2023

Teacher Strategies for Reducing the Achievement Gap for ELL Students

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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Stephanie Collins

MA, Central Michigan University, 2005

BS, Clark Atlanta University, 1999

Dissertation Submitted in Partial Fulfillment

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Doctor of Philosophy

Educational Psychology

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Abstract

An influx in Hispanic English language learners (ELLs) in Atlanta public schools has led to a broadening of the achievement gap between ELLs and native English speakers, causing higher failure rates and fewer career possibilities for Hispanic ELLs upon school completion. The purpose of this basic qualitative study was to investigate the kinds of strategies K through eighth grade teachers use to reduce this achievement gap, specifically in English and math. Vygotsky's social learning theory guided this study, a key aspect of which is the role dialect and language play in determining a student's development. The study focused on how social foundations (e.g., identity, language, culture, and class) shape ELL students' learning processes from the teachers' perspective. Purposeful sampling identified eight K through eighth grade teachers whose instructional strategies focused specifically on their personal scaffolding techniques. The findings indicated that participants frequently use language and culture scaffolding to help Hispanic ELL students in English and mathematics close/reduce the achievement gap. To achieve excellent academic standards, participants established diversified instruction and student modeling, promoted cultural diversity, collaborated with students, observed them, and ensured ongoing involvement. Participants also used gestures, images, translators or interpreters, student collaboration, and technology support to communicate with students who do not speak English well. To effect positive social change, participants identified a variety of resources, skills, knowledge, and professional assistance to improve the effectiveness of ELL teaching strategies in closing/reducing the achievement gaps for Hispanic ELLs in English and mathematics.

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"God is the vine, and I am the branch. If God remains in me and I in him he will help me produce much fruit" (John 15:5).

I dedicate this dissertation, my goals I have accomplished, and all of my hard work to God who has never given up on me. I thank God for giving me his mercy and grace to work hard.

Thank you, God in advance,

I love you

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Chapter 1: Introduction to the Study

Introduction

In the United States, native English speakers (NES) consistently outperformed English language learners (ELLs) academically at the primary, middle, and secondary school levels (Blanchard & Muller, 2015). These gaps persisted even when the ELLs acquired English proficiency. There was a need to understand why that occurred and how the problem could be addressed. There were significant social benefits that could have accrued from improving the academic achievement of ELL students, e.g., becoming more knowledgeable, working independently, attending college and graduating, and becoming productive citizens in society.

This basic qualitative study examined a population of K through eighth grade teachers who taught both Hispanic ELLs and NES students in one class in the Atlanta, Georgia area. The specific focus was Hispanic ELLs' English and math skills. This study was timely because of an influx of Hispanic families into Atlanta in recent years (Atlanta Regional Commission, 2018). This chapter presents the background, statement of the problem, purpose, and research questions. The theoretical foundation and nature of the study are also presented, as were the scope, assumptions, limitations, delimitations, and significance.

Background

Non-English-speaking Hispanic students exhibited far less proficiency in areas such as English and math than their NES peers. ELLs also showed low levels of ability in closing the achievement gap in these subject areas. In other words, not only did Hispanic

ELLs struggle to meet general requirements in English and math, but they also failed to catch up with the rest of their peers, even as their English improved (Chen & Yang, 2017). The growing influx of Hispanic families into the Atlanta, Georgia area had seen a steady increase of ELLs in public school classrooms (Georgia office of Student Achievement [GOSA], 2017; Krogstad, 2016; Krogstad, 2017). While programs and strategies had been put in place to deal with this, non-English speaking Hispanic ELLs still reported lower levels of academic success and were more often found in remedial programs than their NES counterparts (GOSA, 2017).

While research already existed on potential strategies and programs available to ELL teachers for reducing and bridging this achievement gap, only a limited number of studies documented the kinds of strategies teachers applied in practice (Chen & Yang, 2017; Olson et al., 2017; Valentino & Reardon, 2015). There was also a gap in the literature related specifically to the Atlanta public schools (APS) context regarding ELL teaching. Findings from the proposed study would benefit K-eighth grade teachers in their struggle to facilitate ELLs' academic success. In addition, findings from the present study would add to the literature on ELL teaching, helping to fill the gap in our understanding of which teacher strategies worked best to bridge the ELL/NES academic achievement gap.

Statement of the Problem

The study aimed to explore strategies for teachers of K-8th students as they attempted to reduce the achievement gap between Hispanic ELLs and NES students in English and math. The influx of Hispanic ELLs in Atlanta schools had broadened the

achievement gap between ELLs and NES students, causing higher failure rates and fewer possibilities for Hispanic ELLs upon school completion (Blanchard & Muller, 2015; Good et al., 2010; Kane, 2016). To address this problem, effective teaching strategies to bolster Hispanic ELLs' English and math skills were needed. If left unaddressed, the achievement gap would widen, leaving fewer future opportunities for these ELL students (Blanchard & Muller, 2015).

Purpose of the Study

The study reviewed the various strategies practiced by K-eighth in English and math to reduce the achievement gap between their Hispanic ELLs and NES students in APS. Specifically, the study focused on how social foundations such as identity, language, culture, and class shaped ELL students' learning processes from the teachers' perspectives (Blanchard & Muller, 2015; Driver & Powell, 2017; Hanselman et al., 2014). Participating teachers also shed light on how attention to these social structures was reflected in the classroom strategies they employed as a means of assisting their Hispanic ELLs in math and English, specifically. K-eighth teachers' insights on what strategies had the best potential to reduce this achievement gap could be followed by studies that tested the impact of these strategies on Hispanic ELL academic achievement. Finally, the study explored what APS K- eighth grade teachers needed in terms of assistance, resources, and/or professional development to better aid their Hispanic ELLs in the future.

Research Questions

The study was governed by one overarching research question: What strategies did K-eighth grade teachers employ and deem effective in reducing their Hispanic ELLs achievement gap in English and math?

RQ1: How was language and cultural scaffolding used to assist Hispanic ELLs in English and math?

RQ2: What challenges were experienced while trying to reduce the achievement gap for Hispanic ELLs?

RQ3: What resources, skills, knowledge, professional assistance, and other forms of support helped make ELL teaching strategies more effective at reducing Hispanic ELLs' achievement gaps in English and math in the future?

Theoretical Framework

The study was grounded in Vygotsky's (1978) social learning theory (SLT). By providing a framework for understanding the connection between learning and language, SLT was well-suited to helping educators with solutions to closing the achievement gap. SLT is a sociocultural theory, asserting that learning is a social endeavor where the learning setting and the relationship between student and teacher play vital roles in students' ability to learn; learning, then, becomes a collaborative effort between teachers and students, whereby teachers find ways of motivating students to achieve.

For such teacher-student collaboration to take place, it was important for K-eighth grade teachers to understand students' zone of proximal development (ZPD; Vygotsky, 1978). The ZPD refers to understanding where and how student learning developed and

the current 'place' in which students find themselves in relation to their academic ability. The ZPD is, principally, the level(s) between where a student needed assistance and where they could work, understand, and apply knowledge without the assistance of others. Being able to gauge individual students' ZPD allowed teachers to adapt and employ intercessory instruction, where necessary, to better meet individual students where they currently were in their learning ability and to bring them to where they needed to be. For purposes of the proposed study, K-eighth grade teachers would have needed to define the different ZPDs for Hispanic ELLs and NES students, respectively. Thus, K- eighth grade teachers would have needed to present ZPDs for the individual Hispanic ELL and NES groups, noting if and where zones might correspond across both. In this way, teachers may have been able to hone their instruction to suit individual student needs within each (ELL and NES) group.

One key aspect of SLT considered how dialects and language played a part in determining students' proximal development (Vygotsky, 1978; Walqui, 2006). Particularly, Vygotsky (1978) noted how dialect/language linked to thought; in other words, individuals processed information differently, depending on constructions within their native language. To examine this proposition, Walqui (2006) applied SLT to learning a second dialect or language. The author noted that by taking students' native dialect or language into account, teachers could provide them with the necessary "scaffolding" to assist learning development in the second dialect or language. Employing scaffolding meant that teachers could use their students' first language or

dialect to bridge or support comprehension and knowledge gaps. Doing so could have ensured higher levels of student success (Walqui, 2006).

In classroom settings, scaffolding could have been a helpful method for Hispanic ELLs to reduce their achievement gap, as they could have learned concepts through social cooperation with their teachers who taught them in English, while providing additional assistance and cultural sensitivity using their native language (Loeb et al., 2013; Umansky & Reardon, 2014). This collaboration also allowed students the opportunity for practicing and displaying English vernacular through verbal and written exchanges with their teachers (Walqui, 2006). Such practice, in turn, provided Hispanic ELLs with a concrete means for improving their English proficiency, and consequently improving their academic comprehension and achievement within the English-based learning environment. This proposed study aimed to examine K-eighth grade teachers' strategies for improving Hispanic ELLs achievement by employing the SL framework, with specific focus on K- eighth grade teachers' scaffolding strategies. The study would have also added to the theory through its practical application within teaching practices.

Nature of the Study

This qualitative study explored the different strategies K- eighth grade teachers utilized to eliminate the achievement gap between Hispanic ELLs and NES students in the APS. To that end, the study used a basic qualitative approach (Merriam & Tisdell, 2016). While there were various qualitative approaches to research (e.g., grounded theory, case study, phenomenology), not all applied equally well to all situations; each had its unique application. For example, unlike phenomenological research that explores

the 'essence' of a shared phenomenon experienced by a specific group (e.g., loneliness), basic qualitative research is concerned with how individuals interpret, construct, and attribute meaning to their experiences (Merriam & Tisdell, 2016). Basic qualitative research is especially well-suited to uncovering strategies perceived by teachers as effective at maximizing students' academic potential, making it a good choice for this study. Conversely, quantitative research is designed to quantify the strength of relationships among variables, making it inappropriate for a study concerned with teachers' perceptions that cannot be quantified (Bryman, 2016).

The sample for this study consisted of APS K-eighth grade teachers from across suburban and urban elementary schools whose classrooms included both ELLs and NES students. As qualitative studies required smaller samples than quantitative studies, a sample of 10 K- eighth grade teachers was sufficient to reach data saturation (Fusch & Ness, 2015). Additional K- eighth grade teachers were added to the sample should data saturation not have been met with this initial sample. Purposive sampling of teachers in K-eighth grade had to meet the following criterion: they had to have taught both ELLs and NES students in the same class for 5 or more years.

Data were collected using in-depth, semi-structured phone interviews. Participants provided information regarding their school and district policies on ELL teaching, learning, support structures, and teacher professional development. These documents were used to gather more information about ELL teaching within APS and the procedures they used to help these students learn or stay on track in English and math. Data were analyzed using Atlas.ti software (http://atlasti.com/); this software allowed for thematic

and comparative qualitative data analysis (http://atlasti.com/). A basic qualitative analysis made sense of how and why K-eighth grade teachers deemed certain strategies more effective than others in improving ELL students' achievement, as well as the role student and teacher language, culture, and other demographic factors played in ELL students' academic experience (Dawn, 2014; Lewis, 2015). Through this basic qualitative study, K- eighth grade teachers discussed strategies they used in their classrooms to help Hispanic ELL students reduce the achievement gap in APS.

Definitions

Achievement gap. The achievement gap refers to the difference in minority and low-income children's abilities to perform on standardized tests relative to their peers' test performance (NCLB, 2004).

Bilingual Education Act of 1968. The Bilingual Education Act of 1968 (also named Title VII of the Elementary and Secondary Education Act; ESEA), was the first federal official recognition of students with limited English-speaking ability. This Act has had four reauthorizations with amendments, involving changing the needs for these students and society as a whole (NCLB, 2004).

Culture. Culture is a pattern of behavior shared by a society or group of people, including language, tools, arts, religion, customs, clothing, beliefs, music, and foods (Vocabulary.com, 2020).

ELL. For the purposes of this study, an English language learner, or ELL, will be defined as a Hispanic primary, middle, or secondary school student whose native language is not English and who has limited English proficiency.

Multiculturalism. Multiculturalism describes a society where many different cultures live together with mutual respect for each other's customs, beliefs, and traditions (Vocabulary.com, 2020).

National Assessment of Educational Progress (NAEP). NAEP is an association that assesses primary education courses in science, U.S. history, writing, reading, the arts, math, civics, and geography. NAEP evaluates what a child can do and what a child knows in different subject areas (NCLB, 2004).

NES. For the purposes of this study, a native English speaker is any primary, middle, or secondary school student whose native language is English, regardless of ethnicity.

No Child Left Behind Act (NCLB). NCLB is a federal law that allowed many federal programs to help improve the performance of elementary and secondary schools in the United States (NCLB, 2004).

Professional development. Professional development is learning or maintaining professional credentials such as academic degrees in formal coursework, attending conferences, and informal learning opportunities situated in practice (Vocabulary.com, 2020).

Scaffolding. According to Vygotsky (1978), scaffolding is bridging the gap between what the learner can and cannot do on his/her own. This is provided by teachers who assist children in completing tasks that they are at first unable to complete without help, with the goal of teaching them skills to ultimately complete those tasks without assistance (Vygotsky, 1978).

Segregation. Segregation is the action or state of setting apart an individual or something from other people or things.

Strategy (strategies). A strategy is an action plan or policy put in place to achieve a major aim overall (Vocabulary.com, 2020).

Assumptions

It was assumed that participants were forthright and honest in describing their experiences and answering the research questions. Furthermore, it was assumed that participants did in fact meet the inclusion criterion when they answered the questions affirmatively; the participants would not be vetted; these assumptions were necessary to the nature of the data collection process, as there was no practical way to determine if the participants were being truthful. It was assumed that the research design was best suited to provide the desired information and that the sampling strategy was appropriate to provide a sufficient number of participants. Importantly, it was assumed that my personal biases would not influence my collection, analysis, and interpretation of the data.

Scope and Delimitations

This study only examined one specific population in a single geographic area within which only one study site was chosen. The choice was predicated on the nature of the study. The area of Atlanta, Georgia was chosen for convenience, but given its recent influx of Hispanic ELLs, it was also representative of the problem in the United States as a whole. To collect data from a sample who had experienced the same phenomenon (i.e., an achievement gap between Hispanic ELL and NES students taught in the same classroom), only K-eighth grade teachers of Hispanic ELLs were recruited; teachers who

taught Grades 9 and higher were not included. While a qualitative design may have limited the transferability of findings, the appropriateness of the design and rigor of data analysis may have mitigated this problem.

Limitations

Limitations included the chosen methodology; the small sample size, a factor inherent in qualitative studies, could affect the transferability of the results. The use of interviews, while facilitating the gathering of rich, nuanced data, was also a limitation in that even open-ended interview questions tended to guide/prompt the discussions. Dependability of the data also came into question when the researcher performed the thematic coding, which was by nature an idiosyncratic process and would almost certainly have been different if done by another researcher with the same data; however, this was unavoidable. These limitations were mitigated by rich thick descriptions of the data, a thorough explanation of the data analysis process, and a robust description of the study findings. Researcher bias was inevitable, but being aware of its existence could help to lessen its effects. I strove to be professional and objective and not let myself be a "filter" between the participants and the data, but rather reported the findings as thoroughly and honestly as possible.

Significance

This study was significant in that it added to the current literature that addressed ELL education. Specifically, this study filled two noted gaps in the literature by exploring strategies for assisting Hispanic ELLs in reducing their achievement gap in English and math and by situating this study within the APS context (Chen & Yang, 2017; Olson et

al., 2017). This study was also significant in how it could aid professional practice. By highlighting strategies currently employed by APS K-eighth grade teachers and by noting where and how they might need additional resources and training, insights from this study would help teachers address the Hispanic ELL academic achievement gap. This study could aid other APS district teachers with successful strategies for achieving the same goals. A clearer understanding of what K-eighth grade teachers needed to reduce their Hispanic ELLs' achievement gap could also aid school boards and districts in providing teachers with the necessary skills, resources, and assistance to further improve their professional practices (Good et al., 2010; Johnson & Wells, 2017; Vagi et al., 2017).

Finally, the study was significant in its potential to promote positive social change. Researchers had noted that children who exhibited high proficiency in English and math were more likely to receive tertiary education, earn higher salaries, and generally contribute more greatly to their communities (Blanchard & Muller, 2015; Debusmann, 2011; Greenstone & Looney, 2012). Thus, by aiding Hispanic ELLs to bridge the achievement gap between themselves and their NES peers, teachers would be ensuring a greater likelihood of life-success for their students, which, in turn, could improve the social and economic standing of their communities.

Summary

This chapter provided an overview of the background and rationale for addressing the achievement gap between Hispanic ELLs and NES students. The study problem and purpose were explained, as was the achievement gap between NES students and Hispanic ELLs, in order to begin to determine how K-eighth grade teachers could address it. The

methodology explained the population, sampling, data collection, assumptions and delimitations, and limitations, was also discussed. Chapter 2 will present an exhaustive review of recent literature related to the study topic.

Chapter 2: Literature Review

Introduction

According to the National Education Association (2014), ELL students in 2013 demonstrated levels of proficiency that were 23% to 30% lower than their NES peers. Moreover, 69% of ELL 8th-grade students achieved a score below average in math, and 70% scored below basic in reading. These numbers clearly indicated that a dire problem existed when it came to both disparities in academic achievement between ELL and NES students as well as the absolute performance of ELL students. Absent strategies to help ELLs, they showed little ability to close the achievement gap in these subject areas. In other words, not only did Hispanic ELLs struggle to meet general requirements in reading and math, they also failed to catch up with their NES peers, even as their English improved (Blanchard & Muller, 2015; Good et al., 2010; Kane, 2016). The purpose of the study was to explore strategies used by K-8th grade teachers with the best potential to reduce the achievement gap between NES and Hispanic ELLs in English in APS. Specifically, the proposed study focused on how social foundations such as identity, language, culture, and class impacted ELL students' ability to bridge their achievement gap, as seen from the teachers' perspectives (Blanchard & Muller, 2015; Driver & Powell, 2017; Hanselman et al., 2014). This study was needed because NES Hispanic students exhibited far less proficiency in areas like reading and math in relation to NES students (Blanchard & Muller, 2015; Good et al., 2010; Kane, 2016).

This literature review addressed several key themes, including the history of the educational achievement gap, barriers faced by ELL students, barriers faced by teachers,

instructional strategies, and the specific needs of ELL students. Over the course of the review, it became clear that a very real academic achievement gap did in fact exist and that proper instructional strategies could be developed in order to overcome both barriers faced by teachers and barriers faced by ELL students in order to meet the learning needs of ELL students. The remainder of this chapter provided a thorough overview of the theoretical framework and concluded with a summary.

<div align="center">**Establishing the Relevance of the Problem**</div>

The evidence thus established the existence of the selected problem, and it was clearly necessary to take meaningful efforts to address this problem. Recent research had brought about a greater awareness of racial gaps and other achievement gap concerns (Olson et al., 2017); attending to these concerns would help address social inequities and enable ELL students to become more successful, integrated, and productive members of society. According to the data, a large percentage of Hispanic ELLs did not meet administrators' requirements for English proficiency, with an academic achievement gap that isolated ELLs from their NES peers (Echevarria et al., 2015). This isolation then became a vicious cycle, with ELL students falling farther behind their NES peers as they advanced through grade levels; their persistent lack of progress made it more difficult to catch up when it came to later learning.

Disparities between ELL and NES students began as early as the age of 5, driven by the fact that ELL students often lacked access to high-quality early childhood education. This problem was compounded by communication issues between parents and teachers (Sibley & Brabeck, 2017). Such issues were both practical and cultural. At the

practical level, parents who did not speak English may have felt uncomfortable trying to engage with teachers in the school environment. At the cultural level, Hispanic parents tended to find it disrespectful to interfere with teachers doing their job, and it was generally not understood or accepted that parental involvement was important for students' academic success (Sauceda et al., 2016). Compounding the problem was teachers' unfamiliarity with Hispanic ELLs' cultural foundations (e.g., language, norms, customs, and values), an understanding of which was needed for teachers to develop and implement teaching strategies responsive to ELLs' specific needs (Sauceda et al., 2016).

Literature Search Strategy

Several databases and search engines were used to obtain the most recent and relevant literature. The databases were Google Scholar, DeepDyve, and ERIC, and the search terms included *English proficiency, ELL, achievement gap, expectation, social learning theory, Vygotsky, instructional strategies, collectivism, Hispanic culture, Latino culture, individualism, English language learners, cultural background, barriers, challenges, instruction methods, needs, requirements*, and *relationship* and combinations of these terms. Of the 76 sources included in this chapter, 65 of the sources (86%) were published between 2014 and 2018, and 11 sources (14%) before 2014. The articles and studies that were relevant to the purpose, problem, and research questions of this study were included in the review of the literature. Included in this review were published reviews, peer-reviewed articles and studies, and dissertations.

Theoretical Framework

The proposed study was grounded in Vygotsky's (SLT (1978). By providing a framework for understanding the connection between language and learning, SLT was well-suited to helping educators with solutions to closing the achievement gap. More commonly referred to as social development theory or social constructivism, SLT is a sociocultural theory, asserting that learning is a social endeavor where the learning setting and the relationship between student and teacher plays vital roles in students' ability to learn; learning then becomes a collaborative effort between teachers and students, whereby teachers find ways of motivating students to achieve.

The major assumption of SLT is that social interaction plays a key role in the development of cognition (Vygotsky, 1978). A second major assumption of this theory is that the potential for cognitive development depended upon a student's ZPD. A ZPD is the level of development that is attained when individuals engage in social behaviors (Vygotsky, 1978). The ZPD is underpinned by the level of collaboration that exists between teachers and students.

For such teacher-student collaboration to take place, it was important for K-8th grade teachers to understand students' ZPD (Vygotsky, 1978). Within the context of education, the ZPD refers to understanding where and how student learning develops and the current "place" students find themselves in relative to their academic ability; it is the difference between what students could do without help and what they could achieve with the help of a skilled partner. Being able to gauge individual students' ZPD allows teachers to adapt and employ intercessory instruction, where necessary, to better meet

individual students where they currently are in their learning ability to bring them to where they need to be.

One key aspect of SLT was how consideration of dialects and language played a part in determining students' proximal development (Vygotsky, 1978; Walqui, 2006). Vygotsky noted how dialect or language linked to thought and how individuals processed information differently depending on their native language construction; by taking the student's first dialect or language into account, teachers could provide students with the necessary scaffolding to assist students' learning development in the second dialect or language (Walqui, 2006). In classroom settings, scaffolding may have been a helpful method for Hispanic ELLs to reduce their achievement gap, as they could learn concepts through social cooperation with their teachers who taught them in English while using their native language and the corresponding cultural sensitivity to provide additional assistance (Loeb et al., 2013; Umansky & Reardon, 2014). This collaboration also allowed students the opportunity for practicing and displaying English vernacular through verbal and written exchanges with their teachers (Walqui, 2006). Such practice, in turn, provided students with a concrete means for improving their English proficiency and consequently improved academic comprehension and achievement within the English-based learning environment.

In addition to teacher-student collaboration and cultural sensitivity practices to meet students where they were, Markova (2014) explored the extent to which the growing number of ELLs engaged in academic and non-academic preschool activities helped get children ready academically for elementary school; while not part of the

academic preschool curriculum, per se, they were essential for their academic development (Markova, 2014). Data from 285 observations as well as teacher and parent surveys found that preschool children interacted and engaged significantly more with non–academic activities than with academic activities, implying that unstructured, free-play activities could help to build academic skills as well as cultural capital. This research further highlighted the need for specific instructional strategies that may help ELLs to engage and learn more through social and unstructured group activities.

Previous research had supported the application of assumptions associated with SLT in the context of education. For example, according to Law et al. (2017), Walqui (2006), and Markova (2014), SLT developed by Vygotsky was the appropriate theoretical framework for the proposed study. Law et al. (2017) implemented a qualitative, descriptive approach that led to five major themes, including: effort and commitment, teaching strategies, interest enhancement, positive impacts, and positive attitudes. While insightful, these findings lacked generalizability and required further exploration to determine their application to collaborative learning. Walqui also presented a conceptual framework that may have been effective for applying tenets of Vygotsky's theory, although further investigation was needed to determine its application to practice in the classroom. This conceptual framework was based on scaffolding and conceived of this concept as both a structure and process, which included multiple levels of pedagogical support, including macro-level planning of curricula over time to micro-level moment-to-moment scaffolding to support responsive interactions as they unfolded. Markova's mixed methods study of 285 preschoolers offered the greatest and most generalizable

evidence of unstructured playtime and its impacts on academic development. Unstructured playtime had positive impacts on academic development, most notably via social interactions. These findings related to positive social interactions and academic development illustrated the importance of free play for ELLs.

Recently, studies have supported concepts of SLT for ELLs via social media interaction, such as Twitter and mobile messaging (Andujar, 2016; Taskiran et al., 2018). Andujar (2016) conducted a quantitative, quasi-experimental study that showed mobile messaging could facilitate learning for ELLs. Andujar found that this technology was associated with significant improvements in lexical, grammatical, and mechanical error reduction. Taskiran et al. (2018) obtained similar findings for Turkish university students regarding the use of Twitter, although no intervention actually took place. Taskiran et al. found that regular use of Twitter led to positive self-evaluations and self-efficacy related to English language skills. Nevertheless, there appeared to be some evidence suggesting that social interaction via the Internet helped facilitate cognitive development and augmented what took place in a live educational context (Andujar, 2016; Taskiran et al., 2018). The purpose of these studies was to promote linguistic development in ELLs via mobile technology and each found positive effects associated with their respective interventions.

Additionally, SLT was applied to the promotion of more inclusive educational practices that sought to integrate ELLs to maximize chances for social interaction and cognitive development (Eun, 2016). Eun (2016) proposed that effective social interactions were critical to academic development and learning, although no supporting

evidence was provided based on the conceptual and editorial nature of the paper. It was evident, from the perspective of SLT, that segregation of ELLs from non-ELLs only exacerbated the achievement gap between these two groups because this practice limited ELLs' chances for social interaction and cognitive development (Eun, 2016). For purposes of the proposed study, K-8th grade teachers would have needed to define the different ZPDs for Hispanic ELLs and NES students, respectively. Based on findings and propositions from Andujar (2016), Eun, and Taskiran et al. (2018), the theory could provide a comprehensive framework for understanding obstacles that Hispanic ELLs faced and would provide insight into the instructional strategies that would best serve this cohort.

Reviewed Literature Related to Key Concepts

History of the Educational Achievement Gap

The history of the educational achievement gap was influenced by segregation that has persisted for years. Rothstein (2015) had observed that school segregation based on socioeconomic lines further disadvantaged minority learners and negatively affected student performance. Rothstein also added that concentrating disadvantaged students in economically and racially homogenous schools increased the academic achievement gap. Unfortunately, segregation still occurs as a result of where schools are located, and living in high-poverty areas for several generations creates an added barrier to achievement. Moreover, education policy related to housing policy, as one cannot desegregate schools without desegregating the low SES neighborhoods in which minority students resided. Kane (2016) found that disparities in government spending related to ethnic minorities

and/or lower socio-economic areas in relation to education negatively influenced these students' ability to succeed, including many in the Hispanic community. If the government and policymakers did not acknowledge that a history of "state-sponsored residential segregation" was the root of the problem, it was unlikely that changes would be made to reduce the educational gap (Rothstein, 2015).

Hispanics are the largest, fastest growing ethnic minority group (Stepler & Brown, 2016) and the youngest population in the United States (Orchowski, 2014). The term Hispanic is used interchangeably with the term Latino to denote groups of people whose ancestors originated from any of the Spanish-speaking countries in Latin America, like Puerto Rico, Mexico, and the Dominican Republic (Garcia, 2016). Despite government enactment and policy changes implemented to improve the outcomes for ELLs that had been well-executed and routinely assessed, an excessive number of ELLs did not improve in English and math skills.

Title VII of the ESEA added the ELL category (Bilingual Education Act, BEA) in 1968 (Garcia-Joslin et al., 2016). This amendment was the first federal acknowledgment of the fact that ELLs who attend schools need special accommodations to enable academic success, prompting the need to identify these students to be able to provide them with resources. Garcia-Joslin et al. (2016) also explained that in 1967, Yarbourough, a U.S. senator from the state of Texas who sponsored the BEA, favored bilingual-bicultural programs to instill a sense of cultural pride in Spanish-speaking students.

In light of the NCLB Act of 2001 and the responsibility measures included, there was a need to uncover means to better the outcomes of ELLs. NCLB required that all children, including ELLs, meet high expectations by showing capability in English language expressions and arithmetic by 2014. While the NAEP discovered that African American and Hispanic students made improvements in reading and science, a gap still isolated them from their White peers. For instance, examinations by the National Center for Education Statistics in 2009 and 2011 demonstrated that African American and Hispanic students trailed behind their White peers by more than 20 test-score points on the NAEP math and reading scores at fourth and eighth grades, a deficit of around two review levels. As a result of the short-term results of test scores and educator judgments for ELLs as well as the longer-term results (e.g., drop-out rates), ELLs would (a) probably have to repeat certain school years, (b) may be transferred to low scholastic groups or specialized education, or (c) have a high probability of dropping out of school (Echevarria et al., 2015).

Throughout the decades, heightened requests for responsibility and higher benchmarks of student execution have prompted specialists to develop structures beyond time and quality instruction. Opportunity to learn (OTL) was authored by Carroll (1963) and was at first intended to demonstrate whether ELL students had adequate time and received satisfactory guidelines to learn in a native English classroom. Hispanic ELLs were a diverse population and very few scored at the appropriate capability level or above on national reading tests. ELLs often did not attend preschool and were destined to drop out of secondary school (Johnston & Viadero, 2000), owing largely to cultural,

communication, and academic gaps between the home and school. To address this, schools and parents may have had to work together to assist ELLs in reaching higher academic heights and specifically to improve their language capabilities.

There were four factors that influenced the ELL achievement gap (Müller et al., 2016): *Content scope* (i.e., the scope of main subjects geared specifically to ELLs grade level or subject knowledge area); *content presentation* (i.e., the time educators allocated to covering ELL student assignments); *content accentuation* (i.e., the extent to which key topics were emphasized; and *instructional conveyance* (i.e., whether educators built lessons sufficient to guarantee ELL comprehension). The growing influx of Hispanic families into the Atlanta, Georgia, area had seen a steady rise of Hispanic ELLs in public school classrooms (GOSA, 2017; Krogstad, 2016; Krogstad, 2017). The main concern was that the educational or academic achievement gap for Hispanics had been a struggle for some time, and previous plans to narrow the gap had not been particularly successful (Kane, 2016).

It was disturbing that there was a continuous achievement gap, dating back more than 50 years, since Coleman and his colleagues' first posited racial minority student achievement gaps. Still, education researchers had not achieved much to decrease the gaps. Furthermore, the influence of neighborhoods, poverty, and schools had been well-documented, yet the knowledge had not led to changes, and the labor market continued to struggle with young people who left school unprepared for the workforce (Kane, 2016). Policymakers and educators had not reached a consensus on the effectiveness of any educational intervention. As such, there was a serious need to not only investigate and

explore this phenomenon, but to actually provide an effective solution to the educational achievement gap that could make a difference in the future U.S. workforce.

Previous discoveries had yielded possible solutions to the achievement gap, while other academics had explored and examined the efficacy of such solutions. For example, Olson et al. (2017) had looked at how potential solutions such as The Pathway Project (2007) could assist ELL Hispanic students, particularly those in lower economic areas, to improve their language skills and bridge the gap between ELLs and NES students. The research had reported two years of findings from this randomized controlled trial to determine the efficacy of an existing, previously reported successful professional development program, known as the Pathway Project (Olson et al., 2017). The authors had conducted this study based on a previous randomized field trial in a large, low-SES district where the students had been 98% Hispanic and 88% mainstreamed ELLs with intermediate fluency (Olson et al., 2017). The Pathway Project had sought to assist secondary school students, specifically Hispanics and other ELLs, in a large, low-SES district area to learn the academic writing skills required for the Common Core State Standards for English Language Arts. To this end, 95 teachers had received 46 hours of training aimed at helping students write analytical essays (Olson et al., 2017). The findings had indicated significant improvements in student writing outcomes for Pathway Project students, including greater likelihood of passing the California High School Exit Exam for both intervention years. According to Kane (2016), there had been a lack of evidence for the success of interventions, yet these findings had indicated some success in training teachers to be better equipped to teach students. However, Kane's (2016)

study had been a narrative review and editorial related to racial equality in education and there had been no direct measurements of achievement gaps or academic outcomes in any group. Furthermore, this intervention had not been established nationwide and therefore, could not significantly influence the academic achievement gap.

It had been disheartening that the achievement gap had been a significant challenge for more than 50 years and researchers had yet to discover an evidence-based solution to minimize it. More research had been required to determine which solutions made a real difference in the achievement gap and to promote these solutions to schools across the US.

Barriers Faced by English Language Learners

School administrators and educators had not been able to control all of the variables that were known to influence student achievement; the barriers faced by Hispanic ELLs, in particular, should have been taken into consideration when attempting to close the achievement gap between them and NES students. For example, collectivism had been a cultural philosophy—a value system—that prioritized the interests of the group over the interests of the individual; this had been an approach to life valued among the Mexican and South Central American poor with no formal education (Sauceda, Paul, Gregorich, & Choi, 2016; Sibley & Brabeck, 2017). In general, Hispanics had put stock in solid families, strong communities, and collective achievements (Sauceda et al., 2016). Since numerous Hispanic families had immigrated to the US with collectivist values, it had been vital for teachers to be aware of their students' backgrounds.

Alternatively, US schools cultivated independence, seeing the child as an individual whose priority was on singular accomplishment, which may be why numerous Hispanic children experienced serious difficulties in the individualistic culture that defined US schools. Central to individualism was the belief that the individual was alone responsible for whatever came their way; in other words, the successful individual was extolled for their hard work and talent while failure was attributed to individual shortcomings. It was important to note that institutional influences (e.g., racism, classism, and sexism) were seldom taken into account when explaining why someone succeeded or failed (Wiececk & Hamilton, 2014). Additionally, externalizing factors, like adolescent conduct disorder and opposition defiant disorder, due to a relative lack of socialization into the institutions of society and trust in societal authorities, negatively influenced the academic achievement of Hispanics (Hernández et al., 2016). Vasquez-Salgado, Greenfield and Burgos-Cienfuegos (2015) confirmed that certain conflicts arose for students from collectivist homes when they were in a situation where individualistic values were rewarded. These students may have been confused and overwhelmed, and even more so when they compared themselves to their peers who were not going through the same struggles. Valuing different cultures, dialects, and convictions should have informed all teaching strategies giving students from diverse cultures the best opportunity to succeed.

When students were still learning English, while being taught by English-speaking teachers, their vocabulary may not have been up to standard, causing them to lag behind their English-speaking peers. Dafouz et al. (2014) suggested that English

instruction might not have negatively affected overall academic student achievement; however, a lack of English proficiency could potentially have led to problems in more technical or jargon-specific subjects, such as accounting. The researchers examined the effect of a business administration degree taught in English versus Spanish-on-Spanish students' academic achievement. Interestingly, the findings indicated that both cohorts obtained similar results (Dafouz et al., 2014). While college students whose second language was English had, over the years, become proficient English speakers, this was not the case for elementary students whose English-language skills (e.g., vocabulary) had not yet had sufficient time to develop.

One of the main struggles for ELLs was their limited vocabulary, which may also have affected their social skills. Sparapani et al. (2018) posited that vocabulary and social skills were significant areas of development for reading achievement; however, little attention had been paid to understanding the dynamic associations among these factors. With a sample of 468 1st grade ELL students, the authors investigated the relationships amongst social skills (assertion, cooperation, and self-control), vocabulary, and the development of reading comprehension. Findings suggested that social skills played a role in the development of RC skills and vocabulary, while these two factors interchangeably influenced social development in middle childhood (Sparapani et al., 2018). The findings reiterated the importance of assisting ELLs to better their vocabulary, social skills, and RC skills as early as possible as these three skills were continuously interactive. Driver and Powell (2017) noted that cultural- and linguistic-sensitive teaching approaches could have assisted these students. Unfortunately, ELLs were continuously

performing below their English-speaking peers on word problems in math. They explained that success in solving word problems was critical for high-stakes assessments (e.g., SAT, ACT, GRE) and being successful with word problems positively influenced grade promotion and graduation (Driver & Powell, 2017).

Pronunciation was another challenge that ELLs faced on a daily basis. Flores and Rosa (2015) promoted the notion of denaturalizing the English language standard to allow non-White, oftentimes non-native English speakers to be seen as English-proficient outside the normative perception of what English 'should' sound like. This meant, for example, that the presence of an accent was not considered a speech impediment or a sign that more work needed to be done. Vagi et al. (2017) highlighted how minority students and students from lower socioeconomic areas tended to suffer a greater achievement gap than more privileged students and suggested that in order to assist ELLs and other similarly disadvantaged students, comprehensive teaching and policies accounting for cultural, economic, and social issues needed to be developed. Similarly, Unger (2014) stressed the need for minority students to understand their own culture and heritage as it provided them with a strong support system, and Santamaría (2014) highlighted the importance of strong educational leadership that emphasized multiculturalism in education. Literacy played a critical role in children's personal and academic development and policymakers were urged to increase their focus on early childhood literacy among low SES students. The authors used data from the state of Arizona where the minority population was growing, to identify district, school, and community health aspects that had an effect on 3rd grade literacy rates. The findings indicated that the

policies aimed at increasing school attendance had been effective as well as inexpensive to increase childhood literacy rates (Vagi et al., 2017).

Another suggestion to assist ELLs was specialized attention from a school psychologist. Garcia-Joslin et al. recommended more effective training for school psychologists to help Hispanic students improve their academic and social interactions at English-speaking schools. Further evidence also suggested that ELLs would likely benefit from critical, focused, and engaging instruction in the classroom. Unfortunately, to the extent that ELLs were presumed to need remediation, schools often overlooked their capability for deeper learning (Garcia-Joslin et al., 2016).

The barriers faced by ELLs were taken into account when attempting to close the achievement gap between Hispanic ELLs and NES students. Given the vast numbers who had immigrated to the U.S., it was vital for K-8th grade teachers and ELL teachers to be mindful of their cultural heritage and associated values (Sauceda et al., 2016). Early attention to vocabulary and social skills was important for the development of literacy and reading skills (Sparapani et al., 2018). Hispanic ELLs were also likely to benefit from critical, focused, and engaging instruction in the classroom (Garcia-Joslin et al., 2016). These were factors to consider when implementing approaches to teaching Hispanic ELLs, and further research would contribute to providing evidence-based policies.

Barriers Faced by Teachers Teaching English Language Learners

Ethnic minority students were less likely to receive the institutional help they needed to overcome any academic struggles. They were often relegated to remedial

classes, mental health institutions, or juvenile hall, as part of a zero-tolerance policy that significantly influenced ethnic minorities, leading to students being labeled as troubled; they were left untreated and undiagnosed and, therefore, faced alienation (Harry & Klingner, 2014; Moreno & Segura-Herrera, 2014; Ramirez & de la Cruz, 2015). However, it was difficult for a teacher to assist every student in need, especially in public schools. Robinson-Cimpian et al. (2014) showed how teachers' perceptions of student ability could influence how they taught which, in turn, affected students' achievement. While their study focused on gender-related achievement gaps, the study's findings could extend to how teachers' perception might influence the ELL/NES student achievement gap. Blanchard and Muller (2015) also revealed how teacher perceptions could influence students' academic success, with teachers perceiving the classroom in a more optimistic or motivated way helping students achieve at greater levels. Valdés (2015) noted that teachers would need to find ways to assist ELLs in balancing their English and home-language proficiency; however, teachers may not have known how to help Hispanic ELLs, especially if the teacher was not Hispanic nor spoke Spanish.

As previously stated, the pronunciation of English could be a barrier for ELLs, and this could have been a problem for K-8th grade teachers as well. As a result, because of pronunciation, teachers and students may have struggled to understand each other. Long (2016) stated that accent modification had not been researched thoroughly, and it could help to improve oral English communication and proficiency. The purpose of Long's study was to determine if minimal pair therapy (an articulation method for child intervention) could result in better articulation and improved oral English proficiency

amongst adult ELLs. The sample included three participants with different linguistic, demographic, and academic profiles. Participants received 14 to 15 hours individual minimal pair therapy. The findings showed that there was improved pronunciation for consonants and vowels for all participants as well as better self-perception of English proficiency.

Similar to the pronunciation barrier, Goldenberg (2014) addressed how ethnic differences between teachers and their students could influence students' academic achievement; specifically, the researcher noted how White teachers should have considered the potential for cultural capital to bridge the achievement gap; cultural capital referred to resources within the community that were developed through social relationships among the members of the community. Cultural capital for Hispanic ELLs could have been leveraged to boost morale and provide social support for greater academic achievement. Goldenberg (2014) stated the need for further research on the racial and cultural mismatch of non-White student populations and a mostly White teaching force. White teachers should have reflected on their own race and critically rethought their non-White students' cultural capital, such that White teachers understood the unique resources available to Hispanics within their own community. Interestingly, Loeb et al. (2013) discovered that teachers who were proficient in or held a language certificate in their ELL students' native language could have provided bilingual assistance to their Hispanic ELLs with better results than teachers who were not proficient and who could not offer bilingual support. As such, it could have been

beneficial for all teachers who taught Hispanic students to learn as much of the Hispanic culture and language as possible in order to build a better rapport with these learners.

Students and teachers of the same race or culture had a natural inclination towards each other and an inherent kinship. Egalite et al. (2015) posited that students with teachers of the same race reported higher levels of academic success than those with teachers of a different race. This was because these teachers could have been mentors, role models, and advocates as well as cultural translators for these students. Research found a small but significant positive influence when White and Black students were with teachers of the same race in reading. There was also a positive influence for White, Black, and Asian/Pacific Island students for mathematics. Interestingly, the findings indicated lower-performing White and Black students benefitted the most from a race-congruent teacher.

Hsiao et al. (2017) suggested that teachers embrace technological aids, such as social networks, in their instruction to aid non-English speaking students as virtual worlds provided simulated contexts that encompassed the necessary elements for proper language learning. These authors conducted an investigation of visualization analytics for the facilitation of vocabulary learning for ELLs of Chinese descent. The participants included 14 Mandarin foreign language learners. Each completed the Language History Questionnaire to understand language learning background and proficiency and then took part in a computer-assigned visualization analytics program using picture-word associations. There were three learning contexts presented over seven learning sessions, including words associated with supermarkets, kitchens, and zoos. All words were two

syllables and each session contained 30 new words. One of the main findings of the study was that low-achieving and high-achieving students used different learning strategies when introduced to new words. The distribution of learning strategies used by high- and low-achieving learners was relatively similar, with high-achieving learners slightly more likely to use focus strategies. This insight could be used by teachers to make appropriate teaching strategy-student match ups. However, further research using this method could determine its efficacy.

Cheatham, Jimenez-Silva, Wodrich, and Kasai (2014) aimed to determine whether increased access to information about ELLs' English proficiency could increase teachers' recognition that ELLs were not being difficult, but that they were experiencing barriers in understanding instruction. The findings showed that a student's English proficiency was linked with a teacher's recognition of the root of an ELL student's problems, meaning that there was an accurate perception by teachers of ELL students' degree of English language proficiency. If this was the case, it could reduce the cases of inappropriate referrals to special education by properly identifying difficulties with academic achievement as having to do with language barriers rather than cognitive deficiencies (Cheatham et al., 2014). Better approaches that involve more research might assist ELLs and the teachers who teach them.

Instructional Strategies

While research already existed on potential strategies and programs available to K-8th grade teachers for reducing and bridging this achievement gap, limited studies were available regarding the kinds of strategies teachers applied in practice (Chen &

Yang, 2017; Olson et al., 2017; Valentino & Reardon, 2015). However, researchers had begun to explore instructional techniques and the quality of instructional materials for educating ELLs (Melby-Lervåg & Lervåg, 2014). Better approaches that involved more research might have assisted ELLs and the teachers who taught them.

Government-funded ELL school students were required by law to be in instructional projects aimed at helping them close the achievement gap across subjects, and to that end, many different programs existed that included various options when it came to strategies and goals (Colón & Heineke, 2015). In keeping with this, it was necessary to take into account the barriers faced by Hispanic ELLs as well as their specific needs; awareness of language and cultural barriers could lead to better-designed instructional strategies. Makura and Gobingca (2016) stated that accompanying systems would assist educators to adequately teach their ELLs. These accompanying systems were:

(a) Ensuring students comprehended the end goal before starting work

(b) Formulating guidelines and vocabulary that were required

(c) Formulating questions to determine the students' level of understanding

(d) Situating new Hispanic ELLs close to other Hispanic students until the student was comfortable in the class

(e) Beginning lessons with an attention-catching statement

(f) Employing an assortment of methodologies to ensure the student understood the subject matter

(g) Trying not to rely on slang and informal discourse

Chen and Yang (2017) presented ESL teaching strategies that considered a learner's academic, social, linguistic, cultural, and behavioral aspects. The research aimed to investigate the effectiveness of culturally responsive teaching strategies. The study included three Asian adult students. The qualitative findings showed that culturally responsive teaching strategies had a positive effect on students' classroom participation, as reported by the subjects themselves. This teaching strategy was also more likely to improve students' communication involvement and skills. Findings showed that if teachers addressed these aspects, ESL learners could potentially succeed in their English language acquisition.

Blair and Raver (2014) explored how awareness of cognitive learning and emotional self-regulation processes in teaching could assist learners, especially at the kindergarten level, in improving their learning abilities. The researchers posited that effective early education was of utmost importance for positive life outcomes and academic achievement, specifically for low SES children. The researchers evaluated an innovative approach that embedded support for self-regulation in literacy and science activities for kindergarten children. The sample included 29 schools and 759 children. The findings showed a positive impact on reasoning ability, executive functions, and attention control. There were also improvements in vocabulary reading after one year, and the results were more evident for low SES schools, possibly due to environmental factors that inhibited the development of the relevant skills. Similarly, Cummins (2014) asserted that focusing on meaning creation in academic language, literacy engagement, and identity confirmation could assist underachieving students to reduce their

achievement gap. Johnson and Wells (2017) noted the need to bridge the current ELL achievement gap in American schools, suggesting improved teacher professional development and training in multiculturalism, specifically, as a means to improve ELL students' academic performance (Johnson & Wells, 2017).

Tomlinson (2015) supported the idea that improved teacher training and professional development in relation to teaching in diverse classrooms could assist in lessening the achievement gap for minority students. Life in modern times suggested that schools had to prepare students to be problem-solvers, thinkers, wise consumers of information, collaborators as well as confident producers of knowledge. However, it could be a struggle if students did not understand English. Umansky and Reardon (2014) and Valentino and Reardon (2015) examined the effectiveness of dual immersion, English immersion, transitional bilingual, and maintenance bilingual approaches to assisting ELLs in gaining English language proficiency. The authors found that Hispanic ELLs in two-language programs were classified as much slower during elementary school, yet they had higher overall reclassification in English proficiency as well as academic achievement at the end of their high school career. The reason for what some may have considered a counterintuitive finding was that the higher cognitive load that occurred during the early years led to delayed learning initially but eventually served as an advantage once proficient in both languages.

One problem underpinning the achievement gap between ELLs and non-ELLs was that, once proficient, ELLs were reclassified as no longer requiring special English instruction. However, once integrated with non-ELLs, the initial achievement gap still

existed between these two groups. Slama (2014) added that teaching approaches, particularly in relation to reclassified ELLs, needed to be reexamined. This author found that, despite reclassification as English-proficient during elementary grades, most ELLs experienced academic difficulties later on and only 22% were retained in their age-appropriate grade level (Slama, 2014).

This section provided a variety of strategies that might better the academic outcomes of ELLs. It was necessary to take into account the barriers faced by ELLs, as well as their specific needs, into instructional strategies. Among others, culturally responsive teaching strategies had a positive effect on students' classroom participation (Chen & Yang 2017). As such, further research on instructional strategies would help the teacher better prepare and present subject matter to Hispanic ELLs.

The Specific Needs of Hispanic English Language Learners

There were social contrasts in the way Hispanic ELL parents/guardians and American parents/guardians saw their role in the training of their children. Hispanic culture underscored respect for adult authority, particularly educators. Language improvement among Hispanic children might not have been as strong as most American children entering kindergarten due to inadequate communications with teachers about what parents could do to help (Sauceda et al., 2016). Furthermore, Hispanic culture had a conviction that schools and educators should be treated with the utmost respect and that it was discourteous for guardians or parents to interfere with school procedures. Guardians and parents trusted that it was the school's responsibility, since they had the knowledge, to educate the child and the parents' role was not to educate but to build the child's

character. Hispanic culture saw a knowledgeable child as one who was committed to ethical practices. Conversely, traditional American culture was more focused on self-reliance, individualism, and a strong sense of personal responsibility (Zhang, 2015). This was a significant challenge for Hispanic ELLs, as American schools built on values and goals grounded in American culture. As such, minority students with different cultural values might have felt out of place. It was critical for K-8th grade educators to be aware of these different beliefs when working with Hispanic ELLs.

The absence of Hispanic parental inclusion was often considered a lack of interest by teachers, which led to a breakdown in communication between parents and teachers. Gándara (2015) also emphasized the importance of addressing Hispanic education issues in light of an ever-increasing number of Hispanic students in English-speaking schools. It was recommended that educators identify the qualities, customs, and convictions of Hispanic guardians to have a better sense of their perspective on education. It was crucial for Hispanic students to feel stability both at home and at school, especially since Hispanic ELLs were also more likely than Americans to change, typically to pursue parents' work and other life opportunities (Hernández et al., 2016). Hispanic cultural values were reflected in the norms and practices shared by most Hispanics, which if understood by teachers would better equip them to serve these students (Organista, 2007); understanding cultural values was important as different cultures may privilege specific emotions and viewpoints that were likely passed down through generations (Mesquita et al., 2016). Not only should teachers understand their students' unique cultures, but Unger (2014) suggested it was also important for minority students to

understand their own culture and heritage as it provided them with a strong support system.

Incorporating multiculturalism into the academic curriculum could assist Hispanic ELLs with better support in school. Santamaría (2014) highlighted the importance of strong educational leadership that emphasized multiculturalism in education, noting that education leaders from different ethnicities could play an important role in improving children's academic performance. The purpose of this study was to investigate the different ways that leaders of color, employed at K-12 schools and higher, were able to address issues about social justice and educational equity. Findings from this qualitative study suggested a need for alternative leadership models to respond effectively to diversity in schools and promote multicultural education.

To provide further evidence of the influence of Hispanic culture as transferred from Hispanic parents or guardians, the following study examined the educational experiences of Hispanic students. It was important to understand the influencing factors that made Hispanic students who they were in order to understand their specific needs and provide them with assistance accordingly. Sibley and Brabeck (2017) provided a thorough review of the available literature regarding Hispanic immigrant students and their educational experiences in the US from childhood through to postsecondary education. The researchers explained the several political, environmental, structural, and psychological challenges faced by these students, including the language barrier, racism, and low socioeconomic status. According to their research, it would be helpful for ELL

students if the community, school, and families worked together to assist them to better their educational outcomes.

Unfortunately, Hispanic ELLs had a lower chance of receiving high-quality early childhood education before they were five years old, which were the most important years in educational development. During the years before a child turned six, the fundamental building blocks were set for future learning, putting ELL students at a significant early disadvantage. Because different levels of academic proficiency were associated with different parental backgrounds, parental pre-migration characteristics, such as wealth and nation of origin, would influence a child's achievement in elementary and middle school. This was the time when parental involvement in a child's education was important, yet immigrant families often found it difficult because of cultural values against interfering in the school and because parents may have been too busy with work and other responsibilities. As a result of factors that influenced early childhood education, including feeling isolated, Hispanic ELLs had a lower chance of graduating high school when compared to their English-speaking native peers (Sibley & Brabeck, 2017).

O'Donnell and Kirkner (2014) presented evidence for how parental involvement could greatly assist in improving Hispanic ELLs academic achievement. Hispanic families valued their children's education and wanted them to succeed, yet these students still experienced challenges. Family involvement programs could help Hispanic families to be more involved, which may lead to positive academic outcomes for ELLs. A two-year study that examined the effect of a family involvement project indicated that there were significant improvements in frequency of contact with the teacher, family-school

involvement, and the quality of family-teacher relationships. The researchers also found that increased levels of family participation predicted vastly better work habits and social skills for students after the first year of participation. This study showed the significant effect that parental involvement can have on Hispanic ELLs' social and academic progress.

Sauceda et al. (2016) also noted that ELL parents/guardians were an underutilized asset. School administrators and staff were admonished to identify strategies for building trusting associations with the parents/guardians while keeping in mind the end goal, which was to get them to be more involved in school activities (Sibley & Brabeck, 2017). There were six forms of parental involvement: communicating, learning at home, parenting, volunteering, decision making, and collaborating with the community (Sellers, 2017). Sellers recommended providing parents with transportation for certain events, hiring translators for certain events and meetings, providing personalized invitations translated in Spanish, inviting Hispanic parents for a one-on-one meeting in the beginning of the year, and providing support from school administration in these endeavors.

To that end, Niehaus and Adelson (2014) showed how a combination of parental and school support structures could assist Hispanic ELLs in improving their academic achievement. Using a sample of 1,020 3rd grade ELLs, the researchers examined the relationship among parental school involvement, school support, and academic, social, and ELLs' emotional outcomes. The findings showed that increased school support led to increased parental involvement, which led to fewer social-emotional concerns among

ELLs and resulted in higher achievement scores (Niehaus & Adelson, 2014). These findings were promising practical approaches to improve the academic outcomes for ELLs. It was important that schools and parents worked together to better the educational outcomes for Hispanic ELLs, and the proposed study could possibly provide suggestions on how to accomplish that.

Summary

By the year 2030, almost 40% of all school-age children would be ELLs (Ovando & Combs, 2018) or children for whom English was not a first language. This increase in the sheer number of ELLs compelled educators to ask how best to address the issues of progressively diverse groups of children. As the Hispanic ELLs population increased in schools, so did the pressure to limit the achievement gaps. It was logical that schools should look into instructional systems and strategies as a way to close the cultural and achievement gap. This study would fill gaps in the literature by exploring teachers' strategies for reducing the achievement gap in English between Hispanic ELL students and their NES counterparts. The following chapter discussed the methodology for this study.

Chapter 3: Research Method

Introduction

In this study, various strategies practiced by K-8th teachers in English and math were explored to reduce the achievement gap between their Hispanic ELLs and NES students within APS. The study aimed to help Hispanic ELLs by focusing on how social foundations such as identity, language, culture, and class shape ELL students' learning processes from the teachers' perspective (Blanchard & Muller, 2015; Driver & Powell, 2017; Hanselman et al., 2014). The participating teachers shed light on how attention to these social structures was reflected in the classroom strategies they employed as a means of assisting their Hispanic ELLs in math and English, specifically. Chapter 3 describes the research design, role of the researcher and methodology, including recruitment and data collection procedures and data analysis plan. Issues of trustworthiness and ethical procedures are also discussed.

Research Design and Rationale

Research Questions

The study was governed by one overarching research question: What strategies did K-8th grade teachers employ and deem effective in reducing their Hispanic ELLs achievement gap in English and math?

RQ1: How was language and cultural scaffolding used to assist Hispanic ELLs in English and math?

RQ2: What challenges were experienced while trying to reduce the achievement gap for Hispanic ELLs?

RQ3: What resources, skills, knowledge, professional assistance, and other forms of support would help make ELL teaching strategies more effective at reducing Hispanic ELLs achievement gaps in math and English in the future?

Central Concept of Interest

The concept of interest was instructional strategies teachers used to reduce or close the English and math gaps between Hispanic ELL and NES elementary students. The study examined personal teaching strategies within the framework of SLT by Vygotsky. Vygotsky (1978) believed that social interaction played a vital role in children's learning process. This theory offered a framework for the development of teaching strategies that facilitated academic achievement for Hispanic ELL students.

Research Tradition

When conducting research, a principal investigator had three options for the methodology: quantitative, qualitative, and mixed methods (Brannen, 2017). Quantitative methodology was common when establishing relationships among variables. In most cases, quantitative studies involved numerical data and statistical analysis (Neuman, 2016). A qualitative methodology was appropriate when the purpose was to conduct an in-depth exploration of a phenomenon using textual and/or observational data (Katz, 2015; Nakai, 2015). Mixed methodology was used when there was a need to collect quantitative and qualitative data to complement the strengths of a single design (Brannen, 2017; Neuman, 2016).

A quantitative research methodology was inappropriate for this study because there was no need to examine relationships among variables to address the research

questions and fulfill the study's purpose. A mixed methods approach was inappropriate for this study because the research questions did not have qualitative and quantitative components, leaving, by default, a qualitative methodology as the most appropriate option for this study to address the research questions. Gathering in-depth information about teachers' perception of how well their teaching strategies worked could not be achieved with the collection of numerical data. The study explored K-8th grade teachers' perceptions of how effective their teaching strategies were, making this basic qualitative approach appropriate.

To that end, a basic qualitative inquiry was the tradition of choice for this study. A basic qualitative approach (Patton, 2015) was commonly used in educational research to gain a better understanding of effective teaching strategies. For my purposes, a basic qualitative approach allowed me to explore strategies used by K-8th grade teachers and, in particular, their perception of the relative effectiveness of each in reducing the achievement gap in English and math between Hispanic ELLs and their native English-speaking peers (Percy et al., 2015). Other qualitative designs (e.g., case study, phenomenology, grounded theory, and narrative research) had unique applications that were not well-suited to the study.

Role of the Researcher

I was the only data collection instrument for this study (Fusch & Ness, 2015; Kaplan et al., 2017; Nelson et al., 2015). Specifically, I collected and analyzed data from the participants who agreed to be in the study. During the recruitment stage of the study, I emailed APS principals from suburban and urban schools explaining the purpose of the

study and asked for recommended K-8th grade teachers whose classrooms included both Hispanic ELLs and NES students. After the principals identified teachers who met that criterion, I initiated contact by email asking two teachers from each of five schools if they would like to participate in the study. Avoiding any conflict of interest was paramount during participant selections (Engward & Davis, 2015; LeCroix et al., 2017); as the participant recruiter, I ensured that colleagues, friends, relatives, and family members were not included. I also emailed participants copies of the informed consent to ensure that participating APS K-8th grade teachers had knowledge of their rights and roles before consenting to participate.

I alone conducted the semi-structured, audio-recorded phone or Zoom interviews (Kaplan et al., 2017; Nelson et al., 2015). Because the interview questions were researcher-developed, my chair reviewed and ensured their validity (Balkar, 2015; Lincoln & Guba, 1985). I refrained from asking irrelevant or leading questions during the interviews. I had opinions, perceptions, and beliefs related to the phenomenon of interest; to avoid unwanted influences on the study results, I acknowledged possible sources of bias during data collection and analysis. Through this process, I could avoid drawing conclusions that may align with my biases rather than conclusions supported by the actual data collected from participants. After data collection, I transcribed and analyzed the data using Braun et al. (2014) thematic analysis process.

Methodology

Participant Selection Logic

Target Population

This study recruited one specific population in a single geographic area. The target population for this study included K-8th grade teachers in Atlanta, Georgia whose classrooms included both Hispanic ELLs and NES. I chose this population for this study because of the important role they played in utilizing teaching strategies to reduce the academic achievement gap between Hispanic ELLs and NES; members of this population had the relevant knowledge and background useful in addressing the pressing issues on which this study focused; to that end, only K-8th teachers with at least 5 years of experience and the recommendation of the schools' principals to participate were invited. While the academic achievement gap between Hispanic ELLs and NESs was not unique to Atlanta, its recent influx of Hispanic ELLs and the fact that I was a substitute teacher with access to the city's public schools made it a convenient sample.

Sampling Strategy

I used purposive sampling, a non-probability-sampling technique used to identify specific groups of teachers with a set of targeted characteristics (Barratt et al., 2015; Etikan et al., 2016); this is important in qualitative studies where participants must have the specific knowledge of and experience with the specific topic of interest. To that end, I recruited K-8th grade teachers whose classrooms included both Hispanic ELLs and NES students for 5 or more years. Teachers who had not taught Hispanic ELLs and NES students in one classroom for 5 or more years were excluded.

Sample Size. The appropriateness of sample size for qualitative studies was dependent on data saturation, the point at which participant responses generated no new ideas or themes; this typically meant a range of 10-30 participants (Boddy, 2016; Fusch

& Ness, 2015; Malterud et al., 2016; Tran et al., 2016). For purposes of the study, 10 teacher participants were recruited to provide suggestions for teaching strategies with the potential to help Hispanic ELLs close the achievement gap in math and English. However, additional K-8th grade teachers could be added to the sample if data saturation had not been satisfied with the initial sample (Fusch & Ness, 2015).

Participant Recruitment. The study was composed of suburban and inner-city K-8th grade teachers from APS, which was the chosen geographic area for the study. The principals of five APS were contacted by email for authorization to conduct the study with teachers they recommended, specifically teachers of classes that combined Hispanic ELLs and NES students. If necessary or desirable, phone calls were scheduled with each principal to describe the study and explain the data gathering needs. The recommended teachers were contacted via email to schedule follow-up phone or web calls to discuss the project in detail, answer questions they may have, and confirm that they met the inclusion criteria. Those who expressed interest were sent a confirmation email with details including the researcher's background information, purpose of the study, and its potential benefits; the email also requested their contact information and the best time to receive a call from the researcher (Appendix A). The confirmation email included an informed consent form that detailed the purpose of the study, the time it would take, and their rights as participants; they indicated their consent by returning the consent form to the researcher by email. Following receipt of their consent forms, interviews were then scheduled over an online video call service such as Zoom or Skype.

Instrumentation

Data collection techniques were semi-structured interviews including teachers' personal instructional scaffolding strategies. Researchers used semi-structured interviews because of the ease and effectiveness when soliciting in-depth information and for any follow-up questions that may be needed (Kallio et al., 2016; Katz, 2015). Guided by Vygotsky's (1978) SLT, questions explored teachers' perceptions of how well their teaching strategies worked to close the academic achievement gap for Hispanic ELLs in math and English. Questions were concise and easy to understand to facilitate effective and efficient data collection. The interview questions were researcher-developed and had to undergo expert review to verify their validity. Examples were: "What strategies did you use to reduce the achievement gap between ELLs and non-ELLs?" and "In what ways did you believe that social interaction and integration influenced the achievement gap between ELLs and non-ELLs?" Approximately 10 to 15 open-ended items were included in the final instrument.

According to Balkar (2015), conducting an expert review of interviews ensures that the interview questions are sufficient to address the research questions. Using the following criteria, I asked my committee (content and methods experts) to review the interview questions: (a) appropriateness of word usage and sentence structure, (b) clarity of the questions, and (c) completeness of the questions in addressing the study's research questions; confirmation that the interview questions were consistent with the study's purpose was sufficient to establish their validity (Appendix D).

Procedures for Data Collection and Debriefing

Procedures for Data Collection

Data collection for this study included in-depth and semi-structured interviews. The interviews were conducted by phone at the participants' convenience.

Interview Process

The interview was conducted in three stages: (a) introduction, (b) question-and-answer, and (c) conclusion. I started the interview by discussing the topic of the study, explaining the nature and purpose of the interview, and describing the flow of the interview session, all by way of preparing participants for what to expect. Following the brief introduction, participants were asked pre-approved questions (Appendix C), including follow-up questions whenever needed; the purpose of the follow-up questions was to probe more deeply into participants' responses. A two-question follow-up limit kept interview sessions to 45-60 minutes maximum after which participants were invited to provide any additional information they felt was relevant to the study. At the end of the interview, I thanked participants for taking the time to participate in my study.

Data Analysis Plan

Participant interviews were transcribed within 24 hours; I used an audio player to listen to the recording of the interview to facilitate easier transcription. During that time, I also wrote a one-page summary and initial interpretation of the findings, completing both within seven days after the interview. When interview transcriptions were completed, I emailed copies to the respective participants for the purposes of member checking. This allowed participants to check their transcribed interviews for accuracy (Birt et al., 2016;

Varpio et al., 2017). Should any inaccuracies arise, I scheduled phone calls to discuss them and made revisions accordingly. After performing member checking, I made soft-copy transcripts and uploaded the electronic file to the Atlas.ti software.

The data analysis procedure for this study followed Braun et al. (2014) thematic analysis. In the first phase (i.e., data familiarization), I read each participant's interview transcript twice. When reading the transcripts for the second time, I identified and highlighted key descriptive words and phrases relevant to the study's research questions. Second, (i.e., data coding), I developed a coding scheme. This ensured that the codes developed were consistent with the literature that guided this study. In the third phase (i.e., initial theme development), similar codes formed categories and from each category, themes emerged. In the fourth phase (i.e., theme revision), I made changes to refine the themes identified in the previous step. In the fifth phase (i.e., theme finalization), I compared the themes across the different transcripts, identifying major themes present in at least 50% of the transcripts; minor themes were those found in fewer than 50% of the transcripts.

Issues of Trustworthiness

Credibility

Credibility referred to the truth of the data or the participant views and the interpretation and representation of them by the researcher (Lincoln & Guba, 1985). To improve credibility, I requested an expert review the data collection instruments; this was done prior to data analysis. Balkar (2015) claimed that an expert panel review would improve the validity of an interview protocol. Another means of ensuring credibility was

through member checking (Birt, Scott, Cavers, Campbell, & Walter, 2016). Member

checking was the process of allowing participants to review my initial interpretations of

their respective interview transcripts (Birt et al., 2016). With participants' confirmation of

accuracy, the findings were further validated. Also, ensuring reflexivity allowed the study

to have credibility. Reflexivity referred to critiquing one's own biases and assumptions to

ensure that my interpretation of participants' responses reflected their experience and was

not contaminated by my personal biases. To establish reflexivity, a journal was

maintained throughout the research process, and text was situated within the context of

Vygotsky's SLT framework. This narration was critically evaluated and used to establish

meaning and identify values / biases in the analytic process. I used bracketing to identify,

acknowledge, and set aside biases with regard to collecting, analyzing, and interpreting

data.

Transferability

Ensuring transferability involved making sure future researchers and readers

could easily evaluate the applicability of the results to another setting with a different

population through replication (Lincoln & Guba, 1985). To improve transferability, I

provided a thick description of the procedures and findings of the study; thick description

was the process of describing not just the behavior of individuals, but also detailed

elements of the context for the behavior and the setting in which the behavior was

conducted (Lincoln & Guba, 1985). By providing a rich description of the context and

setting for behaviors, other researchers could make conclusions about the transferability

of the data to their own research making replication possible.

Dependability

Dependability referred to the reliability of the study (Lincoln & Guba, 1985). To improve dependability for this research, an audit trail was conducted, including detailed documentation of the processes and outputs relevant to the study (Connelly, 2016). For the audit trail, I compiled consent forms, interview guide, transcripts, and notes to allow readers and future researchers to assess the appropriateness of the procedures for the study. To ensure that the study findings reflected the participants' actual intent, rather than assumptions made by me, I member checked by asking participants if the conclusions drawn about their responses were appropriate and reflective of their understanding and intent (Connelly, 2016).

Confirmability

Confirmability was a measure of the objectivity of the study (Lincoln & Guba, 1985). To that end, I engaged in a reflexive journaling process whereby I documented my experience with data collection and analysis, including information about reactions, emotions, and perspectives (Malacrida, 2007). I used a bracketing technique to identify and note areas of potential bias while thinking about the data. Bracketing was the means by which I acknowledged and set aside any bias that emerged. I considered bracketed ideas or notes and strived for additional objectivity when analyzing the data (Malacrida, 2007).

Ethical Procedures

When using human subjects for a study, I was responsible for addressing ethical issues (Makhoul, Chehab, Shaito, & Sibai, 2018). Once IRB approval authorized me to

begin data collection, I sought informed consent from all participants; they were informed of their role and rights, the purpose of the study, the procedures that would take place during the data collection process, and the potential risks and benefits of participating. Participants who would like to quit the study could do so without penalty. Those who wished to terminate participation could simply sign a withdrawal form and keep the form in their possession. All participants were volunteers; they did not receive any incentives for participation.

Participants were reassured that their information would be confidential; no identifying information was included in the participant materials collected. Instead, pseudonyms identified the participants. All data was stored electronically on a password-protected external drive and stored in a locked cabinet accessible only by me; data was destroyed after five years. The purpose of this data security process was to protect participants' rights. Similarly, no mention of students' or teachers' names was in the study.

Summary

Chapter 3 presented the research design and rationale, role of the researcher, and methodology, including instrumentation, procedures for recruitment and data collection, and data analysis plan. Issues of trustworthiness and ethical issues were also discussed. Results of the study will be presented in Chapter 4.

Chapter 4: Results

Introduction

The purpose of this study was to explore strategies participants find effective in reducing their Hispanic ELLs' achievement gaps in English and math. Using semi-structured interviews, K-8th grade teachers were asked to describe teaching strategies they used and the extent to which they were perceived to be useful for teaching Hispanic ELLs math and English. This chapter will present the setting, demographics, data collection/analysis procedures, evidence of trustworthiness, and results.

Setting

The study was conducted in Atlanta, Georgia. All interviews were conducted over the phone due to COVID-19 and nationwide social-distancing guidelines. Throughout the interview sessions, the participants' privacy was preserved since doors were secured, computer volume was kept to a minimum, and no one was in my home but me. Participants were able to choose a private place for interviews, and I did not request any identifying information to protect participant privacy. After consent forms were obtained from participants who agreed to participate, interviews were recorded and kept on my secured personal computer accessible only by me. The participants also gave consent to their responses being recorded.

Demographics

The population of interest was K-8th grade teachers located in the United States who had experience with ELL teaching in English and math subjects. The sample included four male and four female teachers. Participants were recruited through social

media, specifically through Facebook's various teacher groups. The Facebook groups constituted male and female teachers from different States in the United Stated, selected because they included K-8th grade teachers in all subjects with experience teaching ELL students; the inclusion and exclusion criteria verified that participants were well-suited to meet the purpose of the study. To be eligible, participants had to be male or female K-8th grade teachers located in the United States, with Hispanic ELL math and English teaching experience in one classroom for at least 5 years. I posted a recruitment flyer asking for K-8th grade teacher participants through Facebook after obtaining permission from the groups' administrators. The recruitment flyer included the purpose, benefits, and any risks related to the study. Eight interviews were conducted with teachers from different schools who teach math and English in various grades. Based on the informed consent received, an alphanumeric code was assigned to each participant as detailed below:

Participant A1 has been teaching 8th grade math for 10 years. He has taught math and English to Hispanic ELLs and NES students in one classroom for 6 years.

Participant B2 has been teaching 6th grade for 18 years. She has taught math and English to Hispanic ELLs and NES students in one classroom for 8 years.

Participant C3 has been teaching 6th, 7th, and 8th grade math and English for 26 years. He has been teaching Hispanic ELLs and NES students in one classroom for the past 6 years.

Participant D4 has been teaching 4th and 5th grade math for 13 years. For the last 5 years, he has been teaching Hispanic ELLs and NES students in one classroom.

Participant E5 has been teaching 3rd grade English and math for 15 years to Hispanic ELLS and NES students in one classroom.

Participant F6 has been teaching kindergarten for 7 years, with both Hispanic ELLs and NES students in one classroom.

Participant G7 has been teaching 2nd grade for 22 years. For the past 7 years, she has taught English and math to Hispanic ELLs and NES students in one classroom.

Participant H8 has been teaching kindergarten for 15 years, with both Hispanic ELLs and NES students.

Data Collection

Data collection commenced after permission was obtained from the moderators of the Facebook groups to post an invitation to various teacher groups, asking for K-8th grade teachers to participate in a research study about the personal teaching strategies they find most effective at reducing the math and English achievement gap between Hispanic ELLs and NESs. Those interested contacted me by email and returned a consent form to me, signed with their initials for anonymity and confidentiality purposes. Participants were informed that they could cease participation at any time without penalty. Due to COVID, no in-person contact could take place; therefore, all interviews were conducted by phone or with the Zoom platform according to their preference. Participants provided their phone numbers and indicated the best time to be called. All eight phone interviews were done in Atlanta, Georgia, in the privacy of my home. The interviews took place over two months and were 30-45 minutes long. Phone calls were placed on speaker so my computer could record all participants' interview responses.

Each interview was saved on my private password-protected computer. Interviews were transcribed and copies were emailed to participants to verify their accuracy. Participants were thanked for their participation, asked if they had any questions, and informed that the interview was concluded.

Data Analysis

The raw data from the eight participant interviews were exported to ATLAS.ti software. This software is a qualitative research tool used for building literature reviews, data visualization, coding and analyzing transcripts, and creating network diagrams and field notes. Code networks were created in ATLAS.ti to help the researcher visualize the codes/subcodes and to identify redundant codes in need of merging or codes that were assigned in error which were eliminated. I systematically reviewed the texts from all eight interviews to find all instances of those same phrases, terms, or words. Each time a term, word, or phrase was found in the interview texts, I noted its context and meaning. To identify the initial codes, keywords, phrases, and sentences related to the study questions were highlighted. Open coding was used to explore key themes emerging from the interviews.

Coding Process

The ATLAS.ti qualitative analysis software facilitated a thematic content analysis of the eight participants' interview responses. Initial thoughts were recorded as comments and each transcription was uploaded as a distinct document. The open-coding thematic analysis process proposed by Braun et al. (2014) was used to determine participants' perceptions about scaffolding, challenges, and effective teaching methods for reducing

Hispanic ELLs' achievement gaps. Before they were assigned a code name, codes found

in each code group were given the letters S (scaffolding), C (challenges), or E

(effectiveness). The codes chosen aligned with the study research questions (i.e.,

language and cultural scaffolding, challenges teachers experience, and effective resources

and skills to make ELL teaching strategies more effective).

Each interview was perused to find instances where participants shared information

related to the codes. Codes presented broad labels assigned to a piece of text to identify

and summarize important concepts related to the research questions. Considering that the

codes were broad, subcodes were created to identify distinct elements subsumed under

each theme. The codes and subcodes are illustrated in Table 1 below.

Table 1

Codes and Subcodes

Codes	Subcodes
Language and Culture	• Teacher strategies effective in helping Hispanic ELLs • Academic standard • Strategies for communication • Strategies provided to Hispanic parents • Strategies to achieve high benchmarks on standardized tests
Challenges experienced	• Inadequate knowledge about students

	• lack of access to skilled teachers
	• Inadequate resources and time
	• lack of clear learning goals
Challenges experienced	• Real-life examples and knowledge
	• Professional assistance
	• Cultural diversity

The same process was repeated for the other seven interview transcripts. Each time a term, word, or phrase was identified relating to the three broad codes, it was highlighted and assigned to a specific code group. In cases where a term, word, or phrase in a sentence fit into either of the three broad codes, it was moved to a specific subcode under the main code. Through this approach, I initiated a process of creating new subcodes. The process followed the several steps detailed by Braun et al. (2014), including familiarization with the data to acquire familiarity with information by reading transcripts at least three times and taking notes, looking for keywords from the transcripts, and finally development of initial codes that led to the development of a new set of subcodes. This same process was repeated until all eight interviews had been analyzed. Figures 1, 2, and 3 show the network tree for code scaffoldings, challenges, and effective teaching methods. A network tree emphasizes group and tree structures within a network and creates node (where the link starts) partitions by analyzing the connectivity formation of the sets of linked elements together in a visual diagram (Pietkiewicz & Smith, 2014).

Figure 1

Teacher Perception of Language and Cultural Scaffoldings to Assist Hispanic ELLs in
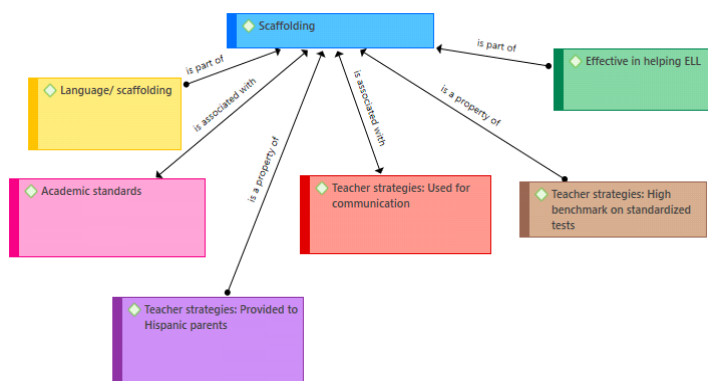
English and Mathematics

Figure 2

Participants' Perception of Challenges They Experience in Reducing the Achievement

Gap
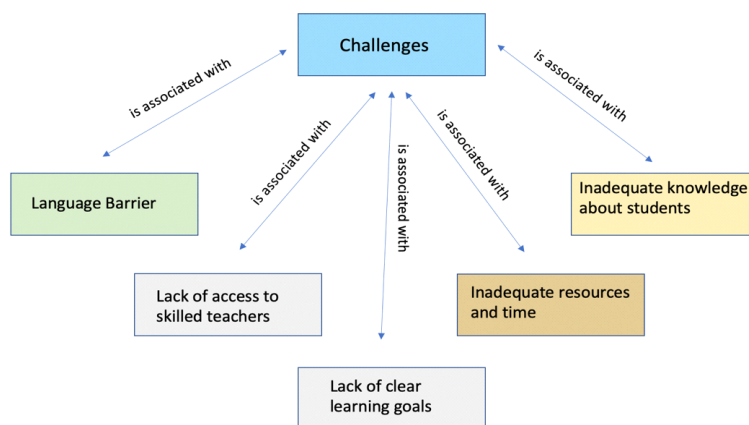
EFFECTIVE

Figure 3

Participants' Perception of Resources and Skills to Make Hispanic ELL Teaching More
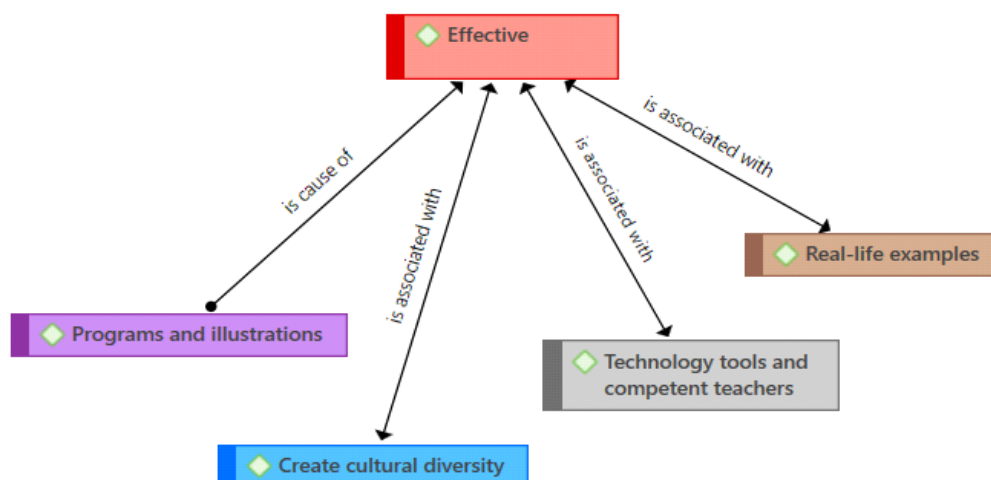
Effective

As displayed in figures 1, 2, and 3, it is evident that within scaffoldings, challenges, and effective methods groups were six codes for S: Language/ scaffolding, S: Teacher strategies: Effective in helping ELL, S: Teacher strategies: Academic standards, S: Teacher strategies: Used for communication, S: Teacher strategies: Provided to Hispanic parents, S: Teacher strategies: High benchmark on standardized tests; In addition to five codes for C: Challenges: Language barrier, C: Challenge: Inadequate knowledge about students, C: Challenge: Lack of access to skilled teachers, C: Challenge: Inadequate resources and time, and C: Challenge: Lack of clear learning goals; while there were three codes for E: Skills: Real-life examples, E: Knowledge, professional assistance:

Create cultural diversity, and E: Resources/ professionals: Technology tools and competent teachers

After the network trees were created, the next step in the data analysis process entailed reviewing the interview responses to identify participants perceptions of effective methods and strategies to reduce the achievement gap between Hispanic ELLs' and NESs' math and English scores. As advised by Braun et al. (2014), the step involves reading through the data and obtaining the general sense of information and then reflecting on its meaning based on the responses obtained from the participants.

Each network tree was individually explored for similar patterns and to identify existing links. Then, I explored how codes and subcodes in the scaffolding, challenges, and effectiveness code groups linked together holistically, enabling me to extract thematic statements. As indicated by Braun et al. (2014), this is the last phase of data analysis before presentation of research reports and entails defining and naming of themes. This helped me to make code linkage assertions that illuminated participants' perceptions of using effective strategies to help Hispanic ELLs reduce their achievement gaps in math and English.

Categories

After thematic analysis, the final list contained three codes: *scaffoldings*, *challenges*, and *effective methods* as shown in Table 2. The categories for group scaffoldings, effectiveness, and challenges were adopted from Saldaña (2021), and the final list of code groups, codes, subcodes, and participants' narratives were exported as

an excel spreadsheet in MS word presented in Table 2. A total of eight themes were

identified from the coding process. The next section details the identified categories.

Table 2

Code Groups and Codes

Code group	Code/subcode	Subcode	Definition
Scaffolding: What participants personally think about how language and cultural scaffolding are (?) used to assist Hispanic ELLs in English and math	S: Language and culture		Teacher feels giving structured learning using Spanish and English vocabulary could improve instruction delivery.
			Ex: "I usually break up the learning in chunks and provide some type of structure that utilizes their list of vocabulary words in Spanish and make them a worksheet."
		S: Structured learning	Teacher feels clear instruction and structured learning improves teaching
			Ex: "providing structured opportunities for them to read for multiple different purposes."
		S: Suitable teaching resources	Teacher thinks/feels the use of relevant resources could improve teaching.
			Ex: "using relevant learning texts make them more manageable for language minority students."
	S: Effective teaching strategies		The teacher thinks emotional modeling helps ELL learners understand concepts effectively.
			Ex: "I use picture libraries and visual presentations to assist Hispanic ELL students."
		S: Practical support	Teacher thinks/feels offering practical support improves instruction delivery to Hispanic ELL learners.

	Ex: "I ensure I find material or resources that will give them the option of English and Spanish so they can learn, like the other children are learning."
S: Teacher strategies to help students reach high academic standards	Teacher thinks/feels inclusive classrooms and diverse instruction is needed to help students attain high academic standards. Ex: "provide different frameworks for them to understand and what you know they may understand things that might help them make connections."

Table 2
(continued)

	S: Diverse instruction	Teacher thinks/feels the use of diverse instructions could help Hispanic ELL students reach higher academic standards. Ex: "I use alternate forms of assessment, assist them in different ways instead of just using the same ways to provide different frameworks for them to understand."
	S: Professional development	Teacher thinks/feels offering professional development helps teachers help students achieve higher academic standards. Ex: "professional development is good because it gives you key points from the department, provides strategies, provides images you can use, and provides resources that you can use."
	S: Cultural diversity	Teacher thinks/feels embracing cultural diversity could facilitate students meeting higher academic standards. Ex: "I aim to differentiate and use multiple manipulatives, in addition to incorporating a student's native language if possible, and also incorporate technology."
	S: Collaborate with learners	Teacher thinks/feels collaborating with learners could help improve student achievement.

		Ex: "when we collaborate, we can get a picture of what is going on across the board."
	S: Teacher strategies: Used for communication	Teacher feels the use of different communications helps student learning. Ex: "gestures, visuals, and modeling are super important. We are the only ones in the classroom so therefore communication is limited, but other bilingual teachers in the school are always available and open to help non-speaking English Hispanic students."
	S: Teacher strategies: Provided to Hispanic parents	Teacher thinks close support and helplines could help non-English speaking Spanish parents. Ex: "we encourage parents to reach out to the teacher for help with county or district resources. For example, my school district provides translators to communicate with Hispanic parents."
	S: Teacher strategies: High benchmark on standardized tests	Teacher thinks elaborate examples and diverse options could help students score high on standardized tests. Ex: "trying to provide clear curriculum and instruction will give Hispanic students a chance to score high on standardized tests."
CHALLENGES: Details about challenges experienced while trying to reduce the	C: Language barrier	Teacher believes language barrier is a challenge hindering effort to close the achievement gap

achievement gap for Hispanic ELLs		Ex: "the language barrier is pretty much the major challenge I have."
	C: Inadequate knowledge about students	Teacher believes a lack of understanding of students' needs is a major barrier. Ex: "one of the issues that I have noticed is that it's sometimes hard to know exactly where the student is when they arrive to you, what they have already learned, and where they are because of the language barrier issues."
	C: Lack of access to skilled teachers	Teachers believe lack of access to fully qualified teachers is a potential barrier to closing the achievement gap. Ex: "because some teachers view English language deficiency as a disability is one challenge that has been experienced. For example, I have had to reach out to the students' previous teachers who look at the lack of participation in class and coursework has a deficiency and not knowing English as a disability."
EFFECTIVE: Resources, skills, knowledge, professional assistance, and other forms of	E: Resources: Programs and illustrations	Participant believes that classrooms should have clear teaching programs and demonstrations. Ex: "I would say by providing visual illustrations will better serve our Hispanic students' class work."

support that
would make
ELL teaching
strategies more
effective at
reducing
Hispanic ELLs'
achievement
gaps.

| | E: Skills: Real-life examples | Participant believes there is a need to give real-life examples when facilitating instruction to Hispanic ELL students |
| | | Ex: "I think we should integrate more of our language in the school coursework. Use real-life situations and teach academic language to capture any activity, knowledge, and skills. Bridging the English and Spanish vocabulary can provide students with good outline notes." |

Evidence of Trustworthiness

The purpose of establishing the trustworthiness of the current qualitative study

was to authenticate the findings and ensure they merit the attention of academics and

practitioners (Lincoln & Guba, 1985). As such, ensuring the credibility of the findings

helps the researcher justify the acceptability of the conclusions. In the current section, the

focus is to discuss the measures that were employed to ensure the trustworthiness of the

findings (Birt et al., 2016): credibility, member checking, triangulation, validity, transferability, and dependability and confirmability.

Credibility

To achieve credibility the findings of a study must accurately capture the essence of participants' lived experience (Lincoln & Guba, 1985). Various strategies were used to ensure credibility. The strategies used included member checking, narrative truth, thick description, and research reflexivity (Connelly, 2016).

Member Checking

Member checking was used to authenticate the final interview transcripts. Interview transcriptions were emailed to participants who were asked to verify that they accurately captured and did not misstate, omit, or understate their interview responses (Lincoln & Guba, 1985).

Narrative Truth

Narrative truth implies that the researcher sought to represent the authenticity of the interviewees' comments, reflections, perspectives, and stories during the thematic analysis process. Such an approach ensured that personal bias during the data collection process was minimized. Also, the narrative truth ensured that the researcher obtains thick description of the participant responses (Connelly, 2016).

Researcher Reflexivity

The use of researcher reflexivity ensured constant self-awareness about how findings from interviews unfolded. For example, through open coding, I was able to bracket and set aside any personal preconceptions and/or biases, ensuring that the

transcribed interviews reflected only the participants' experience (Birt et al., 2016). To

that end, the use of reflexive journals and personal notes was important in helping to

clarify the lens through which I interpreted participants' social world, while

acknowledging how my personal background could influence data collection and analysis

(Lincoln & Guba, 1985).

Thick Description

Geertz (2008) defined thick description as an approach through which the

researchers immerses themselves in the context of a culture noting specific details such as

the behaviour and social actions of the researcher. The objective of thick description is to

describe a situation to ensure the reader understands the cultural meanings behind the

observations made (Geertz, 2008). In the current study, thick description ensured that

shared insights from participants were described in a detailed manner to contribute to an

understanding of the issue under study**.**

Triangulation

Triangulation is a procedure that ensures the reliability of results by combining

several sources to uncover any discrepancies in the data and confirm the findings (Varpio

et al., 2017). To gain a deeper understanding of teacher perceptions of methods used

effectively to reduce the achievement gap, triangulation was first achieved by

interviewing participants from multiple schools that offer ELL curricula in English and

math. An expert qualitative professional at the school then helped evaluate my analyses

of the transcribed interviews to verify that each code and theme addressed the study

research questions. Triangulation will be achieved through comparing novel themes identified in this research with previous research and theory.

Transferability

Lincoln and Guba (1985) described transferability as the degree to which findings of a study may be applied to other research settings. Transferability was achieved using different strategies such as ensuring thick description and sampling sufficiency (Lincoln & Guba, 1985) of various teachers from different schools. According to Lincoln and Guba (1985) sampling sufficiency connotes the ability of the study sample to help acquire in-depth and sufficient information from participants to address the research questions and satisfy the research objective. A thick description ensured that detail as to all aspects of the research process was sufficient to enable other researchers to replicate this study with different populations in other contexts.

Dependability and Confirmability

Dependability relates to the degree to which research procedures have been documented and align with study aims and objectives (Lincoln & Guba, 1985). In this study, dependability was achieved through strategies such as conducting audit trails, providing evidence, ensuring in-depth methodological description, elaborating on a detailed data analysis plan, clearly aligning research objectives and data sources, and peer debriefing. Atlas.ti helped with the audit trail to ensure elaborate documentation of the research methodology, design, and rationale.

Confirmability refers to the ability of other researchers to corroborate the reported results. In this study, confirmability was achieved by adopting various strategies such as

clear coding, detailed recorded evidence, researcher reflexivity, detailed methodological descriptions, identifying methodological shortcomings, and identifying the researcher's preconceptions and biases (Connelly, 2016).

Results

The purpose of this study was to explore how participants support ELL students' learning and development. A total of six themes was identified to help the researcher understand how participants assist Hispanic ELLs in English and math. The six themes are related to the following: (1) use of language and cultural scaffolding to assist Hispanic ELLs, (2) teaching strategies effective in helping Hispanic ELL students, (3) strategies to help students reach high academic standards, (4) strategies used for communication by non-Spanish speaking teachers, (5) strategies for collaborating with non-English speaking Hispanic parents, and (6) strategies to help Hispanic students reach higher benchmarks on standardized tests. These themes are further detailed in the subsequent subsections.

RQ1: How Are Language and Cultural Scaffolding Used to Assist Hispanic ELLs in English and Math?

Regarding the first research question, findings showed that participants used various language-based and cultural scaffolding approaches to assist Hispanic ELL students in English and math. The approaches included giving structured instructions, sourcing, providing clear learning resources, building relationships, and facilitating peer learning. In the following section, the themes and subthemes related to the first question are discussed.

Theme 1: *Use of Language and Cultural Scaffolding to Assist Hispanic ELLs*

Participants A1, F6, and H8 focused on ensuring clear and structured instruction when teaching. For example, participant A1 stated, "the first thing I do is have a strategy to make sure that everything is clear for me. I make sure that all of the instructions are given properly." Participant A1 added further, "I slow down with the Hispanic students to make sure they understand the assignment." Subsumed under theme 1 are two subthemes, using structured learning and clear instructions and the use relevant teaching resources to improve instruction delivery. They are fleshed out as subthemes (rather than being part of the above theme).

Sub Theme: Using Structured Learning and Clear Instructions. Participants D4, E5, and F6 reported using structured learning to enhance their understanding of instructional materials. That is, participants integrate Spanish and English vocabularies and offer structured learning opportunities to Spanish ELL students. D4 stated:

I integrate core rural area language instruction into the content areas, providing structured opportunities for them to read for multiple different purposes. Giving them structured opportunities to write capitalizing on their home language sounds, and graphic organizers that provide visual and concrete items.

E5 added, "I have everything written and labeled in both their native language, usually Spanish and English. Participant F6 stated that:

Things I do to help with cultural scaffolding, I usually break up the learning in chunks and provide some type of structure that utilizes their list of vocabulary words in Spanish and make them a worksheet. With those vocabulary words, of

course, in English. Then I use some form of technology to display the word so,

the students can see them visually as what they would be accustomed to in the

Spanish language and what it is in the English language.

In addition, participants F6 and H8 also elaborated that they ensure there is clear

instruction by using visual and graphic aids to assist Hispanic learners. Participant F6

perceived that: "By incorporating some type of other visuals like the word apple, I will do

apple in Spanish, apple in English, and then put an apple that way the kids take a picture

of the word and know that this is the word that I'm learning.

H8: I use graphics for smaller kids because they are hands-on learners. So,

therefore I use a lot of hands-on activities. For instance, if we are learning about

coins, we'll use fake coins or fake money or graphics to allow them to associate

words with what they see.

Sub Theme: Use Relevant Teaching Resources to Improve Instruction

Delivery. Participants B2 and E5 observed that the use of suitable resources was also

considered an effective scaffolding approach to assist Spanish ELL students in language

and math lessons. For example, participant B2 perceived that "to find how to achieve

expectations, the participants are interested in some material and assembly. Using

relevant learning tests makes them more manageable for language with minority

students." Participant E5 also stated, "an array of different books that are accessible to the

students that are written in both languages to address language barriers would help

minimize the barrier." Participants A1, C3, and E5 also believed creating positive

relationships with students and their peers in groups does help Hispanic ELLs. Participant

A1 noted, "they always build relationships early and often with these students with their

assignments."

> C3: In the classroom, Hispanic ELLs are usually paired with other English-
> speaking students, or another student, which can relate information to the non-
> English speaking Hispanic students to help that student struggling with the
> English language, so the non-speaking English Hispanic student will be able to
> grasp the concepts.
>
> E5: Whenever I do teach English and we are in a highly populated Hispanic area,
> most of the time I was taught to do it by pairing the students with those who are
> more proficient in English to help them and make them feel more comfortable.

Theme 2: Teaching Strategies Effective in Helping Hispanic ELL Students

Participants were asked to share their views about the following: *Describe some teaching strategies known to be effective in helping Hispanic ELL students*. Findings showed that effective measures used to help Hispanic ELL students included using picture libraries, modeling, peer teaching or grouping, and ensuring access to materials.

A1: I use picture libraries and visual presentations to assist Hispanic ELL students. Web-based picture libraries can promote Hispanic ELL students' comprehension in certain content areas in the classroom in science, math, and English. There are multimedia types of auditory devices developed that help with visual presentation.

Participants B2 and F6 shared they consider modeling as an effective teaching strategy to be suitable for helping Hispanic ELL students. In addition, participant F6 shared that "some strategies are always models, which are an important thing. So, you cannot just give them instruction without giving them an example." Further, participant F6 clarified, "I model what I am expecting from them. So, I want them to write apple in Spanish, apple in English, banana in Spanish, and banana in English with models giving them a better understanding with instructions and examples."

Sub Theme: Pairing Peers Improves Instruction Delivery. Participants C3, D4, E5, and G7 shared that grouping students or pairing peers was an effective teaching strategy used to help Hispanic ELL students. Participant C3 clarified that "as I said before peer teaching is particularly good and if you have an email program in your school that will pull those students out, see where they are and to help bridge that gap." Participant C3 added that "I give them what they can speak and get comfortable with to build the relationship that's important for learning." Participant D4 added that "the parents of students just haven't been someone that we can lean on and talk to when they're having difficulties expressing themselves, that disassemble as well as grouping different students."

Participants E5 and G7 added that:

> Sometimes you might need to group students that are on diverse levels in diverse groups so that they can catch on but spend more time in one area or lead time and the other will group it. And just having the available resources that have been in the presence of the students was extremely helpful. (Participant E5)

> I would say cultivating relationships can be very resourceful and they will be culturally responsive. Also, the curriculum, trying to teach Hispanic ELL students across the curriculum does not limit to language arts and math, but throughout the curriculum, speaking slowly increases the wait time for the ELL students will be able to get more time than normal. (Participant G7)

Sub Theme: Offering Practical Support and Learning Opportunities Improves Teaching. Participants C3, C4, and H8 indicated they provide practical support and suitable learning opportunities to students. Participant C3 noted that "I ensure I find material or resources that will give them the option of English and Spanish so they can still learn, like the other children are learning." Participant H8 added that "usually what is given in English we give in Spanish as well to achieve consistency across the board." Moreover, participant C4 observed that "English and languages should extend so for example, using procedures like summarizing, questioning, and predicting when they are reading language scales across the curriculum, not just in reading." Participant C4 added that "I provide cooperative learning activities so that they can work with others. I provide opportunities for them to communicate with other people and they can help with academic and social language, boost self-confidence, and self-esteem within the classroom. Basically, just being effective in helping them."

The interview responses enabled me to identify three strategies participants consider effective in helping Hispanic ELL students. The strategies include *offering practical support, equal learning opportunities to ELL learners*, *peer grouping and pairing of students*, and *modeling effective teaching strategies* such as offering materials that they can understand. The teaching process was improved through the use of picture libraries and visual presentations.

Theme 3: Strategies to reach high academic standards

Participants were asked to share their views about the following: *What strategies can provide new teachers teaching ELL Hispanic students for the first time in an*

inclusive classroom to reach high academic standards? The findings showed that

participants try to ensure inclusive classrooms and high academic standards are achieved

through the development of diverse instruction and student modeling. In addition, some

participants felt there is a need for professional development, promoting cultural diversity

and offering rewards, collaboration and observing students, and ensuring continuous

practice.

Sub Theme: Promoting the Use of Diverse Instruction. Participants A1 and D4

observed that high academic standards can be achieved by ensuring diverse instruction

and student modeling. For example, participant A1 perceived that "I always keep a

picture word inductive model which is a model Hispanic students find helpful. Also, I

need support from the participants in our school that come around collaboratively to work

with these students." In addition, participant D4 elaborated that:

> I alternate forms of assessment, assisting them in different ways compared to just
>
> using the same. I provide different frameworks for them to understand like
>
> thumbs up, thumbs down where they understood, they may understand things like
>
> that might can help them make connections, building off their background
>
> knowledge, and most importantly, vocabulary development, and helping them
>
> develop their vocabulary.

Sub Theme: Promote the Professional Development of Educators. Participants C3 and D4 clarified that there is a need for professional development to enhance teacher competency. Participant C3 perceived that "professional development is good because it gives you key points from the department. Or they can give you strategies, they can give you the images you can use, they can give you resources that you can use the pool of the room, the platform or website to help reach those facilities until we get where they need to be, where they can learn and learn basic communication skills." Participant D4 added that:

> Definitely, as professionals we do need to start implementing more professional development geared towards non-speaking English students because for one, as a teacher, I know why professional development is needed to teach ELL students, because a lot of schools do not have ESL teachers and so, you have a substantial number of students who are ESL who do not have any teacher, so therefore, we're kind of setting them up for failure. Professional development workshops should be geared towards teaching and finding ways in closing the achievement gap between ELLs and their Native English-Speaking classmates.

Sub Theme: Appreciate Diversity and Promote Minority Needs. Some participants felt promoting cultural diversity and appreciating minorities could contribute to high academic standards among ELL students. For example, participant G7 perceived that "I aim to differentiate and use multiple manipulatives, in addition to incorporating student's native language if possible, and also incorporate technology." Moreover, participant E5 perceived that "the teacher exposure to any culture will help with connecting with those students, as well as allowing teachers to have staff development to gain their knowledge of different approaches to help target those students." In addition, participant E5 elaborated on the need to offer incentives to ELL students, noting that:

> Just giving them a reward, which will be a great event you know, for students that feel like they've been more at home and more comfortable with a teacher that understands them, and that can relate to them in both languages.

Sub Theme: Collaborate with Students and Interact With Students. Participants D4 and F6 observed the need for collaboration and observing student interactions. Participant F6 noted that "some of the best strategies that you can use to help these students are always as teachers, collaboration is a big thing amongst teachers with helping not only those students, so we always collaborate." In addition, participant F6 added that "when we collaborate, we can get a picture of what is going on across the board. That way, I know the students in my classrooms that are struggling in reading." Participants D4 and F6 noted that:

> Collaboration amongst colleagues is always one of the most significant bonds that we see help these students. Also using formative assessments are great in actually

understanding what these children are learning, because going backwards, as I

said, a lot of times they want to memorize instead of actually learning.

(Participant F6)

I said earlier that we see collaboration. But also, another thing is like a lot of the

students, they seem like they are fluent. So, a lot of times, what we have to do is

we have to watch, be mindful of the interaction that they're having with their

peers, because the interactions that they're having with their peers, outside of

formative assessments, and collaborating with other teachers. We watch their

interactions with their peers, that also gives an insight on how much they

understand. (Participant F6)

Participant H8 emphasized the need for regular practice to enhance student achievement.

According to participant H8, "practice, practice, practice, we always have to make sure

we practice and just stay consistent in what we're learning because repetition helps the

younger learners learn the material." These findings indicate that participants try to

ensure high academic standards are achieved by facilitating diverse instructions,

modeling, engaging in professional development, promoting cultural diversity, offering

rewards, collaborating, and observing students, and ensuring constant practice.

Theme 4: Strategies Used for Communication by Non-Spanish Speaking Teachers

The interview participants were asked to share their views about the following:

What strategies are used for communication when a teacher does not speak Spanish?

Participants identified various strategies they use for communication including gestures,

visuals, translators or interpreters, student collaboration, and technology support. First,

participants B2 and E5 noted that they use visuals, prints, and models to help them improve how they communicate with students. Participant B2 noted that "gestures, visuals, and modeling is super important. If there is no one sent to help communicate, assign a bilingual peer to help the student. Use bilingual dictionaries in the classroom and post simple translation around the classroom or where applicable." Participant E5 also shared that "just a lot of print-rich environments that's rich in both English and Spanish also helps with the participant gaining more knowledge and being more effective."

Second, participants C3, D4, G7, and H8 added that they use translators or interpreters to improve communication. For example, participant D4 added that it "will translate backward for me as a participant. So, the technology of staying connected with the parents, you connect with parents using Google Translate for parents that can't speak English." Participant H8 also added that they "usually use our resources and we have available translators and there are also other electronic options that we can use to help translate between student and teacher." Further, participant G7 clarified that "I will use like an interpreter, use visual clues. Provide examples for the student parent, allow parents to kind of communicate a little bit in their language and then like I said, maybe have the interpreter there be very clear and concise and be positive because it is a language barrier there." Participants C3 and H8 also shared that:

> In my class, when I need to communicate with a parent who does not speak English, I usually go to the ELL teacher, and she will translate whatever information. If I need to make a phone call, she is available to do that. And those things help to communicate when we have programs, or we have a presentation.

The ELL teacher lays out those programs so parents can understand and they are aware of what is going on. (Participant C3)

We do have other people in school that helps us with our students that are more English as second language learners. There are also a lot of technological things these days that help us help. We are the people who don't understand. (Participant H8)

Third, student assistance was also noted as important in enhancing communication. Participant E5 shared that "we also use students; I have a student that is very valuable in both languages." Through the help of students who are both proficient in English and Spanish, participant E5 added that "he helps me to relate messages to some of the students, and then I'm having other staff and personnel that are also able to chime in."

Participants were asked to share the strategies they use to improve communication with students when a teacher does not speak Spanish. Findings showed that participants use various methods to enhance how they communicate with ELL learners. Some of the main methods that non-Spanish speaking teachers use include employing gestures, and visuals, using the services of translators or interpreters within the school, using technology such as Google Translator, and in some cases asking for help from students who are proficient in both languages.

Theme 5: Strategies Provided for Non-English-Speaking Hispanic Parents

Participants were asked to share their views about the following: *What strategies are provided for Hispanic parents who do not speak English with their children's*

homework assignments? Findings showed that parents are supported in numerous ways including being offered close support and helplines, Spanish translations, interpreters, and liaisons with support groups. Participant B2 noted that "we encourage parents to reach out to the teacher for help if you have county or district resources. For example, my district provides Spanish translators to communicate with Hispanic parents." Participant C3 stated "there are also Spanish translations, and we have a homework helpline where Spanish translators work with them in our district." Participant C3 also added that:

> But as far as in my class, if I have an issue, I can always get those items translated for parents to help. We do have parent nights where parents can come out to the school, and we have math and science night and during those times the ESL teacher is on-site to translate as it relates to the parents.

Similar observations were made by participants D4, E5, and G7. For example, participant D4 added that "the secretaries that work for me as a teacher one is building that homeschool connection and that way making sure that all communication with those Spanish parents is conveyed, whether an Indian interpreter from the school, whether offering the parents other sorts of like, sessions, that way they can help their child connections to help them because I know we ran into that issue during COVID." Participant D4 added that:

> Like a lot of our students, our ELL students did not have proper teaching so some of them may have struggled because they did not have that help at home. So, we pick up a system in the school where we can log on to the room or help the students that way.

Participants E5, F6, G7, and H8 noted the use of translations, workshops, and liaisons to aid Hispanic parents who do not speak English with their children's homework assignments. For example, participant F6 noted that "we take the time to sit down with parents and walk them through the assignment, so they'll be able to get immediate help." Participant E5 noted that "having assignments written in both their native language as well as English, we also have parent workshops where parents are encouraged to come in and speak with the teacher, you know, learn different strategies that they could use at home, to help their students." Moreover, participant E5 expounded that "and then we also have a parent liaison who helps with the community to kind of bridge the gap between home and school." Participants G7 and H8 added that:

> I would say that a professional translator or interpreter is included in any parent-teacher meeting. Teachers should also try. I will also try to translate any important notes or documents that are sent out to parents. If we can get somebody to help the participant, we can send out the notice in Spanish, for example, to the students or the parents. (Participant G7)

> Those same resources that we can use for the students as far as the translators, the electronic devices help me translate Spanish words to English, help with communication as well. We give those parents specifically homework that is correlated with Spanish homework and English onward. That way, they can also understand and see the visualization and the difference. (Participant H8)

Findings indicated that participants provide different strategies for Hispanic parents who do not speak English to improve how they support their children in

completing their homework assignments. Most participants noted that they provide translation support where they translate English to Spanish. Additional assistance that participants offer includes inviting parents and guiding them through the assignments, ensuring that the homework aligns with the Spanish tasks. Such an approach facilitates parents' visualization and understanding of the homework assignments. As a result, participants can aid parents to support their students in completing homework assignments.

Theme 6: Strategies to Help Hispanics Reach Higher Benchmark on Standardized Tests

K-8th grade participants were asked to elaborate their opinions about the following: *What strategies are used to help ELL Hispanics reach higher benchmarks on standardized tests*? Insights from the interviews indicated that participants make it a point to develop clear curriculum instructions, provide elaborate examples, offer diverse options aligned with students' needs, and make use of available accommodations. Participants A1, B2, and E5 noted that there is a need to provide clear learning instructions. Participant A1 perceived that "to appropriate the ones that are responsive to the needs of the families and trying to provide clear curriculum and instruction that will lead the Hispanic students who have standards to be successful." Participants B2 and E5 further clarified that:

> ELLs need to be given clear examples of what is required and expected of them.
> But keeping math and English, relevant and contextual influence classroom
> performance and therefore helps to reach higher benchmarks, ensuring that the

scaffolding and model are appropriate so that ELLs can learn at the same pace as their English-speaking peers. (Participant B2)

You know, giving them computerized mock exams, just giving them strategies, preparing them for test taking, and giving them best practices and just you know, making them understand that is not something that Hispanic ELLs should have increased anxiety over, it is normal. (Participant E5)

Second, participants C3, G7, and D4 emphasized they ensure they provide equal opportunities for ELL students. Participant G7 noted that "okay, I ensure effective and better-based programs aligned with a standard and assessment, and also curricula and literacy." Participant C3 noted that "so, a lot of the programs that we are using in our class, they have versions of Spanish and English and so, when they are working on those different ideals, those students can feel we also have a program where students are pulled out and then periodically, and when they reach the height of the program, they test out and they can learn independently." Participant D3 also elaborated on opportunities provided by noting that:

> Going back to my previous answers. Building connects their background knowledge well enough to what they're learning. Providing them opportunities, of course, to communicate and learn with their peers. That can also help in reducing the gap by providing different tools of learning like anchor charts, graphic organizers, and things like that so that they can also use it in preparation for those standardized tests. (Participant D4)

Third, participants F6 and H8 stated that to help ELL Hispanics reach higher benchmarks on standardized tests, they optimize the use of available accommodations. Participant H8 observed that "using our resources and the specific accommodations that the state allows for our students, ELL students, it's always great just to know, what are the resources, the modifications, the accommodations that we can use to allow these students to reach their maximum potential on these tests." Participant F6 also agreed with participant H8 in that "the best way to help these students are always taking advantage of all accommodations that are out there." Concerning the use of accommodations, participant H8 alluded that:

> We must be very knowledgeable of the accommodations that are available for students, for ESL students. So, there may be a situation where, depending on the pace, you may be able to pull in someone, or they may be able to go out in an ESL classroom, and they may all be able to take this test together in a different environment with a partner by helping them, you know, translate things that they may not understand. So, it's always important to know the resources and the accommodations that we have available. Because a lot of times like I said, they may seem like they understand because they might socialize well but they don't always know your resources and accommodations that you can offer them on those standardized benchmarks. (Participant F6)

In sum, participants reported that they use four strategies to help ELL Hispanics reach higher benchmarks on standardized tests. Most participants noted that they develop clear curriculum instructions for all learners. In addition, participants also provided

examples of learning material and contents. Also, some participants ensure that they offer diverse options aligned with students' needs and optimize the use of available accommodations.

RQ2: What Challenges Have Been Experienced While Trying to Reduce the Achievement Gap for Hispanic ELLs?

Regarding the second research question, participant responses showed teachers experience various challenges in their efforts to overcome the achievement gap between ELL students and native English language speakers. The communication barrier was the main concern in that it hindered engagement between students and teachers. In the following section, the themes and subthemes related to the second research question are discussed.

Theme 7: Challenges Teachers Experience in Closing the Achievement Gap

Participants A1, B2, E5, and H8 noted that they often experience language barriers when helping Hispanic ELL students. Participant A1 noted that "the major challenge that I have and that's pretty much the language barrier." Participant H8 also observed that "usually the biggest gap is the language barrier." In addition, participant E5 added that "and also the home school connection because sometimes, you know, work has been home for the students, but their parents also have a language barrier. So, they're, you know, unable to assist them, sometimes." Participant B2 further elaborated that:

The inability of teachers to communicate with students in their native language. Do you get frustrated when they feel like they cannot understand the structures and aren't given enough support? Someone may feel like the teacher doesn't care

whether or not they're learning, which is to draw and choose to become more frustrated. (Participant B2)

Sub Theme: Communication Barrier Results Due to Inadequate Knowledge About Students. Participants have inadequate knowledge about ELL students' needs, which makes communication difficult. Participants C3 and D4 noted possible issues with having misperceptions about the special needs of some students or lacking detailed knowledge about their students' needs.

> C3: One of the issues that I have noticed is that it's sometimes hard to know exactly where the student is when they arrive at you, what they have already learned, and where they are because of the language barrier issues. So, it's good if you have an ELL teacher in your field or in your district that can help. That's been one of the biggest things is being able to communicate, to know exactly where the student is where you need.

> D4: One thing I would like to add is… about teachers automatically placing ELL students looking at it as a disability. I'm saying this to say if we went from another place to another that spoke another language, we wouldn't know that language. One thing we must do is make sure we keep that academic content language so that they're able to thrive within the school and the class. And, whether we just need to teach it to what they know. And you know, build off that instead of just automatically assuming oh, they don't speak English correctly, they may have a language disability, or they may have a learning disability. No, they are just learning life and learning English. So, we need to give them more opportunities to

gain experience and you know, of course providing extra professional development.

Sub Theme: ELL Students Lack Access to Skilled Teachers. Communication between Hispanic ELL students and teachers is hindered due to difficulties accessing skilled teachers. Participant D4 shared those students may lack access to fully qualified teachers, have issues with immigration and lack of documentation, and parental illiteracy. To elaborate, participant D4 expressed concerns that:

> Because some teachers feel English language deficiency as a disability, so, that is one challenge that has not been experienced. I know that, for example, the students that I have had, their previous teachers looked at not knowing English, the lack of participation, and lack of coursework. as a disability.
>
> At times parents may have low health and low levels of formal education making communication difficult. In other cases, some students are undocumented, contributing to problems of disproportionate and irregular school attendance.

Sub Theme: Inadequate Resources and Lack of Clear Goals. Inadequate resources and lack of time were other challenges teachers experienced when helping ELL students close the achievement gap. Participant E5 shared that, "resources have been an issue and also time management because you know, sometimes, there are so many hours in a day and it's kind of, you know, difficult to try to squeeze in as much as you would like to do within the school day." Participant F6 believes that students learn for the sake of obtaining academic accreditation without any specific goals. Students often fail to

memorize and understand materials, with the focus being on cramming without commitment to permanent or long-term objectives. Participant F6 also noted that:

> Some of the challenges I face is learning with these students, they often try to learn the English language without setting goals. They want to learn to be social, but they do not want to learn to be fluent. So sometimes we must focus even with younger kids, we must focus on setting goals. So, they do not just learn it. Like oftentimes we learn things for convenience by memorizing, but we don't learn it is plugging into our brain as a permanent tool that we need to use to operate. So, we have the same goal. So, they do not get complacent just memorizing and learning the actual language. (Participant F6)

RQ3: What Resources, Skills, Knowledge, Professional Assistance, and Other Forms of Support Will Help Make ELL Teaching Strategies More Effective at Reducing Hispanic ELLs' Achievement Gaps in English and Math in the Future?

Regarding the third research question, findings showed that participants believe in the future such that the achievement gap could be reduced by employing effective use of visual resources, providing real-life examples and applications, and promoting cultural diversity. Also, the achievement gap could be reduced by creating blogs and communities, offering networking workshops, increasing the number of teachers, and implementing technology. The themes and subthemes related to the third research question are discussed in the following section.

Theme 8: Improve Teaching Methods and Learning to Set

Participants, A1 and G7 shared the need for additional visual support. Participant G7 noted that "I would say have the program work, visual illustrations to better serve our students." Participant A1 added that:

> In the future illustrate stories used to provide visual support encourage children to retell stories using visual aids and continue to implement them have the parent's Early Childhood professionals read stories to help them in their language and to be able to train. just start early with the parents and the Hispanic kids. (Participant A1)

Sub Theme: Improve Instruction Delivery Using Real-Life Examples. There is a need to improve teaching skills by enhancing classroom illustrations. Participants B2 and C3 noted the need to give real-life examples when facilitating instruction to Hispanic ELL students. Participant B2 noted, "I think to integrate more of our language in the school fieldwork. Use real-life situations and teach academic language to capture any activity, knowledge, and skills. Bridging between vocabulary provides students with outline notes and or highlights it takes it can jump with coverage in ELA, and math manipulatives give time to talk. Capitalize on student's native language." Participant C3 added that "teachers remind students and where they are and the issues that they may be facing." In addition, participant C3 added that "professional development is provided to constantly remind teachers to pay closer attention to where students are and things that they might be experiencing in our class or neglect."

Sub Theme: Create Cultural Diversity. Participants perceived that in the future there is a need to enhance their knowledge and improve professional support for cultural diversity. Participant C3 also noted that educators need to embrace the cultural diversity of their students:

> The only thing I would like to teach our students we must recognize that we're all different and we all have different cultural or language barriers. And we need to communicate, we need to be patient with each other, and be understanding and respectful of each other's culture. If we do that this will be able to help us to better communicate with that parent to thrive in education.

G7: The use of blogs and communities could be key to enhancing a positive approach toward students' diversity. Some resources can be used such as blogs and communities build a system where they talk about different things. So, build communities within your district, with other teachers who may be collaborating with you because, of course, we need more, and more hands are better than one. A library that had ESL books gave me all types of different languages I could put around the classroom. Putting diverse types of things around the class can make connections to things they didn't know, in their language, compared to what we know in our language if that makes sense. The library offered a variety of articles, books, videos, and tools for educators and their families of English language learners. Scaffolding with the native language is a valuable resource.

Participant H8 noted the need for creating networks and workshops or conferences to enable teachers to learn how to support Hispanic ELL students. Participant H8 shared that "networking and having workshops and conferences that allow us to pretty much learn different strategies to pass the information on to the students and on to the parents." Moreover, participant H8 noted that networks could help "keep teachers in the loop of the changing demographics when we have these students that are different language learners. So that kind of helps us stay up to date and the advancement in technology."

Theme 9: Availing Technology and Qualified Professionals Could Help Close the Achievement Gap

Participants E5 and F6 noted that schools should implement technology tools, assign more time to educators, and hire enough personnel. According to participant E5,

"in the future, I think more technology will be great, being accessible and within the classroom, and also just employing more personnel because you know, they don't employ as many ESL teachers." Participant E5 also indicated that they "can add more time of the school day within seven hours and so they might need more support, so just increase the hours of support." Participant 6 also noted that:

> So, some of the best things to do as an educator, you must stay ahead of progress of the development opportunities that you can place yourself being to be able to eat different strategies to be able to help the student's technology grow. So, there are a lot of different programs that we can use on computers, to help us communicate with our students in your back clueless, be able to communicate with us better and not let that down. They are not understanding and me not understanding feel we must reach out, grab their sources, and bring me in so we can help those students maximize.

Conclusion

This chapter presented key themes related to the research aim and objectives. Thematic analysis identified eight themes related to participants' use of language and cultural scaffolding to assist Hispanic ELLs, teaching strategies effective in helping Hispanic ELL students and strategies used to assist ELL students to reach high academic standards. Moreover, the results identified strategies used for communication by non-Spanish speaking participants and approaches used to aid non-English speaking Hispanic parents. Findings also identified primary measures used to help Hispanic ELL students reach higher benchmarks on standardized tests. Importantly, the results identified

challenges that participants experience while reducing the achievement gap offered

potential solutions that may be used to address these challenges in the future. Chapter 5

will present an interpretation of the findings, limitations of the study, recommendations

for future studies, and implications for positive social change. The chapter will end with a

conclusion.

Chapter 5: Discussion, Conclusion, and Recommendations

This qualitative study aimed to explore strategies used by K-8th grade teachers deemed effective in reducing their Hispanic ELLs' achievement gap in English and math. The rationale for conducting the study was informed by growing concerns about the influx of Hispanic ELLs in APS that has broadened the achievement gap between ELLs and NES students, causing higher failure rates and fewer possibilities for Hispanic ELLs upon school completion (Blanchard & Muller, 2015; Good et al., 2010; Kane, 2016). In efforts to address this challenge, there was a need to formulate effective teaching strategies to bolster Hispanic ELLs' English and math skills. A major concern was that if the problem is not addressed, the achievement gap will widen, thereby leaving fewer future opportunities for these ELL students (Blanchard & Muller, 2015).

Summary of Key Findings

The primary focus of the current study was to explore strategies used by K-8th grade teachers deemed effective in reducing their Hispanic ELLs' achievement gap in English and math. The findings indicated that language and culture scaffolding are frequently employed to assist in narrowing the achievement gap for Hispanic ELL students who are studying English and mathematics. Scaffolding helps students build knowledge and new information. The goal of the educator using the scaffolding teaching strategy is to help the student become an independent self-regulating learner and problem solver. Participants stated that effective strategies included structured instructions provided to students, explicit learning resources were sourced and provided, relationships were built, and peer learning was facilitated. The participants felt that the use of picture

libraries, modeling, peer teaching or grouping, and providing access to materials were other factors that enhanced the delivery of instruction and facilitated learning. Participants established diversified instruction and student modeling, promoted cultural diversity, collaborated and observed students, and ensured continual involvement in order to reach excellent academic standards. In addition, participants highlighted a variety of tactics they use for communicating with students who have a lower level of English proficiency. These strategies included the use of gestures, visuals, translators or interpreters, student collaboration, and support from technology. To engage Spanish parents who have a lower level of English proficiency, participants offered personal support and helplessness, made Spanish translations and interpreters available, and coordinated efforts with school support groups.

Despite these efforts, participants indicated certain problems they faced in their efforts to reduce/close the achievement gap that exists between students learning English as a second language (ELL) and students who are NES. These obstacles included a language barrier, insufficient knowledge about students, difficulties in accessing participants, time availability, immigration problems and lack of documentation, parental illiteracy, lack of specific objectives or goals on the part of students, and inadequate resources. Participants identified a variety of resources, skills, and knowledge, as well as professional assistance and other forms of support that could assist in making ELL teaching strategies more effective at reducing Hispanic ELLs' achievement gaps in English and mathematics in the future. This was done in order to address the concerns that were raised. The implementation of technology, an increase in the number of

teachers, effective use of technology such as visual resources, the provision of real-life examples and applications, the promotion of cultural diversity, the creation of blogs and communities, the offering of networking workshops, and an increase in the number of teachers are all potential forms of support that could be taken into consideration.

Interpretation of the Findings

The current section interprets the findings of the study. The interpretation is done in the light of the research questions, past literature, and key themes of the study. Issues of contention and convergence from past studies are elaborated.

Research Question 1

Teachers' perceptions of how language and cultural scaffolding is used to reduce the English and math achievement gap for Hispanic ELLs were explored through participants' firsthand experiences. Wood et al. (1976) defined scaffolding as "a technique that enables a youngster or novice to accomplish a task or reach a goal that would be beyond his unsupported efforts" (p. 90). The focus was to understand how participants support students' learning by helping at the right time and in the right way. The interpretation of the findings will be done by theme as discussed below.

Theme 1: Use of Language and Cultural Scaffolding to Assist Hispanic ELLs

Insights drawn from the current study showed that K-8th grade teachers employed various approaches to assist Hispanic ELLs in English and math. These approaches included creating positive relationships among students and focusing on ELLs' native language to facilitate peer learning. Teachers ensured that they have suitable learning materials to deliver instruction to students. Moreover, teachers designed their lessons and

curriculum to facilitate clear instructions via visuals and graphic aids to help Hispanic

ELL students associate words with common objects such as money coins and apples from

English to Spanish. The findings echo observations by Walqui (2006) in that native

language construction is used to facilitate ELL students' learning. That is, teachers take

native language into account, providing ELL students with needed scaffolding to assist

them in their English learning development (Walqui, 2006). Through positive learning

climate and focus on Hispanic ELLs' native language, the use of scaffolding could

potentially help in growing efforts in ELLs' settings to reduce the achievement gap.

Umansky and Reardon (2014) suggest that the achievement gap may be reduced as ELL

students learn new concepts through social collaboration with their peers and their

teachers who are more proficient in English and math. Some participants stated they are

providing various ways to collaborate with their Hispanic ELLs in an effort to become

more proficient. For example, participant A1 said, "The first thing I do is have a strategy

to make sure that everything is clear for me, I make sure that all the instructions are given

properly. I slow down with the Hispanic students to make sure they understand the

assignment." Focus on ELLs' native language also promotes cultural sensitivity that has

been found to be critical to creating a positive learning environment (Loeb et al., 2013).

According to Walqui, native language scaffolding may allow ELL learners a chance to

display and practice English vocabulary via written and verbal exchanges with more

English proficient peers and teachers. For example, E5 claimed, "I have everything

written and labeled in both their native language, usually Spanish and English." These

findings support Chen and Yang (2017), who indicated that the effectiveness of culturally

responsive teaching strategies has a more positive effect on Hispanic ELLs' classroom participation, improving students' involvement and communication skills.

Theme 2: Teaching Strategies Effective in Helping Hispanic ELL Students

Participants shared their views about effective measures used to help Hispanic ELL students. Some of the important strategies included using picture libraries, modeling, peer teaching or grouping, and ensuring access to materials. According to Makura and Gobingca (2016), teachers must provide a learning environment for ELLs conducive to understanding learning objectives, relevant vocabulary guidelines, and appropriate learning goals. For example, participant A1 stated:

I use picture libraries and visual presentations to assist Hispanic ELL students. web-based picture libraries that can promote Hispanic ELL students' comprehension in certain content areas in the classroom in science, math, and English. There are multimedia types of auditory devices developed that help with visual presentation.

Further, Chen and Yang (2017) observed the need for teachers to ensure that ELL teaching strategies consider a learner's academic, social, linguistic, cultural, and behavioral aspects to inform appropriate teaching strategies. Consistent with this, participant B2 discussed "emotional modeling, teach representation, developing metacognition, schema building and ELLs words of knowledge and how they incorporate the English language in the classroom to make connections to the content." In the current study, teachers' efforts to facilitate learning English and math may be understood by considering the SLT theory, namely that social interaction plays a key role in the development of cognition (Vygotsky, 1978). Through effective teaching strategies,

teachers can help Hispanic ELL students acquire insights needed to improve their language and math performance.

Findings from the interview responses showed that teachers achieve these goals by employing various strategies such as offering practical support and equal learning opportunities and by grouping ELL students: For example, participant H8 stated, "I use graphics for smaller kids because they are hands-on learners. So, therefore I use a lot of hands-on activities. For instance, if we are learning about coins, we'll use fake coins or fake money or graphics to allow them to associate words with what they see." Consistent with the ZPD, the level of development is improved when less knowledgeable learners are engaged in social behaviors such as peer learning and group discussion (Vygotsky, 1978).

Theme 3: Strategies to Reach High Academic Standards

Participants shared strategies that could be used to reach high academic standards. Key among the identified strategies were developing diverse instruction and student modeling. Examining the increasing need for diversity and exploring ways to modify behavior in the classroom constitute a critical step toward creating linguistically inclusive and culturally sensitive learning environments: Participant H8 stated, "I alternate forms of assessment, assisting them in different ways compared to just using the same ways to provide different frameworks for them to understand." Participants also expressed a need for professional development, promoting cultural diversity and offering rewards, collaboration and observing students, and ensuring continuous practice. Participant D4 expressed, "Definitely, we professionals do need to start implementing more professional

development." The findings align with insights from past studies which show that for learning to occur and the achievement gap to be reduced, educators need to have a clear understanding of what the students know and do not know (Chen & Yang, 2017; Olson et al., 2017; Valentino & Reardon, 2015). K-8th grade teachers noted the need to understand students' ZPD as it relates to students' learning development (Vygotsky, 1978). The ability to determine a student's ZPD enables teachers to adapt and employ intercessory instruction to better meet students where they are in their learning ability and bring them to where they should be (Walqui, 2006). To improve communication with students, participants noted that they use various methods including employing gestures and visuals and using the services of translators or interpreters within the school. Consistent with this, Participant G7 stated, "I aim to differentiate and use multiple manipulatives, in addition to incorporating student's native language if possible, and also incorporate technology," to which participant F6 added, "Some of the best strategies that you can use to help these students are always as teachers, we collaborate collaboration is a big thing amongst teachers with helping not only those students, but everything is so we always collaborate."

Theme 4: Strategies Used for Communication by Non-Spanish Speaking Teachers

Participants shared strategies used to enhance communication when a teacher does not speak Spanish. Some of these strategies included using gestures, visuals, translators or interpreters, student collaboration, and technology support. Vygotsky (1978) observed how dialect or language is linked to thought and how individuals process information differently depending on the construction of their native language; by

considering the student's first dialect or language, non-Spanish speaking teachers could provide students with the necessary scaffolding to assist students' learning development and their own as well in the ELL setting. For example, participant D4 expressed:

> The use of technology of staying connected with the parents, you connect with parents using Google Translate for parents that can't speak English. Non-Spanish speaking teachers usually use Spanish speaking teacher resources and have available translators are also other electronic options that non-Spanish speaking teachers can use to help translate between parent and teacher.

Participant G7 added:

> Also, I will use like an interpreter, and visual clues that provide examples for the student's parent, allowing parents to kind of communicate a little bit in their language and then like I said, maybe have the interpreter there be very clear and concise and be positive because it is a language barrier there.

An understanding of the compounding problem is teachers' unfamiliarity and implement teaching strategies responsive to ELL specific needs (Sauceda et al., 2016). These findings are promising and showed that increased school support led to improving these students' learning abilities. Participants stated they use the most effective procedures, tools, and resources to communicate with the parents that do not speak English. For example, Participant C3 stated:

> In my class, when I need to communicate with a parent who does not speak English, I usually go to the ELL teacher, and she will translate whatever information. If I need to make a phone call, she is available to do that. And those

things help to communicate when we have programs, or we have a presentation.

The ELL teacher lays out those programs so parents can understand, and they are

aware of what is going on.

Participant H8 added, "We do have other people in school that helps us with our students

that are more English as second language learners. There are also a lot of technological

things these days that help us help. We are the people who don't understand."

These findings echo observations from past studies where appropriate

communication is a helpful method for Hispanic ELLs to reduce their achievement gap

(Loeb et al., 2013; Umansky & Reardon, 2014). Walqui (2006) reported that relevant

communication provides a contextualization of information, facilitating students' and

parents' knowledge acquisition through social cooperation with teachers proficient in

language and math subjects, while employing their native language and the

corresponding cultural diversity to improve how they communicate. Strategies for

communication like the use of gestures, visuals, and translators enables non-Spanish

speaking teachers to practice and demonstrate their command of the Hispanic students'

native language through written and verbal dialogues with their respective ELL students.

In the process, Hispanic ELL students are given a concrete means by which to develop

their English proficiency, resulting in increased understanding and achievement within an

English-based learning environment from a non-Spanish speaking teacher (Sauceda et al.,

2016).

Theme 5: Strategies Provided for Non-English-Speaking Hispanic Parents

Participants shared various strategies used to help non-English speaking Hispanic parents engage with their children's homework assignments, including helplines, Spanish translations, interpreters, and liaising with support groups in their schools. Such an approach ensures that parents become a key resource when supporting their children with assignments. As an example of this, participant B2 indicated, "We encourage parents to reach out to the teacher for help you have in county or district resources. For example, my district provides ELS a translator to communicate with Hispanic parents." Studies show that ELL parents/guardians are often an underutilized resource when working to reduce the achievement gap (Sauceda et al., 2016). Adding to that, participant C3 shared:

There are also Spanish translations, where we have homework helpline where people can work with them in our district. . . that but as far as in my class, if I have an issue, I can always get those items translated for parents to help. We do have parent nights where parents can come out to the school, and we have math and science night. And during those times the ESL teacher is on-site to translate as it relates to the parents.

Sellers (2017) found that non-English speakers need to be offered helplines and interpretations, important to breaking the language barrier and engaging them in the learning process: For example, participant E5 indicated that "having assignments written in both their native language as well as English, we also have parent workshops where parents are encouraged to come in and speak with the teacher, you know, learn different strategies that they could use at home, to help their students." Such an approach gets non-

English speaking parents more involved in school activities, facilitating trust between teachers and parents/guardians via enhanced communication (Sellers, 2017). Findings indicated that participants provide different strategies for Hispanic parents who do not speak English to improve how they support their children in completing their homework assignments. Most participants noted that they provide translation support where they translate English to Spanish.

Theme 6: Strategies to Help Hispanics Reach Higher Benchmark on Standardized Tests

During the interviews, participants stated that they support a variety of solutions to this problem in order to assist Hispanics in achieving higher benchmarks on standardized examinations: As an example, participant G7 stated, "okay, I ensure effective and better-based programs aligned with a standard and assessment, and also curricula and literacy." Ensuring that programs are effective and well aligned with the appropriate standards and curricula is essential to ensure that Hispanic students improve their academic performance, that efforts be made to provide a curriculum and instruction that is comprehensible. Students who have access to more detailed exercise examples with heightened contextualization and cultural relevance may be better able to solve difficult math and English academic issues on high-stakes exams (such as the SAT, ACT, and GRE), with the potential to improve results on those exams (Flores & Rosa, 2015). For example, participant B2 shared:

> ELLs need to be given clear examples of what is required and expected of them. But keeping math and English, relevant and contextual influence classroom

performance and therefore helps to reach higher benchmarks, ensuring that the scaffolding and modeling are appropriate so that ELLs can learn at the same pace as their English-speaking peers."

Participant H8 added:

We must be very knowledgeable of the accommodations that are available for students, for ESL students. So, there may be a situation where, depending on the pace, you may be able to pull in someone, or they may be able to go out in an ESL classroom, and they may all be able to take test together in a different environment with a partner by helping them translate things that they may not understand. So, it's always important to know the resources and the accommodations that we have available.

Adding to that, participant E5 said:

You know, giving them computerized mock exams, just giving them strategies, preparing them for test taking, and giving them best practices. And just you know, help them understand that this is not something that you should have increased anxiety over, it is normal. Just go in short and you should come up.

Research Question 2

The findings from the interview responses show that teachers experience different challenges when attempting to reduce the achievement gap among Hispanic ELL students in their schools. These challenges include language barrier, insufficient knowledge about students' cultural backgrounds, difficulties in accessing teachers, time availability, immigration issues and lack of documentation, parental illiteracy, lack of specific

objectives or goals by students, and insufficient resources to help meet students' needs. Addressing these issues may be critical to addressing the achievement gap between NES and Hispanic ELL students. These findings echo observations from past studies such as having inadequate knowledge about ELL students' histories, resulting in students being labeled as special needs or troubled learners (Harry & Klingner, 2014; Moreno & Segura-Herrera, 2014). Consequently, the needs of Hispanic ELL students are often not met due to misdiagnosis and subsequent neglect or alienation (Ramirez & de la Cruz, 2015).

Theme 7: Challenges Teachers Experience in Reducing the Achievement Gap

Findings by Robinson-Cimpian et al. (2014) indicated that the communication barrier continues to be a setback in efforts to advance Hispanic ELLs' progress in most schools:

Additional findings by Blanchard and Muller (2015) indicated that poor communication largely contributes to difficulties in meeting the needs of non-English speaking students in the classrooms. As a result, Valdés (2015) recommended teachers formulate collaborative measures to assist Hispanic ELL students to improve their English and home-language proficiency. In the current study, participants focused on using technology and liaisons with school teams to translate English words for Hispanic ELL students to break the communication barrier: For example, participant H8 expressed, "Usually, the biggest gap is the language barrier." to which participant E5 added, "In addition, home school connection because sometimes, work has been sent home for the students, but due to their parents' language barriers they cannot get the help with homework as needed. So, they're, you know, unable to assist them, sometimes."

The importance of liaising with translators aligns with the SLT such that social interaction with persons who have desired qualifications and knowledge about a subject contributes to learning (Vygotsky, 1978). Engaging language translators enables learners and educators to achieve positive outcomes such as improved English proficiency and math performance. Teachers' ability to help ELL learners is informed by the need to understand the distance between the actual developmental level, as informed by independent problem-solving, and the capacity for potential development to create effective teaching methods in collaboration with more capable translators (Chen & Yang, 2017). For example, participant C3 stated:

> One of the issues that I have noticed is that it's sometimes hard to know exactly where the student is when they arrive to you, what they have already learned, and where they are because of the language barrier issues. So, it's good if you have an ELL teacher in your field or in your district that can help.

There were concerns that some students find challenges in accessing teachers because of the short time allocated for lessons. To address that, participant E5 claimed, "resources have been an issue and also time management because you know, sometimes, there are so many hours in a day and it's kind of difficult to try to squeeze in as much as you would like to do within the school day." Assigning more time to educators and hiring more personnel could help improve student access to educators to address their needs. Teachers who were proficient in their ELL students' native language can provide bilingual assistance to their Hispanic ELL students with better results when they are allocated more time to interact with students (Egalite et al., 2015). Loeb et al. (2013)

reported that time allocation and continuous support help educators reach more learners after class to address potential concerns they were unable to clarify during class. To address the teacher shortage, hiring more personnel to improve support for learners should be considered (Hsiao et al., 2017).

Research Question 3

Findings from the interview responses identified various forms of support that could be used to help make ELL teaching strategies more effective at reducing Hispanic ELLs' achievement gaps in English and math. Teachers noted that using suitable visual resources when teaching, in addition to providing real-life examples and learning applications, could enhance learning. Themes 8 and 9 discuss the resources, skills, knowledge, and other forms of support to make ELL teaching more effective.

Theme 8: Improve Teaching Methods and Learning to Set Real-Life Examples

To help students persist through the ZPD, instructors are encouraged to focus on three crucial learning-support components: (1) increasing students' ability to access educators with greater knowledge and abilities on ELL than the learner; (2) promoting social interactions with knowledgeable instructors or peers to improve ELL students' math and English skills; and (3) fostering educator- or peer-provided scaffolding or supportive activities to assist the ELL learners as they are guided through the ZPD (Engward & Davis, 2015). Findings showed that participants believe in the future such that the achievement gap could be reduced by employing effective use of visual resources, providing real-life examples and applications, promoting cultural diversity,

creating blogs and communities, offering networking workshops, increasing the number of teachers, and implementing technology.

Scaffolding activities could comprise exercises supplied by the educator or a more capable peer to assist the student as he or she is guided through the ZPD (Loeb et al., 2013; Umansky & Reardon, 2014). Wood et al. (1976) characterized scaffolding as a teaching strategy that permits someone to achieve a task or reach a goal that would otherwise be beyond her or his unsupported efforts. As support becomes redundant, it is gradually withdrawn, much like a scaffold is removed from a building during construction. For example, participant G7 expressed:

> The use of blogs and communities could be key to enhancing a positive approach toward students' diversity. Some resources can be used such as blogs and communities that they build within the edge detection system where they talk about different things. So, build communities within your district, with other teachers who may be collaborating with you because, of course, we need more heads, the more hands are better than one ESL library where I used to have a look. But it gave me all types of different languages I could put around the classroom. Diverse types of labor put around the class can make connections to things they didn't know, in their language, compared to what we know in our language if that makes sense. It offers a variety of articles, books, videos, and tools for educators and their families of English language learners. Scaffolding with the native language is a valuable resource.

The pupil will then be capable of completing the activity independently. To reduce/close the achievement gap, the scaffolds need ELL educators to manage those aspects of learning that are initially outside the Hispanic learner's abilities, allowing them to focus on and accomplish only those aspects within their range of competence as they improve their proficiency (Vygotsky, 1978; Walqui, 2006). As an example, participant D4 stated:

> One thing we must do is make sure we keep that academic content language so that they're able to thrive within the school and the class. And, whether we just need to teach it to what they know and build off that instead of just automatically assuming oh, they don't speak English correctly, they may have a language disability, or they may have a learning disability. No, they are just learning life and learning English. So, we need to give them more opportunities to gain experience.

Theme 9: Taking Advantage of Technology and Qualified Professionals Could Help Close the Achievement Gap

There is a challenge to technology access for learners in ELL settings. Participants believed that schools should adopt various technology tools to facilitate learning. According to participant E5, "In the future, I think more technology will be great, being accessible and within the classroom, and also just employing more personnel because you know, they don't employ as many ESL teachers…" Hiring competent teachers to use technology and increasing the number of instructors could increase students' access to adequate support thereby helping reduce the achievement gap. For instance, participant F6 expressed:

So, some of the best things to do as an educator, you must stay ahead of progress

of the development opportunities that you can place yourself being to be able to

eat different strategies to be able to help the student's technology grow. So, there

are a lot of different programs that we can use on computers, to help us

communicate with our students.

The findings echo observations by Andujar (2016) who noted that technologies, like the

use of mobile messaging, may help ELLs learn effectively. Andujar (2016) found that

technology use contributed to enhancements in the elimination of lexical, grammatical,

and mechanical errors. Taskiran et al. (2018) obtained comparable results for Turkish

university students in terms of Twitter use. That is, the use of technology increased

students' self-efficacy in English language. The findings affirm that technology use could

foster linguistic development in ELLs, considering it has beneficial outcomes related to

closing the achievement gap.

Limitations of the Study

Undertaking the current study had some potential limitations that could have

affected the findings. First, a qualitative research design was used. According to Balkar

(2015), qualitative research enables researchers to collect non-numerical data, ruling out

the possibility of identifying relationships among variables. Second, the data used in this

study were obtained from a small sample of eight K-8th grade teachers. Thus, it may be

possible that the information did not achieve methodological rigor and data saturation to

ensure the transferability of the findings to other settings. According to Barratt et al.

(2015), to achieve data saturation and rigor, a qualitative study needs between 10 and 20

participants. Therefore, the use of a small sample in this study potentially makes it difficult to extrapolate from these findings' suggestions and/or solutions applicable to other schools or settings outside the immediate institutions of this study.

Third, participant interviews were the only source of data, therefore there was no data triangulation of data collection methods and sources of information. The findings from interviewed teachers alone may result in social desirability bias as teachers may share insights that are favorable to their points of view. Brannen (2017) reported that triangulating sources of data could ensure the confirmability of the findings. Lastly, data were collected only from teachers potentially contributing to sample bias given that other school stakeholders such as family members, school leaders, and students were not included in the study. The inclusion of other stakeholders may have yielded further insights into the topic.

Recommendations

To address this study's limitations, future research should use a quantitative design to corroborate and complement the current findings. With a larger, representative sample, relationships among key variables could be identified and findings could be generalized to a broader population. Second, there is a need for future scholars to consider triangulating the sources of information and data collection methods to achieve internal consistency and reduce possible sampling bias. For example, collecting data through survey questionnaires, focus group discussions, and field-note observations, and archival data such as minutes of school board meetings would provide comprehensive

information on issues that affect the Hispanic ELL achievement gap of Hispanic ELL students and inform solutions to address these challenges.

Implications

Positive Social Change

Insights from the current research have potential implications for efforts to reduce/close the achievement gap among Hispanic ELL students. The implications for practice could enhance positive social change at the levels of teaching, school leadership, and technological applications. At the teaching level, the findings indicated a need for urgent professional development in cultural diversity training to ensure that teachers have relevant skills or knowledge on how to integrate Spanish language values in the classroom to engage ELL students' involvement in the learning process. Webb and Thomas (2015) emphasized the need to motivate and provide essential support to teachers in terms of professional development, attending training, and improving their skills to ensure competency and self-efficacy when delivering instruction to Spanish students. Improving individual teaching skills through professional development programs may ensure that teachers create and implement relevant curricula while delivering instruction to ELL students, helping close the achievement gap.

At the level of school administration, insights from the interview responses revealed that teachers still experience challenges accessing relevant learning resources such as ELL textbooks and teacher guides. There is a need for schools to embrace relevant curricula and pedagogy changes by accessing ELL-related classroom resources to meet the needs of learners from diverse settings who are less proficient in the English

language. Insights from this study showed that the lack of ELL-dedicated guidelines suggest that teachers lack a standard framework for integrating English-based pedagogy and curricula to meet the needs of ELL students. Thus, considering school settings, there is a need for administrators to implement teacher-training programs that support the needs of ELL students. Also, training institutes may need to consider providing refresher courses for teachers who want to advance their current ELL skills to meet the growing needs of ELL students in the Atlanta Public School System (Atlanta Regional Commission, 2018). School administrators and districts also need to allocate additional funding for digital technology acquisition and its implementation in special schools, while also designing programs to motivate teachers to embrace the new changes in classroom technology use.

At the level of technology application, there is a need for schools to facilitate its uptake, given that most participants identified technology as critical to assisting ELL students to address the achievement gap. Thus, there is a need to advance in areas of technological applications to create suitable visuals, graphic presentations, and interpretation interfaces that teachers noted are helpful for translating English words to Spanish and Spanish terms to English. Also, improved technology may help teachers offer more structured learning to ELL students while also helping educators address communication barriers with parents who, lacking English proficiency, cannot help children with homework. Teachers and application developers need to explore suitable tools and resources relevant to technology uptake to ensure that educational resources

enhance learning and communication with the potential to improve academic performance and eliminate the achievement gap for Hispanic ELL students.

Conclusion

Findings from the participants' responses revealed that language and cultural scaffolding are widely used to assist in reducing/closing the achievement gap for Hispanic ELLs in English and math. Approaches used included giving structured instructions, sourcing, and providing learning resources, building relationships, and facilitating peer learning. Participants perceived that the use of picture libraries, modeling, peer teaching or grouping, and ensuring access to materials also facilitated instruction delivery and learning. To achieve high academic standards, participants developed diverse instruction and student modeling, promoting cultural diversity, observing and collaborating with students, and ensuring continuous engagement. Moreover, participants identified various strategies used for communication with students who are less proficient in English, including the use of gestures, visuals, translators or interpreters, student collaboration, and technology support. To engage Spanish parents who are less proficient in English, participants provided close support, helplines, Spanish translations, interpreters, and liaised with support groups in the school.

Despite these efforts, participants experienced challenges in their efforts to overcome the achievement gap between Hispanic ELL students and Native English-speaking students. These hurdles included the language barrier, inadequate knowledge about students, lack of enough time to engage with teachers, time availability, immigration problems and lack of documentation, parental illiteracy, lack of specific

student objectives or goals, and inadequate resources (Sibley & Brock, 2017). To address these concerns, participants identified various resources, skills, knowledge, professional assistance, and other forms of support that may make ELL teaching strategies more effective at reducing Hispanic ELLs' achievement gaps in English and math going forward. Participants suggested that employing effective use of technology such as visual resources, providing real-life examples and applications, promoting cultural diversity, creating blogs and communities, offering networking workshops, increasing the number of teachers, and implementing technology all have the potential to facilitate learning and eliminate the math and English achievement gap among Hispanic ELL students.

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Appendix A: Invitation to Participate

You are invited to take part in a research study to examine K-8th grade teachers' personal scaffolding strategies used with ELLs and NES students in English and math. This study is being conducted out of concern for the increasing gap between Hispanic ELLs and their NES peers in English and math. Teachers with both Hispanic ELLs and NES students in a combined classroom for 5 or more years who are willing to share the strategies they employ to reduce the achievement gap are invited to participate.

Background information: The purpose of this study is to explore the kinds of strategies K-8th grade teachers use in English and math to reduce the achievement gap between Hispanic ELLs and NES students in APS. In particular, I am interested in hearing ideas, experiences, and scaffolding strategies teachers personally practice to help Hispanic ELLs.

Appendix C: Questions for Interview

RQ1. How is language and cultural scaffolding used to assist Hispanic ELLs in English and math?

RQ2. What challenges have been experienced while trying to reduce the achievement gap for Hispanic ELLs?

RQ3. What resources, skills, knowledge, professional assistance, and other forms of support will help to improve current ELL teaching strategies, to reduce Hispanic ELLs achievement gaps in math and English in the future?

Appendix D: Interview Guide

1. How is language and cultural scaffolding used to assist Hispanic ELLs in English and math?

2. What challenges have been experienced while trying to reduce the achievement gap for Hispanic ELLs?

3. Describe some teaching strategies known to be effective in helping Hispanic ELL students?

4. What strategies can provide teachers teaching ELL Hispanic students for the first time in an inclusive classroom to reach high academic standards?

5. What strategies are used for communication when a teacher does not speak Spanish?

6. What strategies are provided for Hispanic parents who do not speak English with their children's homework assignments?

7. What strategies are used to help ELL Hispanics reach higher benchmarks on standardized tests?

8. What resources, skills, knowledge, professional assistance, and other forms of support will help make ELL teaching strategies more effective at reducing Hispanic ELLs' achievement gaps in English and math in the future?