Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms:

A Qualitative Case Study

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Abstract

Foreign language immersion programs offer one approach to increasing the nation's competitive edge in world language development. The problem the study addressed is a need for more understanding of how school leaders foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. Self-efficacy theory and transformational leadership theory supported the purpose of the study to describe teacher and leader perceptions about program-related factors influencing teacher self-efficacy beliefs in Colorado's elementary foreign language immersion programs. A qualitative case study design was used to analyze records and interviews with 15 teachers and leaders from three school sites. Once collected, data were coded and analyzed for common themes across all sites. The study findings revealed a combination of personal and external factors influenced teachers' mixed self-efficacy beliefs. Four themes emerged: majority-language context matters, accountability tradeoffs, hindrances to the two-for-one model, and teacher agency. Specific recommendations were provided to foster greater teacher self-efficacy in the study region's foreign language immersion programs while recommending that all dual language immersion models be reviewed in the context of the standards-based accountability paradigm and the role of academic language proficiencies.

Keywords: foreign language immersion, dual language immersion, one-way immersion, teacher self-efficacy, transformational leadership, integrated content and language instruction, content-based instruction

Dedication

I dedicate this doctoral dissertation to my parents. My mother and father were my first teachers and models of love, service, and devotion to truth. I also dedicate this manuscript to my husband and two sons. Thank you for your patience, sacrifice, and ardent coaching while I persisted through mornings, evenings, and holidays in pursuit of ideas and an increased understanding of education. We can now go back to our beloved adventures. Last but not least, I dedicate my humble first attempt with educational research to all the teachers who have inspired me along the way. Thank you to all educators for their sunup-to-sundown commitment to the development of the human race.

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Chapter 1: Introduction

Foreign language immersion schools provide a pathway to prepare students for the shrinking, more competitive, and multilingual world (American Academy of Arts and Sciences [AAAS], 2017; Moeller & Abbott, 2018; Rubio, 2018; Stein-Smith, 2020, 2021, 2022). As one of the bilingual education models, foreign language immersion programs serve majority-language speakers seeking to become bilingual, biliterate, and bicultural (Baker & Wright, 2021). The specialized programs have the potential to equip American students with the linguistic competence required to function professionally or academically through extended and authentic language exposure (Baker & Wright, 2021; Collier & Thomas, 2017; Krashen, 1982; Rubio, 2018; Steele et al., 2019; Watzinger-Tharp et al., 2018). Additional cognitive merits may also develop due to the demands of the language context (Bruin, 2019; DeLuca et al., 2020; Xie & Antolovic, 2022).

Despite the potential of these programs, the United States lags behind many other nations in language learning. In Europe, 66% of adults speak at least one foreign language compared to 25% of American adults (Rubio, 2018). Some countries, like China, begin compulsory foreign language education in elementary school (China Ministry of Education, 2022). American Council on the Teaching of Foreign Languages (American Council on the Teaching of Foreign Languages [ACTFL], 2019) estimated one in four American employers had lost business in the last 3 years due to a lack of foreign language skills. These differences potentially impact global competitiveness, intercultural understanding, and national security (AAAS, 2017; STARTALK, 2020; Stein-Smith, 2022). American parents have shown a demand for foreign language immersion, seeking to invest in their children's futures and expose them to nontraditional environments (Watson, 2021). As demand is strong, but access is limited, policymakers and

language advocates are calling to expand foreign language immersion programs in the United States (Moeller & Abbott, 2018).

Language advocates promote K-12 schools as the most accessible avenue for families to expose children to early and sustained language learning (American Councils for International Education, 2017; Moeller & Abbott, 2018; Rubio, 2018; Steele et al., 2018; Stein-Smith, 2021). Within these systems, school leaders and teachers play significant roles as agents of change, and the extent and quality of American language programs will depend on them (Moeller & Abbott, 2018). Success may be contingent on solving key operational challenges with critical insights gained from leaders and teachers implementing the programs.

The introduction will provide background information about the problem the study addressed, followed by the problem statement, the purpose of the study, the significance, and the research questions. A theoretical framework will be provided with the definition of terms and assumptions of the study. The introduction will also cover the study scope, delimitations, and limitations.

Background of the Problem

Advancing foreign language learning in the United States is multifaceted and complex. In a report calling for increasing the nation's language learning capacity, the Commission on Language Learning, formed by the American Academy of Arts and Sciences, cited the national qualified teacher shortage as the most significant barrier to improved language learning (AAAS, 2017). The world language teacher shortage has been a persistent issue since it was first raised after World War II (Swanson & Mason, 2018). World language teacher shortages have been accentuated by general educator recruitment and retention challenges, such as low or capped pay, complex and stressful school environments, weak professional development and administrative

or leadership support, and lack of recognition (Carver-Thomas & Darling-Hammond, 2019; Farmer, 2020; Garcia & Weiss, 2019; Jacobs & Teise, 2019; Solomonson et al., 2021). The National K-12 Foreign Language Enrollment Survey, developed by the American Councils of International Education (2017), also documented a complex and dynamic situation with language programs across the nation expanding, consolidating, or terminated according to the diverse needs of programs or students. To address the inconsistencies and advance the potential of foreign language programs, the National Dual Language Research Alliance identified a need for more systematic guidelines for second language immersion and preparing teachers for effectiveness (American Councils for International Education, 2021a). The American Council on the Teaching of Foreign Languages (ACTFL, 2022) has prioritized research in teacher recruitment and retention, dual immersion language programs, content-based curricula, and K-16 language educator development.

Dual language immersion, of which foreign language immersion is one type, has its unique program-related challenges. Dual language programs are rigorous, requiring teacher specialization in general education and second language development. A growing body of literature focuses on the challenges of integrating content and language and the need for more leadership support for training and resources (Amanti, 2019; Chen et al., 2017; Cruz, 2020; Hammou & Kesbi, 2021; Hood, 2020; Lachance, 2018; Maming et al., 2020; Tigert & Peercy, 2018). Multifaceted approaches are needed to address these complex challenges effectively (Swanson & Mason, 2018).

One approach is to understand how leaders can foster teacher self-efficacy to promote positive educational improvements (Thornton et al., 2020). Teacher self-efficacy is the extent to which a teacher believes they can affect student performance and how they may direct actions to

address challenges (Alibakhshi et al., 2020; Tschannen-Moran et al., 1998). Leaders play an essential role in fostering the conditions of a school environment, but more research is needed on how leaders can support language immersion programs (Haj-Broussard et al., 2019). Understanding the factors influencing teacher self-efficacy can help with designing support systems for pursuing specific educational goals.

The problem the study addressed is a need for more understanding of how school leaders foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. Unmitigated challenges may lead to low teacher self-efficacy with implications for student achievement and teacher job satisfaction (Alibakhshi et al., 2020). Alternatively, high teacher self-efficacy can lead to increased student achievement and teacher motivation with positive implications for teacher retention (Cocca & Cocca, 2022; Menon & Lefteri, 2021).

Growing out of Bandura's work on self-efficacy, teacher self-efficacy literature is rich and varied, spanning 45 years (Menon & Lefteri, 2021; Thornton et al., 2020). Alibakhshi et al. (2020) explored the consequences of teacher self-efficacy in an English as a foreign language classroom, finding self-efficacy impacted teacher practices, learner motivation, achievement, teacher burnout, well-being, and job satisfaction. Related literature focused on teacher agency, an extension of self-efficacy when teachers act on beliefs that they can initiate educational change, creating a positive feedback loop (Bonner et al., 2020; Sanczyk, 2020). Babino and Stewart (2018) provided examples of teachers in a dual language program exercising agency by adapting their practices in response to barriers created by high-stakes assessments. Salas-Rodiguez et al. (2021) suggested teacher self-efficacy was best understood in specific contexts, but studies linking teacher self-efficacy in foreign language immersion classrooms remain limited.

Some research has shown the link between leadership, teacher self-efficacy, and agency in education (Bonner et al., 2020; Erdel & Takkaç, 2020; Francisco, 2019; Menon & Lefteri, 2021; Özdemir et al., 2020; Setyaningsih & Sunaryo, 2021; Thornton et al., 2020; Zainal & Matore, 2021). Researchers cited how principals' understanding of influencing teacher self-efficacy is critical to better educational outcomes (Menon & Lefteri, 2021; Thornton et al., 2020). Other studies explored teacher leadership styles in English foreign language classrooms (Goktas, 2021) or the characteristics of dual language immersion leadership (Grivet et al., 2021; Rocque et al., 2016), but they were not linked to teacher self-efficacy. Linking leadership and teacher self-efficacy in the foreign language immersion classroom has yet to be studied.

Studies on dual language immersion implementation are limited. Kirss et al. (2021) exposed the gap in the multilingual education literature describing implementation processes at the classroom and regional levels. The existing dual language immersion implementation guidance concentrates on two-way dual language immersion programs serving language minority students pursuing a second language and language majority students learning an additional language (American Councils, 2021a; Howard et al., 2018). More guidance is needed for foreign language immersion programs, predominantly serving language-majority populations in an English-dominant context.

Access and support for foreign language immersion programs are variable across geographical regions (Call et al., 2018; Moeller & Abbott, 2018). Despite the popularity and growth of foreign language immersion programs in Colorado (Colorado Department of Education [CDE], 2021), program growth lags behind other states. For example, programs in California, Texas, New York, Utah, and North Carolina account for 60% of the programs nationwide (American Councils for International Education, 2021b). More studies about the

Colorado dual language immersion experiences are needed to understand the potential

opportunities or hindrances to growing programs within its regional context.

Purpose of the Study

The purpose of this qualitative case study was to describe teacher and leader perceptions

about the program-related factors influencing teacher self-efficacy beliefs in elementary foreign

language immersion programs in Colorado. Study findings were anticipated to reveal significant

factors affecting teacher and program capacity as revealed through teachers' and leaders'

experiences with program elements. School leaders may utilize the findings to foster conditions

that enhance teacher self-efficacy when implementing foreign language immersion programs'

specialized and rigorous goals.

The research was a qualitative study with a case study design. Qualitative methodology is

suitable for examining social activities like those in schools (Cohen et al., 2018). Case study

design is commonly used to explore complex phenomena in a real-world context (Yin, 2014). It

allows for collecting multiple data sources for a more comprehensive understanding of human

perceptions and experiences. Data instruments included documents, archival records, and one-

on-one interviews with participants involved with implementing foreign language immersion

schools within the study region. The findings detailed participants' perceptions and experiences

and presented recommendations for how leaders and program advocates can improve or expand

the foreign language immersion model of bilingual education.

Significance of the Study

The findings will be shared with participating schools and added to the scholarship within

the field of bilingual education. Leaders tasked with improving program quality may utilize the

findings for enhancing teacher self-efficacy related to specific program-related factors. Thornton

et al. (2020) explained school leaders must understand teachers' specific needs and effective

support methods. Understanding how to support teachers is especially significant because a lack

of support contributes to teacher attrition (EdWeek Research Center, 2022). Teacher attrition can

be a self-perpetuating problem that significantly impacts student learning and teacher satisfaction

(Garcia & Weiss, 2019). The current research may provide the information needed for advocates

and policymakers to gain support for and expand foreign language programs in the United States.

Research Questions

This case study used qualitative data collection and analysis methods to describe

program-related perceptions of experience and the factors influencing teacher self-efficacy

beliefs in Colorado's foreign language immersion programs. The following questions guided the

study:

Research Question 1: What are the program-related self-efficacy beliefs of teachers

implementing foreign language immersion programs in the study region?

Research Question 2: What are teachers' and leaders' perceptions about the program-

related factors that strengthen or reduce teachers' self-efficacy beliefs while implementing

elementary foreign language immersion programs in the study region?

Research Question 3: How might educational leaders develop school environments that

strengthen teachers' self-efficacy beliefs as they address challenges encountered while

implementing foreign language immersion programs in the study region?

Theoretical Framework

Bandura's (1977) self-efficacy theory and Bass's (1985) transformational leadership

theory framed this study. Self-efficacy, the antecedent to human agency, is the belief a person

can direct cognitive and motivational resources to obtain desired results (Bandura, 1986).

Bandura proposed four sources of enhanced self-efficacy, including mastery experiences, modeling experiences, social persuasion, and physiological and emotional states. In his related concept of triadic reciprocal causation, Bandura (1986) suggested personal factors, environmental factors, and behavioral patterns bidirectionally influence each other. Wood and Bandura (1989) extended self-efficacy theory to the organizational level and suggested leaders may enhance organizational belief systems.

Transformational leadership theory describes a range of leadership characteristics from transformational and transactional to laissez-faire. Transformational leaders inspire followers to connect beliefs and motives to an organizational mission (Bass, 1999). Transformational leaders are characterized as having idealized influence, inspiring followers, promoting intellectual stimulation, and giving individualized consideration.

Both theories have educational applications. Teacher self-efficacy is the extent to which a teacher believes they can positively affect student behavior, performance, and learning motivation (Menon & Lefteri, 2021). Bandura's concept of triadic reciprocal causation implies teachers' personal beliefs, practices, and school environments have bidirectional influences (Bandura, 1986). As leaders influence organizational belief systems, Thornton et al. (2020) called on leadership preparation programs to train leaders and teachers about the impact of teacher self-efficacy beliefs on student achievement and school improvement. Transformational leadership behaviors, especially providing individualized support, have also been linked to teacher self-efficacy (Menon & Lefteri, 2021). Salas-Rodríguez et al. (2021) showed efficacy beliefs are context-specific to culture or educational focus, providing ripe opportunities for exploring the varied ways teacher self-efficacy manifests throughout the heterogeneous

educational landscape. Further discussion of the theoretical framework can be found in the second chapter, Literature Review.

Research questions, data collection instruments, and analysis were designed to explore teacher and leader perceptions about program-related factors impacting teacher self-efficacy. Informed by the theoretical framework, theme analysis was used to identify specific sources influencing beliefs and develop relevant recommendations for how leaders may enhance specific elements to improve programs. More details about the research design, data collection instruments, and analysis process can be found in Chapter 3, Research Methodology.

Definitions of Terms

Many terms used in the study have multiple or overlapping meanings in society and the bilingual education field. Accurate understandings of the terms are necessary for establishing clarity in the study context. A list of commonly used terms in the study is provided below. The definitions are grounded in peer-reviewed literature or research by bilingual education scholars and leaders. This study used traditional definitions for bilingual education models, though debates continue about the appropriateness of terms like "foreign" in an increasingly interconnected and multilingual society (ACTFL, 2023a). Also, boundaries between language education models continue to blur as students and citizens become more linguistically diverse (Fielding & Harbon, 2018). As the study took place in the United States, the majority language was English; all other languages were considered the target language.

Bilingual education is an overarching term used around the globe to describe educational programs that use at least two languages for instruction (Tedick & Lyster, 2020).

Collective teacher efficacy is defined as a belief that a school's staff can work together to influence student achievement (Thornton et al., 2020).

Content-based instruction (CBI) is defined as a general term used when academic content is taught through an additional language (Kang, 2018).

Content and language-integrated pedagogy (CLIL) is a form of bilingual education similar to immersion but without prescribed time quantities (Fielding & Harbon, 2018).

Dual language immersion (DLI) is an educational program providing literacy and content instruction to all students through two languages to promote grade-level academic achievement, bilingualism, biliteracy, and sociocultural competence (Howard et al., 2018).

Full language immersion (90/10) is the term used for an immersion program model in which students are instructed 90% of the time in the partner language and 10% in the home language the first year or two, with the amount of home language instruction gradually increasing each year until the home language and the partner language are each used for 50% of instruction (Center for Applied Linguistics [CAL], n.d.).

Foreign language immersion (FLI)/One-way immersion (OWI) is defined as a dual language program generally serving one language group, and students receive instruction through their home language and an additional target language (Tedick & Lyster, 2020).

Heritage language speakers are students developing proficiency in a language spoken by their relatives, ancestors, or community members, in which the student may have varying levels of proficiency (CAL, n.d.).

Partial language immersion (50/50) describes an immersion program model in which the home language and the target/partner language are each used for approximately 50% of instruction at all grade levels (CAL, n.d.).

Self-efficacy is "the belief one has the capability to produce effects by one's actions" (Bandura, 2018, p. 133).

Target language (TL)/partner language is the term for the language used for instruction other than English or the language taught in addition to the home language (CAL, n.d.).

Teacher self-efficacy (TSE) is defined as a "teacher's judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (Tschannen-Moran & Woolfolk Hoy, 2001, p. 783).

Transformational leadership is a leadership style that inspires followers to pursue an organizational mission (Bass, 1999).

Two-way immersion (TWI) is a term to describe an immersion program model serving two language populations. One of the program languages for each population is a home language (Tedick & Lyster, 2020).

Assumptions

Multiple assumptions underlie qualitative methodology, an interpretive research tradition (Creswell & Poth, 2018). This study used a pragmatic philosophical approach emphasizing finding solutions to real-world problems using multiple data sources and inductive and deductive analysis to discover what "works" (Creswell & Poth, 2018, p. 35). A researcher's values influence assumptions about which problems and solutions to focus on, the significance of the findings and who is impacted, and the inclusion and exclusion criteria used throughout the study (Wolgemuth et al., 2017). Bracketing was used to mitigate any potential assumptions or biases. Preexisting relationships with the topic or participants were bracketed before and after interactions.

Participants informed study conclusions by offering multiple perspectives. It was assumed answers were thorough and perceptions were genuine, accurate, and based on experience with the topic. All potential participants were provided an informed consent form

explicitly stating all identifiable information would be removed to protect their identities so they could participate freely. An interview protocol was used to enhance consistency in questioning and avoid bias.

Scope and Delimitations

Inherent in the case study design approach is determining how broad or narrow the case scope or the unit of analysis will be (Creswell & Poth, 2018). Criteria for case site inclusion, time, financial resources, and minimum participant requirements provided the study's boundaries. Site inclusion criteria limited participation to foreign language immersion schools and their teachers and leaders accessible within the less studied region of Colorado. Foreign language immersion schools were chosen to illuminate specific contextual experiences in contrast to traditional and other bilingual educational models, like two-way immersion. To meet the American College of Education requirements to recruit a minimum of 15 participants and due to the small scale and specialized nature of foreign language immersion programs, four schools were solicited. Time, financial constraints, and professional interest bound the study to the researcher's region of residence.

Study participants were selected through purposeful sampling, when individuals are chosen to share stories of lived experience and represent multiple perspectives about the research topic (Creswell & Poth, 2018). Participants were limited to teachers and leaders who have implemented foreign language immersion programs for at least 1 year. Scheduling of data collection was limited to the school year when teachers and leaders were available. All participant interviews were arranged during non-instructional time to avoid interference with students' and participants' work schedules. School principals helped decide the location and time for interviews to ensure locations were quiet, private, accessible, and convenient for teachers.

In qualitative research, results are comparable and transferable when sufficient detail and descriptions of settings and participants allow for identifying comparison groups and potential transfer to different settings and cultures (Cohen et al., 2018). The study included participants from multiple school sites to allow for ample descriptions while providing an opportunity for cross-site analysis. Detailed descriptions allowed for comparability and transferability of the study to other elementary foreign language immersion programs in the United States or global language programs serving primarily language-majority populations.

Limitations

Limitations are aspects of the research generally out of the researcher's control but may impact the results (Theofanidis & Fountouki, 2018). External validity for case studies is determined through analytic generalization due to the context-specificity of the case, reliance on interpretations, and small sample sizes (Yin, 2014). Yin (2014) observed analytic generalizability is achieved via the use of theory and replication of the design process. Thick descriptions of participants and settings also enhance the possibility of comparability and transferability for subsequent studies (Cohen et al., 2018). Use of the interview protocol allowed for consistency across case sites and the potential for replicating the study. The reliability of the study was enhanced through careful documentation of evidence through all stages of the research, including transcripts and notes, respondent validation, and data management.

As a few case sites were solicited and voluntary, the actual number of participants at each site could not be predicted or distributed equally across sites. Busy schedules constrained elementary teachers and leaders, and securing enough interviews within the study's timeframe was challenging. Unevenly distributed responses from each school may impact the reliability of

cross-site comparisons. Since the distribution of participants was uneven, data from all sites and participants were analyzed as one unit.

In qualitative research, the primary instrument for data collection and analysis is the researcher, with inherent benefits and potential biases (Merriam & Tisdell, 2016). This study was influenced by the researcher's subjective lens, values, or interests and informed by the theoretical framework. Merriam and Tisdell (2016) recommended researchers identify subjectivities or biases rather than eliminate them. The research notes were used to record reflections and recognition of biases or subjectivities throughout the research process.

Chapter Summary

A problem was presented within the context of efforts to expand foreign language learning in the United States, and a qualitative case study was proposed. The problem the study addressed is a need for more understanding of how school leaders may foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. Teacher self-efficacy and transformational leadership theory provided the theoretical lenses to explore teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. Findings were used to identify the factors necessary for fostering teacher self-efficacy with positive implications for student achievement, teacher satisfaction, and the promotion of foreign language immersion education. In addition to assumptions, scope, and delimitations, definitions of relevant terms were provided. The literature review in the following chapter will elaborate on the theoretical framework, summarize scholarly research on the topic, and identify gaps that will be addressed in the study.

Chapter 2: Literature Review

Foreign language immersion falls under the umbrella of dual language immersion bilingual education models (Tedick & Lyster, 2020). The literature has covered the benefits of bilingual education and programmatic success stories of dual and foreign language immersion (Burkhauser et al., 2016; Collier & Thomas, 2017; DeLuca et al., 2020; Watzinger-Tharp et al., 2018). More research is needed to address the pedagogically specific challenges of program implementation if there is to be a serious discussion about expanding these programs (ACTFL, 2021; American Councils for International Education, 2021b; Kirss et al., 2021; Moeller & Abbott, 2018; Rubio, 2018; Thane et al., 2022). Teacher self-efficacy, a teacher's belief in their capacity to bring about desired student outcomes, is one lens for understanding the conditions teachers need to be successful in the classroom, and it has implications on student achievement, teacher satisfaction, and teacher retention (Swanson & Mason, 2018; Thornton et al., 2020). One problem is a need for more understanding of how school leaders may foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. The purpose of this qualitative case study was to describe teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. Applications of self-efficacy theory and transformational leadership theory supported the purpose of the study.

This literature review covers the background of foreign language immersion programs and the specialized pedagogy, current guides for program implementation, case studies and status of programs in Colorado, and the relationship between leadership practices and teacher self-efficacy for effective program implementation. Upcoming sections will include the literature search strategy, theoretical framework, research literature review, and chapter summary.

Literature Search Strategy

The literature review involved the search for peer-reviewed academic journal articles, books, periodicals, or government reports related to dual and foreign language immersion and relevant concepts, theories, and research (Cohen et al., 2018). Multiple databases were used, beginning with searching the American College of Education's (ACE) platform OneSearch, providing access to the EBSCO and ProQuest databases with various scholarly resources. In addition, ERIC (Education Resources Information Center), the digital library developed by the U.S. Department of Education, was accessed for up-to-date research and statistics. Occasionally, Google Scholar or specific government websites were searched for information not found in the databases. Literature was monitored to ensure at least 76% of all resources were peer-reviewed within the last 5 years to maintain relevance and scholarly assertions. Books, government websites, or professional organizations accounted for the remainder of the sources.

Combinations of keywords were used to conduct a comprehensive literature review. The search began with a variety of terms often used in bilingual education, including *bilingual education*, *dual language education*, *bilingualism*, *one-way immersion*, *two-way immersion*, *dual language immersion*, *foreign language immersion*, *second language learning*, *foreign language learning*, *additive language learning*, *partial language immersion*, *world language learning*, and *English second language learning*. When the search focused on pedagogical aspects, the following terms were used: *integrated content and language learning*, *content and language integrated learning (CLIL), and content-based instruction (CBI).* When searching for information about personnel issues related to foreign language immersion, words like *teacher*, *administration*, or *leaders* were added to the terms described above. Finally, terms associated

with the theoretical research framework were incorporated, including *social cognitive theory*, *self-efficacy*, *teacher self-efficacy*, *agency*, *teacher agency,* and *transformational leadership*.

Theoretical Framework

Self-efficacy theory (Bandura, 1977) and transformational leadership theory (Bass, 1985) framed the study. These two theories offer a lens for understanding powerful influences that may promote or hinder teachers' beliefs in their capacity to achieve pedagogical goals. The theoretical framework grounded and guided the literature review and informed the data collection and interpretation process (Kivunja, 2018).

Self-Efficacy Theory

Bandura (1977) developed self-efficacy theory through his social learning theory, which later evolved into social cognitive theory (Bandura, 1986). According to Bandura (2018), one's belief in personal efficacy, the belief that one can direct cognitive and motivational resources to the actions required to obtain desirable results, often apparent in the type and level of goals created, was at the foundation of human agency. Self-efficacy influences a person's level of effort, motivation, and commitment to persevere through challenges, which may be especially relevant for understanding the capacity of teachers to achieve challenging goals in foreign language immersion programs.

Sources of Self-Efficacy Beliefs

Bandura's (1977) theory proposed four fundamental antecedents for strengthening self-efficacy. One of the most effective antecedents is through mastery experiences, occurring after a person has persevered and overcome obstacles to discover success and recognize their capabilities. Modeling is the second antecedent, derived directly from Bandura's research demonstrating how quickly people can assimilate new information through models. The third

source of self-efficacy is social persuasion, which may occur through encouragement and tasks that realistically build efficacy. The last source is physiological or affective states, ensuring people have the physical and mental capacity required for a task.

Interacting Influences

According to social cognitive theory, people are both products and shapers of their environment (Bandura, 2018). Bandura (1986) introduced the concept of triadic reciprocal causation, suggesting personal factors, environmental factors, and behavioral patterns influence each other. Wood and Bandura (1989) applied this concept to organizations and managerial capabilities in complex decision-making environments, suggesting managers enhance organizational belief systems through modeling mastery, cultivating people's beliefs in their capabilities, and enhancing motivation through goal systems. This theory suggests educational leaders play an essential role in fostering the conditions for developing resilient organizational belief systems that translate into achieving organizational goals.

Transformational Leadership

The second theory in the theoretical framework looks more closely at leadership and its relationship to fostering self-efficacy in followers. Burns (1978) first introduced the concept of transformational leadership, which was later reformulated into Bass's (1985) transformational leadership theory. According to the theory, transformational leaders uplift their followers to pursue the good of the organization, in contrast to transactional leaders who practice contingent reinforcement aligned with followers' self-interests. Bass described the transformational leader as having idealized influence, inspiring followers, promoting intellectual stimulation, and giving individualized consideration. Transformational leaders use means other than rewards and punishments to inspire followers to exert effort and problem-solving to achieve organizational

missions. In contrast, transactional leadership is characterized by contingent rewards and management by exception when action is triggered only by deviation from standards. Laissez-faire leadership is another style characterized by leaders who avoid action. Research has consistently shown a correlation between transformational leadership, organizational effectiveness, and follower satisfaction (Bass, 1999). Bass (1999) analyzed potential causes of its positive influence, including connection to followers' beliefs and motives aligned with the organizational mission. Though limited, studies linking teacher self-efficacy and transformational school leadership have shown positive associations between leadership practices that develop a shared vision and individualized support (Menon & Lefteri, 2021).

Transformational leadership and teacher self-efficacy and agency have both been promoted for use in educational settings, either separately or together (Bonner et al., 2020; Erdel & Takkaç, 2020; Francisco, 2019; Menon & Lefteri, 2021; Özdemir et al., 2020; Setyaningsih & Sunaryo, 2021; Zainal & Matore, 2021). A few studies have focused on the concept of teacher self-efficacy or agency in bilingual education (Alibakhshi et al., 2020; Babino & Stewart, 2018; Sanczyk, 2020). Goktas (2021) explored teacher leadership styles in English foreign language classrooms. Only two studies addressed the characteristics of dual language immersion leadership (Grivet et al., 2021; Rocque et al., 2016), but these did not show how behavior may be linked to teacher efficacy. There is a dearth of recent studies linking transformational leadership and teacher self-efficacy in bilingual education, specifically for dual and foreign language immersion. In summary, despite recognizing the importance of effective leadership in dual and foreign language programs, there is a significant gap in research utilizing the theories to understand how enhanced interactions between leaders and teachers may help overcome instructional challenges and reach rigorous programmatic goals.

Research Literature Review

Despite strong advocacy for foreign language immersion programs, more studies are needed to understand how specific instructional challenges can be addressed if these programs are to expand and serve more students (Rubio, 2018). The literature review explored the historical background, specialized curriculum, and teaching methodologies of foreign language immersion and the availability of frameworks to guide practitioners in implementing programs. Additionally, the literature review covered recent case studies, the status of foreign language immersion in the study region Colorado, and studies relating teacher self-efficacy and transformational leadership in educational programs. A summary will conclude the section with what is known about implementing foreign language programs in general and in the study region and what research gaps remain.

The Foreign Language Immersion Model

Foreign language immersion is a form of bilingual education serving language-majority students who learn academic subjects through a second language (Genesee, 1987). Genesee's (1987) seminal work traced the history of foreign language immersion from its emergence in French Canada and its spread through the United States. The French immersion programs in Canada set the stage for an alternative second language learning method based on developments in the language acquisition field in the 1960s and 1970s, suggesting neuropsychological and psycholinguistic advantages of learning languages in childhood. Second language learning also shifted from explicit instruction to greater emphasis on communication and meaningful engagements (Krashen & Terrell, 1983). Another distinctive feature of foreign language immersion is teaching academic content in the foreign language with similar conditions to teaching the first language. Genesee's (1987) work compiled research findings about language

and academic outcomes from foreign language immersion programs showing target language proficiency increased without impacting general academics or English development.

For over 30 years, the literature continues to mirror the research findings and advocacy supporting foreign language immersion programs, especially concerning its contextual learning environment. Xie and Antolovic (2022) compared bilingual Chinese-English students' experiences in a natural second language (L2) context with students in an intensive second language classroom against a control group. They found students in the natural L2 context had greater cognitive control over language use with more accurate and timely correction of speech, suggesting sustained language context makes a significant difference. DeLuca et al. (2020) also showed neurocognitive outcomes from language development depend on the duration and extent of bilingual experiences. Bruin (2019) also highlighted multiple variables involved in the bilingual student experience impacting language development, including age, the extent of language use, language switching, and interactional contexts. It was clear not all students' experiences achieved the same or desired levels of language proficiency. Variations in experiences with the second language influence the extent and depth of language development.

In 2017, the American Academy of Arts and Sciences called for practitioners to develop universal world language education to support students' acquiring advanced language proficiency for academic or professional purposes. In response, Rubio (2018) compared three curricular models in the United States, including sequential foreign language in elementary school (FLES), foreign language exploratory (FLEX), and dual language immersion, to include foreign language immersion. Rubio concluded dual language immersion might be the best option. The comparison included studies by Collier and Thomas (2017) showing high levels of academic achievement when assessed in English. Watzinger-Tharp et al. (2018) and Burkhauser

et al. (2016) also showed high levels of achievement in the partner language. Notably, Rubio

called dual language immersion programs a less expensive, two-for-one model since language

and content are taught simultaneously by one teacher rather than hiring separate world language

and subject teachers. Despite the potential of the programs, Rubio concluded more was needed to

develop articulated language learning sequences and funnel the support of various stakeholders.

Content-Based Language Instruction

Content-based instruction is prevalent in the bilingual education literature. The term

refers to a method to teach academic content in a second or additional language, and it is a

defining feature of dual and foreign language immersion. Alternative and similar terms are used,

including content language integrated learning (CLIL), used in Europe and the Commonwealth,

and English medium instruction (EMI), used at multilingual international schools. Consistent

with language learning theories, content-based instruction provides a meaningful context through

which to learn language more authentically (Ayapova et al., 2021; Belskaya, 2021; Fielding &

Harbon, 2018; Kang, 2018). The subsequent sections will cover the underlying theories of

content-based instruction, its global spread, and its specialized implementation considerations.

Language Acquisition and Learning Theories

Çakıroğlu (2018) traced the development of language acquisition theories that have

influenced contemporary language learning environments. Beginning with the behaviorist

theories from the 1950s postulating language development occurred through responses to stimuli

and repetition in a person's environment, Çakıroğlu discussed the emergence of linguists like

Chomsky and educational psychologists Piaget and Vygotsky who offered alternative views on

the innate role of language in people and its development within sociocultural contexts. In the

1960s, Chomsky developed the language acquisition device (LAD) theory describing humans'

innate competence for learning language starting at birth. By the 1970s, Piaget had developed the

developmental cognitive theory (DCT) that explained children's mental stages of development,

including language development and the connection between language, thought, and the

development of schemata through experiences. Vygotsky emphasized the role of social

interaction and communication in children's development and language learning. He developed

the zone of proximal development (ZPD) concept to explain the necessary conditions to support

students until they become specialized in various skills.

Krashen and Terrell's (1983) seminal work, *The Natural Approach*, provided the origins

of a new communicative approach to language acquisition and teaching in contrast with the

traditional audiolingual and grammar-translation approaches influenced by behaviorist theories.

Their work helped distinguish language acquisition, or naturally picking up a language, from

language learning or conscientiously learning the rules of language. The approach was built on

Krashen's (1982) five hypotheses, including the acquisition-learning hypothesis, natural order

hypothesis, input hypothesis, and affective filter hypothesis. Based on the concept of

comprehensible input, Krashen hypothesized language acquisition occurs through understanding

messages heard and read in another language, which precedes producing messages through

speaking or writing. Following this, the second principle of the natural approach is production

emerges in stages. The third principle is language teaching includes communicative goals

organized around topics rather than grammar. The final principle attributed to Krashen and

Terrell's (1983) approach is language acquisition activities should be designed to lower students'

affective filter by reducing student anxiety and generating more positive emotions. Lowering the

affective filter occurs by choosing interesting topics and developing rapport between students

and teachers. The approach was designed for beginner or elementary students so classroom

experiences would prepare them to understand and use the language outside the classroom.

Baker and Wright (2021) provided the most comprehensive description of the evolution

of bilingual education from its foundational theories to approaches in classrooms by the year

2021, especially regarding the development of academic language and the role of the first

language (L1). Current language learning and teaching methodologies have been influenced by

Cummins's (2000) theories on the common underlying proficiency (CUP) model, thresholds

theory, and concepts such as cognitive academic language proficiency (CAP). The CUP model

asserts people can learn more than one language, and languages operate through the brain's same

central processing system, allowing information processing and educational attainment to draw

on all languages in the central processor. Thresholds theory suggests students must attain a

threshold, or level of language proficiency, in each language to achieve the positive benefits of

bilingualism. Thresholds theory evolved to include the concepts of cognitive academic language

proficiency (CALP) and basic interpersonal communicative skills (BICS) to explain the

difference between conversational skills and the language used in academic subjects (Cummins,

2000). These concepts led to Cummins's four quadrants, a continuum of context and cognitive

demands impacting a student's development of language skills. Though Cummins's four

quadrants concept has more recently been criticized for oversimplifying language development

(Baker & Wright, 2021), it highlighted the linguistic and cognitive demands of classroom tasks

and the need to develop appropriate scaffolding to help students complete tasks.

These theories have influenced the dual and foreign language immersion model creating

instructional environments that maximize language and literacy development. Despite the

influence on the growth of language immersion schools, studies are limited in linking the

theories to empirical language outcomes. Only two studies were found. Çakıroğlu's (2018) interest was the application of language acquisition theories to the development of reading and writing skills, concluding learning readiness skills evolved through multiple factors: child maturation and prior experiences, linguistic development including listening and speaking, and social and cognitive support. Polok's (2021) meta-analysis also supported the role of context when teaching language communication with implications for lesson design and the effectiveness of the lesson on individual learners. The author concluded inappropriate attention to topical context begins a process of slower individual learner responses to their teacher's educational objectives.

A Global Phenomenon

Content-based instruction is a global phenomenon, especially with English as a lingua franca for the global knowledge economy and the development of English as a medium of instruction in non-English speaking countries. Seeking to develop guidance for English medium instruction in Russia, Belskaya (2021) looked to Vygotsky's cultural-historical theory that language develops contextually and collaboratively. Drawing on Vygotsky, Belskaya recommended selecting useful texts with contextualized language focuses, asking questions encouraging language and content development, and creating opportunities to complete meaningful tasks. Fielding and Harbon (2018) observed practices of teachers implementing content and language-integrated learning (CLIL) in Australia, finding optimal language development occurred in an authentic environment that allowed for natural switching between languages and content. Two studies focused on the promise of CLIL for deepening scientific concepts and developing academic language literacies (Ayapova et al., 2021; Piacentini, 2021).

Other global studies have shown mixed and inconclusive results from content-based instruction programs. Macaro et al. (2019) and Su et al. (2021) found the current research has yet to show that English medium instruction is beneficial to language learning or detrimental to content learning. More research is needed on the kinds of practices leading to positive outcomes. Kang (2018) found that Korean students prioritized content knowledge over language knowledge. Maming et al.'s (2020) preliminary study focused on the potential of using content-based instruction in Indonesia to address the ineffectiveness of current teaching practices and low English proficiency outcomes. Though there are still questions, content-based instruction remains popular.

The methods of content-based instruction are used for a variety of languages. Hammou and Kesbi (2021) showed the complicated transitions in Moroccan schools as the government implemented content-based instruction for French immersion. Their study showed similar challenges experienced by other schools, like preparing both students and teachers for content and language learning and requiring a level of proficiency in the medium language of instruction. These teachers supported the content-based instruction approach but disagreed that it was implemented without consulting teachers and asking about their experiences (Hammou & Kesbi, 2021). Del Carpio (2020) demonstrated how content-based instruction was used in a Spanish-Indigenous Tsotsil elementary school in Chiapas, Mexico, which was praised for promoting native language and culture. These studies showed an embrace of the content-based instruction method and its promise for accelerated language development in tension with its effective implementation and how it might be used for pursuing societal agendas.

Implementation: Merging Two Systems

Implementation of content-based instruction may be even more complex than suggested by advocates promoting the two-for-one approach of combining language and content (Rubio, 2018). Teachers of content-based instruction must be adept with knowledge and pedagogical skills for content and language instruction. The literature included multiple implementation angles, including considerations of curriculum and instruction, specialized skill sets, and programmatic frameworks.

Curriculum and Instruction. Cammarata and Tedick (2012) and Cammarata and Haley (2018) studied teachers' experiences implementing integrated content and language instruction. Early immersion programs prioritized content teaching over explicit language instruction and have been criticized for students' lack of grammatical accuracy, vocabulary variety, and productive skills. Cammarata and Tedick's (2012, p. 262) phenomenological study found two-for-one belief systems downplay the attention required for both language and content teaching, the need for more administrative support in the form of expert coordinators, planning time, curriculum materials and frameworks, and improved teacher preparation. A follow-up case study by Cammarata and Haley (2018) showed long-term collaborative professional development positively affected the challenges of balancing content and language.

More recent studies by Lachance (2018) and Morrell et al. (2019) about middle school science teachers show similar findings. Lachance conducted a case study of two teachers' experiences, exposing content and language-based material development issues and the need for specialized dual language immersion teacher preparation. This study also showed the potential benefits of allowing students to use both languages in the dual language immersion classroom to negotiate the meaning of the content. In Morrell et al.'s (2019) study, a middle school science

teacher instructing in Spanish struggled with his language skills, needed curriculum materials, and lacked mentorship or a professional learning community. The study recommended pre-service teachers gain more extensive bilingual education foundations, learn how to write language and content objectives, and expand instructional strategies for language teaching.

Some research has addressed the challenges of dual and foreign language curriculum resources and the promotion of academic language. Cruz (2020) noted the need for integrating content and language and a tendency for content to dominate instruction, especially if curriculum materials are not adapted for language learning. When analyzing the language and content objectives for teachers' lessons, the study found a lack of clarity, few language features, and lower-order cognitive processes. The author concluded more training is needed on aspects to consider when writing language objectives, such as relevant language features or how to promote higher-order thinking. Thane et al. (2022) addressed the lack of partner language assessments and standards for bilingual education. The lack of data about students' partner language development inhibits the development of dual language immersion programs.

Another promising area of study may be in developing subject-specific literacies across languages. Tigert and Peercy's (2018) study showed the struggle of teachers teaching English to speakers of other languages (TESOL) in creating pedagogical content in subjects such as math or science when their backgrounds were in English, pointing out current TESOL programs lack preparation for teaching content. In contrast, Morrell et al.'s (2019) case study demonstrated a science teacher's struggle with teaching language forms. Troyan et al. (2017) developed an integration pedagogical content knowledge (I-PCK) model to identify the specific content knowledge and related skills a teacher needs to implement content-based instruction. Their study revealed teachers often need specific content vocabulary or language rules for subject genres and

thus revert to language minilessons rather than integrating language with content. Vázquez (2018) proposed curriculum developers identify the language needed in each content area and create a genre-based curriculum.

Amanti (2019) also challenged the two-for-one approach when exploring teachers' work in the dual language immersion model, more specifically, the creation of materials or "invisible work" (p. 457). The study's findings pointed to a lack of recognition and the additional burden bilingual teachers engage in to translate, create, and align materials to language and content standards. Using occupational and feminist lenses, Amanti argued this was because a teacher's bilingualism was perceived as a natural way of being for female teachers, with translation an inherent expectation. Thus, this study made visible the occupational cost of the two-for-one approach.

In line with movements to integrate a stronger language emphasis into immersion programs, Tedick and Lyster (2020) introduced the counterbalanced instructional approach. This approach was encapsulated in their contextualization, awareness, practice, and autonomy (CAPA) model that included language scaffolding techniques and curriculum and assessment planning recommendations. This counterbalanced language and content approach contrasted with approaches that primarily allow academic content to drive language instruction.

These studies demonstrated the complex pedagogical requirements for implementing content-based instruction in dual language immersion programs, as teachers must have the knowledge and skills in content and language learning. Multiple areas for leadership support were cited, such as time and resources for curriculum planning, material development, translation, professional development for methodology, expert guidance, subject-specific literacies, and language learning strategies. The extent to which teachers feel efficacious in

content-based instruction may have implications for instructional quality, student achievement in both subjects and partner languages, and teacher satisfaction and retention.

Specialized Skill Sets. Despite the critical roles of teachers and leaders in implementing foreign language immersion programs, there is surprisingly little current research on the skills, knowledge, or dispositions they might need to conduct their missions. Hood (2020) conducted qualitative research with pre-service and practicing two-way immersion teachers. The findings indicated field experience is essential for developing academic language proficiency in the partner language and communicating with families. Teaching academic content and literacy in two languages was beyond the teachers' capabilities. The author recommended preparation organizations develop specialized dual-language education courses.

Effective school leadership is considered the second most important factor for implementing successful dual and foreign language programs (Baldwin, 2021; Grivet et al., 2021; Howard et al., 2018; Rocque et al., 2016). Rocque et al. (2016) explored the role of the principal in one-way and two-way dual language programs. The study presented five distinctive roles for the dual language immersion principal: immersion guru, immersion proponent, immersion overseer, cultural unifier, and change agent. An immersion guru is visionary and knowledgeable about bilingual education through specialized training. As immersion proponent and overseer, the principal advocates for the program leads student and teacher recruitment, and manages the program's sustainability. Third, as dual language environments include diverse languages and cultures, the principal serves as a cultural unifier. Finally, principals are often agents of change as they respond with creativity and innovation to a complex, nontraditional learning environment, such as through scheduling and resource inputs.

Grivet et al. (2021) shared administrators' perspectives on French immersion programs. In addition to advocating for programs by strengthening communications and relationships with stakeholders, administrators supported teachers by balancing content curriculum with language instruction and providing time to translate and develop materials. The administrator participants were knowledgeable about multilingualism and ensured teachers maintained academic achievement in both languages per state content standards and ACTFL language standards. One notable finding from the study was participants viewed themselves as advocates but believed it was not their responsibility to train or evaluate immersion teachers. The authors recommended administrators provide immersion-specific support and training, designate a dual language immersion leadership team connected to a dual language expert, and address resource development through compensation for resource creation or collaboration with external organizations so teachers could focus on instruction.

Baldwin (2021) also noted the principal's specialized program knowledge and understanding of the immersion language is fundamental to program success. Beyond the general skills required for a principal position, the principal must demonstrate commitment and advocacy for the program and knowledge about language acquisition, the program model, and immersion pedagogy, which may impact staffing, schedules, and resources. The study focused on dual language immersion schools serving Spanish- and English- speaking students. Future studies were recommended for different program models, regions, and target languages, as well as operational aspects of vision and goal setting, professional development and resource needs, and practices and policies for dual language immersion.

On a macro level, language education advocacy skills are also in high demand. Stein-Smith (2020) called on language educators to develop specific skill sets for language education

advocacy to generate interest and build language capacity in the United States. As they are

generally already enthusiastic about language learning, language educators can extend their skill

set to include methods of influence and persuasion, negotiation, change management, marketing,

lobbying, and support of social movements. Stein-Smith pointed out language advocacy may

build language interest and capacity and help offset current world language teacher shortages.

The studies related to content-based instruction confirm teachers and principals require

specialized preparation and support (Amanti, 2019; Cammarata & Haley, 2018; Cruz, 2020; Haj-

Broussard et al., 2019; Morrell et al., 2019; Tigert & Peercy, 2018). Effective support is multi-

leveled and comes from various stakeholders, including teacher preparation programs, onsite

principal-supported systems, and district or state-level advocacy through policies and resources

(Grivet et al., 2021; Kirss et al., 2021; Rubio, 2018). All studies show effective dual language

immersion programs require more than knowledge of a second language or a teacher's license in

a specific content area.

Programmatic Frameworks. A few scholars have provided programmatic frameworks

to guide practitioners in implementing dual language immersion, though it needs to be improved

for foreign language immersion. For several decades, the Center for Applied Linguistics has

been a source of research and guidance for dual language programs, as reflected in their *Guiding*

Principles for Dual Language Education (Howard et al., 2018). The guide, designed for

practitioners, laid out seven principles and specific evidence-based characteristics of successful

dual language immersion programs. The characteristics fall under the categories of structure,

curriculum, instruction, assessment and accountability, staff quality and professional

development, family and community outreach, and support and resources. Furthermore, the

guide provided templates for self-evaluation of adherence to each principle. Though the

framework provided a general benchmark on necessary components, like supportive principals and the need for qualified teachers with sufficient training in linguistic and content pedagogies, the section on curriculum and the integration of language and content was limited. The guide was also orientated toward English-language learners, emphasizing this population's specific challenges in an English-dominant society, such as performance on English-based standardized assessments. In contrast, the role and expectations of assessments in non-English partner languages are needed in foreign language immersion programs using content-based instruction.

Due to the global growth of multilingual education, Kirss et al. (2020) sought to develop a framework for leaders to evaluate multilingual education from all levels of education, including other important categories of inputs, processes, and outcomes. For example, most relevant to this study, the micro-level included students and teachers influenced resources, leadership, curriculum, attitudes, beliefs, teaching and learning practices, and collaboration, all leading to participation, achievement, results, and post-school options. The meso-level is at the school level, and the macro-level is at the country or regional level.

In a follow-up study, Kirss et al. (2021) applied their conceptual framework of factors shaping multilingual education to a literature review of school effectiveness studies. They found most studies addressed school-level factors (meso-level) and paid less attention to regional-level (macro-level) and individual-level (micro-level) factors. The studies also revealed the critical role of leadership in the success of bilingual education programs and pointed to interdependent factors. For example, school-level factors were often discussed while neglecting the broader regional context or more detailed operational aspects at the micro-level. The teacher self-efficacy concept, and Bandura's concept of triadic reciprocal causation, provide a lens for exploring how

individuals, especially principals and teachers, respond to and shape instruction at the micro-level in response to influential factors at the macro and regional level.

Foreign Language Immersion Program Case Studies

Foreign language immersion programs, serving mainly language majority students learning an additional language, continue to expand in the United States, though not at the rapid pace seen in the 1980s and 1990s. They have received considerably less attention in the United States when compared to two-way immersion (TWI) programs serving English Language Learners (ELLs), which have gained policy traction and support (American Councils for International Education, 2017; Howard et al., 2018). After 2006, there was a drop in foreign language immersion studies, attributed to foreign language immersion morphing into two-way-immersion due to growing numbers of ELLs, and the implementation of the No Child Left Behind (NCLB), renewed as Every Student Succeeds Act (ESSA). ESSA emphasized English-based ELA and Math assessments and revised teacher requirements, impacting instructional focus and staffing (Baker & Wright, 2021; Lenker & Rhodes, 2007).

The case of Utah's dual language immersion model stands out as a "vanguard of dual language immersion in the U.S." (Steele et al., 2019, p. 1). Rubio (2018) also noted various stakeholders' strong support for the Utah programs. First advocated by former Governor Jon Huntsman, Senate Bill 41 was passed in 2008 to fund public schools wishing to open or expand dual language immersion programs. Public support included establishing vertical articulation of partner language development through high school, state-adopted curriculum and instructional expectations, and a professional development program for dual language immersion teachers. A 2019 federally funded report showed students enrolled in dual language immersion outperformed non-dual language immersion students by a 30 percent standard deviation in English-assessed

language arts, mathematics, and science (Steele et al., 2019). The authors concluded the large-scale reform did not harm or slow student achievement while students were meeting or exceeding partner language benchmarks.

Though few foreign language immersion case studies were found, they reflected the growth of Chinese immersion programs. Chinese language programs have received more support as one of the national security critical languages (STARTALK, 2020). Lü (2020) provided a research synthesis of the status of Chinese immersion programs, finding a consensus that foreign language immersion does not hamper achievement in English or core subjects. The study identified the need for proficiency tests that capture the learning of language through content as well as the need to develop teaching specific linguistic features of Chinese. Wei's (2018) research participants also found students benefited from exposure to both languages without being disadvantaged academically. However, other concerns were raised about the increased mix of students from native and non-native backgrounds and the cost of high-stakes assessments on the development of the target language. Success factors for this school included an integrated content and language curriculum taught by teachers trained in sheltered instruction, proficiency guidelines, and a balanced curriculum with equal status for both languages.

In contrast, Chen et al.'s (2017) study focused more on the teachers' perspectives and pointed to challenges in recruiting quality teachers trained in language immersion pedagogy and classroom management. Their study called for more research on developing language and content learning environments. Bucknam and Hood (2021) explored student language use in a one-way Chinese immersion classroom. They found the need for more curriculum development, including embedded language mini-lessons, socially appropriate vernaculars, adequate target language materials, and alignment with the native language instruction to reinforce concepts.

Foreign Language Immersion Programs in Colorado

There are limited information resources about the quantity and types of dual and foreign language immersion programs in Colorado. Dual language immersion programs in the study region have grown significantly in the last 10 years spreading to most population centers and even into rural or mountain regions (CDE, 2021). Based on the most current information found on the study region's state website for Dual Language Immersion Programs (CDE, 2021), there are currently 38 schools offering language immersion programs, with a majority of programs offering Spanish-English in a combination of public and charter schools. Spanish-English dual language immersion program growth correlates to the region's significant growth of Spanish speakers, representing 30% of the total state population growth (Colorado Department of Local Affairs, 2022). Only eight schools offer language immersion in languages other than Spanish, predominantly in charter or independent schools. The list of programs did not disaggregate for languages taught or dual language immersion models used.

The literature also showed historical and political influences have shaped the region's current dual language immersion environment. For example, Escamilla and Welner (2002) described the state's response to the Anti-Bilingual Education Initiative. Though the initiative was not passed, Escamilla and Welner's research showed most language programs in Colorado were ESL programs, with pull-out English instruction, and not dual language immersion programs. The authors explained that ESL programs were more popular than dual language immersion programs due to resources, staffing limitations, and the wide variety of language populations, preventing programs from serving one language group over another.

Escamilla and Welner (2002) also highlighted the significant role of state-mandated local control for education. The state passed educational decision-making to its local school boards per

Article IX of its constitution, which gave local boards of education control over instruction in their district's schools. Local control of education means advocacy for dual and foreign language immersion programs must go through local school boards. Spanish-English dual language immersion programs remain dominant in the region and have federal and state support if serving sufficient numbers of ELLs. The state also provides centralized support with annual updates to its English Language Development (ELD) Guidebook, professional learning opportunities, program reviews, and stakeholder meetings (CDE, 2022a). Notably, the ELD Guidebook includes two-way bilingual programs as one program model for serving ELLs, which would qualify as a "sound program" promoting "students' potential for lifetime bilingualism" (CDE, 2022a, p. 45). State information for foreign language immersion remains limited.

Leadership and Teacher Self-Efficacy

The background information in the theoretical framework and literature review has provided the context within which teachers and leaders implement foreign language immersion programs. School leaders influence the programmatic conditions with the potential to enhance teacher self-efficacy, including identifying challenges a teacher may have with program implementation and channeling appropriate forms of support (Thornton et al., 2020; Wood & Bandura, 1989). The following sections cover the present state of studies linking teacher self-efficacy, program leadership, and dual and foreign language immersion programs.

Teacher Self-Efficacy

A sizeable historical body of research has established a positive correlation between teacher self-efficacy and student achievement, which also correlates with other important organizational aspects like lesson planning, instructional decisions, and student interactions (Alibakhshi et al., 2020; Thornton et al., 2020). Tschannen-Moran and Woolfolk Hoy (2001)

contributed to the ample empirical literature through the development of the teacher sense of efficacy scale (TSES), also used in the development of this study's data collection instrument. Though there has been a dearth of recent studies using the TSES, especially regarding teaching a second language, Alibakhshi et al.'s (2020) study showed teacher self-efficacy positively influenced English foreign language teachers in Iran. The authors found high levels of efficacy were associated with positive impacts on teaching and learning processes, the learners, and teachers' mental well-being. Cooke and Faez's (2018) study also explored the self-efficacy beliefs of novice elementary French second language teachers, finding teachers did not feel confident after completing teacher education programs with indications French second language training was inadequate. The authors suggested preparation programs provide practical experience as an important factor in increasing teachers' sense of efficacy.

Mahler et al.'s (2018) quantitative study provided a differentiated perspective on teacher self-efficacy and examined the impact of teachers' motivational orientations on student performance. While teacher self-efficacy was one of the areas studied, the authors found no positive relationship with student performance. They saw a greater correlation with a teacher's enthusiasm for teaching a subject. Though the authors mentioned there may have been an issue with the measurement instrument, which failed to measure the specific tasks related to teaching the subject, the study showed teacher enthusiasm mattered. They recommended using professional development to highlight a subject's relevance to gain teachers' commitment (Mahler et al., 2018).

Teacher Agency. Recent studies emphasized teacher agency, an outgrowth of teacher self-efficacy, as discussed in Bandura's social cognitive theory (2018). In the concept of agency, people find ways to transcend and shape the conditions of their environment. People's cognitive

abilities and self-regulation influence three aspects of agency: forethought, self-reactiveness, and self-reflectiveness. The enaction of agency is most often evident in the creation and implementation of goals. Self-efficacy beliefs influence the type and level of goals people make (Bandura, 2018). Teacher agency, heavily influenced by teacher self-efficacy, is associated with organizational change, reform, or expanding programmatic goals.

Bonner et al. (2020) applied teacher beliefs and agency concepts to their case study on an innovative STEM program in secondary schools. They found teacher agency was critical to expanding the program even without external support. Salient experiences of observing positive change were essential to changing mindsets, suggesting a feedback loop between teacher beliefs and agency.

Studies have shown teachers enact agency to help their language students. Sanczyk (2020) conducted a narrative study with ESL instructors and found their identities, shaped by their own life experiences, contributed to a strong sense of agency as they supported and advocated for their culturally and linguistically diverse students. Themes emerged, including commitment due to international experiences, a focus on transforming learning through inclusion and empowerment, treating teaching as a conscious quest, and building community bridges. Babino and Stewart's (2018) case study also demonstrated how teachers enacted agency while pursuing bilingualism, biliteracy, and biculturalism that collided with English-centric, high-stakes, standardized testing goals. The authors found teachers "covertly remodel" (Babino & Stewart, 2018, p. 272) their programs to meet students' holistic needs. For example, they allowed translanguaging, when both languages may be used to make meaning, in contrast to the school's strict separation of language policy. The studies showed teachers drew on self-efficacy beliefs

and enthusiasm for their subject expertise to impact their teaching environment for greater student achievement.

Teacher Self-efficacy and Leadership

Multiple studies have shown the critical relationship between leadership behaviors and teachers' self-efficacy beliefs. Menon and Lefteri (2021) reviewed the literature on the link between teacher self-efficacy and school leadership styles. The study found positive relationships between teacher self-efficacy and transformational leadership, most notably related to the leader's ability to promote a shared school vision and individualized support. Despite the findings, the authors called for further research linking the specific factors of transformational leadership to teacher self-efficacy. They suggested evaluating a combination of leadership styles, especially instructional leadership, for schools.

An empirical study by Francisco (2019) used the Multi-Factor Leadership Questionnaire (MLQ) to describe the impact of 11 transformational leadership variables on the extent of teachers' self-efficacy. The variables included transformational leadership characteristics, idealized influence, inspiring followers, promoting intellectual stimulation, and giving individualized consideration, plus characteristics of contingent reward, management-by-exception, laissez-faire leadership, extra effort, effectiveness, and satisfaction. A positive correlation was shown between all areas of transformational leadership, but most significantly with effectiveness and contingent reward, suggesting a need to recognize a leader's effectiveness in accomplishing organizational goals and objectives. Francisco (2019) recommended strengthening leaders' capacities for strategic planning, clarifying roles and expectations, and offering contingent rewards for task completion.

Only a couple of studies indicated the potential outcomes of linking transformational leadership with teacher self-efficacy. Zainal and Matore's (2021) quantitative study of 1,415 teachers showed transformational leadership fosters teacher self-efficacy, especially in support of innovative behavior. Through inspiration and intellectual stimulation, transformational leaders inspire teachers to engage in new learning activities and information sharing, and through individualized consideration, teachers gain confidence in individualized areas of development. Setyaningsih and Sunaryo's (2021) quantitative study found optimizing transformational leadership to enhance teacher self-efficacy led to greater teacher satisfaction.

Özdemir et al.'s (2020) study looked explicitly at instructional leadership and its impacts on teacher self-efficacy, providing a perspective suitable to an environment with significant instructional challenges. The authors' mixed-methods study of 435 teachers found instructional leadership had a significant relationship with teacher self-efficacy and determined the leadership style was more important than others due to the direct impact on student learning. They recommended principals create environments with strong communication channels, provide instructional support, and support teachers with professional development.

DeMarco and Gutmore's (2021) study of middle school teachers in New Jersey recognized the extensive managerial responsibilities of principals and the leader's role in developing school culture to promote teacher self-efficacy. Using the distributive leadership theory, the authors extended the transformational leadership style from one charismatic figure to a network of empowered experts conducting various educational tasks. They pointed out principals' increased managerial challenges and recommended creating a distributive leadership framework to share responsibilities with qualified staff and build schoolwide trust and

empowerment. The authors suggested principals shift practices to the value-added domains of staff support, instructional delivery, and relationship building.

Thornton et al. (2020) used Bandura's four antecedents to self-efficacy to suggest specific leadership behaviors for enhancing teacher self-efficacy. For mastery and due to the accountability environment, Thornton et al. suggested principals promote a culture of continuous improvement based on data. For verbal persuasion, Thornton et al. (2020) suggested principals establish cultures to provide support, encouragement, and coaching like those found in professional learning communities focused on specific skills and knowledge. Social modeling can also be set up to allow teachers to observe other teachers who have mastered instructional approaches. Citing the current stressful environment of high-stakes testing, principals can improve teachers' physical or emotional states by providing guidance and instructional support, appropriate professional development aligned with developing strategies for student achievement, and the development of professional learning communities.

In this literature review, wide varieties of leadership styles and how they foster teacher self-efficacy were explored and expounded upon, from transformational to distributed and instructional leadership styles. The literature has discrepancies and gaps regarding how these leadership styles may be leveraged for the dual and foreign language immersion context. For example, Thornton et al.'s (2020) suggestions contrast with the administrators' behaviors described in Grivet et al.'s (2021) study of leadership perspectives in a French immersion program. This discrepancy indicates there is still more to understand about the specific practices leaders can implement to support teacher self-efficacy in dual and foreign language immersion programs.

Chapter Summary

An examination of the literature showed dual and foreign language immersion programs are powerful options for acquiring advanced levels of language proficiency (Burkhauser et al., 2016; Collier & Thomas, 2017; DeLuca et al., 2020; Watzinger-Tharp et al., 2018; Xie & Antolovic, 2022). Increasingly, dual and foreign language immersion research centers on the challenges of integrating content and language (Amanti, 2019; Cammarata & Tedick, 2012; Cruz, 2020; Morrell et al., 2019; Tigert & Peercy, 2018). Content-based instruction is one characteristic that theoretically leads to more authentic language growth (Ayapova et al., 2021; Belskaya, 2021; Fielding & Harbon, 2018; Kang, 2018). However, scholars have identified a need for more instructional and leadership support (Amanti, 2019; Baldwin, 2021; Chen et al., 2017; Cruz, 2020; Haj-Broussard et al., 2019; Hammou & Kesbi, 2021; Hood, 2020; Lachance, 2018; Maming et al., 2020; Tigert & Peercy, 2018; Vázquez, 2018). The studies reviewed also suggested the potential for combining transformational leadership behaviors and teacher self-efficacy to counteract educational challenges and carve a path for educational excellence and innovation (Menon & Lefteri, 2021; Setyaningsih & Sunaryo, 2021; Thornton et al., 2020; Zainal & Matore, 2021).

There remains a significant gap in the research connecting leadership practices and teacher self-efficacy within the context of dual and foreign language immersion programs. Kirss et al. (2021) pointed out that most studies on evaluating multilingual programs focused on the school level, neglecting the implementation process at the micro-level, the level at which interactions may be observed between principals and teachers, or regional influences. Many studies combined foreign language immersion programs with two-way immersion programs despite variations in approaches and experiences between language minority students pursuing a

second language and language majority students pursuing an additional language (American

Councils for International Education, 2021a; Howard et al., 2018). Despite the popularity and

growth of foreign language immersion in Colorado, studies have yet to focus on the experiences

of teachers and leaders in these programs.

Applying the concept of teacher self-efficacy may provide an insightful lens for

improving and expanding language programs as promoted by language advocates (Moeller &

Abbott, 2018; Rubio, 2018). The present study aimed to address the need for more understanding

of how school leaders may foster conditions that support teacher self-efficacy when

implementing foreign language immersion programs' specialized and rigorous goals. This

qualitative case study explored teacher and leader perceptions about the program-related factors

influencing teacher self-efficacy beliefs while implementing elementary foreign language

immersion programs in Colorado.

The details of the research methodology and design will be covered in Chapter 3. A

qualitative multi-site case study was used to explore a complex phenomenon through the

participants' experiences in a real-world context. The case study design allowed for

comprehensive data collection and theme analysis to illuminate important factors influencing

teacher self-efficacy beliefs.

Chapter 3: Methodology

Foreign language immersion programs continue to be popular for cultivating world language and cultural competencies needed in the 21st century and other social and cognitive benefits (AAAS, 2017; Burkhauser et al., 2016; Collier & Thomas, 2017; Watzinger-Tharp et al., 2018). Effective program implementation is specialized, rigorous, challenging, and dependent on efficacious teachers and supportive leaders (Baldwin, 2021; Hood, 2020; Kirss et al., 2021; Moeller & Abbott, 2018). There are many exemplary examples of dual and foreign language immersion programs (Collier & Thomas, 2017; Howard et al., 2018; Watzinger-Tharp et al., 2018). Many studies also show pedagogical realization challenges (Amanti, 2019; Cammarata & Haley, 2018; Chen et al., 2017; Cruz, 2020; Lachance, 2018; Morrell et al., 2019; Tigert & Peercy, 2018; Vázquez, 2018). Program implementation guidance is especially lacking for foreign language immersion (American Councils for International Education, 2021a; Howard et al., 2018).

The problem the study addressed is a need for more understanding of how school leaders foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. An application of Bandura's concept of triadic reciprocal causation suggests teacher self-efficacy beliefs and leadership practices shaping school environments have reciprocal influences that may promote or hinder teachers' efforts to achieve educational goals (Bandura, 1986; Wood & Bandura, 1989). Past studies on teacher self-efficacy have also shown efficacy beliefs are context-specific (Salas-Rodríguez et al., 2021). The purpose of this study was to describe teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. The following questions guided the study:

Research Question 1: What are the program-related self-efficacy beliefs of teachers implementing foreign language immersion programs in the study region?

Research Question 2: What are teachers' and leaders' perceptions about the program-related factors that strengthen or reduce teachers' self-efficacy beliefs while implementing elementary foreign language immersion programs in the study region?

Research Question 3: How might educational leaders develop school environments that strengthen teacher self-efficacy beliefs in addressing challenges encountered while implementing foreign language immersion programs in the study region?

The methodology section contains a discussion of the study's methodology, design, rationale, and the role of the researcher. Research procedures will be discussed, including population and sample selection, data collection instruments, and methods for data analysis. The section will close with a discussion of the measures taken to ensure the validity and reliability of the study and the ethical procedures developed to protect study participants.

Research Methodology, Design, and Rationale

The study utilized qualitative case study methodology to explore teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. A rationale for the chosen method and design will be explained according to their suitability to address the research questions. The advantages of the methodology and design will also be discussed.

Methodology

This study implemented a qualitative research methodology. Qualitative research is suitable in arenas of social activity and professional practice, like a school, where the perspectives of those being studied can be understood and applied to improve practice (Cohen et

al., 2018). The qualitative methodology uses tools to understand study participants' authentic and rich experiences by systematically collecting and interpreting perceptions, beliefs, and experiences (Creswell & Poth, 2018).

Rather than showing the prevalence of a phenomenon in a population, qualitative research is used to "elucidate the particular, the specific (Creswell & Poth, 2018, p. 158)." The literature review exposed a need to improve practice in dual language and foreign language immersion programs and gaps in studies focusing on micro-level processes occurring during program implementation (Kirss et al., 2021). A teacher's belief in their ability to direct efforts toward achieving program goals, and the conditions influencing that belief, lie at the most fundamental level of any educational program. Tschannen-Moran and Woolfolk Hoy (2001), the authors of the Teacher Sense of Efficacy Scale, pointed to a need for more qualitative studies to provide detailed descriptions to refine our understanding of the processes involved in developing teacher self-efficacy beliefs. Qualitative methodology served the purpose of the study to understand teacher and leader perceptions about the micro-level program-specific factors influencing teacher self-efficacy beliefs in the context of Colorado foreign language immersion programs.

Design

The research design chosen for this study was a qualitative case study. A qualitative case study is appropriate for inquiries into contemporary phenomena in real-world contexts (Yin, 2014). It provides holistic, rich descriptions of complex social phenomena through participants' experiences when contextual conditions are pertinent to understanding. In contrast to experimental studies that use a control, case studies are often used for "what," "how," and "why" research questions designed to reveal operational links within a case. Although most "what"

questions can use survey methods, understanding how organizations function requires "how" and "why" research questions.

A case study design fits the purpose of this study to describe teacher and leader perceptions within a specific operational context. The context, or unit of analysis, was elementary foreign language immersion programs in Colorado. Research questions were designed to reveal "what" operational links influence self-efficacy and "how" self-efficacy beliefs are influenced. Considering available time and resources and the need for sufficient data, the study aimed for a minimum of 15 and a maximum of 20 prospective participants.

A qualitative case study design was advantageous for a few reasons. A case study design allows multiple data sources, rather than point-in-time data, to comprehensively describe a complex phenomenon (Yin, 2014). Though most previous dual language immersion studies have concentrated on program outcomes, few studies have focused on how these programs operate (Kirss et al., 2021). The unit of analysis, foreign language immersion programs in Colorado, created an opportunity to explore the application of self-efficacy theory within a complex, real-world context. Educational practitioners may use the conclusions gained about the underlying processes of foreign language immersion programs to improve educational practices (Cohen et al., 2018).

Descriptive Multiple-Site Case Study

The type of case study proposed was a descriptive multiple-site study to observe a phenomenon occurring in a real-world context across more than one site (Yin, 2014). A descriptive case study is distinguished from other case study forms by its purpose (Cohen et al., 2018). While explanatory case studies explain how a condition came to be, exploratory case studies may be used to identify research questions for subsequent studies. This descriptive case

study was used to describe the current conditions experienced by teachers and leaders implementing foreign language immersion programs and offer recommendations for improving practice. Multiple sites provided opportunities for triangulation to create more robust findings and a fuller description of the phenomenon, including common or contrasting experiences.

Role of the Researcher

In qualitative research, the researcher is the primary instrument in gathering and analyzing the data to address the research questions (Merriam & Tisdell, 2016). Interpretive skills are needed for effective questioning, listening, collating, synthesizing data, and making informed inferences and conclusions (Cohen et al., 2018). Though having personable attributes may help gain access to and the trust of potential participants, the qualitative researcher should also maintain a sense of realism about the study and an orientation toward factual information (Cohen et al., 2018). The interaction with human subjects in a qualitative case study makes it imperative to develop ethical guidelines to protect potential participants and improve the reliability of data and the validity of interpretations and conclusions (Creswell & Poth, 2018). In an educational context, potential participants may be concerned about providing critical information attributable to their schools or identities (Cohen et al., 2018).

For this study, I developed research protocols to protect participants from negative impacts or risks from participation and ensure the reliability of the data. An organized interview process was developed to respect the limited time of research participants. Participants were provided with flexible scheduling and multiple time options for in-person or virtual interviews. All names of schools and persons participating were coded with pseudonyms, and interviews were offered off-site if desired, so interview participants would not be evident to others. All participants were allowed to review transcripts and offer clarifications or modifications.

Prior relationships with participants or experience with the study topic can create bias or a conflict of interest in the study. Because of prior experience as a parent and teacher in foreign language immersion programs and due to professional relationships with some of the study participants, I used bracketing to set aside prior beliefs, assumptions, and experiences with the research topic before engaging with each research site (Creswell & Poth, 2018). Replicating the same process across all school sites improved the reliability and credibility of the data and study conclusions.

Research Procedures

The research procedures chosen for the study followed the case study approach of obtaining rich, descriptive data within a real-world context and through multiple sites. Procedures were developed according to recommendations by Yin (2014), the seminal expert on case studies. The following description summarizes the choice of the study population and sampling method, the instrumentation development, and the data collection plan.

Population and Sample Selection

The unit of analysis bounded the population for this study, elementary foreign language immersion programs in Colorado. Out of 1,116 elementary schools in Colorado, 38 offered dual language immersion programs (CDE, 2021; CDE, 2023). As a multiple-site study, the criteria for selecting sites included any elementary educational entity implementing a foreign language immersion program. The definition of foreign language immersion in this study was a program in which students learn academic content through a foreign language in two or more subject areas, with the majority of students participating in the program being non-native speakers of the foreign language. Prospective participants from each site included teachers and leaders involved

in implementing and supporting the foreign language immersion program. Four schools meeting the study criteria were invited to participate, with a target population of 70 teachers and leaders.

Sample

Purposeful sampling was used to select 15 study participants across all school sites. Participants within purposeful samples show common experiences with a phenomenon and can purposefully inform an understanding of a research problem (Creswell & Poth, 2018). To participate, teachers must have taught subject matter in a foreign language for at least 1 year at the school site, and leaders must have supported foreign language immersion teachers for at least 1 year. Leaders included principals, assistant principals, or teacher leaders involved with instructional support. At least one leader and two teachers from each site were needed to address the research questions. Basic demographic information about prospective participants was collected during participant interviews.

Recruiting and Informed Consent

The recruitment process began with letters sent to personnel who grant permission to conduct research, such as school district leaders or heads of schools, at schools meeting study criteria. Publicly available contact information was used for communications. Appendix A includes letters to candidate case sites for permission to conduct research.

Upon Institutional Review Board (IRB) approval of the study, principals were contacted from schools meeting the criteria for the study and who had granted permission to conduct research. Initial principal meetings were arranged to discuss the prospective participant recruitment procedures, including any necessary prearrangements for interview locations and times. Questions arising from a review of relevant, publicly available, and digitally retrieved documents and records could be asked during the initial principal's meeting. Meetings were kept

to approximately half an hour. Per procedures established with each principal, separate recruitment emails were emailed to teachers and other leaders meeting participant criteria. The recruitment email contained a brief overview of the study, procedures for participation, and the informed consent form (see Appendices B and C).

The informed consent form was designed to address the principles outlined in the Belmont Report and the regulations (45 CFR 46) established by the Department of Health and Human Services (DHHS) for the protection of human research subjects (DHHS, 1979). The information on the form addressed the three essential principles: respect for persons, beneficence, and justice. Consistent with the principles of respect for persons as autonomous individuals, the informed consent form provided prospective participants with sufficient information to self-assess their voluntary participation. The form included an overview of the study, including purpose, design, procedures, selection of participants, duration of participant involvement, the voluntary nature of participation, and the right to withdraw from the study. Furthermore, it described potential risks or benefits to participation, how confidentiality would be maintained, and how results would be shared. Each participant was required to review the informed consent form and provide consent before participating in the research. The informed consent form can be found in Appendix C.

If interested in participating in the study, prospective participants were instructed to email the researcher to indicate their interest. Times and locations were arranged for one-on-one interviews, and participants were allowed virtual interviews. All procedures were described in detail in the recruitment letter found in Appendix B.

Instrumentation

The case study design is characterized by in-depth data collection from multiple sources of information (Creswell & Poth, 2018). The instruments used for data collection were existing documents and records and an interview protocol. A description of each instrument follows.

Existing Documents and Records

Data collected from existing documents and records provided a broader understanding of the contextual elements at each school and was used to corroborate and augment data collected from the interviews. A data collection matrix was developed to record information about each site school (see Appendix D). Most information was derived from publicly available state and school websites and any other information the school was willing to provide for understanding the context of their program. The information included, but was not limited to:

- The school's mission and vision

- The school's approach to language immersion

- The history of the school's founding, including how long it had been operating and how the foreign language immersion program began

- School language policies

- School's cultural and linguistic demographic information

- Awards or recognition received by the school

- School-based summaries of academic and language assessments

- External partnerships

Interview Protocol

The interview protocol was the primary research instrument used in the study. Interviews are a common qualitative research method allowing for insightful explanations or personal

perceptions (Yin, 2014). An interview protocol with pre-scripted, semi-structured questions was developed to create greater reliability and credibility for the interview data. A standardized script and questions may reduce bias from reflexivity between the interviewer and interviewees and allow for study replication across multiple sites (Yin, 2014). See Appendix E for the interview protocol.

The interview protocol developed for this study was adapted from the Teacher Sense of Efficacy Scale (TSES), formerly the Ohio State Teacher Efficacy Scale (OSTES), developed by Tschannen-Moran and Woolfolk Hoy (2001). With permission from the creators (see Appendix F), the original scale was modified into a qualitative open-ended question format to allow respondents to answer without presupposing responses with options to respond as much or as little as they wish. The interview questions were crafted to align with the research questions. Moreover, questions fell within a framework to elicit responses related to the programmatic components of dual language immersion programs (see Appendix G) and to fit within a 40-minute interview. Two protocols were designed, one for teachers and one for leaders, with slightly different questions regarding the roles of teachers and leaders. All interviews were audio recorded with the Zoom platform, transcribed using the otter.ai platform, and sent to interviewees for member checking. All member-checked transcripts were transferred to the NVivo qualitative analysis software.

Permission to Use and Adapt the Teacher Sense of Efficacy Scale. Tschannen-Moran, one of the authors of the Teacher Sense of Efficacy Scale (TSES), granted permission to use and adapt the instrument to fit the study design (see Appendix F). Tschannen-Moran and Woolfolk Hoy published the scale in 2001, and it has since been one of the most widely used instruments to assess teacher self-efficacy beliefs. It has also been adapted for different contexts (Salas-

Rodríguez et al., 2021). Teachers were requested to assess their capabilities in instructional strategies, student engagement, and classroom management through a 9-point Likert scale. The challenges measured in the scale are specific to the general classroom and do not measure the challenges of the foreign language immersion classroom.

Permission was sought to adapt the instrument to the foreign language immersion classroom context. Questions were grouped according to the seven guiding principles of dual language education (see Appendix G) and to elicit open-ended question responses more in line with a qualitative interpretive methodology.

Subject Matter Experts. Subject matter experts (SMEs) were consulted to review and provide feedback about the adapted instrument's content validity and ease of respondent use. SMEs were chosen according to their professional experience as teachers or leaders in foreign language immersion programs, including experience evaluating language programs or education research. A research question matrix, reference materials for the Sense of Efficacy Scale (TSES), and the seven principles of dual language education were sent to the SMEs to demonstrate how research questions were aligned with the content they were designed to elicit (see Appendix G).

Most but not all feedback was integrated into the final instrument. For instance, one SME recommended modifying the instrument to collect quantitative data. The SME suggested asking participants to give a rating out of nine to collect quantitative data for additional analysis and to create a frame of reference about the degree of self-efficacy experienced by participants, similar to the TSES. Though the suggestion to collect quantitative data for further analysis was considered, it was beyond the scope of the qualitative methodology chosen for the current study, which "focuses on meaning in context, [and] requires a data collection instrument that is sensitive to underlying meaning when gathering and interpreting data" (Merriam & Tisdell,

2016, p. 2). Merriam and Tisdell (2016, p. 6) shared Braun and Clarke's distinction between qualitative and quantitative research, noting qualitative research "uses *words* as **data** … collected and analyzed in all sorts of ways. Quantitative research, in contrast, uses *numbers* as data and analyzes them using statistical techniques."

Consistent with qualitative research methodology, the interview instrument used words, not numbers, to answer the first research question: What are the program-related self-efficacy beliefs of teachers implementing foreign language immersion programs in the study region? Replacing digits with words will achieve a similar purpose of creating a frame of reference for a range of efficacy beliefs, from low to high, while providing deep descriptions. Subsequent responses may be used to ascertain the factors influencing the self-efficacy beliefs, in line with the recommendations by Tschannen-Moran et al. to use qualitative research for "understanding the factors that facilitate or inhibit the development of efficacy beliefs among teachers" (1998, p. 242).

A few formatting edits were made to interview questions to clarify and organize language, reduce repetition, and maintain participant engagement and time limits. For example, to ensure interviews could be conducted within 40 minutes, question #7 from the original interview matrix was removed. One SME suggested the content gained from that question might also be demonstrated through the literature. Furthermore, questions regarding program evaluation and funding were placed in the interview protocol for leaders rather than teachers, as these program elements are in the leadership domain. A record of communication with SMEs, including their feedback on the instrument, is included in Appendix H and Appendix I.

Data Collection

Data collection began after receiving approval from the American College of Education (ACE) Institutional Review Board (IRB). If participating districts and schools granted permission (see Appendix A for site permission letters), the principal of each candidate site was notified about the beginning of the research, and an initial meeting was scheduled to describe the research procedures. As principals are considered the leaders of schools and gatekeepers to research (Cohen et al., 2018), the initial meeting with the principal included three data collection requests. The first request was for principals to provide clarification about coordinating interviews with qualifying prospective teacher participants, such as time and place requirements or preferences. Principals were requested to send a recruitment email, including an informed consent form and instructions about interview locations and times, to qualified teachers and leaders in the school (see Appendix B and Appendix C). The final request was for principals to provide any other existing documents and records helpful to understand the program's context.

The principal was given the option to introduce the researcher to the foreign language immersion program staff to gain interest and trust in participation. A PowerPoint presentation was created to provide a brief overview of the study and instructions for participation. Instructions were repeated in a follow-up email with the attached recruitment letter and informed consent form. Alternatively, if principals preferred, they could inform potential participating staff in writing that permission had been granted, and they would receive an email from the researcher.

Per instructions in the recruitment letter, interested prospective participants were to email the researcher to arrange an interview. All interviews would be conducted during non-school hours or following the principal's guidelines so as to not disturb working requirements. Upon

signing the informed consent, the interview could progress. Per Yin's (2014) recommendations, the researcher should follow the interview protocol script while using active listening skills, assimilating information without bias, detecting the mood and contextual factors, and inferring the participant's intended meaning. In addition to the recorded interview, handwritten notes recorded additional observations during the interview.

The otter.ai application, designed to work with the Zoom platform, transcribed all audio recordings of interviews into text. Interview transcripts were sent to participants for member checking. Upon verification, each transcription was transferred to NVivo, the Computer System Qualitative Data Analysis Software system (CAQDAS), for further analysis. All recordings, transcriptions, school documents, and records were stored in a separate database on a password-protected laptop. See Appendix J for step-by-step data collection and analysis procedures.

Data Analysis

Data analysis was achieved through systematic coding and content analysis of data retrieved from existing documents, records, and interview transcripts (Creswell & Poth, 2018). All case site data were pooled, organized, and analyzed for empirically based patterns or themes related to the factors impacting teacher self-efficacy beliefs and perceptions of the conditions influencing foreign language immersion program implementation in the study region. Analysis was informed by theories and concepts discussed in the theoretical framework.

After data were organized into a file naming system, systematic coding and content analysis began. Saldaña (2021) described coding as the critical link between data collection and meaning development. A researcher translates datum into an essence of meaning and patterns, or repetitive or consistent occurrences of data, for later identification and categorization (Saldaña, 2021). The initial set of codes was based on the theoretical orientation derived from dual

language immersion program principles and the theory of self-efficacy, but the analysis allowed for the emergence of other codes based on unanticipated but significant patterns in data.

A few tools were used for interview transcription and data organization. The otter.ai application transcribed all audio interviews into rich text format for upload into NVivo, a Computer System Qualitative Data Analysis Software (CAQDAS) used to help code and categorize large amounts of data derived from interview transcripts and case documents (Saldaña, 2021). After textual data was inserted and initial codes defined, the software located all words and phrases matching the codes, and the outputs were analyzed for emerging patterns of meaning. A codebook was maintained to record and modify initial and emerging codes, content descriptions, and data examples (Saldaña, 2021).

The analysis followed two coding cycles so data could be reviewed for salient features potentially missed in the first cycle. Data were next consolidated into units of meaning or similar categories (Saldaña, 2021). Groups of categories were linked to significant themes or concepts. Cross-site synthesis tables consolidated the findings across different case sites, and conclusions were made about the programmatic factors supporting or reducing teacher self-efficacy beliefs (Yin, 2014).

Reliability and Validity

Ensuring the reliability and validity of a study is essential to establishing the plausibility of findings (Merriam & Tisdell, 2016). The process by which data are collected, analyzed, interpreted, and presented should be conducted in a trustworthy and rigorous manner, especially if there will be an effect on policy or practice. This study used strategies Yin (2014) developed to ensure the quality of the case study research design and strategies common in other qualitative studies.

Construct Validity

Construct validity ensures the study's operational measures are accurate for the studied concepts (Yin, 2014). The accuracy of case studies relies on multiple sources of evidence, or triangulation, to identify converging sources of information. Triangulation was achieved by obtaining data from multiple sites operating foreign language immersion programs, gathering relevant documentation and records, and conducting follow-up interviews.

The data collection instrument designed for the study accurately addressed the research questions (see Appendix G, Interview Questions Alignment Matrix). As one of the primary data collection instruments, the interview protocol was developed by modifying the Teacher Sense of Efficacy Scale to address questions about teacher self-efficacy beliefs and program-specific factors influencing beliefs in foreign language immersion programs. The interview was organized according to Howard et al.'s principles of dual language education (2018). To better align with qualitative methodology, the 9-point scale was replaced with a semi-structured interview format designed to ascertain a range of teacher self-efficacy beliefs using words rather than numerals (Merriam & Tisdell, 2016). Permission to use and adapt the instrument can be found in Appendix F. Additional descriptions of how the instrument was adapted from subject matter expert feedback can be found on pages 66-67.

Additional strategies were used during the data analysis and reporting to ensure construct validity. Per Yin's (2014) recommendation, a chain of evidence was established to record the development of codes and patterns used to interpret data. When compiling findings, all rival explanations were considered. Potential biases, including assumptions or professional relationships with participants, were noted throughout the research process.

Reliability

The reliability of a qualitative study means the results are consistent with the data collected (Merriam & Tisdell, 2016). Reliability for this study was achieved through the careful selection of candidate sites and participants and the consistent use of the interview protocol. A detailed description of the setting and participant experiences allows the reader to determine the suitability of transferability to other situations (Creswell & Poth, 2018). Triangulation, a chain of evidence, and the review of transcripts by interviewees helped ensure data were collected rigorously, accurately, and transparently.

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Ethical Procedures

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A study's reliability and validity depend on the ethics practiced by the researcher (Merriam & Tisdell, 2016). This study followed the legal requirements for conducting research with human subjects established by the Department of Health and Human Services (DHHS) regulations (45 CFR 46) and informed by the principles outlined in the Belmont Report (DHHS, 1979). The Belmont Report outlined three essential principles, including respect for persons, beneficence, and justice, and it recommended research practices. The Institutional Review Board (IRB), an ethical review board enlisted by the researcher's doctoral institution, granted permission to conduct research for the current study as long as all necessary ethical procedures were considered.

Respect for Persons

Per the first principle, respect for persons, all study participants were treated as autonomous individuals. Before conducting any research, a recruitment letter was sent to prospective participants. The recruitment letter included an informed consent form describing the research and potential risks or benefits to participants and provided an offer to join the study

voluntarily with the option to withdraw at any time. Participants signed the consent form before being interviewed. See Appendix B and C for the recruitment letter and informed consent form.

Beneficence

The informed consent form also addressed beneficence, the principle ensuring research maximizes the potential benefits and minimizes the potential harm to human subjects. The informed consent form highlighted how prospective participants might benefit from providing perceptions helpful for school or program improvement. Subjects participating in interviews also received a $5 Starbucks gift card as a token of appreciation for their time and contributions, even if they withdrew from the study. Since some participants may be concerned about the potential harm of published data linked to their participation, all names were concealed through pseudonyms, and identifying information of schools and participants was removed. Participants' privacy was protected by storing data on a password-protected laptop. According to the American College of Education guidelines, all data will be destroyed after 3 years.

Justice

Justice, the third principle, ensures no group disproportionately benefits or may be harmed by the research. Purposeful sampling was used to invite candidate participants according to criteria developed for expert knowledge, and qualifying individuals could self-select their participation. The study applied fair treatment to all participants by providing consistent information to all participating schools and interviewees, following the interview protocol, and allowing members to check transcripts.

Educational Environment Considerations

Other ethical considerations related to research in an educational context and potential conflicts of interest were considered. Preexisting relationships with participants were bracketed

before and after interviews and noted in the findings to maintain transparency about potential

conflicts of interest or the influence of power differentials between the researcher and

participants. The principal of each school was consulted for guidance on reducing the impact of

participation on participants' time and interference with instruction. All schools and participants

were provided pseudonyms and options to conduct virtual interviews to ensure anonymity.

Chapter Summary

A qualitative case study design was used to understand the complex, real-world context

of Colorado elementary-level foreign language immersion programs. The design and methods

described in this chapter were constructed to explore teacher and leader perceptions about the

program-specific factors influencing teacher self-efficacy beliefs in meeting program challenges.

Case study design offers an effective method for understanding micro-level processes occurring

in foreign language immersion programs (Kirss et al., 2021). In this chapter, the design for

sampling, data collection, and analysis was described. A chart containing the complete data

collection and analysis process can be found in Appendix J. Strategies were incorporated

throughout the study to ensure validity, reliability, and adherence to ethical practices. The data

analysis and research findings will be presented in Chapter 4.

Chapter 4: Research Findings and Data Analysis Results

Language advocates promote elementary language immersion programs as the most accessible and effective educational model for preparing students for sustained and elevated levels of foreign language proficiency (American Councils for International Education, 2021a; Collier & Thomas, 2017; Rubio, 2018; Steele et al., 2018; Stein-Smith, 2021). However, reaching the potential of these innovative programs may be contingent on resolving significant operational challenges (Baldwin, 2021; Hood, 2020; Kirss et al., 2021; Moeller & Abbott, 2018). The concept of teacher self-efficacy is one lens for understanding the extent to which teachers believe they can affect student performance and may expose context-specific factors enhancing or hindering teachers' beliefs (Tschannen-Moran et al., 1998). The problem the study addressed is a need for more understanding of how school leaders may foster conditions that support teacher self-efficacy when implementing foreign language immersion programs' specialized and rigorous goals. The purpose of this qualitative case study was to describe teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. A description of the data collection procedures used, including deviations from the original plan, the data analysis model, and the findings will be shared in the Research Findings and Data Analysis Results section. The reliability and validity of the applied research methodology and design will be discussed.

Data Collection

Data collection began after obtaining approval from the American College of Education (ACE) Institutional Review Board (IRB) for the involvement of human research participants on 24 June 2022 (see Appendix K). The first data were obtained by reviewing existing documents

and records on three participating school websites. The second data source included 15

interviews with 11 teachers and four leaders who met the study criteria for participation. Data

collection occurred from the end of June 2022 through October 2022.

Data from Existing Documents and Records

A review of existing documents and records began after IRB approval was granted.

School websites provided the majority of data information resources. A data collection matrix

was developed to record the type of information collected per recommendations by Creswell and

Poth (2018). School and state education websites were reviewed, and data were recorded in the

data collection matrix before initial meetings with site principals. The data collection matrix

included information about school mission statements, pedagogical approaches to language

immersion, school background information, curriculum, assessments, school partners, and other

notable characteristics (see Appendix D). Additional records reviewed included school calendars,

parent handbooks, videos, and photos of school activities.

Three of the four school sites were public entities with publicly available online data

provided by the state (CDE, 2022b). The Colorado Department of Education (CDE) data were

compiled through the state standardized assessments and included school-level academic

performance reports in English language arts and math and demographic data, including

percentages of English language learners (ELLs), students by ethnicity, and students receiving

free and reduced lunch (FRL). Summaries of data from the records and documents, corroborated

by participant interviews, were entered into a program model attributes comparison chart (see

Appendix L) for analysis.

Data from Interviews

Per the research design, the primary data collection instrument was an interview protocol

(see Appendix E). Following recommendations for educational research (Cohen et al., 2018), the

research procedure included site principals in recruiting their staff. Initial meetings with site

principals were set up to confirm staff recruitment procedures from July through September. At

sites one, three, and four, recruitment began with a five-minute presentation about the research

during a staff meeting, followed by emails with the recruitment information to staff (see

Appendix B). The principal at site two sent an email describing the research recruitment to all

staff members and requesting any interested candidate participants email the researcher to

participate.

All interested participants were emailed informed consent forms to review and sign

before engaging in interviews (see Appendix C). Signatures were scanned for record-keeping,

and copies were given to each participant. All interviews used the same interview protocol,

recorded through the Zoom platform, if virtual, or Otter.ai, if in person, and transcribed using

Otter.ai. Transcriptions were reviewed, edited for accuracy, and sent to the participants to be

member-checked. See Table 1 for the number and response rates of participants at each site.

Table 1

Number and Response Rates of Participants from Each Case Site

Number and Response Rates of Participants	Site 1	Site 2	Site 3	Site 4
Total Number	7	0	3	5
Timeframe	July-October	July-October	September	October
Interview Time (minutes)	35-74	0	47-50	21-62

Deviation from Data Collection Plan

Due to IRB approval occurring during the summer, there was a 1-month delay in

recruitment and the beginning of interviews. Though a few interviews were conducted in August,

there was a further month's delay due to the busy schedules of school staff at the beginning of the school year. The original research proposal planned for the participation of site one, site two, and site three, and permission to conduct research at these sites had already been obtained. By the end of September, site two had yet to respond to any recruitment requests, so a new strategy was developed to recruit within a public school district with two elementary language immersion schools. The district required a separate IRB approval, which was obtained on 22 September 2022 (see Appendix A). Site permission was subsequently obtained from the principal for site four (see Appendix A), and after this, recruitment procedures began for qualifying participants.

Data Analysis and Results

Following the research design and planned procedures, data collected through existing site documents and interview transcripts were analyzed through systematic coding and content analysis. Analysis followed Creswell and Poth's (2018) Template for Coding a Case Study to include analysis and description of case context, within-case theme analysis, cross-case theme analysis for similarities and differences, and development of assertions and generalizations. The template was modified from a multi-case analysis to a multi-site case analysis, with the understanding all sites would be pooled for a single case study analysis for common or discrepant empirical patterns or themes (Yin, 2014). The single case was foreign language immersion programs in Colorado. The analysis was informed by the theoretical framework and factors influencing teacher self-efficacy beliefs while implementing foreign language immersion programs in the study region.

Data Preparation and Coding

Data were prepared for analysis utilizing two methods. First, data retrieved from case sites' existing documents and records were entered into a data table, comparing each site's

specific details, including school type, program model, program history, vision and mission, pedagogical approach, curriculum and assessment, achievement metrics, and external support resources (see Appendix D). The Program Model Attribute Comparison Chart (see Appendix L) was created to compare data retrieved from each site and to provide information necessary for understanding the case context.

The second data preparation method was a content analysis of participant semi-structured interviews through a two-cycle coding method (Saldaña, 2021). After interview transcripts were member-checked for accuracy, they were imported to NVivo, a Computer System Qualitative Data Analysis Software (CAQDAS) used for organizing and coding substantial amounts of content data (Saldaña, 2021). All participant names were coded with pseudonyms to protect participant confidentiality and anonymity.

The initial codes were derived from the interview protocol, including the programmatic components of dual language immersion programs and participant perceptions of self-efficacy concerning the program components on a continuum of low to high. After data were provided with initial codes, the second coding cycle was used to identify emergent and overarching themes (Saldaña, 2021). Tables were created for cross-site content analysis so as to identify themes within and across sites and explore any differences.

The analysis contained four parts, including analyzing the case context, cross-site teacher sense of efficacy results, cross-site program factors influencing teacher self-efficacy beliefs, and recommendations for strengthening teacher self-efficacy. Based on the comprehensive analysis, assertations and generalizations were developed to address the research questions. All four analysis components are detailed below.

Analysis I: Case Context

The case study design is defined by its purpose to investigate "contemporary phenomenon (the 'case') in its real-world context" (Yin, 2014, p. 2). Data compiled from existing documents and interviewee demographic information were used to ascertain the localized context of individual school sites and regional characteristics (see Table 2). The Program Model Attributes Comparison Chart (see Appendix L) was used to consolidate a variety of attributes shaping each site's program model and the site-based characteristics influencing teacher self-efficacy beliefs while implementing foreign language immersion. A comparative analysis showed all three research sites served a majority English-speaking population but also attracted students with diverse linguistic and cultural backgrounds. Across all sites, teachers were professionally trained in education with at least 5 years of experience teaching. Nine out of 15 teachers had 15 to 20 years of experience. All teachers and leaders held at least a Bachelor of Arts degree, 10 out of the 15 had master's degrees, and two had doctorates.

The analysis revealed several differences across the sites. Sites one and four were publicly funded, and site three was independently funded. Interviews revealed how the independent status of site three may have provided it more flexibility with its time and resource allocation, including less time required for preparing for and administering state English-based standardized assessments and more investment in program resources. Sites one and three had a majority of native target language teachers, though site one outsourced teachers locally and site three outsourced teachers locally and internationally. Site four had a combination of native and non-native target language teachers, all outsourced locally.

Each site's foreign language immersion pedagogical model, instructional approach, and assessments differed. While sites one and three used a model combining target language literacy with teaching subject content through the target language, site four emphasized oral fluency

more. Sites one and four used a 50:50 model, and site three used a 90:10 model in its early years' program, which gradually transitioned to a 50:50 model by the third grade.

Table 2

Demographic Information about Participants from Each Case Site

Demographic Details	Site 1	Site 3	Site 4
Number of Participants	7	3	5
Teachers: Native Speaker of the Target Language	5	2	2
Teachers: Target Language is Second Language	0	0	2
Leader: Target Language Speaker	1	0	0
Leader: English Speaker	1	1	1
Years of Teaching	5-20+	15-20+	10-20+
Highest Level of Education	BA, MA, PhD	BA, MA	BA, MA

Analysis II: Cross-Site Teacher Sense of Efficacy Results

The data from interview transcripts were coded and analyzed to answer question one: What are the program-related self-efficacy beliefs of teachers implementing foreign language immersion programs in the study region? The interview protocol was developed to assess teachers' personal efficacy and capacity to achieve tasks relevant to resources and constraint considerations in their schools (see Appendix E). In this study, the data retrieved and coded from participant interviews revealed clear teacher sense of efficacy (TSE) beliefs along a continuum of low, medium, and high, but the majority of responses were nuanced (see Appendix M). When interviewees chose not to use low, medium, and high to describe their experiences and provided more nuanced descriptions, their responses were coded as TSE in vivo (see Table 3). In vivo coding emphasizes participants' actual spoken words and allows participants to provide their own meaning (Saldaña, 2021). In vivo responses showed a combination of factors influencing

teacher sense of efficacy, from personal efficacy to efficacy with external influences. Quotations derived from the participant interview transcripts, and attributed to participants assigned with a pseudonym, have been included in the text descriptions, in Table 3.

Areas of High TSE

There were a few program areas in which several participants stated they felt a high sense of efficacy, all in Category II: Curriculum and Instruction on the interview protocol. Teachers stated they felt a high sense of efficacy related to content areas for which they have passion, knowledge, and length of experience teaching. "Liane" stated:

> It has been so long that [*sic*] I have done this; I would say high because, over time, I have built a list of resources [and] activities that I can just keep falling back on. I think at the very beginning, it was extremely difficult because as you're teaching, then you're realizing, I really need to have a visual for this, or I need a picture for that. So, I think having resources and visuals available is very helpful.

"Janice" shared, "High. I know the math, and I love when the kids enjoy the math instead of saying, 'I'm not good at math.' I try to make the class as interactive as possible. I like to use games; I like to use pairs with a friend to help you [*sic*]." The same teacher expressed a high sense of efficacy in other areas, including helping students engage in classroom target language discourse and classroom management:

> High. First, because I'm a native speaker. Second, because I do not use English in my class, only that it's necessary for some of the newer students. But I think I'm a very well-qualified teacher to help my students grow, and I have a [*sic*] very high expectation of them."

Sites one and three were notably high if using curriculum materials to meet program goals. Site one had recently found more appropriate curriculum materials for two of the three

target languages. "Sharon" stated, "I'm happy to say that we have a new curriculum this year. And comparing it to our old curriculum that I was using, I was using barely 30% of it. Now I'm using a good 80 to 90% of it. It's more accurate to our environment, to our kids." Site three recently revamped its library resources with books aligned to the curriculum units and target languages. "Audrey" stated, "We're actually quite high, and the reason I say that is because we've done a huge overhaul of target language resources in our library."

Areas of Low TSE

Some teachers clearly stated they felt very little or a low level of TSE. One-third of the responses for the program component "use planning time for immersion planning" under Category VI: Support on the interview protocol received low TSE responses. Responses were consistently verbalized as "very little."

One teacher expressed low TSE for Category II: Curriculum Instruction, program component "helping students achieve growth in the target language" because of the challenge of building a systematic language progression within a content area. "Melanie" worked to embed language within purposeful lessons relevant to students' content areas. However, the "[teacher-created] units are different at each grade level," making developing a vertical language progression challenging.

One teacher, "Kim," expressed low TSE in two areas, Category V: Professional Development, "capacity to implement the strategies you acquired from your professional development or training experiences," and Category VI: Support, "collaborate with staff to solve challenges or reach program goals." The two areas referred to the challenges of accommodating students of different language proficiency levels. Kim shared, "Not one training could help us figure out how to satisfy all these different levels," and she later expressed, when describing

collaboration to develop content units integrated with the target language, "That's, again, doing the same thing with so many kids with different levels."

"Brittany" also struggled with the creation of curriculum and assessments. She stated, "We are not able to find any assessment [to] tie it with our textbook or our unit. So that means I have to create that, and that is too hard. I can only use very simple things, informal type [*sic*] of observation [*sic*], and then activities or interaction [*sic*] with the students. It is hard to have a paper and pencil type of test assessment for students." Brittany further described how the current approach to teaching language contrasted with approaches used in her target-language country.

Areas of Medium TSE and In Vivo Responses

Responses for medium TSE, as well as responses coded in vivo, showed the nuanced nature of TSE, often combining aspects of low or high self-efficacy experiences or teacher competency versus external influences. For example, on the question of planning time, "Nancy" commented, "High-medium. It's not enough for everybody. I'm a seasoned teacher. There are a lot of people having difficulty with that. I have a pretty good framework. So, for me, I think it's enough." Two respondents commented on the impact of external influences, such as requirements to attend other mandatory school meetings. For example, "Elizabeth" responded, "Honestly, you know, during the planning time that we have, sometimes I have other meetings. And I still work, even after 20 years, I still work at home."

Medium responses fell predominantly in the task areas of Category II: Curriculum and Instruction, "helping students access subject content through a foreign language," and Category VI: Support, "engaging with families to help children achieve program goals." Teachers' responses reflect a combined general competency or willingness to implement the tasks they have been trained in, with external influences limiting a higher TSE. For example, regarding the influence of state assessments, "Jennifer" expressed, "I think our teachers try really hard, but

because of our need to perform on state assessments and even the math assessments, they're learning in a target language, but they're having to be tested in English." Related to the extent of parental support at home, "Janice" shared, "When I see [a need], as soon as I see the problem, I contact the family. I should share my concerns. I tell them what they can do at home. But I cannot make them do it."

Similar to medium TSE responses, responses coded as in vivo also reflected programmatic aspects outside the control of teacher influence (see Table 3). The program areas receiving the most in vivo responses fell in Category II: Curriculum and Instruction (target language materials, classroom discourse, and text), Category IV: Assessment, and Category V: Professional Development. Category VI: Support in the form of collaboration with staff also referenced the lack of agency regarding how collaboration planning should be used.

Summary of Teacher Self-Efficacy Beliefs

Overall, teachers had a high sense of efficacy in content and language knowledge, especially if they had more years of teaching experience. Two schools representing two target language groups expressed high TSE after recently acquiring curriculum materials more suitable to students' language proficiencies and target language content areas. "Use of planning time for immersion planning" received the most responses for Low TSE, though two teachers believed they had found methods for optimizing their time. Responses for Medium TSE and in vivo revealed several challenging aspects of the program beyond teachers' personal efficacy, including the availability of program-related curriculum materials, partner-language assessments, and professional development specific to immersion classrooms. Other external influences emerged, such as students' diverse language proficiencies, academic aptitudes or attitudes, and families' capacities to assist children with schoolwork.

Table 3

Sample In Vivo Responses to Teacher Sense of Efficacy

Program Sub-Factors	Example In Vivo Response	Influences
Help students achieve growth in the target language	Kelly: "Depending on where the students are at, some [*sic*] if they have a love of the language or are natural with it, then they tend to take off with the language more, or with their capacity, and those that struggle, maybe it's more difficult to get them to achieve growth."	Students' language aptitude
Current curriculum materials for meeting program goals	Kelly: "The entire math curriculum is translated. Science is not, but the entire math is. So that would be a challenge in moving forward when we adopt a new math curriculum."	Access to resources for subjects in the target language
Engage in classroom target language discourse	Elizabeth: "I would say middle at the beginning of the year, a lot at the end of the year."	Sustained language exposure
Engage with the target language text	Nancy: "So, if I had a [grade-level] text, which is this one, they would never read it because I wouldn't be able to get through it. Even though it's, you know, age-appropriate, it's not language appropriate."	Access to resources in target language proficiency and maturity levels
Use a variety of assessment strategies for measuring student progress in both language and content	Brooke: "Assessment is a big part of what we have [*sic*] challenging … we just started a more concrete type of material. And yes, we do have one assessment; it's called STAMP. But it's not aligned with what we're teaching, and it's not complete enough and not really for young children."	Access to resources for assessments aligned with instruction
Implement the strategies you acquired from your professional development	Mary: "I have to admit, it's very limited. I find it difficult to find professional development that is geared towards language immersion."	Lack of immersion instruction training
Collaborate with staff to solve challenges or reach program goals	Liane: "I don't know. We have so many meetings, and everybody is so burnt out that we're sitting, and we're just completing papers. And we're not…we're not coming up with anything. We're not building."	Collaboration purpose and effectiveness

Analysis III: Cross-Site Program Factors Influencing Teacher Self-Efficacy Beliefs

This study's research question two inquired: What are teachers' and leaders' perceptions about the program-related factors that strengthen or reduce teachers' self-efficacy beliefs while implementing elementary foreign language immersion programs in the study region? With the purpose of ascertaining teachers' and leaders' perceptions, interview transcripts were coded with challenges and strengths related to each program category and sub-factor. All challenges and strengths were compiled in a table, Cross-site Program Factors Hindering or Strengthening Teacher Sense of Efficacy (see Appendix N).

Though variation occurred across research sites and in teachers' individual experiences and perceptions of aspects influencing teachers' sense of efficacy (TSE), aggregate data analysis revealed common factors hindering or strengthening TSE beliefs (see Appendices O and P for code samples). Program factors strengthening TSE beliefs included teachers' confidence and satisfaction with sharing the target language and its culture, using all students' language resources, engagement strategies, skills in developing formative assessments, grade-level collaborations, and consistent communication with parents. Strengths centered on teachers' specialized knowledge of language and culture and traditional best practices for the teaching profession.

Program factors hindering TSE beliefs included a lack of clear definitions and goals of bilingualism, students' lack of academic vocabulary, a lack of appropriate materials for teaching content through a foreign language, a predominantly English context with additional state assessment pressures, a lack of assessments aligned with immersion, limited training options, communication barriers between colleagues, aspects of parental capacity to support target language and academic development at home, and the lack of time to address multiple priorities

mandated by the state, districts, and schools. The program factors hindering teachers' sense of

efficacy related to the specialized curriculum and instruction for foreign language immersion, the

dominant English context, and meeting the multiple priorities of the district, the state, and the

goals of the foreign language program.

Emergent Themes for Foreign Language Immersion Programs in Research Region

The aggregate of program factors influencing teacher self-efficacy was then analyzed for

emergent themes. Although the program factors varied, four all-encompassing themes emerged

across the data: majority-language context matters, the accountability tradeoff, hindrances of the

two-for-one model, and teacher agency. The themes were placed onto Bandura's (1986)

framework for triadic reciprocal causation. Three of the four themes aligned with the

environmental determinant category, and teacher agency aligned with behavioral determinants

(see Figure 1). The findings suggest interdependent influences on teacher self-efficacy and the

significant impact of environmental determinants, explained more below.

Figure 1

Emergent Themes of Program-Related Factors Influencing Teacher Self-Efficacy
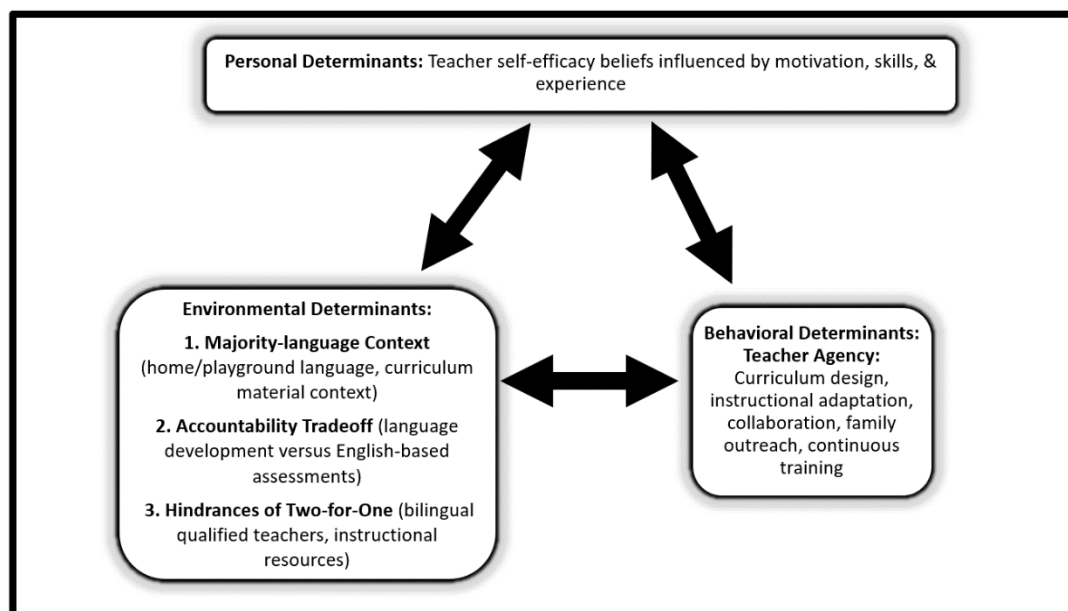
Majority-Language Context Matters. An essential attribute of foreign language immersion programs is creating a target language environment in which students can more naturally acquire the language through consistent and authentic exposure and application (Krashen & Terrell, 1983). All site schools in the study region had to contend with the constant encroachment of the English context, the majority language of the region and student population. After a limited amount of time in the target language during the school day, students would return to English-speaking playgrounds or home environments with family members lacking the ability to assist with homework in the target language. The one-way immersion learning environment contrasts with the two-way immersion learning environment with proportional numbers of English-speaking and target language-speaking students. "Nancy" shared her perspectives on the limitations of target language immersion in a predominantly English context:

> So, the limitation, that's where we are in our program, is that the social language is mostly at home, definitely on the playground, in the cafeteria, comes back to being English because people living here speak English and come in here for a second language. And children, [and] adults, you have to connect to people emotionally. And we do it through language.

Even within the dedicated target language time in immersion classrooms, teachers experienced challenges in developing classroom cultures to promote target-language speaking, especially in classrooms with a range of language proficiencies. "Kim" shared her experience:

> Because we have many students that enter our school in third or fourth, or even fifth grade, and they, of course, don't have the language proficiency to understand math on this [*sic*] level that we are at this point. So, I have to switch into [*sic*] English because I can't leave them behind. So, you have this dilemma, when those students that actually

could do it all in [the target language], but I have to kind of mix the lecture. So that's why

they do achieve their goal in math. But the problem is, it's not all in [the target language].

Teachers also needed help finding enough resources in the target language to fit the

students' language proficiency, maturity, and grade level, important elements for a language

acquisition environment. In these cases, teachers had to use English texts or media and orally

translate them into simplified language, as described by "Rebecca":

> The biggest challenge is the language, academic language, and also the resource [*sic*].
>
> They're supposed to read the books, but there's [*sic*] no books of [*sic*] their level of this
>
> content. Later on, we're [going to] do some natural disaster [*sic*], all those topics, I have a
>
> hard time finding the resource [*sic*] for them. So, the only thing I can do is read the books
>
> to them; they cannot read themselves.

The Accountability Tradeoff. To add to the challenge of a predominantly English

contextual environment is compliance pressure through English-based assessments at publicly

funded schools. Teacher accountability measures force teachers to make daily tradeoffs between

target language use and students' preparation for English-based content assessments. As shared

by "Kathy":

> But then, when you have all these additional things, is [*sic*] what's making it hard, I think
>
> pulls for testing, state testing. Absolutely, state testing. If we didn't have standardized
>
> testing, I would run the program differently. I would not worry about their language arts
>
> scores going up by so much. I would get them reading [*sic*] and writing and talking in
>
> [the target language]. So, absolutely [I would] prioritize things differently. And I think
>
> the parents will be happier.

"Brooke" shared, "I know it's an immersion program, but sometimes you do have to use English…because we are teaching math. And the math is measured in the U.S. So, you know, you can not completely sacrifice that." Teachers also feel the pressure to prioritize the state-mandated professional development (PD), as explained by "Nancy": "And I have participated in some language PD, but to be fair, there's enough regular [state] required PD that is necessary, where I have to put my priority there. I do. It would be foolish not to."

While students' academic performances in English-assessed subjects are emphasized, the goal of language acquisition through prolonged immersion in a target language is sidelined. Site three, an independent school, is the exception. Though still following academic standards, site three has invested in acquiring more target language resources and developed a customized assessment system to monitor student progress.

Hindrances of the Two-for-One Model. The experiences of the research site schools revealed challenges to the two-for-one model; the model used when the same teacher teaches language and content together. Challenges include recruiting licensed or highly qualified education professionals who are native target-language speakers or bilingual teachers highly qualified in both the target language and English. "Mary," the leader of one school, discussed the need to hire two teachers for each grade level, one English teacher and one target language teacher:

> One of the greatest challenges, I think, is financial, as just, you know, like [*sic*] I've said before, we have greater expenses in terms of staff than other elementary schools because of how unique our program is. Unless we can find teachers that are native speakers and also able to teach English…it's just not very common.

Native target language speakers must adapt to the American educational system and speak and teach a second language. Another school principal, "Audrey," described their school's initiative to provide teachers' manuals in two languages so that teachers may more clearly understand shared expectations about curriculum concepts and goals across the school:

As an instructional leader, it's our constant reflection…are we providing those stepping stones for them, the clarification. What do we need to do in their native language for instruction? And the wonderful thing is that they now have the resources and books that we're using for some of our instruction in [the target language]. So, we can have a team sit down and go, 'Okay, we want to teach the students how to create a lead, a good lead in writing.' Well, they could look at their English book and go to it; they can look at their [target language] book and go to the exact same lesson. Both languages, that's part of the bridge I'm talking about, is to really help them go, 'Oh, I'm understanding [*sic*] what your goals are, what the key concept is here or where we're headed with this,' in their native tongue, which is important. But it's a shared skill or a shared expectation of what you want to teach the children.

Another challenge shared across sites was the development of curriculum materials in two languages. Though a couple of sites have made progress for a few language groups, teachers spend considerable time developing resources. "Jennifer" shared:

[Teachers] really need to find their own resources. So that's an added burden, a huge added burden. We don't have teachers that can just go in and read from the curriculum manual, right? They've got to be inventive. And they've got to find their own resources.

Teacher Agency. Based on Bandura's social cognitive theory (2018), human agency, a manifestation of self-efficacy, is the process by which people intentionally change themselves or

their situations through their actions. Despite the challenges of maintaining the foreign language immersion model in a predominantly English-speaking context, the concept of teacher agency frequently emerged from the data. For example, teachers developed strategies for family outreach and self-invested in continuous learning. Despite frequent challenges, teachers adapted methods to enhance students' language acquisition, such as stated by "Liane":

> I was in third grade, and the kids could not really read their math, so I would have to read it to them. So, when I moved down to first grade, and we were doing science, rather than writing the science in English, I decided, okay, well, we know how to say these sentences verbally, so I'm going to write them down.

As school priorities changed, Liane also found ways to adapt to reduced time for instruction in the target language:

> It's always having to take the new expectations and just try to figure out how can I push in the [target language] again, to still be able to push in that lunch count and still be able to push in, 'Where's your red folder?' Every single day they come in, and then we say, 'Put your red folder in the box. That's your water bottle in the box. Put your lunchbox in the white basket.'

Teachers often took the initiative to improve curriculum resources or language and culture exposure opportunities. For example, "Melanie" shared, "If I start researching, I waste a lot of time. And what I find is it's at the level where the kids are not. So that's why I create a lot. So, I do a lot of research with ESL websites because it's a little bit like what I'm doing." The same teacher was planning an evening event to share the culture of the target language with students and families.

Though struggling with accommodating multiple proficiencies in her own classroom, "Kim" volunteered to give a presentation to the staff about her strategy to address this challenge. The initiative addressed a gap in professional development. Kim explained, "As a matter of fact, I'm just working on a presentation now that I promised to share this a little bit. This would be a training where people are actually seeing what we are doing and give us a training specifically for this [challenge]."

Analysis IV: Recommendations for Strengthening Teacher Self-Efficacy

Research questions one and two revealed various factors influencing teacher self-efficacy in the foreign language immersion programs in the region, encapsulated in Figure 1. Research question three sought to answer the following: How might educational leaders develop school environments that strengthen teacher self-efficacy beliefs in addressing challenges encountered while implementing foreign language immersion programs in the study region? The findings were derived from a combined analysis of interviewees' recommendations coded in transcripts and the coded factors influencing teacher self-efficacy from questions one and two. All recommendations suggested specific areas of support for counteracting environmental hindrances to achieving program goals, shown in Figure 2 on page 99. Each recommendation, detailed below, was then analyzed for relationships with the four antecedents to self-efficacy (mastery, modeling, social persuasion, and physiological/mental states), ensuring a more robust approach to improving teacher self-efficacy within the study region's foreign language immersion learning environment.

Clarify and Promote School-Specific Goals for the Language Program. When developing their Teacher Sense of Efficacy Scale, Tschannen-Moran and Woolfolk Hoy (2001) stated teacher self-efficacy includes both dimensions of personal competence and an analysis of

tasks, resources, and constraints in a particular teaching context. The findings for question two

revealed significant environmental constraints from a majority-language context, accountability-

based policies, and resource constraints for meeting the two-for-one model. These findings

confirm the challenge of integrating academic content and language goals in the current case

environment with implications for task and resource allocations.

Additional interview data revealed contrasting expectations and approaches to achieving

bilingualism in programs across the sites. Expectations for language growth ranged from

language exposure to meeting academic standards and different conceptions of language learning

versus language acquisition. "Melanie" expressed, "For me, my expectation is that kids love [the

target language], the love of a language." "Kelly" stated, "The goals are following state

standards, so, regarding, you know, whether it's a traditional immersion program, students in

immersion programs will meet state standards. The goal [is] really looking at more speaking and

listening, versus being able to write in [the target language]." Some responses reflected the

elastic nature of language acquisition, as shared by "Audrey":

> Bilingualism is quite wide and varied. There's a lot of research out there, a lot of
>
> definitions. Really, they're talking about being able to converse [and] communicate,
>
> whether you read and write in the two languages, but you will use each one depending on
>
> the circumstance.

As shared by "Liane," schools will need to explore strategies for improving students'

target language communication skills while developing academic language skills, like reading, to

access grade-level academic materials. She shared, "How do you provide access to the material

to support the language, especially when you get to third grade and fourth grade, and you may

have to read some content in [the target language]?"

To foster a greater sense of efficacy, leaders and teachers may need to evaluate schoolwide goals based on realistic expectations for language progressions within an academic context based on resources, policy constraints, and tasks required. For example, if students continue to engage in academic content through the target language, schools might consider the role of vocabulary, literacy, and scaffolding for comprehensible input (Tedick & Lyster, 2020). Schools may also develop appropriate methods to monitor effectiveness based on clarified program expectations. Clarifying goals and developing strategies to achieve them based on realistic expectations may increase the self-efficacy antecedents of mastery, social persuasion, and physiological/mental states.

Develop Quality Curriculum Resources Aligned to Program Goals and Assessment. The second recommendation relates directly to the first. Several teachers expressed concerns about the challenges and time requirements of curriculum development, including creating language level and developmentally appropriate resources and assessments aligned with instruction. "Brittany" expressed, "That's the biggest challenge. It also ties with the goal because we do not have very specific assessment [*sic*], and then also the curriculum for young kids, that's easier to consistently assess a student's ability… that's tied with the goals." Grade-level academic materials according to language proficiency are especially lacking, as shared by "Rebecca," "The biggest challenge is the language, academic language. And also the resources. Like, they're supposed to read the books, but there's [*sic*] no books of their level of this content." Teachers devote significant time to developing appropriate resources. "Jennifer" shared her recommendation for support, "I think curriculum materials would be huge; the teachers will tell you this. I don't have time. I need time." Investing in integrated, viable curriculum resources,

including assessments, or allocating time or compensation for teacher-designed materials, would achieve all four antecedents to self-efficacy.

Optimize the Target-Language Environment. Teachers shared several recommendations for optimizing the target-language environment consistent with language acquisition theories. Krashen (1982) suggested a classroom with optimal acquisition characteristics will lead to a faster acquisition rate, and activities with little or no acquisition characteristics will lead to little or zero acquisition. Especially in one-way immersion in a majority-language context, the target language teacher carries the greatest burden of creating an immersion language environment (Polok, 2021). Teachers expressed the need to preserve the time dedicated to the target language, reduce class sizes, support students' diverse proficiencies, and have extra personnel or volunteers to assist with leveled groups and material development.

Multiple teachers shared concerns about accommodating multiple language proficiencies, as each proficiency level required different materials and instructional strategies. For example, see Kim's comments on page 89. Minimizing the range of student language proficiencies would ensure resources and time are directed more efficiently and effectively to promote growth in language acquisition (Krashen, 1982).

Teachers recommended schools develop schoolwide expectations for greater target language use, starting with speaking. ACTFL has recommended 90% of learning time in immersion be through the target language (ACTFL, 2023b). Also, adults who speak the target language, paraprofessionals, or family/community volunteers, should be enlisted to develop resources such as translations, book recordings, visuals, and realia, increasing exposure to language and culture and supporting newly enrolled, low-target language proficiency students.

Increased support in these areas would foster the antecedents of mastery, modeling, social persuasion, and physiological/mental states.

Improve Collaboration Effectiveness. The category of collaboration received a significant amount of mixed self-efficacy. Teachers understand the potential of effective collaboration but expressed multiple challenges, including negotiating cultural norms, language barriers, diverse personalities, and competing priorities for limited planning time. "Jennifer" recommended, "I think building that collegiality, that collaboration, they do a pretty good job of that now, but then you do have a few instances where teachers kind of clash or there are things that need work, you know. It is how they're able to kind of function as a team." "Mary" also expressed, "We know what to do, you know, form committees and meet up and brainstorm and then come up with a plan and all of that, but it's always a matter of when we should fit that in?"

Effective collaboration may be a magnifier of teacher self-efficacy. In collective efficacy, when teachers work together to address the learning, they can combine knowledge, skills, and resources (Bandura, 2018). With effective collaboration, teachers may provide models for each other, encourage each other, reduce the task and cognitive load, and gain mastery in pedagogical practices linked to students' achievement, addressing all antecedents to self-efficacy. For language immersion schools with multiple languages and cultures, more effort may be needed to build understanding between cultures or to overcome language barriers, create explicit goals and procedures for meetings, and plan strategically for balanced use of planning time.

Seek Out School-Sponsored Professional Learning Opportunities. Teachers and leaders recommended schools seek training specific to language immersion, training in language learning engagement strategies, and subject content training conducted through the target language for the native target language teachers. Local professional training and networking

opportunities need to be improved in the study region. Though most immersion language training is currently offered outside of the state, new opportunities have emerged, such as continuous online learning. Schools in the region should begin to network more with each other. Immersion-specific training and networking would fulfill all four antecedents.

Figure 2

Recommendations for Developing Environments to Strengthen Teacher Self-Efficacy
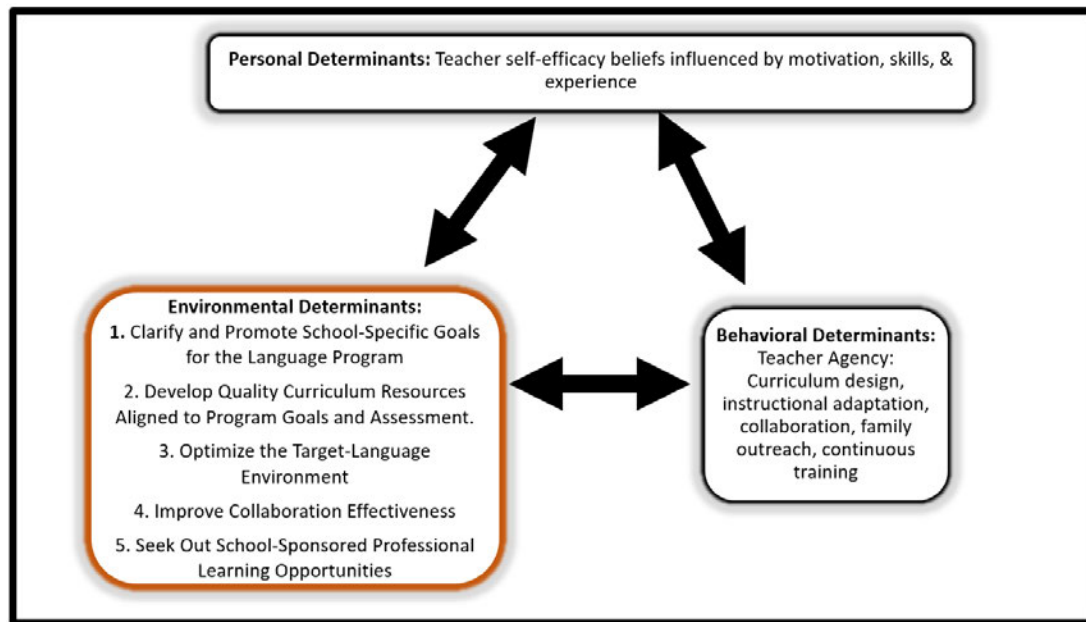
Reliability and Validity

The reliability and validity of the findings are critical for ensuring the trustworthiness and potential impact of the study (Merriam & Tisdell, 2016). Research strategies are available to ensure reliability and validity consistent with the interpretive nature of qualitative research. For example, credibility and dependability are more commonly used in qualitative research than standards of validation used to determine accuracy in quantitative research (Creswell & Poth, 2018). The research design of this study followed Yin's (2014) methods for case studies.

Credibility and Dependability

This study used several strategies to ensure the credibility and dependability of the research, thus increasing the trustworthiness of the data and findings. The research design utilized triangulation and comparative analysis to corroborate evidence from multiple data sources at three research sites fitting the criteria for the case study. Data saturation was achieved by acquiring 15 participants and interview transcripts. Each site required a minimum of one leader and two teachers meeting the participant criteria.

Multiple strategies were used to ensure the credibility and dependability of the research instrument. The instrument was developed according to research-based frameworks for dual language programs (Howard et al., 2018) and validated constructs for measuring teacher self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). Five subject matter experts validated the modified semi-structured interview format (Appendices G and H). All transcribed interviews were returned to participants for member checking, allowing for participant feedback on the accuracy of the transcription. An evidence trail, suggested by Yin (2014), was also developed to corroborate thick, rich descriptions with the source of the data.

Consistency and Transferability

In contrast to statistical generalizability in quantitative research, qualitative methodologies use consistency and transferability to refer to the extent to which the research may be transferred to other settings (Merriam & Tisdell, 2016). Although case studies are designed for highly contextualized research, a few methods are applicable to future research about foreign language immersion programs in diverse regions. The scripted interview protocol ensured consistent interview procedures were followed with all participants and research sites,

and the data collection and analysis process was followed throughout the research (see Appendix J).

Trustworthiness

As one of the most significant threats to credibility, bias was addressed throughout the research process. The research proposal and the recruitment presentation disclosed the researcher's experience with the topic and professional relationships with some participants, and bias was monitored through reflective notes. Fairness to all participants was addressed through executing a consistent recruitment and data collection process. During analysis, rival explanations for discrepant findings were considered.

Chapter Summary

This qualitative case study explored teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. The findings show specific areas school leaders may direct their efforts to foster enhanced teacher self-efficacy and student language acquisition. The findings for the first research question revealed a combination of personal and external factors that influenced teachers' mixed self-efficacy beliefs. Specific program-related factors hindering or strengthening teacher self-efficacy beliefs were explored in question two, and four themes emerged: majority-language context matters, the accountability tradeoff, the hindrances of the two-for-one model, and teacher agency. Consistent with Bandura's (1986) framework for triadic reciprocal causation, the findings suggested powerful environmental determinants influencing teacher self-efficacy beliefs. Teachers also exercised significant teacher agency due to or despite environmental factors. Findings for question three identified five recommendations for developing environments to enhance teacher self-efficacy: clarify and promote school-specific

goals for foreign language immersion programs, develop quality curriculum resources aligned to program goals and assessments, optimize the target-language environment, improve collaboration effectiveness, and seek out school-sponsored professional learning opportunities.

The complete research process has been described, from recruitment to data collection and analysis, and the findings of the research questions have been presented. Interpretations and conclusions of the research will be discussed in Chapter 5. The following section will also explain research design limitations and recommendations for further research.

Chapter 5: Discussion and Conclusions

This qualitative case study explored teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in Colorado. The study used the lens of self-efficacy theory and the theory of transformational leadership to offer insights into individual beliefs, experiences, and practices bounded by the principles of dual language programs in a specific context. School leaders may utilize the findings of this study to foster conditions to strengthen teacher self-efficacy beliefs in foreign language immersion programs of a similar context, with added benefits for student achievement and teacher satisfaction.

Per the qualitative case study design, findings were extrapolated from existing documents, records, and interviews across three sites within the same region. The findings for question one revealed mixed self-efficacy beliefs influenced by personal factors, like confidence in the target language and professional skills, and environmental factors, such as availability of resources specific to language immersion, students' range of language proficiencies and aptitudes, or capacities of families to support children at home. Findings for question two exposed four overarching program-related factors influencing teacher self-efficacy: majority-language context matters, accountability tradeoffs, hindrances to the two-for-one model, and teacher agency. Five recommendations for how leaders may foster conditions for teacher self-efficacy, question three, grew out of the analysis: clarify and promote school-specific goals for language programs, develop quality curriculum resources aligned to program goals and assessments, optimize the target-language environment, improve collaboration effectiveness, and seek out school-sponsored professional learning opportunities.

The findings clarified more specific leadership practices needed to support foreign language immersion programs in the study region. More investment is needed for supporting learning environments, such as qualified teachers, viable language immersion curricula and training, and supportive policies. Expanding foreign language immersion in Colorado will be difficult without these core resources. More discussion about the findings, interpretations, and conclusions will be discussed in Chapter 5. The following section will also share the limitations of the research, recommendations for future research, and implications for leadership.

Findings, Interpretations, and Conclusions

The research findings confirmed the challenging nature of implementing foreign language immersion as described in the literature (Amanti, 2019; Cammarata & Tedick, 2012; Cruz, 2020; Morrell et al., 2019; Tigert & Peercy, 2018). Participant teachers generally had high personal efficacy in program areas in which they had previous training and experience. However, efficacy was often hindered by external factors, including a dominant English context, students with a range of target language proficiencies and a notable lack of academic vocabulary, and a scarcity of appropriate materials for teaching grade-level content through a foreign language, similarly described by Bucknam and Hood (2021) and Bruin (2019). In addition, teachers and leaders communicated a lack of target language assessments aligned with immersion instruction and the limited training options in the region, challenges previously identified by dual language immersion researchers (American Councils for International Education, 2021a; Thane et al., 2022).

Overall, the findings revealed multiple interdependent factors influencing and extending beyond teachers' personal efficacy and the available guidance for implementing foreign language immersion. The analysis of the factors strengthening or hindering teacher self-efficacy

revealed four overarching themes: majority-language context matters (the contextual environment of one-way immersion programs), the accountability tradeoff (the prioritization of English-based standardized assessments), the hindrances of the two-for-one model (scarcity of target language teachers and materials for teaching content and language), and teacher agency (teachers taking the initiative to overcome challenges). Five recommendations for fostering greater teacher self-efficacy within the described context were extrapolated: clarify and promote school-specific goals for foreign language immersion programs, develop quality curriculum resources aligned to program goals and assessments, optimize the target-language environment, improve collaboration effectiveness, and seek out school-sponsored professional learning opportunities. When aligned with the four antecedents to self-efficacy, the recommendations offer strategic target areas for leaders seeking to improve and grow their foreign language immersion programs. The findings will be discussed in relation to the study's theoretical framework and conclusions provided.

Self-Efficacy Applied to Teachers in Foreign Language Immersion Programs

Bandura's theory of self-efficacy (1977) suggested a person with self-efficacy can direct cognitive and motivational resources to the actions required to obtain desirable results. Bandura elaborated on the theory with the concept of triadic reciprocal causation, a concept that people are neither fully autonomous agents nor automatic responders to their environments. Rather, personal factors (cognitive, affective, and biological), environmental factors, and behavioral factors interact bidirectionally and interdependently (Bandura, 1986). Scholars have applied self-efficacy theory to teachers, defining teacher self-efficacy as the extent to which teachers believe they can affect student performance (Tschannen-Moran et al., 1998). Consistent with the concept of triadic reciprocal causation, teacher self-efficacy scholars delineated two sub-areas of teacher

self-efficacy: personal efficacy, which is subject to individual motivation and competence, and general efficacy, subject to external influences of working conditions and individual student characteristics (Tschannen-Moran & Woolfolk Hoy, 2001).

The research findings confirmed the applicability of Bandura's theory of self-efficacy and the concept of triadic reciprocal causation to the specific case of teachers implementing foreign language immersion in Colorado. The four emergent themes, factors influencing teacher self-efficacy beliefs, were placed in Bandura's triadic reciprocal causation framework (Figure 1). Teachers' personal determinants were strong. They believed they had the personal capacity to affect student performance, as they were strongly motivated to help students, were enthusiastic about language and culture, and were knowledgeable in both language and content. Three of the four themes aligned with environmental determinants: a dominant English context, accountability pressures, and the scarcity of bilingual resources, including both teachers and materials. Despite the strong environmental determinants, or perhaps because of them, teachers demonstrated behavioral determinants by enacting agency in curriculum design, instructional adaptation, and family outreach. The five recommendations for fostering greater teacher self-efficacy may also be sorted under environmental determinants (Figure 2), providing more precise guidance about where leaders should direct their support to improve working conditions and enhance teacher self-efficacy.

Transformational Leadership Theory Applied to Teachers in Foreign Language Immersion

School leadership enhances teacher self-efficacy by fostering a supportive academic environment (Thornton et al., 2020). A strong relationship has been shown between transformational leadership and teacher self-efficacy, especially in developing a shared vision, providing individualized support (Menon & Lefteri, 2021), and encouraging innovation through

intellectual stimulation (Zainal & Matore, 2021). In contrast, Özdemir et al. (2020) suggested instructional leadership may be necessary for environments with significant instructional challenges, with more direct impacts on student learning, thus developing teacher mastery and confidence. DeMarco and Gutmore (2021) also discussed the unprecedented challenges of managing modern schools, suggesting distributive leadership practices may allocate responsibilities across a network of expert staff.

Considering the current contextual constraints and instructional complexities of foreign language immersion in the study region, the findings suggested combining transformational, instructional, and distributive leadership practices. Though leaders at all three schools were knowledgeable about foreign language immersion, only one was a target language speaker, meaning leadership relied on the language expertise of their teachers. The findings also showed practices more reflective of Grivet et al.'s (2021) description, with leaders generally removed from instructional practices. One teacher participant, "Brittany," appreciated the verbal encouragement she received from her principal but expressed a need for more direct support in materials and instruction, including having another teacher to "share the responsibility or share our idea[s] or our material[s] [with] one another to save time."

When applied to foreign language immersion in the study region, teacher perspectives suggested a transformational leadership style alone has limitations. Research findings show an additional and explicit need for more robust material and instructional support. With the intensification of managerial duties in an accountability era and a lack of specialization in target languages, leaders in the study region should consider hiring instructional support staff trained in target language development.

Multiple Levels of Influence in Multilingual Education

The research findings were also consistent with the work of Kirss et al. (2021), who evaluated the factors required for effective multilingual education. Through a worldwide literature review, Kirss et al. identified interdependent success factors at micro, meso, and macro levels, showing the need for consistent inputs of resources, leadership, and curriculum at all levels and an emphasis on policy at the macro level. The emergent themes in this study also showed factors influencing teacher self-efficacy at all three levels, most notably the impact of assessment policy and scarcity of resources and curriculum. All recommendations suggest a critical role for leadership in advancing policies and resources to support successful program implementation at the classroom level.

Conclusions

In *Guiding Principles for Dual Language Education,* Howard et al. (2018) clearly stated that localized dual and foreign language immersion models must adapt to the size and language needs of their student population, such as the proportion of language minority and language majority students, the availability of bilingual staff, the demands of the local community, and the availability of external support. These assertions were confirmed in this qualitative case study, which revealed, through the nuanced nature of teacher self-efficacy, a combination of teacher personal efficacy combined with powerful external influences, including the scarcity of bilingual staff and resources and the influence of a dominant English and accountability environment. The research showed a clear role for leaders as the bridge between teachers at the classroom level and the contextual influences at the school/district level and state/regional level, especially concerning resources and policy. A complex and challenging educational environment may require a combination of transformational, instructional, and distributive leadership practices.

The unit of analysis, foreign language immersion programs in Colorado, bounded interpretations, inferences, and conclusions. The findings point to specific areas to enhance teacher self-efficacy and reach goals for foreign language immersion programs. Future studies may extend to other regions or may investigate teacher and leader perspectives about specific languages, content areas, and grade levels. Though this study focused on teacher self-efficacy in the foreign language classroom, future studies may expound on fostering self-efficacy and agency for educational leaders operating in complex and challenging environments.

Limitations

A few limitations surfaced in the study, historically consistent with case studies (Cohen et al., 2018). A small sample size, 11 teachers and four leaders, and context specificity limited the study's external validity, so findings are not generalizable to the greater population. The total number of schools in the study region offering foreign language immersion was limited to only eight. The number of teachers fitting the study criteria was also small, necessitating the inclusion of three different schools. The inclusion of three separate sites introduced different contexts, with one each of an independent, charter, and public school, with a minimum of three participants from each, which may have diluted the overall analysis (Creswell & Poth, 2018). Conversely, the study revealed cross-site differences between school governance structures and research outcomes, which may create opportunities for future research.

In contrast to quantitative studies, case studies provide opportunities for analytic generalizability so researchers can better understand similar cases through thick, rich descriptions of the unit of analysis (Cohen et al., 2018). As the study scope was foreign language immersion programs in general, the analysis was bounded by the principles governing most dual language immersion programs (Howard et al., 2018) and the experience of foreign language

immersion programs in one particular less studied region. The findings may be used for cross-comparisons of similar cases with majority-language-speaking student populations learning academic content through a foreign language.

Yin (2014) discussed the dilemma of balancing participant anonymity with providing sufficient background information in a case study. Due to the potential risk of a final case report impacting study participants or school reputations, details with "specific, important features" but not directly identifiable to school sites were used (Cohen et al., 2018, p. 389). For example, specific target languages and grade levels taught were removed from the reporting.

The research design used consistent and well-documented data collection procedures to enhance the research findings' credibility, dependability, and confirmability. Five subject matter experts reviewed and validated the interview protocol, the primary data collection instrument (Appendices H and I). All interview transcripts were member checked, and the triangulation of data from existing records and interview transcripts across three separate study sites increased the dependability. Commonalities and discrepancies across sites were analyzed and reported. Confirmability was ensured by developing a chain of evidence compiled in a data management system, including informed consent records, existing records, interview recordings, transcripts, NVivo coding records, and data analysis tables.

Recommendations

Though the study findings provided practical recommendations for improving the implementation of foreign language immersion programs specific to the study region, they also highlighted areas for further research and potential changes in practices and policies in the field of dual language immersion. Recommendations for further research focused on the development of more targeted guidance for foreign language immersion programs in different regions and

programs with a majority student population who speak the region's language. Recommendations are provided for aspects of practice and policy.

Foreign Language Immersion Practices in a Majority Language Context

If dual language programs are to expand in the United States, researchers and practitioners should focus on understanding target language proficiency development across the different dual language immersion models, the rates of language development, and the practices promoting language development for diverse student populations. The lack of immersion-aligned assessments in foreign language immersion and data demonstrating target language achievement is problematic (Thane et al., 2022). A majority-language context, such as English in the study region, also means target language development will likely occur at a slower acquisition pace with additional implications for accessing academic content (Polok, 2021; Su et al., 2021). In contrast, two-way immersion programs have a larger portion of target language speakers entering with some language background. The guidance for dual language immersion needs to clarify these differences between student populations and the learning environments and how to accommodate them.

Tap Into Emerging Global Research

Researchers and practitioners for dual language programs in the United States should tap into the worldwide research developments in language acquisition, especially from the global English field. For example, English medium instruction (EMI) growth in places like China provides some insights. EMI focuses more strongly on learning outcomes of subject matter and is used with students who are predominantly non-English speakers. The experiences of EMI in China may be more similar to foreign language immersion, or one-way immersion, in the U.S., where the emphasis on a standards-based curriculum remains dominant. Su et al. (2021) shared

the problematic aspects of mastering content taught in a second language at the university level, including challenges with understanding lectures and technical vocabulary, oral expression and academic writing, and a need to reach a threshold level of English. Though the authors proposed the target language continue as a medium of instruction, they also noted students need to have sufficient language proficiency before using it for academic content. The target language medium courses need to be seen on a continuum, with target language immersion on one end of the spectrum and students' varying degrees of linguistic resources along the remainder of the spectrum, allowing for the use of the native language or translanguaging to understand content when necessary. The authors offered a "dual track" model, with EMI and English for special purposes/EAP (content and language learning), each serving separate functions.

CAPA Model to Promote Greater Language Development

More evidence is needed of dual-language immersion models that improve students' skills in target language development. Tedick and Lyster (2021) focused on developing students' target language when home languages are a dominant majority language, such as English in the United States and Canada. They proposed the CAPA model, including contextualization, awareness, practice, and autonomy, to strengthen target language development through metalinguistic awareness and purposeful language practice. As CAPA is a newly proposed model, more research is needed to demonstrate its effectiveness.

Continuum of Linguistic Proficiency for Academic Content

The literature review and findings from the current study showed a need for more understanding of the continuum of linguistic proficiency for specific languages, content areas, and grade levels (Troyan et al., 2017; Vázquez, 2018). There is also a need for learning standards and assessments for bilingual schools (Thane et al., 2022). The common recommendation is for

language arts for the target language to be integrated with the subject matter taught in the target

language along a continuum of linguistic proficiency (Su et al., 2021; Tedick & Lyster, 2021).

Better guidance on language progressions for different grade levels and content areas is

necessary for language development goal setting and aligning curriculum, instruction, and

assessments.

Policy Development in Support of Dual Language Education

The general population dynamics and policy environment are significant, influential

macro-level factors impacting external program support for foreign language programs in the

study region. Dual-language program leaders and scholar-practitioners should use the policy

sphere to highlight the impact of the assessment-based accountability paradigm on innovative

and specialized education programs, such as foreign language immersion. This study's findings

confirmed dual language immersion educators often make pedagogical tradeoffs to meet

compliance requirements in ELA and math (Babino & Stewart, 2018; Wei, 2018). The high-

stakes testing in these two subject areas reduces the focus on developing other skills, such as

foreign language, even if students are consistently at or above grade level in English and math

(Collier & Thomas, 2017). The Every Student Succeeds Act of 2015 gave "states more flexibility

and more decision-making power at the local level," including assessment requirements (CDE,

2017, p.1). Despite stakeholder calls for well-rounded and supported education, providing

students "access to a wide variety of educational opportunities and exposure to a whole range of

subject matter, including the arts, music, language, financial literacy," the compliance and

instructional emphasis continues to lean heavily on ELA and math (CDE, 2017, p. 26).

There were other advocacy efforts to promote the value of learning foreign languages in

the study region 10 years ago, with the adoption of Senate Joint Resolution 12-029 (Concerning

a World Language Roadmap for Colorado, 2012). The resolution gained state legislature support

for developing a World Language Roadmap, similar to developments in other states, including

California, Ohio, Oregon, Texas, Utah, Rhode Island, Iowa, and Maryland. Follow-up research

on the developments across the United States would be valuable, along with linking

developments to the influence of federal and state accountability requirements. Scholar

practitioners and policymakers should consider how to honor educational accountability without

sacrificing innovation and the well-rounded education necessary to prepare students for a

competitive future. Improved assessments for partner language development may be critical for

better integrating dual language immersion into the current accountability paradigm (American

Councils for International Education, 2021a; Thane et al., 2022).

More advocacy for dual language programs is needed at local levels, with districts and

local school boards. The governance of education in Colorado is noted for delegating educational

decision-making to local communities per state constitutional law (Colorado Association of

School Boards [CASB], 2022; CDEb, 2021). District school boards maintain local control

through governing instruction and locally raised funds, with the power to make decisions on

"curriculum, personnel, budget, school calendars, and classroom policy" (CASB, 2022, last line).

The case of Lobato v. State of Colorado in 2013 exposed the contradictions between local

control and district requirements to meet state-level mandates. Lobato argued substantial local

funds were used to meet the state mandates for standards-based accountability measures, thus

reducing the capacity of districts to benefit from the "pursuit of experimentation, innovation and

a healthy competition for educational excellence" (CASB, 2022, paragraph 4). The State

Supreme Court ruled in favor of the state since public school financing still allows for local

decisions on allocating funds.

Under conditions of local control, most advocacy for foreign language immersion programs in Colorado will be with district leadership and local school boards. All schools, including charter and independent schools, must support their programs by seeking external funding through fundraising, volunteers, and facility outsourcing. Local control also means no state-level centralized system for language programs to draw organizational support. Instead, schools must tap into or expand other regional associations focused on world language learning. More efforts will be needed at the local and state levels if language advocates hope to expand student access to exemplary foreign language instruction, as previously argued by Call et al. (2018) and Moeller and Abbott (2018).

Implications for Leadership

Leadership actions will be crucial to program improvement and the potential for expanding foreign language immersion programs in the study region. The findings from the research show there is a clear role for leaders as the bridge between teachers in the classroom and the contextual influences at district and regional levels, especially relating to curriculum, resources, and policy. The case study design revealed essential organizational functions and processes requiring more attention to reach program goals. The findings outlined specific areas for leaders to channel their support to teachers and for student achievement: clarify and promote school-specific goals for foreign language immersion programs, develop quality curriculum resources aligned to program goals and assessments, optimize the target-language environment, improve collaboration effectiveness, and seek out school-sponsored professional learning opportunities. Advocacy at national, state, and district levels will also be needed to gain the financial and policy-oriented support for developing necessary and viable curricula, expanding

professional development opportunities, and ensuring foreign language immersion programs remain a state and district priority with supportive mechanisms in place.

Conclusion

This qualitative case study aimed to explore teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs in foreign language immersion programs in Colorado. The study findings revealed a combination of teacher personal efficacy with powerful external influences, including a scarcity of bilingual staff and resources such as curriculum, training, and planning time and the influence of a dominant English and accountability environment. In addition, the research identified five key recommendations for fostering conditions to enhance teacher self-efficacy at participant schools: clarify and promote school-specific goals for foreign language immersion programs, develop quality curriculum resources aligned to program goals and assessments, optimize the target-language environment, improve collaboration effectiveness, and seek out school-sponsored professional learning opportunities.

The research findings highlighted the critical role of leadership in foreign language immersion programs and clarified specific areas to direct actions for achieving the program goals. Leaders mediate external influences by bridging the work of classroom teachers with district and regional support, especially regarding curriculum development, professional development, personnel, funding, and policies. It is clear from the findings that empowering teachers to achieve program goals requires tangible support. The complex educational environment may require a combination of leadership styles, including transformational, instructional, and distributive practices, to extend support across all essential program areas.

The research findings have clear implications for the schools included in the study and may apply to other language programs serving students from majority-language-speaking populations. Findings point to a need for more investment in bilingual staff, language immersion curriculum and training, and supportive policies. Consistent with Bandura's antecedents to self-efficacy, all recommendations from the findings are likely to improve teacher self-efficacy and student achievement in language acquisition while enhancing teacher satisfaction and retention (Cocca & Cocca, 2022; Menon & Lefteri, 2021).

In addition, the findings may inform efforts to expand dual and foreign language immersion programs regionally and nationally. Though the findings promote more immediate and localized improvements, they also point to problematic aspects of dual and foreign language immersion models in general. The use of the teacher self-efficacy lens illuminated two problems of practice to address before public programs can be scaled. First, current world language standards and assessments focus predominantly on language for communication purposes, not academic purposes, despite language immersion students accessing academic content through target languages. Second, the sustainability and expansion of dual and foreign language immersion programs will be contingent on finding a place within the standards-based movement and related accountability mandates. Without addressing these two areas, achieving dual and foreign language immersion goals through the appropriate investments will continue to be nebulous.

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Appendix A

Site Permission Letters

[Date]
[name]
[address line 1]
[address line 2]

RE: Permission to Conduct Research

Dear:

My name is Katherine Scott, and I am a doctoral candidate at American College of Education (ACE) writing to request permission to interview teachers and leaders (administrators and/or teacher leaders) implementing foreign language immersion at your school. This information will be used for my dissertation research related to Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms: A Multi-Site Case Study. The purpose of the qualitative multi-site study will be to examine teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in this region. Findings will be used to make recommendations for fostering teacher self-efficacy in these types of programs.

The study uses the definition of a Foreign Language Immersion program as a program in which students learn academic content through a foreign language in two or more subject areas. It is possible for heritage language speakers of the target language to be enrolled, but in these programs, they are usually less than 50% of the demographic. Other terms commonly used for this type of program are additive language immersion, partial language immersion, or one-way language immersion.

The research will not begin until IRB approval of the research proposal. The anticipated period for conducting interviews will be in the Summer/Fall of 2022.

Important Contacts for this study include:

Principal Investigator: Katherine Scott
E-mail: █████████████████████
Phone: ████████

Dissertation Chair: Dr. Jolene Andriaschko
E-mail: jolene.andriaschko@ace.edu

Thank you for your attention to this issue and contribution to educational research. I appreciate your time and consideration of my request.

Regards,
████████████

Katherine Scott

Permission Granted for Site One

Re: Permission to Conduct Research

██████████████████████

Tue 2/8/2022 12:47 PM

To: Katherine Scott █████████████████

Please be cautious

This email originated from outside of ACE organization

Hi Katie,

This is fantastic news! Congratulations.
I give permission for research to be conducted at our school.

Looking forward to learning more about your project.

Best,

███████████

On Fri, Feb 4, 2022 at 10:16 AM Katherine Scott <katherine.scott1050@my.ace.edu> wrote:

Dear Dr. ████

It has been a work in progress, but I now have the honor to seek your permission to conduct research about foreign language immersion at your school. Please see attached the letter seeking your permission. I am in the preliminary stages of writing my research proposal which will be a qualitative multi-case study about Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms in this region. I am required to secure permission from my Points of Contact for each of the candidate case sites because my research will involve human participants.

The research will not begin until IRB approval of the research proposal, after which I would inform you of the official beginning of the research. A recruitment letter will be sent along with an Informed Consent Form for candidate participants to review and consider. The Informed Consent Form will contain more important information about the purpose of the research, the study design, and any risks or benefits to the participants. All participation will be voluntary with the option to withdraw at any time. The anticipated period for conducting interviews will be in the Summer/Fall of 2022.

Granting permission through a reply to this email, along with your digital signature, allows me to move forward with the research proposal. I am available to answer any questions or concerns you may have about granting permission at this time. I can be reached through this email or by phone: ████████

Thank you for your consideration,

Katherine Scott
Ed.D. Candidate

CONFIDENTIAL EMAIL: This e-mail is intended solely for the addressee. The information contained herein is confidential. Any dissemination, distribution or copying of this e-mail, other than by its intended recipient, is strictly prohibited. If you have received this e-mail in error, please notify me immediately and delete this message.

--

███████████████

Permission Granted for Site Two

Permission Granted for Site Three

May 2, 2022

To Whom It May Concern:

This letter serves as permission to list our school, ███████████████████, as a candidate research site. Permission is granted to conduct research on our school site as part of Katherine Scott's student dissertation research related to Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms: A Multi-Site Case Study.

Please reach out with any questions.

Sincerely,
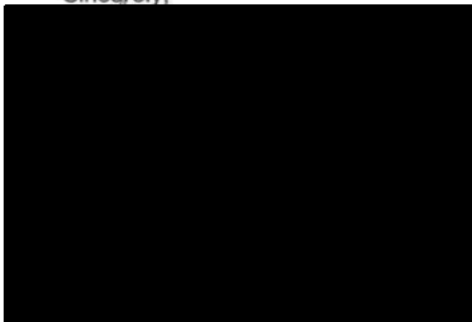
Permission Granted for Site Four

District IRB Approval

RE: ███ **Application to Conduct Research**

████████████████████████

Tue 9/27/2022 2:52 PM

To: Katherine Scott ███████████████████

Cc: ██████████████████████

Please be cautious

This email originated from outside of ACE organization

Dear Katherine,

███████████████ IRB has reviewed your request to conduct research, within the district, and have agreed to support your request. In particular, the team valued that staff will not be required to give up time or other resources and that everything will be fully optional. Please let me know if you have any questions.

Sincerely,

████████████████████
████████████████████

Site Permission Letter: Site Four

September 29, 2022

To Whom It May Concern:

Katherine Scott has my permission to conduct research at ████████████████████ as part of her dissertation research, Fostering Teacher Self-Efficacy in Foreign Language Immersion Classrooms: A Multi-Site Case Study. Our school would be interested in receiving a report of the study's findings.

Sincerely,

Appendix B

Recruitment Email

Researcher seeking participants in a study about language immersion

KS Katherine Scott
To:

Wed 8/10/2022 9:13 AM

Recruitment Letter.pdf
116 KB

Informed Consent Form.pdf
155 KB

2 attachments (271 KB)   Save all to OneDrive - American College of Education   Download all

Dea

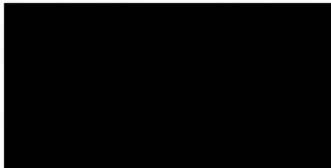Thank you for allowing me to briefly introduce my study to you today. Through the month of August, I am seeking participants to sit in an approximately 40-minute in-person or virtual interview regarding Fostering Teacher Self-Efficacy in Foreign Language Immersion Classrooms. Your school's participation will help build understanding in the practice and improvement of foreign language immersion programs in this region. Participants will also receive a $5 Starbuck card for their time and contribution.

I am seeking participants meeting the following criteria:

- Teachers who have taught subject matter content through a foreign language (language other than English) for at least one year at the school site.
- Leaders who have provided support in some form to the teachers in the elementary foreign language immersion program, and may include Principals, Assistant Principals, or Teacher Leaders involved with instructional support for at least one year.

For your review and consideration, please find attached the following documents containing more details:

1. Recruitment letter

2. Informed Consent Form (if you email me to participate, I can send you an electronic form to sign or you can sign it at the time of the interview)

If interested, send an email to to arrange the place and time for the interview.

DO NOT REPLY ALL OR REPLY TO THE PRINCIPAL as *all participants and their information will be voluntary and confidential.*

Feel free to send any questions to

Thank you for your consideration!

Katherine Scott
Doctoral Student

Recruitment Letter

Date:

Dear Potential Study Participant,

I am a doctoral student at American College of Education. I am writing to let you know about an opportunity to participate in a dissertation research study.

Overview of the Study

The topic of my research is Fostering Teacher Self-Efficacy in Foreign Language Immersion Classrooms. Teacher self-efficacy is defined as teachers' beliefs in their capacity to achieve educational goals and can include any combination of personal and environmental factors. It is a powerful concept with implications for student achievement and teacher satisfaction. The purpose of my research study will be to examine teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in this region. The findings will be used to understand how leaders can foster greater teacher self-efficacy in these programs and will be shared with all participants at the conclusion of the study.

Criteria for Participation in the Study

I am seeking participation from teachers or leaders involved in the implementation and support of an elementary foreign language immersion program and meeting the following criteria:

- Teachers who have taught subject matter content through a foreign language (language other than English) for at least one year at the school site.
- Leaders who have provided support in some form to the teachers in the elementary foreign language immersion program, and may include Principals, Assistant Principals, or Teacher Leaders involved with instructional support for at least one year.

What Does Participation Include?

Participation includes participating in a one-on-one interview of up to 60 minutes with the option of in-person or virtual interviews. In-person interviews will occur at a location on the school campus and within a timeframe prearranged with the principal. If desired, participants may arrange a virtual interview using the Zoom platform at a location of their own choice and during a mutually agreed upon time communicated in a confidential email with the researcher. The

actual interview is approximately 40 minutes with up to 20 minutes allocated for review and signing of the informed consent, audio recording set up, and questions.

Voluntary and Confidential Participation

Participation in the study is voluntary. If you wish to withdraw from the research at any time, you may do so by contacting me using the information below.

Data from this study may be used in a future publication. However, I will not use your name nor share any other identifiable data about you or your school. Your information will remain confidential, and all data will be destroyed after three years.

More Information and How to Participate

More information can be found in the attached Informed Consent Form. All consenting participants will review and sign this form before engaging in the interview. If you meet the criteria above and are interested in participating in the study, please email me at ▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉ to arrange the time and place of the in-person or virtual interview.

All participants will receive a $5 Starbucks gift card as a token of appreciation. The gift card will be given to the participant upon completion of the interview. The participant may retain the gift card even if they drop out of the study.

If you would like additional information about the study, please contact:

<div align="center">

Principal Investigator: Katherine Scott

▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉▉

</div>

Thank you again for considering this dissertation research opportunity.

Appendix C

Informed Consent Form

Prospective Research Participant: Read this consent form carefully and ask as many questions as you like before you decide whether you want to participate in this research study. You are free to ask questions at any time before, during, or after your participation in this research.

Project Information

Project Title: Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms: A Multi-Site Case Study

Researcher: Katherine Scott
Organization: American College of Education
Email: ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
Telephone: ▮▮▮▮▮▮▮▮

Date of IRB Approval:

Please note that the American College of Education Institutional Review Board has approved this research study. The IRB approved this study on _____ (insert date on ACE IRB approval letter). A copy of the approval letter will be provided upon request.

Researcher's Dissertation Chair: Dr. Jolene Andriaschko
Organization and Position: American College of Education, Dissertation Chair
E-mail: jolene.andriaschko@ace.edu

Introduction

I am Katherine Scott, and I am a doctoral candidate student at American College of Education. I am doing research under the guidance and supervision of my Chair, Dr. Andriaschko. I will give you some information about the project and invite you to be part of this research. Before you decide, you can talk to anyone you feel comfortable with about the research. If you have questions, ask me to stop as we go through the information, and I will explain. If you have questions later, feel free to ask me then.

Purpose of the Research

The purpose of my research study will be to examine teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in this region. Teacher self-efficacy is defined as teachers' beliefs in their capacity to achieve educational goals and can include any combination of personal and environmental factors. It is a powerful concept with implications for student achievement and teacher satisfaction. You are being asked to participate in a research study to share your perceptions about your capacity to fulfill the tasks required in foreign language immersion and the kinds of conditions that create or reduce challenges for meeting the goals. The findings will be used to understand how leaders can foster teacher self-efficacy in these programs.

Research Design and Procedures

The study will use qualitative methodology and case study research design involving 15-20 participants implementing foreign language immersion programs at multiple schools in this region. Each participating school will need a minimum of one leader and two teacher participants. Participants will partake in an interview of up to 60 minutes, either virtually or at a site and within a timeframe designated by the principal. Virtual interviews will be conducted via the Zoom platform. All interviews will be recorded and transcribed and sent to participants to review for accuracy.

Participant Selection

You are being invited to take part in this research because of your experience as a teacher or leader who can contribute much to understanding the context of foreign language immersion programs which meets the criteria for this study. Participant selection criteria:

• Teachers who have taught subject matter through a foreign language (language other than English) for at least one year at the school site.
• Leaders who have provided support in some form to the teachers in the elementary foreign language immersion program and may include Principals, Assistant Principals, or Teacher Leaders involved with instructional support for at least one year.
• Have read and signed the Informed Consent form.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate. If you choose not to participate, there will be no punitive repercussions.

Right to Refuse or Withdraw

Participation is voluntary. At any time you wish to end your participation in the research study, you may do so by sending me an email explaining you are opting out of the study. There will be no repercussions for leaving the study.

Procedures

I am inviting you to participate in this research study. If you agree, you will be asked to provide your consent by adding your signature below. We will then begin the interview. The type of questions will include providing specific demographic information, describing your capacity to achieve specific program tasks, and providing open ended answers about your experiences with those tasks. The interviews will be recorded, transcribed, and submitted to interviewees for review of accuracy.

Duration

Participation will require approximately one hour or less. The interview will take approximately 40 minutes with 20 minutes extra allocated for signing the informed consent, any questions, and for setting up the audio recording.

Risks

I will ask you to share personal and confidential information, and you may feel uncomfortable talking about some of the topics. You do not have to answer any question or take part in the discussion if you don't wish to do so. You do not have to give any reason for not responding to any question.

Benefits

A $5 gift card to Starbucks will be given to you at the completion of the interview as a token of appreciation of your participation and time. While it is minimal and there will be no other financial benefit to you, your participation will likely aid in the improvement of foreign language immersion programs in this region. You may retain the gift card even if you drop out of the study.

Confidentiality

I will not share information about you or anything you say to anyone outside of the research. Email communications with participants will be limited to individualized messages using password-protected Microsoft Outlook. Interviews will be conducted in a private room on the school campus, and participants will be provided the option of scheduling a virtual interview at a location of their choice. During the defense of the doctoral dissertation, data collected will be presented to the dissertation committee. Any information about you will be coded and will not

have a direct correlation identifying you as the participant. Only I will know what your pseudonym is. No information will be shared that may identify the school you are employed at. All data collected will be kept in a locked file cabinet or in a password protected laptop and destroyed after three years per American College of Education guidelines.

Sharing the Results

At the end of the research study, the results will be available for each participant. It is anticipated to publish the results so other interested people may learn from the research.

Questions About the Study

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact me at ████████████████████████████████ This research plan has been reviewed and approved by the Institutional Review Board of American College of Education. This is a committee whose role is to make sure research participants are protected from harm. If you wish to ask questions about this group, email IRB@ace.edu.

Certificate of Consent

I have read the information about this study, or it has been read to me. I acknowledge why I have been asked to be a participant in the research study. I have been provided the opportunity to ask questions about the study, and any questions have been answered to my satisfaction. I certify I am at least 18 years of age. I consent voluntarily to be a participant in this study.

Print or Type Name of Participant: _____

Signature of Participant: _____

Date: _____

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant were answered to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily. A copy of this Consent Form has been provided to the participant.

Print or type name of lead researcher: _____

Signature of lead researcher: _____

Date: _____

PLEASE KEEP THIS INFORMED CONSENT FORM FOR YOUR RECORDS.

Appendix D

Records and Documents Data Collection Matrix

Site Attributes	Site 1	Site 3	Site 4
Pseudonym			
School			
Website			
Contacts			
School Type			
Date of Founding			
History of Founding			
Vision			
Mission			
Languages Offered			
Student Demographics			
Language Program Goal			
Pedagogical Approach			
Curriculum			
Assessments			
Notable characteristics			
Awards			
Academic Summaries			
Language Summaries			
Partnerships			
Events			
Funding			
Notes/ Questions			

Appendix E

Interview Protocol and Questions for Teachers

| Interview Protocol for the Study on |
Fostering Teacher Self-Efficacy in Foreign Language Immersion Classrooms: Teachers

School Pseudonym:	Date:
Participant Pseudonym:	Start Time:
	End Time:

Script prior to interview: *Thank you* (participant's name) *again for participating in this interview for my study. As described before, the purpose of the qualitative case study will be to examine teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in this region.* **Teacher self-efficacy is defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" with consideration of factors that may be internal or external to teacher control and influence**. *A sizeable historical body of research has established a positive correlation between teacher self-efficacy and student achievement and teacher satisfaction. The aim of this interview is to document your beliefs and experiences in foreign language programs in this region.*

Our interview will last approximately 40 minutes. I will have you assess your own beliefs about implementing foreign language immersion and your experiences in your role, successes and challenges, and ideas that you may have for fostering teacher self-efficacy in these kinds of programs.

Please note the pandemic from March 2020 until [TBD] may have created extenuating circumstances. Please focus more on common experiences, setting aside conditions specific to the pandemic.

[Present a paper copy of the informed consent form. Read informed consent. Answer questions. Have participant sign informed consent.]

In the informed consent, you indicated that I have your permission (or not) to audio record our conversation. Are you still ok with me recording (or not) our conversation today? ___Yes ___No

If yes: *Thank you! Please let me know if at any point you want me to turn off the recorder or keep something you said off the record.*

If no: *Thank you for letting me know. I will only take notes of our conversation. Before we begin the interview, do you have any questions?*

Before we begin the interview, do you have any questions? [Discuss questions]
If any questions (or other questions) arise at any point in this study, you can feel free to ask them at any time. I would be more than happy to answer your questions.

I.	**Demographic and Background Information (5 minutes)**

I would like to learn a little more about your background. The first set of questions ask a few details about your education and language background and your current role at the school.

1	How long have you been teaching foreign language immersion at this school?
	(ex. 0-1, 2-5, 5-10, +10 years)
2	Have you had previous experience before coming here? For how many years?
3	What is your highest level of education?
	(ex. Associates, BA, MA, EdD/Ph.D.)
4	What is your first language? If more than one, share all.
5	What language are you using for instruction other than English?
6	Which content subjects are you teaching through the foreign language?
7	Which grade level or levels are you teaching?
	(ex. K, 1, 2, 3, 4, 5)
8	What is the approximate percentage of native English speakers in your class?
	(ex. +50%, 40-50 %, 30-40%, <30%)
9	What is the approximate percentage of native speakers of the target language in your class?
	(ex. +50%, 40-50 %, 30-40%, <30%)

II.	**Program Structure & Curriculum and Instruction (15 minutes)**

The next set of questions refer to the specialized curriculum and instruction required for foreign language immersion.

10	What are the goals for your school's foreign language immersion program?
11	From a range of low to high, how would you assess your current capacity in helping students access subject content through a foreign language? Can you explain why? What are the challenges? What has helped you?
12	From a range of low to high, how would you assess your current capacity to help students achieve growth in the target language? Can you explain why? What are the challenges? What has helped you?
13	How much can you utilize current curriculum materials for meeting your program goals? Can you explain why? What has been useful? What do you still need?

14	From very little to a lot, how much are you able to get students to engage in classroom discourse using the target language (i.e., responding to questions, engaging in classroom discussions, asking their own questions)? Why do you think that? What has helped you? What are the hindrances?
15	How about literacy, how much are you able to get students to engage with target language text? Why? What has helped you? What are the hindrances?
16	From your perspective, what kinds of support in curriculum and instruction would you recommend for achieving the goals in your program?

III.	**Classroom Management (5 minutes)**

The next few questions address classroom management from within a foreign language immersion classroom.

17	From a range of low to high, how well can you establish a classroom management system while using the target language? Can you explain why? What are the challenges? What has helped you?
18	From very little to a lot, how much can you do to motivate students who show low interest in learning or schoolwork in the immersion classroom? Why? What has helped you? What are the hindrances?
19	What kinds of support in classroom management would assist you?

IV.	**Assessment (5 minutes)**

Let's talk a little about assessment.

20	From a range of low to high, to what extent are you able to use a variety of assessment strategies for measuring student progress in both language and content? Can you explain why? What are the challenges? What has helped you?
21	How might the assessments of students' progress in language versus content improve?

V.	**Professional Development (5 minutes)**

Let's move on to professional development.

22	With a rating of low to high, how would you assess your capacity to implement the strategies you acquired from your professional development or training experiences? Why? What has helped you? What are the hindrances?

23	What kind of professional development would you recommend for those implementing foreign language immersion?
VI.	**Support, Resources, & Community Engagement (5 minutes)**

The final set of questions concern support and resources within the program and with external community members.

24	From very little to a lot, how much can you accomplish with your designated planning time? Can you explain why? What are the challenges? What has helped you?
25	How well has collaboration with staff helped to solve challenges or reach program goals? Why do you think that? What is working? What are the challenges?
26	From low to high, how would you assess your capacity to engage with families to help their children achieve the program goals? Why? What are the challenges of engaging with families? What is helpful?
27	What kinds of support are needed for leveraging partnerships with families and the community?

Closing

That's where we'll end this discussion today. Thank you for sharing your perspectives with me.
I look forward to sharing the findings and final report with your school when it is completed.
You may contact me with any questions or concerns.

Interview Protocol and Questions for Leaders

Interview Protocol for the Study on Fostering Teacher Self-Efficacy in Foreign Language Immersion Classrooms: Leaders	
School Pseudonym: Participant Pseudonym:	Date: Start Time: End Time:

Script prior to interview: *Thank you (participant's name) again for participating in this interview for my study. As described before, the purpose of the qualitative case study will be to examine teacher and leader perceptions about the program-related factors influencing teacher self-efficacy beliefs while implementing elementary foreign language immersion programs in this region.* **Teacher self-efficacy is defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" with consideration of factors that may be internal or external to teacher control and influence.** *A sizeable historical body of research has established a positive correlation between teacher self-efficacy, student achievement, and teacher satisfaction. The aim of this interview is to document your beliefs and experiences as an instructional leader in foreign language programs in this region.*

Our interview will last approximately 40 minutes. I will have you assess your own beliefs about implementing foreign language immersion and your experiences in your role, successes and challenges, and ideas that you may have for fostering teacher self-efficacy in these kinds of programs.

[Present a paper copy of the informed consent form. Read informed consent. Answer questions. Have participant sign informed consent.]

In the informed consent you indicated that I have your permission (or not) to audio record our conversation. Are you still ok with me recording (or not) our conversation today? ___Yes ___No

If yes: *Thank you! Please let me know if at any point you want me to turn off the recorder or keep something you said off the record. We can stop the interview at any point you do not want to proceed. All content from the interview will be confidential. Nothing will be shared with the school or any other participant.*

If no: *Thank you for letting me know. I will only take notes of our conversation. Before we begin the interview, do you have any questions?*

Before we begin the interview, do you have any questions? [Discuss questions]
If any questions (or other questions) arise at any point in this study, you can feel free to ask them at any time. I would be more than happy to answer your questions.

I. Demographic and Background Information (5 minutes)

I would like to learn a little more about your background. The first set of questions ask a few details about your education and language background and your current role at the school.

1	How long have you been an instructional leader for foreign language immersion at this school?
	(ex. 0-1, 2-5, 5-10, +10 years)
2	Have you had previous experience before coming here? For how many years?

3	What is your first language? If more than one, share all.
4	What languages are used for instruction at the school other than English?
5	Which content subjects are being taught through the foreign language?
6	What is the approximate percentage of native English speakers in your school/program? (ex. +50%, 40-50 %, 30-40%, <30%)
7	What is the approximate percentage of native speakers of the target language in your school/program? (ex. +50%, 40-50 %, 30-40%, <30%)

II. Program Structure & Curriculum and Instruction (15 minutes)

The next set of questions refer to the specialized curriculum and instruction required for foreign language immersion.

8	What are the goals for your school's foreign language immersion program?
9	How is the achievement of the program's goals evaluated? By whom?
10	From a range of low to high, how would you assess your teachers' capacity in helping students access subject content through a foreign language? Can you explain why? What are the challenges? What has helped you?
11	From a range of low to high, how would you assess your teachers' capacity to help students achieve growth in the target language? Why? What are the greatest challenges? What has been helpful?
12	How much can teachers utilize current curriculum materials for meeting your program goals? Can you explain why? What has been useful? What do they still need?
13	From your perspective, what kinds of support in curriculum and instruction would you recommend for achieving the goals in your program?

III. Classroom Management (5 minutes)

The next few questions address classroom management from within a foreign language immersion classroom.

14	How well can your teachers establish a classroom management system while using the target language? Why is that? Can you describe what is going well? Any challenges?

IV. Assessment (5 minutes)

Let's talk a little about assessment.

15	From very little to a lot, to what extent are teachers able to use a variety of assessment strategies for measuring student progress in *both* language and content?
	Why?
	Can you describe what is working well?
	Any challenges?
16	How might the assessments of students' progress in language versus content improve?

V. Professional Development (5 minutes)

Let's move on to professional development.

17	What is the school's capacity to provide specialized and continuous professional development or training experiences in foreign language immersion?
	Why?
	What has been most helpful?
	What are the challenges?
18	What kind of professional development would you recommend for those implementing foreign language immersion?

VI. Support, Resources, & Community Engagement (5 minutes)

The final set of questions concern support and resources for the program.

19	What are the funding parameters of your program?
	What are the challenges?
	What is working?
20	From very little to a lot, how much can the teachers accomplish with their designated planning time?
	Can you explain why?
	What are the challenges?
	What is working?
21	How well does staff collaborate to solve challenges or reach program goals?
	Why is that?
	What is working?
	What are the challenges?
22	From a range of low to high, how would you assess the school's engagement with families to help their children achieve the program goals?
	Why?
	What are the challenges of engaging with families?
	What is helpful?
23	What are the greatest challenges to reach program goals with current support and resources?
24	What other kinds of support would be most helpful for achieving program goals?

Closing

That's where we'll end this discussion today. Thank you for sharing your perspectives with me. I look forward to sharing the findings and final report with your school when it is completed. You may contact me with any questions or concerns.

Appendix F

Request to Use and Adapt Sense of Efficacy Scale
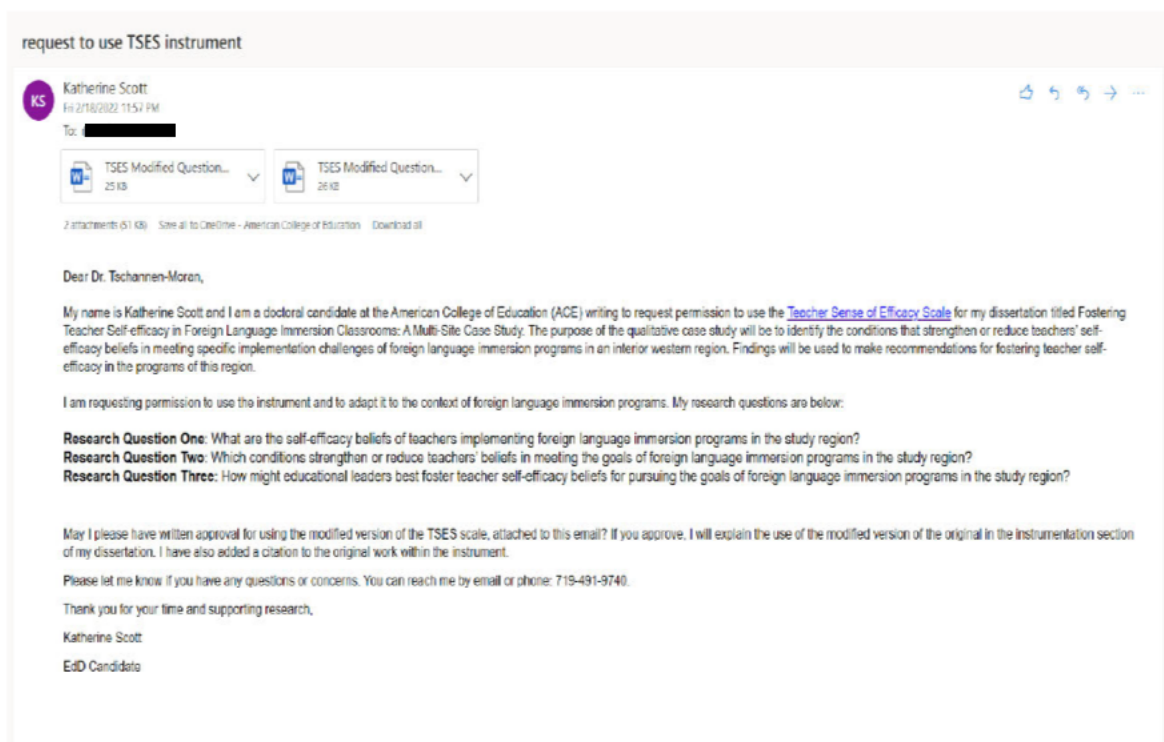
Permission to Use Teacher Sense of Efficacy Scale

William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

February 28, 2022

Katherine Scott,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research.

You can find a copy of the measure and scoring directions on my web site at https://mxtsch.pages.wm.edu/.

Please use the following as the proper citation:

> Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

All the best,

Megan Tschannen-Moran
William & Mary School of Education

P.O. Box 8795 • Williamsburg, VA 23187-8795 •

Appendix G

Interview Questions Alignment Matrix for Teachers

Research Question 1 (RQ1). What are the program-related self-efficacy beliefs of teachers implementing foreign language immersion programs in the study region?

Research Question 2 (RQ2). What are teachers' and leaders' perceptions about the program-related factors that strengthen or reduce teachers' self-efficacy beliefs while implementing elementary foreign language immersion programs in the study region?

Research Question 3 (RQ3). How might educational leaders develop school environments that strengthen teacher self-efficacy beliefs in addressing challenges encountered while implementing foreign language immersion programs in the study region?

Research Question Alignment		
I.		**Demographic and Background Information (5 minutes)**
	1	**How long have you been teaching foreign language immersion at this school?**
		(ex. 0-1, 2-5, 5-10, +10 years)
	2	**Have you had previous experience before coming here? For how many years?**
	3	**What is your highest level of education?**
		(ex. Associates, BA, MA, EdD/Ph.D.)
	4	**What is your first language? If more than one, share all.**
	5	**What language are you using for instruction other than English?**
	6	**Which content subjects are you teaching through the foreign language?**
	7	**Which grade level or levels are you teaching?**
		(ex. K, 1, 2, 3, 4, 5)
	8	**What is the approximate percentage of native English speakers in your class?**
		(ex. +50%, 40-50 %, 30-40%, <30%)
	9	**What is the approximate percentage of native speakers of the target language in your class?**
		(ex. +50%, 40-50 %, 30-40%, <30%)
II.		**Program Structure & Curriculum and Instruction (15 minutes)**
RQ2	10	**What are the goals for your school's foreign language immersion program?**
RQ1	11	**From a range of low to high, how would you assess your current capacity in helping students access subject content through a foreign language?**
		Can you explain why?
RQ2		**What are the challenges?**
		What has helped you?
RQ1	12	**From a range of low to high, how would you assess your current capacity to help students achieve growth in the target language?**
RQ2		**Can you explain why?**

		What are the challenges? What has helped you?
RQ1 *RQ2*	13	How much can you utilize current curriculum materials for meeting your program goals?? Can you explain why? What has been useful? What do you still need?
RQ1 *RQ2*	14	From very little to a lot, how much are you able to get students to engage in classroom discourse using the target language (i.e., responding to questions, engaging in classroom discussions, asking their own questions)? Why do you think that? What has helped you? What are the hindrances?
RQ1 *RQ2*	15	How about literacy, how much are you able to get students to engage with target language text? Why? What has helped you? What are the hindrances?
RQ3	16	From your perspective, what kinds of support in curriculum and instruction would you recommend for achieving the goals in your program?
	III.	**Classroom Management (5 minutes)**
RQ1 *RQ2*	17	From a range of low to high, how well can you establish a classroom management system while using the target language? Can you explain why? What are the challenges? What has helped you?
RQ1 *RQ2*	18	From very little to a lot, how much can you do to motivate students who show low interest in learning or schoolwork in the immersion classroom? Why? What has helped you? What are the hindrances?
RQ3	19	What kinds of support in classroom management would assist you?
	IV.	**Assessment (5 minutes)**
RQ1 *RQ2*	20	From a range of low to high, to what extent are you able to use a variety of assessment strategies for measuring student progress in both language and content? Can you explain why? What are the challenges? What has helped you?
RQ3	21	How might the assessments of students' progress in language versus content improve?
	V.	**Professional Development (5 minutes)**
RQ1 *RQ2*	22	With a rating of low to high, how would you assess your capacity to implement the strategies you acquired from your professional development or training experiences? Why? What has helped you? What are the hindrances?
RQ3	23	What kind of professional development would you recommend for those implementing foreign language immersion?
	VI.	**Support, Resources, & Community Engagement (5 minutes)**

RQ1 *RQ2*	24	From very little to a lot, how much can you accomplish with your designated planning time? Can you explain why? What are the challenges? What has helped you?
RQ1 *RQ2*	25	How well has collaboration with staff helped to solve challenges or reach program goals? Why do you think that? What is working? What are the challenges?
RQ1 *RQ2*	26	From low to high, how would you assess your capacity to engage with families to help their children achieve the program goals? Why? What are the challenges of engaging with families? What is helpful?
RQ3	27	What kinds of support are needed for leveraging partnerships with families and the community?

Research Questions and Interview Questions Alignment Matrix for Leaders

The Matrix was updated per feedback from SMEs.

Research Question 1 (RQ1). What are the program-related self-efficacy beliefs of teachers implementing foreign language immersion programs in the study region?

Research Question 2 (RQ2). What are teachers' and leaders' perceptions about the program-related factors that strengthen or reduce teachers' self-efficacy beliefs while implementing elementary foreign language immersion programs in the study region?

Research Question 3 (RQ3). How might educational leaders develop school environments that strengthen teacher self-efficacy beliefs in addressing challenges encountered while implementing foreign language immersion programs in the study region?

Research Question Alignment

	I.	**Demographic and Background Information (5 minutes)**
	1	How long have you been an instructional leader for foreign language immersion at this school?
		(ex. 0-1, 2-5, 5-10, +10 years)
	2	Have you had previous experience before coming here? For how many years?
	3	What is your first language? If more than one, share all.
	4	What languages are used for instruction at the school other than English?
	5	Which content subjects are being taught through the foreign language?
	6	What is the approximate percentage of native English speakers in your school/program?
		(ex. +50%, 40-50 %, 30-40%, <30%)
	7	What is the approximate percentage of native speakers of the target language in your school/program?
		(ex. +50%, 40-50 %, 30-40%, <30%)
	II.	**Program Structure & Curriculum and Instruction (15 minutes)**
RQ2	8	What are the goals for your school's foreign language immersion program?
RQ2	9	How does the school evaluate achievement of the program's goals?
RQ1	10	From a range of low to high, how would you assess your teachers' capacity in helping students access subject content through a foreign language?
RQ2		Can you explain why? What are the challenges? What has helped you?
RQ1	11	From a range of low to high, how would you assess your teachers' capacity to help students achieve growth in the target language?
RQ2		Why? What are the greatest challenges? What has been helpful?
RQ1 RQ2	12	How much can your teachers utilize current curriculum materials for meeting your program goals?

		Can you explain why?
		What has been useful?
		What do you still need?
RQ3	13	From your perspective, what kinds of support in curriculum and instruction would you recommend for achieving the goals in your program?
	III.	Classroom Management (5 minutes)
RQ1	14	How well can your teachers establish a classroom management system while using the target language?
RQ2		Why is that?
		Can you describe what is going well?
		Any challenges?
	IV.	Assessment (5 minutes)
RQ1	15	From very little to a lot, to what extent are teachers able to use a variety of assessment strategies for measuring student progress in *both* the target language and content?
RQ2		Why?
		Can you describe what is working well?
		Any challenges?
RQ3	16	How might the assessments of students' progress in language versus content improve?
	V.	Professional Development (5 minutes)
RQ1	17	What is the school's capacity to provide specialized and continuous professional development or training experiences in foreign language immersion?
RQ2		Why?
		What has been most helpful?
		What are the challenges?
RQ3	18	What kind of professional development would you recommend for those implementing foreign language immersion?
	VI.	Support, Resources, & Community Engagement (5 minutes)
RQ1 *RQ2*	19	What are the funding parameters of your program?
		What are the challenges?
		What is working?
RQ1 *RQ2*	20	From very little to a lot, how much can the teachers accomplish with their designated planning time?
		Can you explain why?
		What are the challenges?
		What is working?
RQ1 *RQ2*	21	How well does staff collaborate to solve challenges or reach program goals?
		Why is that?
		What is working?
		What are the challenges?
RQ1	22	From low to high, how would you assess the school's engagement with families to help their children achieve the program goals?
RQ2		Why?
		What are the challenges of engaging with families?
		What is helpful?
RQ2	23	What are the greatest challenges to reach program goals with current support and resources?
RQ3	24	What other kinds of support would be most helpful for achieving program goals?

Appendix H

Letter to Subject Matter Experts

Dear_____:

I am a doctoral candidate in the American College of Education program for Educational Leadership under the guidance of my Chair. In this program I am focusing on Second Language Learning. I have requested you to be a part of an expert panel to review and ensure the validity of interview questions developed for my dissertation study about fostering teacher self-efficacy in foreign language immersion programs in this region.

The purpose of this study will be to examine the experiences of leaders and teachers as they navigate goals and processes for implementing foreign language immersion programs in an interior western region and the specific factors that impact teacher self-efficacy. For your reference, a Research Questions and Interview Questions Alignment Matrix has been included to aid in reviewing alignment of interview questions with specific research questions for the study. You can also find attached the well-established Teacher Sense of Efficacy Scale which inspired specific questions about teacher self-efficacy, and the Guiding Principles for dual language immersion to provide a framework for asking questions about language immersion.

Please use the Interview Rubric to carefully consider the 1) Research Questions and Interview Questions Alignment Matrix, and 2) Interview Protocol and *send an email to* ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇ *with feedback for potential errors in content and clarity*. The protocol may be modified according to your feedback and recommendations. Your experience as an expert in the field of education and world language will add value and expertise to my study. Please share your expertise and credentials in the box below the rubric.

Respectfully yours,

Katherine Scott

Appendix I

Emails with Response and Validation from SMEs

Response from SME Doctor of Philosophy, Director in a Bilingual Education School

Interview Protocol Validation - Final Reply and suggestions

███████████████████████

Mon 2/7/2022 4:52 AM

To: Katherine Scott ████████████████████████

Cc: ████████████████████

📎 1 attachments (50 KB)

Interview Validation Rubric response from ████████.docx;

Please be cautious
This email originated from outside of ACE organization

Dear Katie,

I have gone through the revised documents and they are very good! I am so glad to see the expansions in the Curriculum and Instructions questions that can further allow you to get into more details answers related to teacher efficacy, especially about learning and teaching in the classroom!

Please find attached my completed rubric attached as requested. Details my comments related specifics of the rubric are as follows for your consideration:

A) Teacher matrix and questionnaire:

1. On the whole the questions are very good and appropriate, specific enough to elicit answers.

As the whole focus of the research is on "Efficacy", the qualitative means used by the questionnaire rely on different individual's answers without a relative frame may make it difficult for to measure and compare the dependent variable efficacy.

Hence, first I would like to suggest for all the relevant questions asking about "To what extent", "How much", "How well", I would suggest you to also ask the respondents to give a rating out of 9 (9 is also the scale used by the TSES), so you can acquire a better grasp of the degree of efficacy.

For example, you can add this to Q. 1b, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 4a, 5a, 5b, 6,a,

In these, you can add:
Can you give a rating out of 9?

By doing so, you will collect useful quantitative data that can allow you to do a lot of useful and interesting analyses afterwards, especially co-relating with the respondents' background like length of experience, match of other tongue, gender, subjects teaching, which will be very interesting. This may also throw light onto personal factors affecting efficacy.

2. As RQ2 and the key of the research is on identifying factors, it would be useful to solicit these more overtly and systematically through the interview questions:

a. In general, I would suggest you to add "Why" at the end of each question.

For example, in 1b: To what extent are you able to achieve your program's goals? Can you give a rating out of 9? **Can you also explain why?**
The answers to why will give you direct answer to factors hindering or facilitating achievement.....

This can apply to all the questions above:
1b, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 4a, 5a, 5b, 6a.

b. I notice in some places you asked:
What are the challenges, and what has helped you?
and in other places you used:
Can you share your experiences or describe your experiences.

As I think these are mainly for eliciting the factors, may be a consistent approach will be useful, e.g. using
What are the challenges, and what has helped you to be more explicit.

3. For questions 2e, 2f, 2g, I do not quite understand the meaning of "this" when you say "Using this pedagogical approach". I guess you may refer to using the approach or approaches adopted by the foreign language immersion program. May be this need to be specified. Or I suggest you can simply delete this, like in question 2h etc.

4. A4a. I suggest a few minor additions:
How much are you able to implement **the strategies you acquired from** your professional development or training **experiences**?

B. Leader's matrix and questionnaire:

1. I noticed some questions asking teachers have been deleted. I understand as these are not directly related to the Leaders' work.

However, I think it would still be useful for you to ask these questions to the leaders, but phrased in the form of their perception of how well or how much or to what extent their teachers are able to achieve.

By doing so, you will have additional comparatively data for you to check how accurate are teacher's perceptions in perceiving their own efficacy, so sometimes for demanding teachers, whilst they think they are not able to do very well, but indeed their leaders feel that they doing very well already, you will know..... and vice versa.

You can consider adding back these questions, e.g. 2b, 2c, 2e, 2f, 2g, 2h.

2. I suggest to ask leaders to give a rating and add the questions of why in the relevant questions too, as in the teachers' questionnaire:
Can you give a rating out of 9?   Can you also explain why?

3. For 2a, it would be useful for you to rephrase the question in the same way as in the teacher's questionnaire which is more clear:
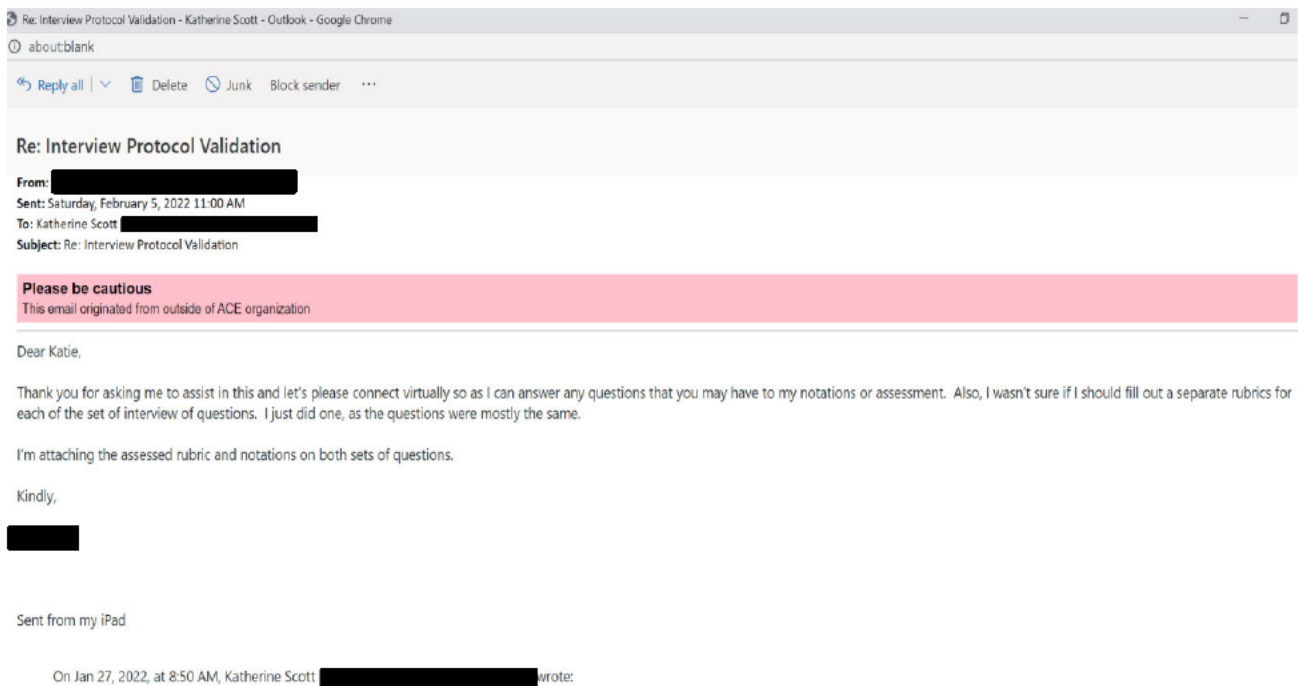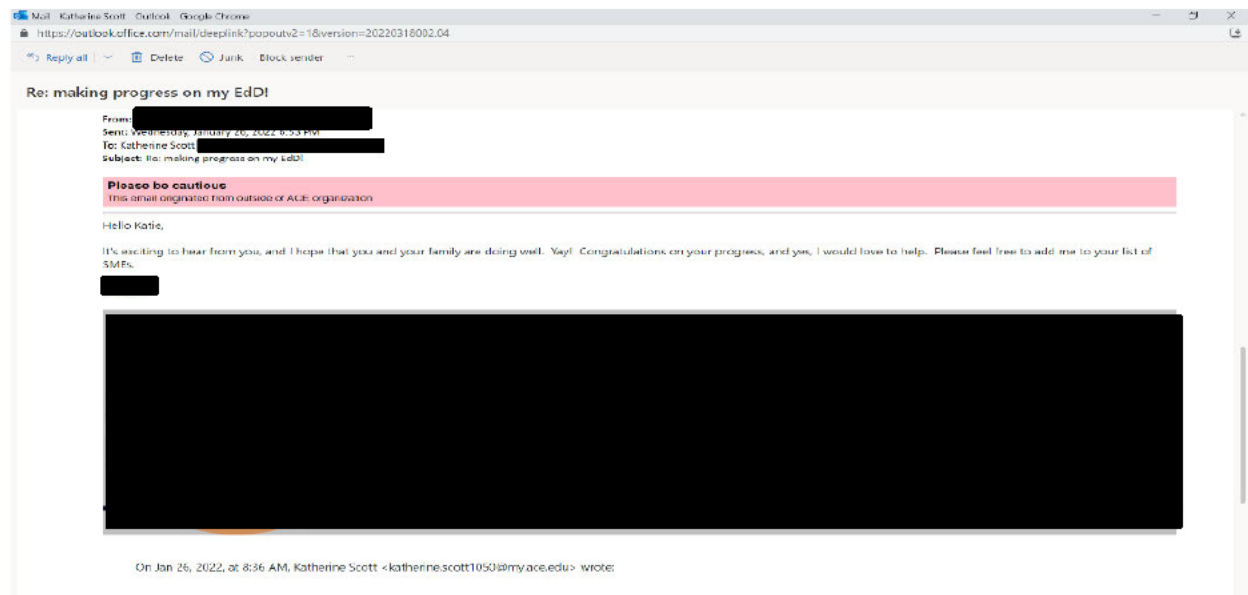
How much can your teachers **utilize** current curriculum materials to meet your program goals? Can you give a rating out of 9?   **Can you also explain why?**

Sincerely hope these suggestions are useful. If you have any questions, please feel free to come back to me. Very good questionnaires now! Wishing you every success!

Thanks a lot and all the best,

Response from a Doctor of Education, Former Principal of Bilingual Schools, and Educational Consultant

Mail - Katherine Scott - Outlook - Google Chrome

https://outlook.office.com/mail/deeplink?popoutv2=1&version=20220318002.04

Reply all | Delete | Junk | Block sender

Re: making progress on my EdD!

From: █████████████

Sent: Wednesday, January 26, 2022 6:53 PM

To: Katherine Scott

Subject: Re: making progress on my EdD!

Please be cautious
This email originated from outside of ACE organization

Hello Katie,

It's exciting to hear from you, and I hope that you and your family are doing well. Yay! Congratulations on your progress, and yes, I would love to help. Please feel free to add me to your list of SMEs.

On Jan 26, 2022, at 8:36 AM, Katherine Scott <katherine.scott1050@my.ace.edu> wrote:

Re: Interview Protocol Validation - Katherine Scott - Outlook - Google Chrome

about:blank

Reply all | Delete | Junk | Block sender | ...

Re: Interview Protocol Validation

From: █████████████

Sent: Saturday, February 5, 2022 11:00 AM

To: Katherine Scott █████████████

Subject: Re: Interview Protocol Validation

Please be cautious
This email originated from outside of ACE organization

Dear Katie,

Thank you for asking me to assist in this and let's please connect virtually so as I can answer any questions that you may have to my notations or assessment. Also, I wasn't sure if I should fill out a separate rubrics for each of the set of interview of questions. I just did one, as the questions were mostly the same.

I'm attaching the assessed rubric and notations on both sets of questions.

Kindly,

Sent from my iPad

On Jan 27, 2022, at 8:50 AM, Katherine Scott █████████████ wrote:

Dear ████████

Thank you for agreeing to be a Subject Matter Expert (SME) for my study Fostering Teacher Self-Efficacy in Foreign Language Immersion (FLI) Classrooms. Your background as a former FLI teacher and K-12 leader will bring value and expertise to my study.

I have attached a few important documents you will use to review and validate the Interview Protocol I plan to use for my study:

1. An introductory letter briefly describing the process and a rubric that may be used to guide the review. You will simply be evaluating the phrasing and inclusion of the questions for clarity and relevance to the topic and research questions.
2. An Interview and Question Matrix along with the accompanying Interview Protocol designed for interviewing teachers.
3. An Interview and Question Matrix along with the accompanying Interview Protocol designed for interviewing leaders.
4. Teacher Self-Efficacy Scale: a well-used instrument used to develop the kinds of questions needed to understand teacher self-efficacy.

Response from a Doctor of Education, Principal of Bilingual School

Re: Interview Protocol Validation

Wed 2/2/2022 10:16 PM
To: Katherine Scott ▮

📎 1 attachments (26 KB)
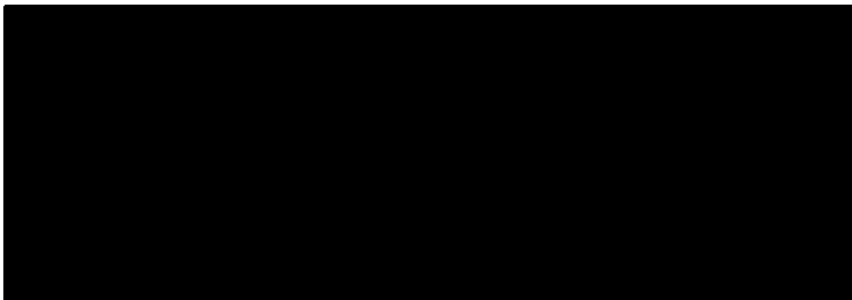Interview and Question Matrix_for teachers.docx;

Please be cautious
This email originated from outside of ACE organization

Dear Katie,

I included some revision to consider directly into the interview document. I believe these adjustments should at least be addressed in the literature if not already if you don't adjust the interview questions (just my opinion). Question 7 presents a bit of overlap for me but I made a change that might be helpful if you agree. Other than that, wishing you a great study ahead.

Kind regards,

Response from a Former Administrator and Evaluator of Immersion Language Programs

Validation of Interview Protocol Review

Fri 1/28/2022 2:04 PM

To: Katherine Scott █████████████████████

Cc: ███████████████████████████

Please be cautious
This email originated from outside of ACE organization

Katie,

As requested, here is an email indicating my review and discussion of your interview protocol. It was truly a pleasure to spend time with you on Wed. 1/26/22 engaged in learning about your proposed doctoral research. The topic is near and dear to my heart and has been my life's work and passion. I was thrilled to meet a likeminded educator and I truly wish you all the best in your endeavor!

I will compose some considerations that we discussed here within the text of this email and in case it is needed, I have attached a copy of my resumé.

Considerations:

- Given that you will be interviewing and speaking with educators of ███████████████ seek approval for your research with the Superintendent's Office.

- Consider utilizing the ██████ Immersion Staff of ███████████████████████████ ██

- Consider reviewing ██████████████████████████ Report for your own knowledge.

- If needed or desired as practice or simply to garner additional information for background purposes, consider interviewing ███████████████████████████ ███████ This would provide historical information of program implementation, updates, and changes since the inception of the school in ████

- Consider extending your definition of leadership to at the very least including Assistant Principals as they too would be responsible for program oversight, evaluation, support, etc.

- Consider if interviews with teacher leaders of immersion programs should be conducted as staff or as leaders.

- Consider interviewing additional immersion teachers ███████████████████████ ██

- Consider a general statement in prefacing the interview to set aside the challenges COVID created in program delivery, resources, etc.

- Consider when orally interviewing participants avoid use of acronyms; i.e. FLI - rather, orally state Foreign Language Immersion so that all participants clearly understand.

- Consider sharing how participants may find out about findings/results and if there may be a possibility to share results with ▮▮▮▮ leadership and with all participants.

- Consider how best to honor interviewee participation: time, interview location, comfort, etc.

- Consider revising "what you say" are the goals under question 1b to simply be: What are the goals for your school's foreign language program.

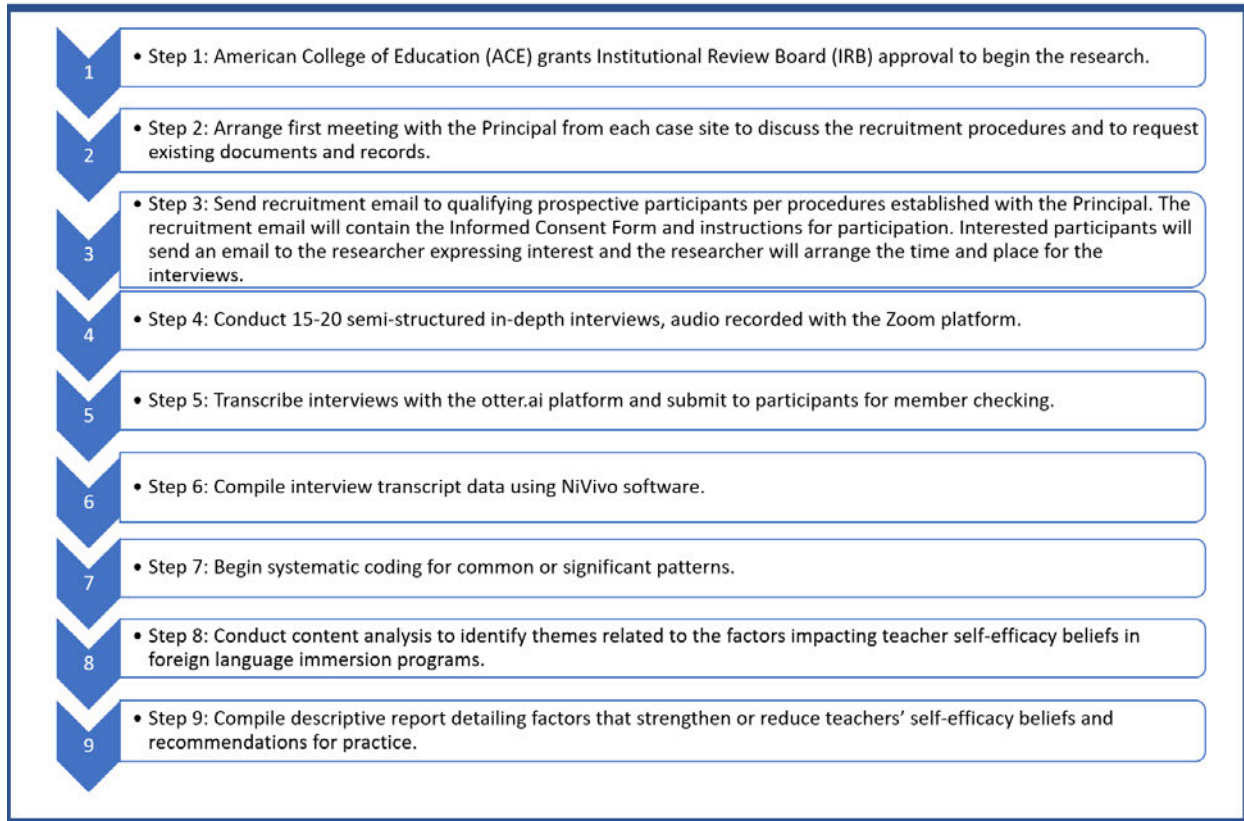I wish you all the best, and please reach out again if I can be of any assistance.

Response from a Teacher in Foreign Language Immersion
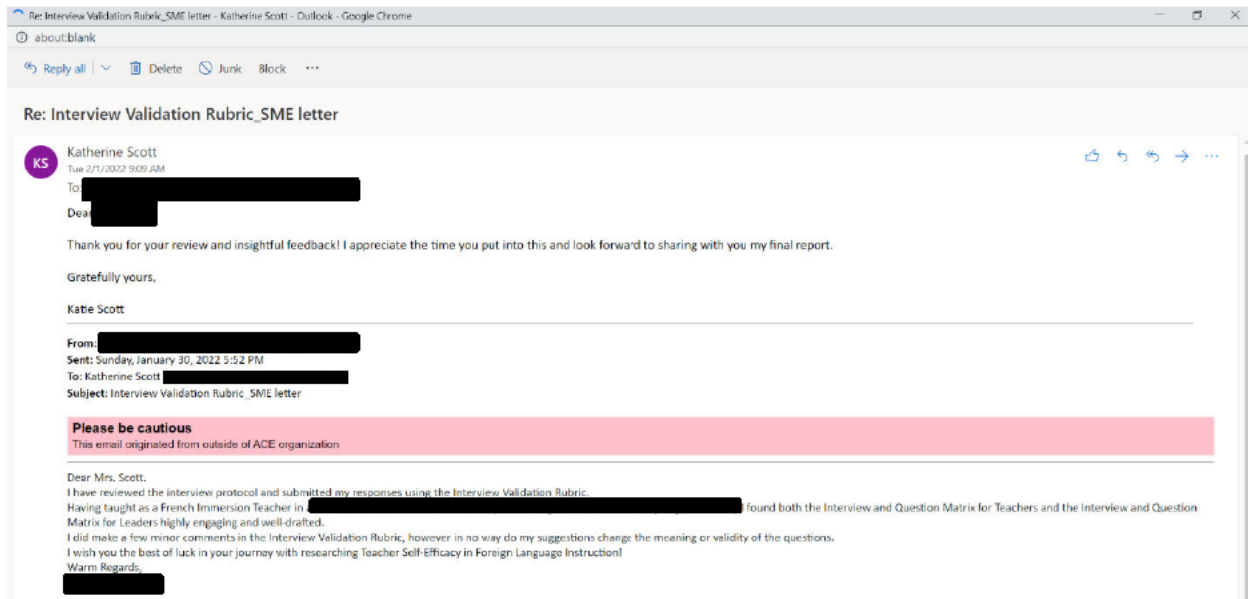
Appendix J

Data Collection and Analysis Process

1 • Step 1: American College of Education (ACE) grants Institutional Review Board (IRB) approval to begin the research.

2 • Step 2: Arrange first meeting with the Principal from each case site to discuss the recruitment procedures and to request existing documents and records.

3 • Step 3: Send recruitment email to qualifying prospective participants per procedures established with the Principal. The recruitment email will contain the Informed Consent Form and instructions for participation. Interested participants will send an email to the researcher expressing interest and the researcher will arrange the time and place for the interviews.

4 • Step 4: Conduct 15-20 semi-structured in-depth interviews, audio recorded with the Zoom platform.

5 • Step 5: Transcribe interviews with the otter.ai platform and submit to participants for member checking.

6 • Step 6: Compile interview transcript data using NiVivo software.

7 • Step 7: Begin systematic coding for common or significant patterns.

8 • Step 8: Conduct content analysis to identify themes related to the factors impacting teacher self-efficacy beliefs in foreign language immersion programs.

9 • Step 9: Compile descriptive report detailing factors that strengthen or reduce teachers' self-efficacy beliefs and recommendations for practice.

Appendix K

Institutional Review Board Approval

AMERICAN
COLLEGE *of*
EDUCATION

June 24, 2022

To : Katherine Scott
    Jolene Andriaschko, Dissertation Committee Chair

From : Institutional Review Board
       American College of Education

Re: IRB Approval

"Fostering Teacher Self-efficacy in Foreign Language Immersion Classrooms: A Qualitative Case Study"

The American College of Education IRB has reviewed your application, proposal, and any related materials. We have determined that your research provides sufficient protection of human subjects.

Your research is therefore approved to proceed. The expiration date for this IRB approval is one year from the date of review completion, June 24, 2023. If you would like to continue your research beyond this point, including data collection and/or analysis of private data, you must submit a renewal request to the IRB.

Candidates are prohibited from collecting data or interacting with participants if they are not actively enrolled in a dissertation sequence course (RES6521, RES6531, RES6541, RES6551, RES6561, RES6302) and under the supervision of their dissertation chair.

Our best to you as you continue your studies.

Sincerely,

Tiffany Hamlett
Chair, Institutional Review Board
American College of Education

Appendix L

Program Model Attributes Comparison Chart

Program Model Components	Site 1	Site 3	Site 4
Type of School	Charter K-5	Independent PreK-8	Public K-5
Student Demographics (CDE, 2022b)	• 86% native English speakers • 14.1% ELLs, some but not all in TL of the first language • 49.7% White • 33% Hispanic • 8.2% Black • 7.5% Two or More races	• 80% of the students are native English speakers • 34+ represented countries • Non-English speakers sometimes choose their first language or a third language for the TL	• 88.2% native English speakers • 11.8 % ELLs, 24 represented languages • 60% White • 13.5% Asian • 13% Hispanic • 9.2% Two or More races • 3.1% Black
Target Language Goal	Read & Write to Intermediate Level (ACTFL) by the end of 5th grade	Differentiated Bilingualism Optional standardized language proficiency assessments	Oral Fluency Building language background and appreciation
Time in Immersion Target Language	50% beginning in Kindergarten	90:10 to 50:50 (TL: EN) progressively more English from PreK to G5	50% beginning in First Grade
Assessments	• Unit-based formative/summative assessments • Annual STAMP standardized assessment	• Unit-based formative assessments • Optional language proficiency standardized assessments from the country of the TL	Unit-based formative assessments
Language-immersion Specific Curriculum	• TL Literacy, Culture, and Math	• TL Literacy and Culture • Teacher-designed themed and content standards-based units	• Teacher-designed themed and content standards-based units • FLES: Specials class for target language development

Program Model Components	Site 1	Site 3	Site 4
Pedagogical Approaches	TL Literacy plus Math taught through TL instruction. Differentiation for language proficiency levels, language learning techniques, and engaging activities used throughout.	Full TL immersion in PreK-K and progressively more English until grade 3, with language-specific block schedules in Grades 3-5. TL Literacy plus themed content units taught through the target language. Differentiation for language proficiency levels, language learning techniques, and engaging activities used throughout.	Themed content units taught through TL. FLES is used to make stronger connections to the language component. Differentiation for language proficiency levels, language learning techniques, and engaging activities used throughout.
Immersion Teacher Backgrounds	Locally sourced bilingual native TL speakers, licensed or highly qualified (may have received teaching licenses and experience in countries of origin).	Locally and internationally sourced bilingual native TL speakers (may have received teaching licenses and experience in countries of origin); some teachers sourced from bilateral government agreements.	Locally sourced bilingual teachers with a mix of native and non-native TL speakers, all licensed.
External Support	• Local university partnership • PTO • Community involvement with cultural events	• Nation State partnerships with target language countries • Community involvement with cultural events • World and local regional associations	• District-level External Review • PTO • Community involvement with cultural events • World and local regional associations

Note: TL = target language

Appendix M

Cross-Site Teacher Sense of Efficacy Results by Program Factor

Program Category	Program Factor	Teacher Sense of Efficacy					
		Low	Med-Low	Med	Med-High	High	In Vivo
II. Curriculum & Instruction	Helping students access subject content through a foreign language			xxxxx	xxxx	xxxx	xx
	Help students achieve growth in the target language	x	x	xx	xxx	xxxx	xxx
	Current curriculum materials for meeting your program goals			xx		xxxx	xxxxxxx
	Engage in classroom target language discourse			xxx	x	xx	xxxxxx
	Engage with the target language text			x	x		xxxxxxxxx
III. Classroom Management	Establish classroom management in the target language			xx	xx	xx	xxxxx
	Motivate students with low interest in learning			xxx		x	xxx
IV. Assessment	Use a variety of assessment strategies for measuring student progress in both language and content	x		x	xx	xx	xxxxxxxxx
V. Professional Development	Implement the strategies you acquired from your professional development	x		x	xx	x	xxxxxxxxx
VI. Support	Use planning time for immersion planning	xxxxx		xxx	x	x	xxx
	Engage with families to help their children achieve the program goals	x		xxxxx	xx	xx	xxx
	Collaborate with staff to solve challenges or reach program goals	x				xx	xxxxxxxxxx

Appendix N

Cross-site Program Factors Hindering or Strengthening Teacher Sense of Efficacy

Program Factors	Hindrances	Strengths
II. Curriculum & Instruction		

Helping students access subject content through a foreign language	• Students' academic vocabulary background
	• Students' TL literacy levels for accessing grade-level content materials
	• Lack of academic materials designed according to TL proficiency and grade level
	• Lack of integrated learning goals, curriculum, and assessment aligned with immersion teaching and learning approach
	• State English-based Assessment Pressures
		• Teachers' professional training in content knowledge and instruction
		• Use of all language resources and prior knowledge:
		  • English mother tongue resources
		  • Transferable concepts
		  • Repetitive functional language
		• Translating grade-level content into simplified TL

Help students achieve growth in the target language	• English Context • Lack of time in TL and control of the language environment	• Teachers' confidence and satisfaction with sharing the TL and culture • Use of language learning strategies and scaffolds to access the TL • Creating an encouraging language use environment
Current curriculum materials for meeting your program goals	• Need for materials available in TL according to language proficiency, maturity level, and appropriate context • Time required to translate or create materials	• Teacher creativity and passion for lesson design • Online resources • Resources outsourced from TL countries and contacts • Translated teachers' manuals • Growth of Spanish Immersion options
Engage in classroom target language discourse	• English Context • Mixed Language Proficiencies and Aptitudes • State English-based Assessment Pressures	• Use of language learning strategies and scaffolds to access TL • Consistency of language exposure over time

Program Factors	Hindrances	Strengths
Engage with the target language text	Lack of materials available in TL according to language proficiency, maturity level, and cultural appropriateness	• Leveled readers for some TLs • Teacher created text with visuals • Using materials and techniques for emergent readers • Read aloud
III. Classroom Management		
Establish classroom management in the target language	• Urgency of establishing safety and behavior expectations when students do not yet have the TL background • Diverse cultural expectations • Mixed language proficiencies	• Use of English for safety and initial behavior expectations • Posting of classroom expectations in TL • Designing engaging lessons
Motivate students with low interest in learning	• Variety of students' affective filters • The extent of students' efforts • Variety of students' interests	• Personalized learning goals • Designing engaging lessons according to students' interests • Use of incentives • Enlisting parental support
IV. Assessment		
Use a variety of assessment strategies for measuring student progress in both language and content	• Lack of standardized assessments designed for immersion language classrooms (assessments are designed for World Language for older students, not for academic language and including younger students) • Need for academic materials designed according to TL proficiency and grade level • Lack of integrated learning goals, curriculum, and assessment aligned with immersion teaching and learning approach	• Variety of engaging formative assessments • Writing Common Assessments

Program Factors	Hindrances	Strengths
V. Professional Development		
Implement the strategies you acquired from your professional development	• Limited options specific to immersion language instruction • Cost of individual investments • Other professional priorities aligned to State/District/School requirements • Language barriers	• Teachers' personal investments in degrees or self-learning • Training from previous employers • In-house • Guest trainers • Foreign Language Associations • Online Continuous Learning
VI. Support		
Use planning time for immersion planning Engage with families to help their children achieve the program goals Collaborate with staff to solve challenges or reach program goals	• Too many tasks, too little time • Planning time used for meetings • Parents lacking the capacity to assist • Time required to coordinate support • Aligning TL content with English content • Team dynamics • Cultural misunderstandings	• Grade-level team planning to help each other develop plans or share resources • School Newsletter Template • Parent Committees (PTO, SAC) • Assisting students at home • TL teams periodically meet for vertical alignment of language progressions • Grade-level teams meeting for horizontal alignment of content • Teams learn from and support each other • Effective communication • Problem-solving as a team

Note: TL = target language

Appendix O

Sample of Codes for Program Factors Strengthening Teachers' Self-Efficacy Beliefs

Program Factors	Interview Answer	Factors Strengthening TSE
I. Personal Factors: Confidence and Enthusiasm for TL		
Help students achieve growth in the target language	Kathy: "Colleagues. I just love it. It's where I feel passionate personally. So, seeing other kids, and also you get to see you're really starting from a base, and you can really see the growth and progress that they've made through your instruction."	Professional satisfaction Confidence and satisfaction with sharing TL and culture
	Brittany: "I'm proud of this language and know it really well."	
II. Curriculum & Instruction		
Access subject content through a foreign language	Janice: "For example, when I'm teaching the lesson, I do it in, in [the TL]. When I asked [sic] them to participate and explain, they say it in [the TL], like, 'What are you doing here? How do you solve it? What do you do first? What is the second?' They need to say it to me in [the TL], not in English. But the material that they are going to be working on, it's in English. And at some point, I bring up some activities, like an open-ended problem that's only in [the TL] for them to also [sic] read it and practice in the language.	Use of all students' language resources
		Use of language learning scaffolds
	Brittany: "So, it relies on a lot of visuals and hands-on experiences."	
Use current curriculum materials for meeting program goals	Audrey: "We're actually quite high. And the reason I say that is because we've done a huge overhaul of target language resources in our library."	Access to appropriate and quality resources
III. Classroom Management		
Establish classroom management in the TL	Rebecca: "I feel like the most important thing to have good class management is you keep the student [sic] interested. If what you do, they're interested, you don't need to spend that much time to manage [sic] them; they will do it."	Skills for creating encouraging and engaging classrooms

IV. Assessment		
Use a variety of assessment strategies for measuring progress in both language and content	Nancy: "Well, there's the paper test. There are the authentic [*sic*] tests. There are anecdotal notes. There are conversations in both languages. It's wide open. There are slates, there's, 'Try writing in [the TL].' There's code-switching, which I permit."	Skills in the development of formative assessments
VI. Support		
Collaborate with staff to solve challenges or reach program goals & Use planning time	Rebecca: "Because we plan together … we plan the literacy, we plan the unit, we plan the math. So, I think that really helps us, and…we can use that time to plan some part of our teaching, and then we can use our own time to plan others … Always somebody [*sic*] has good ideas. Sometimes I feel, 'Oh, that's really good. I didn't know.' And we always learn from each other. Like, if some teacher has some good resource [*sic*], I will use it. So that's really helpful. We learn from each other."	Grade-level collaborations
Engage with families to help their children achieve the program goals	Kim: "I write out daily emails. I write every day. I will write an email breaking down by level what the homework is for each level. I would write down what tests are coming up for each level with the content. I would equip them with the word work, [share these] my tool [*sic*], who can study, practice, [and] keep themselves working. So, I will [send] them home to the parents as a workbook, is [*sic*] in the backpack so the parents know exactly what to give the students, where [*sic*] they can practice on their own or, you know, finish the homework. So, the communication is also very, very important here."	Consistent communication with parents

Note: TL = target language

Appendix P

Sample of Codes for Program Factors Hindering Teachers' Self-Efficacy Beliefs

Program Factors	Interview Answer	Hindrances
I. Structure		
Program Goals	Jennifer: "Definitely more of a focus on we are a language immersion school. This is probably primary. I want more focus on what's the best way to really improve that piece of our program…to start with having 100 percent target language within the classroom; that one little thing could make a huge difference. In terms of how well are they explaining or actually learning long-term language? Not, 'I can do it today while you're helping me. But can I do it independently?' They have to change from learning language, but [*sic*] starting to think in the language is the big paradigm shift."	Need for clarity about language acquisition versus language learning
	Audrey: "Our goals are to produce a bilingual student at the end of eighth grade. So that is our goal. And I think we know that bilingualism is quite wide and varied. There's a lot of research out there, a lot of definitions. Really, they're talking about being able to converse, communicate, whether you read and write in the two languages, but you will use each one depending on the circumstance. Which [language] takes a lead, what, you know, what complements the other? There are going to be times when you leverage one language against another in order to get a [*sic*] point across; you might mix between the two. So, I think…sometimes we have to be careful not to think that these are two parallel roads and that they don't intersect because they intersect tremendously."	Multiple definitions for bilingualism
	Liane: "So [the school] is, specifically, an oral program. As the years progressed, there's been a lot of talk about, if it's only verbal, then how do [*sic*] you provide access to the material to support the language, especially when you get to third grade and fourth grade, and you may have to read some content in [TL]?"	Need for clarity about the role of TL literacy

Program Factors	Interview Answer	Hindrances
II. Curriculum & Instruction		
Helping students access subject content through a foreign language	Rebecca: "The challenge is the social [studies] and the science. Our school [does school program]. And that's another challenge for me … the vocabulary is too high for my students … they're really low in the language, academic language."	Students' academic vocabulary background
	Melanie: "It's really hard to find videos or reading that would be at their level. It would be so low, so babyish, that I think I will, not I think, I know, I will lose their [eagerness] to learn about it. So that's a huge challenge. So, it's in English, but … because I'm a native speaker, I can [*sic*], I have tools to put it down to their level. And I can ask questions to them."	Academic materials in TL proficiency level and grade level
Helping students access subject content through a foreign language Helping students engage in the TL discourse	Jennifer: "I think our teachers try really hard, but because of our need to perform on state assessments, and even the math assessments, [the students are] learning in a target language, but they have to be tested in English, right? So, you could have a kindergartener who does math very well in [the TL]. But they're being tested in English. So, they may not be able to count '12345678' and then go on up. They can do it in [the TL] because that's how they've been learning. They know what that is. They have [the] concept of number, they have all the things that they need in the target language, but the teachers have to, they're almost, because of this situation, forced to break away from the full immersion and teaching [*sic*] that content to supplementing [*sic*] with English so that they can make sure those concepts are actually being learned by the students.	State English-based assessment pressures
	Brooke: "I guess the timing, time, and also environment. Because [of] the time … this is the regular school setting. So, the time, you roughly only have probably 1 hour a day to work on the language part of it. And then 1 hour a day, and then an environment, outside of this 1 hour, they're not able to access any [of the TL], not in a home setting or anywhere, unless they put in [the] time to do their own practice."	English context

Program Factors	Interview Answer	Hindrances
II. Curriculum & Instruction		
Current curriculum materials for meeting your program goals	Brittany: "That's the biggest challenge. It also ties with the goal because we do not have very specific assessment [*sic*], and then also the curriculum for young kids, that's easier to consistently assess a student's ability and also their learning, their performance… that's tied with the goals. So that is a really tough challenge."	Self-created resources and assessments Need for integrated learning goals, curriculum, and assessment aligned with immersion approach
III. Classroom Management		
Establish classroom management in the TL	Kim: "All the different levels again, that you know, that you have children that enter from kindergarten on, where you could fully [speak] in the immersion language and have conversations on a higher level. Then I have maybe a level to which [*sic*] they've come [in] second or even third grade … then I have level three, that might be a child that comes from [the TL country] … So, this is the big challenge that we have … Not everybody [*sic*] gets my full attention all the time because I have to divide myself between all these different levels."	Mixed language proficiencies
IV. Assessment		
Use a variety of assessment strategies for measuring progress in both language and content	Brooke: "We do have a [*sic*] one assessment. It's called STAMP, but it's not aligned with what we're teaching … The format they use is not complete enough and [*sic*] for young children."	Lack of standardized assessments designed for immersion language classrooms
V. Professional Development		
Implement the strategies you acquired from your professional development	Mary: "I have to admit, it's very limited." Brittany: "So, it's more like it's my own job to develop myself as a professional teacher."	Limited training options
VI. Support:		
Use planning time	Kathy: "Priorities, priorities. Yeah, too, many priorities."	Too many tasks, too little time

Program Factors	Interview Answer	Hindrances
	Rebecca: "We have to do a lot of team planning. And all the planning time we have is that one, one period, 45 minutes a day…And two or three times a week, there's a meeting … So, for my own language part, my [TL] part, I do it on my own time, like at night, [or] on the weekend. I have to use the time at school to do the team planning."	
Collaborate with staff to solve challenges or reach program goals	Brittany: "It takes time to explain exactly what you need, what you want [for] support, and what kind of help you really need …because it's a second language and not all the staff they [*sic*] understand … I think most people are willing to work together, but I would say it takes energy and time to do that."	Communication barriers
Engage with families to help their children achieve the program goals	Janice: "Maybe most of the time, [parents] do not spend a lot of time with their kiddos because they're working. Or sometimes they do not have the capacity to help their kiddos." Brittany: "It's more like you will have to spend time pursuing the support. It's not a [*sic*] support."	Parental capacity Time required to coordinate support

Note: TL = target language