examined research. Focus group participants were engaged and appeared to respond freely. It was evident that a safe environment had been created among the group and DLI perceptions had been discussed many times before. Every participant affirmed positive outcomes from the dual language program. The DLI students’ ability to demonstrate awareness of self and others and show empathy and persistence were behaviors highlighted the most. The group believed that DLI students were consistently goal-driven, both individually and as a class community.

It was noticed that no focus group participant related SEL behaviors to structural brain changes and reasoned with “learning a new language is hard and students have to pay attention more.” If DLI teachers were equipped with research on the bilingual brain, it would strengthen the understanding of students’ social and emotional competencies. Research on the bilingual brain shows when switching from one language to another, regions of the brain (i.e., frontal cortex) are activated, giving reason for the enhanced skills, such as the ability to focus and pay attention (Cox et al., 2016). If brain research and data are included in DLI professional learning communities, it will support planning intentional language learning strategies that activate strong social and emotional behaviors. These behaviors can also advance a student’s performance with academic

content; therefore, the more equipped the teacher is with understanding the connection between the bilingual brain and SEL, the better. It would also leverage conversations when promoting the DLI model to families and the extended community.

While group conversations focused initially on student behaviors, the DLI impact on school culture, parent engagement, and global awareness was also identified as positive. The teachers highlighted school culture by discussing the building transformation from the front office to every classroom. Focusing on global studies in addition to dual language, there is no mistaking that Fox Elementary is a place where all cultures and languages are celebrated. The group agreed school visuals and labeling of objects throughout the building supported an inclusive environment. Parent engagement was also emphasized as being strong, giving the example of the monthly Parent Coffee Talks welcoming all families to informal sessions designed to strengthen partnerships. While a wide range of topics is covered, the structure is always supportive of the growing bilingual community. While not considered direct instruction with students, a strong focus on culture and parent engagement does have a direct link to student success. The more all facets of the school day and home environments are in sync, the better experience students will have.

The analysis does reflect a need for School District A to revisit the Compass Advantage Framework and its eight inner core skills, also viewed as drivers of an individual's SEL success. During the focus group discussion, there was not a lack of social and emotional behaviors observed. However, the Compass terms were often interchanged with other words/phrases with similar descriptions. From the focus group, it was not clear if they have a consistent, district-wide understanding of the Compass

Advantage Framework and DESSA Crosswalk (Appendix C). Because the district has committed to assessing SEL skills aligned to the Crosswalk, offering professional development or revisiting in some capacity the Compass skills and its correlation with the DESSA instrument will only strengthen the understanding of social and emotional development of students.

The enthusiasm when sharing positive outcomes of the DLI program did not go unnoticed. The group participants sent a clear message: The dual language program is working, and the need to celebrate native languages and cultures is just as important as the new ones introduced.

Implications for Practice

If the dual language model is sustained at Fox Elementary and School District A replicates the model at another elementary school for 2021-2022, it will continue to address increasing needs on many levels. School District A is home to a diverse population, encompassing many cultures and languages. The surrounding community is full of businesses that network globally, and being bilingual is a valued skill set. Not only does the dual language model offer language acquisition to students, being bilingual increases future employment opportunities.

Offering families in the school district an instructional model that targets Spanish and celebrates diverse cultures is a productive way to support and reflect the growing community. Additionally, a strong dual language model has proven to yield increased social and emotional skills among students. This idea is aligned with Vygotsky's (1978) belief that navigating speech acquisition leads to thought and behaviors. When manipulating two or more languages, executive functions are activated, ensuring the

correct language is selected, leading to enhanced social and emotional behaviors (Vygotsky et al.,1982).

Based on study outcomes, it is concluded that School District A, or any school implementing a dual language program, should implement the following practices:

1. **Short and Long-Term Planning into District Strategic Plan: Research** concludes that if an additional language is not frequently used in authentic contexts, an individual's language fluency with accuracy is weakened. In order to continue strong bilingual use, the district will need to implement continued Spanish learning and application opportunities through high school. Extending Spanish course offerings at the middle school and continuing with a Spanish translator certificate in high school (and the opportunity to add a third language) are necessary and need to be part of long-term district planning. With a continued dual language focus and instructional environments that are a natural outcome of the model, the practice will be a continued social and emotional strategy for School District A.
2. **Understanding the Bilingual Brain–Professional Development:** As mentioned when analyzing Research Question 3, the district would benefit from infusing additional professional development for the DLI cohort, enhancing teacher understanding of the structural changes that occur in the brain when acquiring and using more than one language, and understanding the connection to enhanced social and emotional data. While the focus group and parent data highlighted strong social and emotional skills for students participating in the dual language cohort, the teacher DESSA data were not as impactful. Only

half of the DLI cohorts demonstrated higher social and emotional skills compared to the traditional cohorts; however, the research demonstrating the benefits of bilingualism is plentiful. Research in Chapter 2 outlined structural brain changes that occur from language acquisition and use. When a second language is in use, areas of the brain are activated, often enhancing skills that support more than one language, including paying attention, patience, decision-making, and flexibility. To process language selection, the frontal lobe of the brain is activated, enhancing the executive functions of attention and self-regulation. Brain research demonstrates these specific skills are activated to eliminate stimuli supporting students with language selection and use. Additionally, when learning a new language, instructional strategies encourage frequent interaction with others, widening social awareness and perceptions of others. When these skills are activated and used often enough, they become behavioral habits. This leads to a bilingual individual demonstrating advanced social and emotional skills such as strong inhibitory control, self/social awareness, and empathy for others. It is reasoned that increasing understanding of the dual language impact on social and emotional skills will only encourage purposeful planning in order to highlight SEL skills reflected on the Compass Advantage Framework and DESSA assessment.

3. SEL and DESSA Professional Development: Additionally, social and emotional skills, often encompassing a variety of terms, have been used to describe the noncognitive skills students need to be successful in school and life. It makes sense that students will do better in school if they know how to

employ skills, attitudes, and behaviors to effectively deal with daily tasks and challenges. Again, based on the analysis of Research Question 3, it is recommended that School District A and Fox Elementary continue the strong focus on SEL for students, using the SEL student and teacher resources from Aperture Education and offering professional development to strengthen teacher understanding of students' social and emotional development. Also, to fully understand SEL, it is equally important to understand the SEL assessment instrument. It is recommended School District A continue using the DESSA instrument to measure and monitor SEL. The focus group believed a universal screener is needed to assess and monitor SEL student progress. The group also highlighted the need to better understand the DESSA and its alignment to the Compass Advantage Framework. It is also recommended to implement DESSA for a minimum of 3 years, strengthening teacher understanding and validity with student rating.

4. Understanding Student Development and the Language Acquisition Process:

It is recommended that teachers participating in the dual language program are aware that often in the early stages of language acquisition, students can show a development lag in academic areas relative to monolingual students. The observed delays are typically small and short-lived; but during the early stages of language acquisition, it is often difficult to identify students who may have a learning disability or need speech-related services. In some cases, the skills produced by language learners and students with disabilities are the same. However, it is recommended that with professional development offered to

dual language teachers, it would further support the understanding of development.

5. **Expanding Student Language Opportunities:** Because the DLI program is only offered to half of the students enrolled at Fox Elementary, it is also recommended that School District A support Fox Elementary and add Spanish opportunities for students in an instructional format beyond the core DLI classroom. Research, including data outcomes from the study's focus group, emphasizes the need for continued opportunities for authentic use (Participate Learning, 2020). This was mentioned by focus group participants as a practice to eliminate any traditional student feeling not included at school. Immersing the students in diverse cultures and language awareness only solidifies comprehension and accurate use of the added language. Additionally, including all students (even traditional cohort students) in the language addition experience encourages an inviting school culture. If a Spanish class is added to the specialist's weekly rotation, all students can experience a second language. Vygotsky et al.'s (1982) work emphasized language as the main driver of thought and behaviors. DLI students can further their language learning within a unique classroom setting (i.e., practicing the language through performances, debate, technology, etc.), and students who are in the traditional cohort can be exposed to Spanish, even if limited to general vocabulary and phrases. The language experiences, if planned for positive outcomes, will strengthen and grow social and emotional behaviors.
6. **Ensure Adequate Personnel Support:** Language instruction can be difficult for

the instructional facilitator, especially working with young students in a dual language classroom model. School District A allots a certain number of instructional assistants per K-3 classrooms; however, the amount of support given to each classroom teacher can be decided by the site administrator.

School District A does have a full-time instructional assistant in the DLI grade level cohorts, but the additional need for personnel support was shared by the focus group participants. Participant G stated, “Focusing on both content and language instruction is a huge management process for DLI teachers and additional instructional support is needed.” This was magnified even more during the learning disruption due to COVID-19.

Leveraging the research and overall data results, it is recommended School District A support and promote dual language programs as a purposeful practice to strengthen students’ social and emotional skills.

Recommendations for Further Study

Analyzed data from the study has been informative for further investigation. It is suggested that Fox Elementary replicate the study when students are consistently learning on campus and social and emotional skills are the least negatively impacted. For both language learning and SEL to be productive, consistent educational structures are needed. As with many school environments, the context of the study was negatively impacted by the global pandemic. To further support study outcomes and the continued success of the dual language model, replicating the study in an uninterrupted educational environment would be beneficial.

It is also recommended to replicate the study and include the additional grade

levels as they are added at Fox Elementary or any dual language program. It is suggested to study whether social and emotional skills will strengthen the longer students are part of the DLI program. Longitudinal data of studying SEL and academic advantages of students in DLI cohorts through middle and high school would be a beneficial study. It would inform families, teachers, and the community of DLI impacts and continue to give guidance on growth and areas of need. Additionally, once the district's new DLI program (2021-2022) has been implemented for at least a year, it is also suggested to scale the study to include those students.

While the SET is normed to give descriptive ranges of need, it does not give ratings per question or categorize the social-emotional strength or deficit. Currently, School District A only uses the full DESSA for students scoring at or below 40, the "need of instruction" descriptive range. If School District A replicates the study, it is recommended that the full DESSA be used instead of the DESSA-Mini. Whether selecting all grade levels or a few with which to use the full assessment, the data would give more customized guidance for SEL.

Additionally, it is recommended to replicate the study using a growth model. Assessing students at the beginning of the year and comparing with end of the year DESSA data will assist with reflections on successes and areas for improvement.

Limitations/Delimitations

The most impactful limitation of the study was the data collection time frame. It occurred during the unexpected COVID-19 pandemic, which heavily impacted both school and home environments. The disruption to the daily educational framework resulted in students being forced to learn online, both synchronous and asynchronous.

While the study only included students opting to learn on campus during data collection, face-to-face instructional time with teachers continued to be limited. During the teacher and parent data collection time frame, School District A was only offering students 2 days of on-campus learning, with the remaining days designated as remote learning. This was an adjustment to the study's original intent of assessing students in a traditional setting, learning 5 days a week on campus. With SEL success leveraged with education settings being consistent and intentional with SEL instruction, the disruption to the educational norm was an automatic limitation. Even though students and teachers adjusted to new schedules, the decrease of in-person interactions and on-campus learning opportunities may have impacted the assessment results from both teachers and parents.

Data from the DESSA administered by teachers were surprising and counter to suggested research. While kindergarten and second-grade data did support the hypothesis, both first and third grade did not. It was noted that in the DLI grade levels demonstrating a significant impact with SEL, both the English and Spanish teachers had been teaching the longest. Another limitation is the inner-rater biases of the teachers. The varying years of teaching experience (in both the DLI program and traditional models) may have impacted teacher confidence and understanding of students' social and emotional development when completing the DESSA for each student.

Additionally, home environments were disrupted with families experiencing job loss, health concerns, and transitioning to children learning at home. The unexpected changes with work and home environments are considered a limitation, as student behaviors and/or parent perceptions may have been altered compared to a conventional school year.

It must be noted that there are students whose native language is Spanish and/or who live in Spanish-speaking homes who are learning in the traditional cohort. While understanding the possible impact on study outcomes, it was not a controlled factor and therefore is considered a delimitation. Another delimitation was the decision to use the DESSA-Mini which does not give itemized ratings per social and emotional skill. These data are only accessible when using the full DESSA. While the SET is normed to give descriptive ranges of need, it does not give ratings per question or categorize the social-emotional strength or deficit. This was limiting as the data, while normed, are broad with descriptive ranges. In order to give strong intervention with targeting needs, the full DESSA would need to be administered.

Conclusion

One of the main goals of education is to give students the knowledge and tools needed to become successful, both personally and professionally. Social and emotional skills are shown to be highly correlated to positive learning and social outcomes such as postsecondary education, secured employment, better mental health, and overall being a contributing, productive member of society.

This study originated from the researcher's interest in dual language and bilingualism research and acknowledging how the studies constantly intersected with SEL (Jones et al., 2015). The studies correlated bilingualism to advanced cognitive and social behaviors when compared to monolingual individuals. Because noncognitive competencies have been widely demonstrated to contribute to student success in school and beyond, there is an increase in schools implementing social and emotional programs and strategies to support student learning. With combined research and data analysis, it is

concluded that a DLI instructional model is an effective pathway to support SEL.

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Appendix A

Compass Advantage Framework

Eight Pathways to Every Child's Success

Children and adults discover heart-felt meaning and direction in life when they develop strong internal compasses. This guidance system is formed during childhood and adolescence, through relationships and life experiences — and continues to evolve throughout life. Explore the eight points of the compass below. Then, use the adjacent columns as examples of how to impact the development of these abilities in children and teens.

IMPACT RESILIENCE

- Push kids gently to the edges of their intellectual, emotional, social, and physical comfort zones.
- Encourage them to make sustained commitments to activities of their **own** choice — community service, sports, music, art, and other after-school activities.
- Give youth encouragement and support as they learn to take risks, overcome challenges, and grow from failure.
- Praise them for their initiative, persistence, and grit.
- Let kids know you believe in them and their abilities.

IMPACT CURIOSITY

- Help children identify questions that pique their curiosity.
- Allow them to struggle and experience setbacks.
- Teach young people to be skeptics, to require more evidence before accepting someone's claims as true.
- Praise them for effort, critical thinking, and an ability to engage their values when making decisions.
- Help children see how parts connect and influence the whole of society — that learning occurs through relationships, collaboration, and flexibility.

IMPACT INTEGRITY

- Treat children and teens with respect and dignity.
- Listen to their feelings and concerns without judgment.
- Help kids identify their own strengths of character by praising them for their courage, honesty, and fairness — not just for grades and external accomplishments.
- Model internal strengths, like integrity, humility, and open-mindedness.
- Discuss the traits of heroes and heroines in movies, TV, and books — and the consequences of their actions.

IMPACT SOCIABILITY

- Help kids understand that the words they choose make a difference to the relationships they create.
- Talk with young people about their motivations and mental states so they can articulate them to others.
- Help children avoid negative first impulses by thinking through alternative reactions to difficult situations.
- Encourage youth to role play uncomfortable social situations to improve adaptability and self-confidence.
- Check for understanding when talking with kids and encourage them to do the same with others.

IMPACT RESOURCEFULNESS

- Help kids see themselves as strategic thinkers and achievers who accomplish goals through hard work.
- Ask them to rephrase problems as questions, and then seek to discover possible answers.
- Involve youth in communities, doing research, sharing ideas, and contributing to decision making.
- Set high expectations and support children's abilities to accomplish goals.
- Teach them to be adaptable, to live without rigid rules or preconceived ideas.

IMPACT EMPATHY

- Create emotional attachments with children and teens, ensuring they are seen, felt, and understood.
- Provide opportunities for kids to know people with different worldviews and life experiences.
- Introduce young children to service, helping them understand their roles in helping others.
- Encourage teens to push their emotional boundaries through more challenging volunteer service.
- Talk with kids about the meaning that results when they put empathy and compassion into action.

IMPACT CREATIVITY

- Give children plenty of unstructured play time.
- Foster a relationship with nature and the outdoors.
- Engage kids in music, the arts, and reading.
- Praise them when they think outside the box, take risks, and show curiosity. Ask, "How might you...?"
- Encourage youth to express themselves through writing, poetry, acting, photography, and digital media.

IMPACT SELF-AWARENESS

- Help kids recognize, differentiate, and attend to their intellectual, emotional, social, and physical selves.
- Engage them in conversations about values, beliefs, attitudes, and moral dilemmas.
- Bring meaning to kids' lives by helping them reflect about whom they are and what they care about.
- Encourage habits of mindfulness, like meditation, yoga, and other practices that involve body awareness.
- Foster young people's abilities to connect self-awareness to action in the world.

QUESTIONS TO CONSIDER

How do our families, schools, and community organizations help young people cultivate these abilities? What other ways do we facilitate learning in each of these core areas? How can we do better?

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Appendix B

Teacher and Parent DESSA Mini-Form 2



Devereux Student Strengths Assessment-mini (DESSA-mini)

FORM 2

Jack A. Naglieri, Paul A. LeBuffe, and Valerie B. Shapiro

Child's Name _____ Gender _____ DOB _____ Grade _____

Person Completing this Form _____ Relationship to Child _____

Date of Rating _____ School/Organization _____ Classroom/Program _____

This form describes a number of behaviors seen in some children. Read the statements that follow the phrase: *During the past 4 weeks, how often did the child...*, and place a check mark in the box underneath the word that tells how often you saw the behavior. Answer each question carefully. There are no right or wrong answers. Please answer every item. If you wish to change your answer, put an X through it and fill in your new choice as shown to the right.

Never	Rarely	Occasionally	Frequently	Very Frequently
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1	2	3	4

Item #	During the past 4 weeks, how often did the child...	Never	Rarely	Occasionally	Frequently	Very Frequently	Score
1.	follow the example of a positive role model?	0	1	2	3	4	_____
2.	keep trying when unsuccessful?	0	1	2	3	4	_____
3.	take an active role in learning?	0	1	2	3	4	_____
4.	attract positive attention from peers?	0	1	2	3	4	_____
5.	respect another person's opinion?	0	1	2	3	4	_____
6.	attract positive attention from adults?	0	1	2	3	4	_____
7.	work hard on projects?	0	1	2	3	4	_____
8.	offer to help somebody?	0	1	2	3	4	_____

Raw Score Sum _____

Recommendations: _____



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Appendix C

Compass Advantage Framework and DESSA Crosswalk

Appendix D

Focus Group for Teachers/Additional Staff: Protocol and Script/Questions for Staff

Welcome/Introduction/Purpose:

Welcome to our focus group session with staff members.

Thank you for being here.

I am Annie Parker and will be serving as the facilitator of this focus group session.

The purpose of our session is to provide you with an opportunity to give input and feedback regarding the Dual Language Immersion model and how you believe it impacts students' social and emotional learning.

Discussion Procedures:

To ensure we maximize our time together, please make sure you do the following:

- o Listen respectfully as others share their views.
- o Refrain from using specific student or teacher names throughout our conversations.
 - It should be noted that anything stated during our discussion is considered confidential and should not be discussed in any other setting.
- o Be honest and truthful regarding your answers to questions. There are no right or wrong answers

I will serve as the moderator and will guide the group discussion and to make sure we stay on topic.

In addition to our six conversation questions, additional probing questions will be used to ensure our discussions remain relevant.

To ensure all responses are correctly documented, the session will be recorded. The recording will be transferred to the evaluator following the session. Only the researcher will have access to the recordings. Recordings will be destroyed once the evaluation report is final.

Are there any questions before we begin?

I will now begin recording.

Group Discussion Questions:

1. From your observations, how are Compass skills being implemented at Fox Elementary?
 - a. Do you see benefits from available resources and lessons modeled by Fox Elementary Staff? If so, in what way?
2. Social and emotional learning is an umbrella term for many behaviors and skills.

- a. When teaching, what are social and emotional behaviors that you observe with student learning when acquiring content via the second language?
- b. Do you see these behaviors transferring to all school settings and with other adults?

3. Please give examples of instructional strategies that are highly effective when used with dual language students. Explain why.

4. How has the Dual Language model impacted student learning (both academically and behaviorally (social/emotional) at Fox Elementary?

5. What do you believe are the overall strengths of the Dual Language classroom environments at Fox Elementary?

6. What recommendations for improvement do you have for the Dual Language model at Fox Elementary?

Conclusion:

Thank you for your time and willingness to participate in today's focus group session. Please remember that today's discussion is confidential and should not be shared with others.

Your input and feedback will be used to determine the impacts of a dual language environment on social and emotional learning.

Once the evaluation has concluded, findings will be presented to district leadership.