11-14-2019

Examining the Cultural Intelligence and Perceptions of Educational Decision-Makers: Factors that Relate to Decision-Making for Culturally and Linguistically Diverse Students who may have Disabilities

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EXAMINING THE CULTURAL INTELLIGENCE AND PERCEPTIONS OF EDUCATIONAL DECISION-MAKERS: FACTORS THAT RELATE TO DECISION-MAKING FOR CULTURALLY AND LINGUISTICALLY DIVERSE STUDENTS WHO MAY HAVE DISABILITIES

A dissertation submitted in partial fulfillment of the

requirements for the degree of

DOCTOR OF EDUCATION

in

EXCEPTIONAL STUDENT EDUCATION

by

Annela Costa

2019

To: Dean Michael R. Heithaus
College of Arts, Sciences and Education

This dissertation, written by Annela Costa, and entitled Examining the Cultural Intelligence and Perceptions of Educational Decision-Makers: Factors That Relate To Decision-Making for Culturally and Linguistically Diverse Students Who May Have Disabilities, having been approved in respect to style and intellectual content, is referred to you for judgment. We have read this dissertation and recommend that it be approved

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Date of Defense: November 14, 2019

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Florida International University, 2019

DEDICATION

I dedicate this dissertation to my family whose unconditional support and motivation throughout this endeavor has meant the world to me. To my mom and dad, Tania and Omar, thank you for encouraging me to start and stay on this journey. To my siblings, Omar and Daniel, I also thank you for traveling this journey with me. I would also like to dedicate this dissertation to the students, families, and fellow professionals I have worked alongside of and who have been an invaluable source of inspiration.

Dedico esta disertación a mi familia cuyo apoyo incondicional y motivación a lo largo de este esfuerzo ha significado el mundo para mí. A mis padres, Tania y Omar, gracias por animarme a comenzar y quedarme en este viaje. A mis hermanos, Omar y Daniel, también les agradezco por su apoyo en este viaje. También me gustaría dedicar esta disertación a los estudiantes, las familias y los compañeros profesionales con los que he trabajado y que han sido una fuente de inspiración inestimable.

ACKNOWLEDGMENTS

First and foremost, I would like to recognize the members of my dissertation committee who have guided me through this journey. To my major professor, Dr. Elizabeth Cramer, thank you for your unwavering support since the start of this endeavor and for your advisement through this process. To my committee members, Dr. Joanne Sanders-Reio, Dr. Michelle Cummings, and Dr. Andy Pham, thank you for your willingness to be part of my committee and provide your guidance through this dissertation process and many times before.

I would also like to express my gratitude to one of my mentors who have provided invaluable guidance through my years at Florida International University, Dr. Philip J. Lazarus. I would further like to acknowledge the mentors I have had in the field who I have had the opportunity of working with and learning from. A special thank you to Broward County Public Schools for their continuous support and assistance.

The sum of your efforts has helped me grow as a student, researcher, and practitioner. My sincerest and most heartfelt thank you to you all.

ABSTRACT OF THE DISSERTATION

EXAMINING THE CULTURAL INTELLIGENCE AND PERCEPTIONS OF EDUCATIONAL DECISION-MAKERS: FACTORS THAT RELATE TO DECISION-MAKING FOR CULTURALLY AND LINGUISTICALLY DIVERSE STUDENTS WHO MAY HAVE DISABILITIES

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The purpose of the present study was to explore the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to pre-referral/referral and eligibility determination processes for culturally and linguistically diverse (CLD) students who may have disabilities. Participants (*n*=120) included teachers, school psychologists, and local education agents. The results revealed that individual-level factors predicted the cultural intelligence of educational decision-makers. Participants perceived factors related to pre-referral/referral processes to be more important in decision-making when compared to factors related to eligibility determination; yet, participants self-reported feeling more confident in making decisions involving eligibility determination. Finally, cultural intelligence was found to be a significant predictor of participants' reported confidence for making such decisions. In closing, the findings from this study may serve to inform special education policies and practice and improve educational decision-making regarding CLD students with diverse educational needs.

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CHAPTER I

INTRODUCTION

Culturally and Linguistically Diverse (CLD) learners are a growing population in U.S. classrooms. CLD students are characterized by diverse linguistic, cultural, ethnic, and social backgrounds and as such may present a gamut of educational needs (Bardack, 2010). Data from the National Center for Education Statistics (NCES) projected that between 2008 and 2020, elementary and secondary public school enrollment would experience increases in the percent of students who identify as Asian/Pacific Islander (36%), Hispanic (25%), American Indian/Alaska Native (17%), and Black (1%) while the enrollment of students who identify as White was projected to decrease (1%). Of these students who are considered to be culturally and linguistically diverse, 4.6 million students are also classified as English language learners who speak a language other than English and receive related English language supports thereof (Callahan, 2013; NCES, 2017).

The scholarly discourse surrounding the education of CLD students often centers on the unique needs these students present and the lack of supports and training to address these needs (Trent et al., 2014). The historical result has been the disproportionality of CLD students in special education programs. As outlined by the Individuals with Disability Act, special education involves specialized instruction and services that are appropriate and accessible to students with disabilities in the least restrictive environment and as outlined in individualized education plans (IEP; U.S. Department of Education, 2017). Disproportionality is the overrepresentation or underrepresentation of certain demographic groups (e.g., racial, ethnic, linguistic, gender,

or sexual orientation groups) in comparison to the representation of other groups in the same category (Counts, Katsiyannis, & Whitford, 2018; Ford, 2012; Skiba et al., 2008). This disproportionality has been described as the "albatross" of the field of education (Ford, 2012, p.398).

Within the last decade, students of ethnic and cultural minority groups have continued to be overrepresented in special education programs in similar proportions (Zhang, Katsiyannis, Ju, & Roberts, 2014). Predictors of this overrepresentation have included gender, socioeconomic status, ethnicity, and disciplinary suspensions (Sullivan & Bal, 2013). English language learners represent 13.8% of the special education population in the United States and are more likely to have an intellectual disability, a specific learning disability, developmental delay, or speech-language impairment (NCES, 2011; Sullivan, 2011; Zhang, et al., 2014). Hispanic and Native American students are particularly more likely to be identified as having a specific learning disability while African American students are more likely to have an intellectual, emotional-behavioral, or learning disability. African American students are also on average identified as having more co-occurring disabilities (Valenzuela, Copeland, Qi, & Park, 2006). A greater proportion of students who identify as Native American, African American, Hispanic, or who are English language learners are placed in more restrictive special education settings (i.e., separate classrooms) when compared to students who identify as White or primarily English speaking (Valenzuela et al., 2006). To note, the most prevalent disabilities students receive special education supports for include specific learning disability, speech or language impairment, and other health impairment (e.g., Attention Deficit Hyperactivity Disorder; U.S. Department of Education, 2017). Approximately

13% of students in the United States receive special education services (U.S. Department of Education, 2017).

The educational rights of students with disabilities, including students of diverse backgrounds without disabilities, was founded upon precedents set by landmark cases such *Brown v. Broad of Education* (1954), *Diana v. California State Board of Education* (1970), and *Larry P. v. Riles* (1979). Subsequent legislations (e.g., Individuals with Disabilities Education Act, 1990; 1997) have furthered the educational rights of students with disabilities and their access to a free, appropriate, and public education. Special education has evolved as a means of meeting the educational needs of students who evidence a disability through a fair, valid, and nondiscriminatory process. It is the outcome of an educational decision-making process in which a student is referred for an evaluation based upon perceived academic and behavioral needs with the objective of determining his or her need for instructional support and accommodations beyond what can be provided within the general education setting. This process involves a range of educationally-relevant decisions that stakeholders, such as teachers, school psychologists, and other professionals, make as part of a collaborative team, including referring a student for an evaluation, determining the presence of a disability, and establishing special education services.

At the forefront of this continuum, particularly as it relates to the special education process, are the professionals who engage in this discourse. Education has historically worked through a team-based approach and the use of group problem solving is not a nascent concept. One of the provisions of the initial authorization of IDEA, passed in 1975 as Public Law 94-142, was the use of multidisciplinary teams for the

evaluation and placement of students in special education (Pfeiffer, 1982; Pfeiffer & Naglieri, 1983). Multidisciplinary teams consist of education professionals working collaboratively across disciplines (e.g., special and teachers, school psychologists, local educational agents, speech language pathologists, occupation/physical therapist). In early studies, this multidisciplinary approach was shown to aid in making placement decisions for students in special education when compared to individual decision-making (e.g., Pfeiffer, 1982; Pfeiffer & Naglieri, 1983). Multidisciplinary teams led to less variability in placement decisions and greater alignment with expert recommendations regarding special education placement. Within the general education setting, Teacher Assistance Teams (TAT) were proposed by Chalfant, Pysh, and Moultrie (1979) as a teacher-led model for problem solving daily classroom concerns and providing immediate support to teachers working with students who were academically or behaviorally at-risk of being referred for special education.

Presently, students who are not able to make academic progress or attain behavioral goals with universal strategies are provided targeted or intensive research-based interventions within the general education setting through pre-referral or referral processes (e.g., Response to Intervention, Multi-Tiered System of Supports, or Collaborative Problem-Solving Teams). One of the potential outcomes of this process is referral for an evaluation to determine students' needs for special education (Hoover, 2010; Orosco & Klingner, 2010). Navigating these processes for CLD students who may have disabilities can be a complex and in part subjective endeavor (Moreno & Gaytan, 2012; Liu et al., 2008). Given the array of factors that impact the learning of CLD students, scholars in the field have brought to the forefront issues related to these pre-

referral and referral processes (e.g., Cartledge, Kea, Watson, & Oif, 2016; Cramer, 2015). The literature continues to point towards the inaccurate or delayed identification of CLD students for special education, most notably for learning disabilities, as well as the complexity of eligibility determination (Liu, Ortiz, Wilkinson, Robertson, & Kushner, 2008; Morgan, Farkas, Hillemeier, & Maczuga, 2017). Researchers have noted that this stems from a lack of understanding from education professionals on the factors that influence the achievement of CLD students; deficient referral processes; unclear identification, assessment, and instructional practices; and lacking professional development on these issues (Burr, Haas, & Ferriere, 2015; Park & Thomas; 2012; Shore & Sabatini, 2009). Stakeholders engaged in decision-making must account for additional social, cultural, and linguistic factors that can potentially affect the learning trajectories and performance outcomes of CLD students.

Research in the field has investigated factors specific to the cultural competence of education professionals including attitudes, knowledge, and skills related to CLD students (Larson & Bradshaw, 2017). Other researchers (e.g., Collins, Duyar, & Pearson, 2016) have more recently expanded this lens to include broader constructs associated with cultural competence such as cultural intelligence. Ang and Van Dyne (2015) define cultural intelligence as an "individual's capability to function and manage effectively in culturally diverse settings" (p.3). It is described as a competence needed for functioning in global or culturally diverse settings such as the increasingly diverse U.S. classroom.

Although cultural intelligence is a relatively nascent concept compared to extant theories of intelligence (e.g., Sternberg & Detterman, 1986), recent systematic reviews (e.g., Fang, Schei, & Selart, 2018; Ott & Michailova, 2018; Rockstuhl, & Van Dyne,

2018) have highlighted the expanding and multidisciplinary literature base dedicated to cultural intelligence, including its applicability to disciplines beyond business and management such as education and psychology. Unlike other constructs of cultural competence, cultural intelligence does not assess personality traits and it is not culture-specific (Van Dyne, Ang, & Koh, 2008). It is based on the multi-foci theory of intelligence and as emphasized by scholars it can be improved through cross-cultural training. Most notably, cultural intelligence can influence cultural judgment and decision-making, defined by Ang et al. (2007) as the processes involved in making decisions in culturally diverse situations, which is relevant to educational decision-making for CLD students.

Statement of the Problem

As highlighted by statistical trends and emphasized in the literature, the field of education continues to face issues related to the disproportionality of CLD students identified as having a disability and their lack of access to inclusive educational environments. CLD students are impacted by an array of factors (e.g., cultural norms, socialization, parenting styles, and expectations of behaviors across settings) that merit consideration (Ortiz, 1997). The literature indicates that these sociocultural and linguistic differences can impact development, learning, and thus educational practices. National trends in reading and math achievement have indicated that students of ethnic minority, limited English proficiency, lower socioeconomic status, or with disabilities achieve lower in reading and math when compared to their counterparts (Hale et al., 2004). This inequity is reflected in the high dropout rates experienced by students in these respective groups (Callahan, 2013; Stark & Noel, 2015).

According to Ortiz (1997), at the school-level, the source of academic challenges faced by CLD students often stems from lack of effective instruction. Gaps are still present with regard to the cultural responsiveness of education professionals working with students of CLD backgrounds (Cartledge et al., 2016; Cramer, 2015). The extant gaps in the literature have been accentuated with the increase of students of CLD backgrounds represented in U.S. schools, particularly those in urban communities with the greatest CLD representation (Cramer, 2015). Research on the narrative of diversity in schools have explored factors such as culturally responsive pedagogy and cultural competence. Recent studies (e.g., Collins et al., 2016) have broadened the avenues of research on diversity in education by examining broader constructs such as cultural intelligence. Despite its applicability to education, cultural intelligence within this field is promising yet still in need of further development. The extant literature further indicates a need to expand the application of cultural intelligence in the U.S., especially with practicing education professionals engaging in various roles in the educational decision-making process. This study purports to investigate the cultural intelligence of educational decision-makers and their perceptions of educational decision-making for CLD students who may have disabilities.

Purpose Statement

Decades of discourse continue to point toward disproportionality in the identification, placement, and outcomes of children and youth from CLD backgrounds. There is a notable consensus in the literature on the unique needs of CLD students and the impact on their education. There is also an ever-growing research base that points toward barriers and challenges that affect educational decision-making for CLD students,

including both individual and systemic factors. Although advocates and scholars in the field have made considerable strides towards improving the educational outcomes of CLD students, including students with disabilities, there are still avenues of research that warrant further investigation.

In turn, this study purported to explore the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making for CLD students who may have disabilities. This includes stakeholders who engage in educational decision-making in varying capacities including teachers, school psychologists, and local education agents. This consisted of an examination of individual-level factors that may potentially predict the cultural intelligence of educational decision-makers, individual professional experiences (i.e., type of professional role, educator certification, years of experience in education, and amount of professional development on CLD topics) and demographic factors (i.e., ethnicity/race, gender, multilingual skills). This study further explored the perceptions of educational decision-makers regarding the importance of factors that relate to educational decision-making such as in pre-referral/referral processes and eligibility determination. The hopes of this study are to expand upon the literature on cultural intelligence within the educational arena in order to provide a more comprehensive understanding of the factors that relate to the educational decision-making of CLD students who may have disabilities.

Research Questions and Hypothesis

This study explores factors related to the cultural intelligence and perceptions of educational decision-makers regarding CLD students who may have disabilities. The research questions and hypothesis are as follows:

1. To what extent do individual-level factors predict the cultural intelligence of educational decision-makers?
    a. Do individual demographic factors (i.e., ethnicity/race, gender, multilingual skills, intercultural experiences) predict the cultural intelligence of educational decision-makers?
    b. Do individual professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) predict the cultural intelligence of educational decision-makers?
2. How do educational decision-makers perceive factors that relate to educational decision-making processes for CLD students who may have disabilities?
3. Is there a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities?

As Earley and Ang (2003) state, cultural intelligence can be impacted by individual differences such as personal values and prior learning. In tandem with the conceptual framework and literature reviewed (e.g., Collins et al., 2016; Crowne, 2013; Cui, 2016), for the first research question, it was hypothesized that individual-level factors including professional experiences and demographic factors would predict the cultural intelligence

of educational decision-makers. The literature also indicates that educational decision-making regarding students of CLD backgrounds with suspected disabilities can be impacted by school-level factors as well as individual-level factors related to the competence of educational professionals (e.g., Burr et al., 2015; Flores & Smith, 2008; Greenfield, 2016; Park & Thomas; 2012; Shore & Sabatini, 2009; Cardona-Moltó et al., 2017). For the second research question, it was hypothesized that educational decision-makers would have different perceptions of the factors that have been identified in the literature as influencing the educational decision-making processes for CLD students with suspected disabilities. The literature further suggests that cultural competence carries implications for educational decision-making for CLD students with suspected disabilities and can influence the perceptions held by educational professionals (e.g., Dunn, 2006; Greenfield, 2016; Mahatmya et al., 2016). Thus, for the third research question, it was hypothesized that there would be a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities.

Theoretical and Conceptual Framework

The theoretical and conceptual framework for this study draws upon various theories and models in education and psychology. Given the focus of this study on CLD students, constructivism, particularly as it relates to Vygotsky's sociocultural theory, provides a foundation for understanding the learning needs of CLD students and how social, cultural, and linguistic variables can influence educational decision-making processes. Constructivism is a school of thought in which learners construct their own

learning experiences. It focuses on cognitive development, active learning, and acquisition of a deeper understanding (Fosnot & Perry, 1996). Constructivists view learning as an active and complex endeavor. Among theorists associated with this constructivist approach, Vygotsky's sociocultural theory emphasizes the interplay between social, cultural, and individual factors in development and learning (Fosnot & Perry, 1996). This theory has been previously used a means for understanding professional development in special education (e.g., Valenzuela, Connery, & Musanti, 2000) as well as factors related to CLD students (e.g., Bylund, 2011).

Sociocultural factors provide context to development, which is viewed as a dynamic process influenced by interconnected factors (John-Steiner & Mahn, 1996; Mahn, 1999). As cited in John-Steiner and Mahn, Vygotsky's sociocultural theory emphasizes three main principles: the role of social experiences in development, the semiotic mediation of social experiences such as through language, and the use of genetic analysis. Vygotsky posited that children initially develop culture and meaning within the social context (i.e., interpersonal). These experiences then become internalized processes within the child (i.e., intrapersonal; John-Steiner & Mahn, 1996; Mahn, 1999). Semiotic mediation in social cultural theory is defined as the use of symbols, such as language, to aid in this internalization of culture.

Vygotsky's theory also shaped the assessment and instruction of students, particularly students with disabilities. Vygotsky emphasized that disabilities are not just physical impairments but also social constraints that require education professionals to support students holistically rather than unilaterally (Gindis, 1999). Vygotsky's theory places the emphasis in instruction not only on addressing the physical limitations of a

disability but also the impact of these limitations on interpersonal and intrapersonal development. Vygotsky advocated a whole-child approach in which all aspects of a child's development and lack thereof is explored. Thus, in the Vygotskian perspective, learning is a shared, collaborative effort that occurs in a socially responsive environment (Mahn, 1999). According to Vygotsky, learning is not confined to what is learned formally in school; students' learning in school has a prior history (Mahn, 1999). The zone of proximal development exemplifies this concept. According to Vygotsky (1978), the zone of proximal development encapsulates emergent skills that a child has not yet developed. With the proper assistance, or scaffolds, these skills emerge and become those that the child can perform independently. The zone refers to the distance between a child's actual independent skill development and the degree of potential development when supported by adults or peers. Vygotsky (1978) emphasizes that the skills that children are developing are as important to understanding learning as the skills that have already developed.

In tandem with this dynamic perspective on development, Vygotsky also pioneered the concept of dynamic assessment. In his work, he illustrated how the true abilities of students could be underrepresented when administered a single assessment (Gindis, 1999). Vygotsky illustrated the case of a CLD student whose true abilities were underrepresented given her underdeveloped language skills and lacking social-cultural knowledge. The assessment of students should thus focus on understanding how they process information and include qualitative observations of how they approach and react to a task. As described by Gindis (1999), current applications of Vygotsky's ideas of dynamic assessment follow a test-intervene-retest model wherein the student's skills are

initially assessed, the student is instructed, and progress is evaluated. The emphasis is placed on understanding how students learn.

Building from this foundation, this study draws upon the multi-foci theory of intelligence as it relates to cultural intelligence. This theory posits that intelligence is a multidimensional construct focused across several dimensions within the individual, the environment, and the interaction of the individual with the environment (Sternberg & Detterman, 1986). Specifically, Sternberg posited that within the individual, intelligence is understood across three levels: biological, molar, and behavioral. The biological level is concerned with aspects such as genetics, brain structure, and neurological processes. The molar level views intelligence in terms of cognition, metacognition, and motivation. The behavioral level is concerned with the behaviors an individual engages in. The locus of intelligence in the environment involves the cultural norms and societal expectations governing intelligence, such as how this construct is assessed and valued in the society. In the multi-foci framework, the interaction between an individual and the environment is also significant since individuals function within the context of the environment and respond to varying expectations and demands driven by environmental factors such as culture and society. A person's intelligence, according to Sternberg, may vary as these environmental contexts change. Thus, Sternberg defines intelligence as "mental abilities necessary for adaptation to, as well as shaping and selection of, any environmental context" (Sternberg, 1997, p. 1030).

Cultural intelligence is framed within this multi-foci theory of intelligence. The construct of cultural intelligence was conceptualized by Earley and Ang (2003) to understand the phenomenon of how certain individuals adapt easier to new cultures than

others. Cultural intelligence is how individuals are able to effectively adapt to and respond in culturally diverse situations that differ from their own cultural background. In tandem with the work by other scholars in the field, cultural intelligence was conceptualized as a type of intelligence that is domain-specific. It is considered a universal construct of intelligence specifically related to cultural exchanges. It is viewed as distinct from broad cognitive capabilities (e.g., "g") and other domain-specific constructs of intelligence (e.g., emotional intelligence, social intelligence, practical intelligence; Ang et al., 2007; Earley & Ang, 2003).

Earley and Ang (2003) describe four dimensions of cultural intelligence: metacognitive, cognitive, motivational, and behavioral dimensions. These dimensions are viewed as distinct yet summative capabilities that yield an overall cultural intelligence (Ang et al., 2007; Ang & Van Dyne, 2015). Metacognitive cultural intelligence includes the higher-order mental processes involved in an individual's awareness of his or her cultural knowledge when engaged in culturally diverse interactions (Ang & Van Dyne, 2015; Van et al., 2007). Accordingly, individuals with high metacognitive cultural intelligence engaged in a cultural exchange will actively observe the situation, reflect upon their cultural knowledge, and adjust their assumptions. For example, when engaging a parent from a culturally diverse background, an educator with high metacognitive intelligence may be reflecting upon her knowledge about the parent's culture and considering the most appropriate style of communication. Cognitive cultural intelligence refers to the extent of an individual's cultural knowledge. This encompasses an individual's knowledge of cultural values and systems as well as an understanding of cultural differences and common features shared across cultures such as basic needs. This

may encompass, for example, knowledge of educational systems, parenting styles, and views on disabilities in other cultures. The motivational dimension of cultural intelligence involves an individual's drive to expand his or her knowledge of and engage in culturally diverse situations. Thus, an individual with high motivational cultural intelligence may be more driven to learn about cultural diversity, seek opportunities for intercultural interactions, or engage in professional development. As described in Ang and Van Dyne, an individual's personal interest and perceived confidence in culturally diverse situations contribute to this dimension of cultural intelligence. For example, an educator with high motivational cultural intelligence may be more likely to seek training related to culturally responsive instructional practices or consult with a school-based professional with specialization in English for Speakers of Other Languages (ESOL). The behavioral dimension of cultural intelligence involves an individual's ability to demonstrate verbal and nonverbal behaviors that are considered to be appropriate in a given cultural situation. Earley and Ang note that an individual may have metacognitive, cognitive, and motivational cultural intelligence, yet their overall cultural intelligence is not achieved unless they can demonstrate appropriate behaviors. Thus, an education professional with behavioral cultural intelligence would evidence their competence through culturally responsive instructional practices or interactions with students and families.

Sociocultural theory and the multi-foci theory of intelligence provide a conceptual framework through which to view how the learning needs of CLD students can influence educational processes and the competence of education professionals for functioning and adapting to these diverse needs. These theories intersect on the interplay of the individual with the environment, including sociocultural contexts, and thus contribute to a holistic

understanding of the factors being explored related to the educational decision-making for CLD students who may have disabilities. Exploring these differences though broad constructs such as cultural intelligence is of importance as it provides a premise for understanding how school-based professionals act as agents in their respective fields. The relevance of Vygotsky's sociocultural theory is also two-fold. The emphasis on the interconnectedness of social, cultural, and individual factors of sociocultural theory aid in understanding the interplay of factors that influence the educational needs of CLD students and decisions made thereof. Vygotsky's work further supports the role of special education and the need to assess and instruct students with disabilities in a culturally responsive, holistic, and dynamic manner. The multi-foci theory of intelligence, specifically as it relates to cultural intelligence, states that intelligence is multi-dimensional and involves the individual, the environment, and the interaction between the individual and the environment. Cultural intelligence is understood within these multiple dimensions and seeks to explain why certain individuals can adapt to cultural demands more effectively than others. Thus, within the realm of education, these theories may serve to understand differences in the cultural competence of education professionals as they adapt to the varying educational needs of CLD students and engage in cultural judgement and decision-making. This may in turn impact the outcomes for students, including school performance, educational attainment, and identification and placement in special education. The conceptual framework for this study is illustrated in Figure 1.

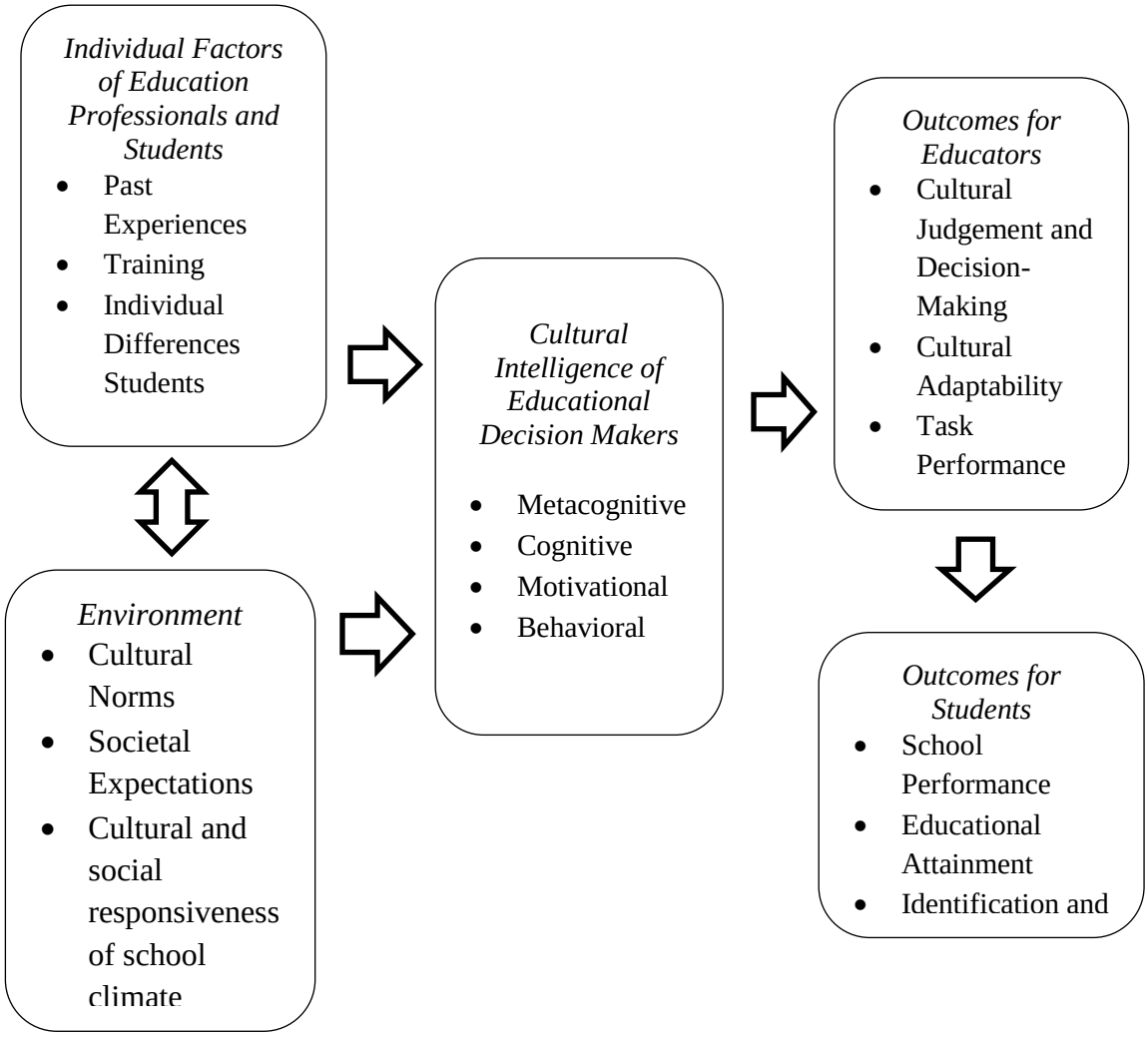

Figure 1. Conceptual Framework (Adapted from Ang & Van Dyne, 2008).

Significance of the Study

In brief, the literature points toward student-level and professional-level factors that can impact educational outcomes and processes for CLD students (Hoover & deBettencourt, 2018). The findings from this study may serve to provide a more comprehensive understanding of the factors that relate to educational decision-making regarding CLD students who may have disabilities as well as expand upon the literature on cultural intelligence. The literature highlights the saliency of developing culturally

competent practices and exploring factors such as cultural intelligence that may provide insight into the decisions stakeholders make regarding CLD students who may have disabilities. These decisions can ultimately affect identification and placement in special education and the educational outcomes of CLD students. Thus, this study may carry implications for special education and related fields and may potentially impact educational practices and student outcomes, including school performance, educational attainment, and identification and placement in special education. Considerations of these findings may ultimately impact the educational opportunities available to CLD students, which may serve to address the disproportionality and achievement gaps highlighted in the literature.

Definition of Terms

Culture

A group's shared behaviors, customs, beliefs, and expectations that may differ from the mainstream culture (Chamberlin, 2005).

Cultural Competence

Larson and Bradshaw (2017) broadly define cultural competence as the "attitudes and skills practitioners need to effectively work with diverse populations" (p.100).

Cultural Intelligence

An "individual's capability to function and manage effectively in culturally diverse settings" (Ang & Van Dyne, 2015, p.3).

Culturally and Linguistically Diverse (CLD)

Individuals who are characterized by diverse linguistic, cultural, ethnic, and social backgrounds (Bardack, 2010).

Cultural Responsiveness

"A pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (Ladson-Billings, 1992, p.386).

Disproportionality

The overrepresentation or underrepresentation of certain demographic groups (e.g., racial, ethnic, linguistic, gender, or sexual orientation groups) in comparison to the representation of other groups in the same category (Counts et al., 2018; Ford, 2012; Skiba et al., 2008).

English Language Learners

Individuals who speak a language other than English and who may receive related English language supports in an educational setting (Callahan, 2013).

Individuals with Disabilities Education Act (IDEA)

Federal special education law that enforces the principles of appropriate education for students with disabilities, individualized instruction, least restrictive placement, nondiscriminatory assessment, parent involvement, and channels for due process (U.S. Department of Education, 2017).

Multi-foci Theory of Intelligence

Theoretical framework that views intelligence as a multidimensional construct focused across several dimensions within the individual, the environment, and the interaction of the individual with the environment (Sternberg & Detterman, 1986).

Response to Intervention (RTI)

A school-wide, systemic approach for providing students with tiered, research-based academic and behavioral interventions within the general education setting (Björn, Aro, Koponen, Fuchs, & Fuchs, 2016; Hoover, 2010).

Sociocultural Theory

Theoretical perspective that emphasizes the interplay between social, cultural, and individual factors in development and learning that are viewed a dynamic process (John-Steiner & Mahn, 1996; Mahn, 1999).

Special Education

Specialized instruction and services that are appropriate and accessible to students with disabilities in the least restrictive environment and as outlined in individualized education plans (IEP; U.S. Department of Education, 2017).

Summary

This chapter introduced the present study, including the problem statement, the purpose of the study, and the research questions. The conceptual framework and the significance of the study was further discussed. A definition of relevant terms was also included. In turn, Chapter 2 involves a review of the literature pertaining to factors that relate to educational decision-making for CLD students, including the construct of cultural intelligence. Chapter 3 delineates the methods that were used to conduct the

study. Chapter 4 outlines the results of the analysis and Chapter 5 discusses these findings in light of its implications for research, theory, and practice.

CHAPTER II

REVIEW OF THE LITERATURE

In this section, the researcher reviews the relevant literature on CLD students and factors related to educational decision-makers. Initially, the researcher provides an overview of the educational decision-making process as it relates CLD students. This review is two-fold as it addresses relevant factors related to the learner and the educational professional engaging in educational decision-making. The social, cultural, and linguistic differences among CLD students are explored in relation to the impact on development, learning, and thus educational processes. The literature is then reviewed regarding the cultural competence of educational decision-makers, including attitudes, knowledge, and skills. In this discussion, the researcher focuses on the construct of cultural intelligence with an emphasis on its application to the educational arena.

Sociocultural Considerations in Special Education Decision-Making

Although stakeholders report improved performance for students through school-based processes involving multidisciplinary decision-making (e.g., RTI), common barriers to these successful outcomes include lack of time, resources, training, administrative support, understanding of the purpose of pre-referral models, and clear guidelines for implementation as well as deficient team processes and complex social dynamics (Avant & Swerdlik, 2016; Castro-Villarreal, Rodriguez, & Moore, 2014; Fan et al., 2016; Meyer & Behar-Horenstein, 2015; Nellis, 2012). Printy and Williams (2015) found that integrated school-based teams, for example, provided intervention trainings to teachers, promoted trust among collaborators, and shared leadership between administrators and educators. In contrast, disintegrated teams lacked in collaborative

problem solving among general and special education teachers and the team did not share a common view on the purpose of pre-referral processes. Administrative pressures to qualify students despite disagreement from school-based team members has also been reported by Cavendish, Harry, Menda, Espinosa, and Mahotiere (2016). Klingner and Harry (2006) further identified differences in the level of authority held by various team members, variability in when these members were included in the decision-making process, and extent of parental involvement in decision-making. School psychologists in the study, for example, were included once the team had predetermined the need for a possible referral for special education rather than earlier on to aid in intervention planning. Other stakeholders such as special and teachers were frequently seen as part of the pre-referral process, yet other members such as school psychologists self-reported not feeling integrally part of the team (Little, 2013). Fan, Bocanegra, Ding, and Neill (2016) further found that educational professionals perceived that other members of these multidisciplinary teams lacked training.

When narrowing the scope to educational decision-making and students of diverse backgrounds who may have disabilities, the literature points toward student-level and professional-level factors that can impact educational outcomes and processes for CLD students (Hoover & deBettencourt, 2018). Barriers to the proper identification of CLD students for special education include lack of collaboration in pre-referral efforts such as RTI; inadequate instructional, assessment, and progress monitoring supports in the general education classroom; limited availability of intervention programs and resources; lack of training among professionals involved in this process as well as differing views on when to refer students; unclear policies on eligibility determination; and lack of

students' educational records (Klingner et al., 2005; Sanchez, Parker, Akbayin, & McTigue, 2010). As Hoover and deBettencourt note, educational professionals need training in both CLD factors as well as its interplay in special education processes in order to address the growing population of CLD students and be able to identify unnecessary referrals and placement in special education programs.

Navigating the educational decision-making processes of CLD students for potential special education placement can be a complex endeavor (Liu et al., 2008). Overton, Fielding, and Simonson (2004), for example, explored how assessment specialists made eligibility decisions when given case studies to analyze that involved the evaluation of a CLD student experiencing academic underachievement. The results indicated that assessment specialists frequently acknowledged the need for more information yet made eligibility decisions irrespective of this lack of information. Qualitative analysis revealed that participants made such decisions due to concerns with standardized testing and pressure from administrative personnel. Moreover, eligibility was determined most often when the case study did not depict a student who was bilingual or non-English dominant and when there was a distinct discrepancy between the student's intellectual functioning and measured academic achievement. When information was provided that indicated that the student was an English language learner, the student was found to be not eligible for special education given the information provided. These decisions were impacted by the experience participants had with assessments.

The concept of culturally responsive educational practices is not a nascent concept in the field of education. Ladson-Billings (1992) coined culturally relevant

pedagogy as “a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (p.386). Gay (2002a) defines culturally responsive teaching as the use of “cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively” (p. 106). In other words, scholars such as Ladson-Billings (1992) and Gay (2002a) have postulated that student learning is facilitated when instructional practices and materials are relevant to their cultural and linguistic background and promote their cultural identities. To develop culturally relevant practices, education professionals must acquire knowledge of diverse cultures including similarities and differences between cultures; transform that knowledge into curricular materials and instruction; engage in effective cross-cultural communication; and promote positive learning environments (Gay, 2002a).

Culturally responsive educational practices have been discussed in light of the disproportionality in special education (Gay, 2002b). Various scholars in the field (e.g., Brown & Doolittle, 2008; DePry & Cheesman, 2010; Drame & Xu, 2008; Harris-Murri, King, & Rostenberg, 2006; Klingner et al., 2005; Klingner & Edwards, 2006; Montalvo, Combes, & Kea, 2014) have proposed culturally responsive models that are framed within a sociocultural lens to address this disproportionality. This calls for stakeholders to examine trends in the referral of students to special education, evaluate the school climate for CLD students, and encourage parental involvement. Students’ needs should be evaluated and include consideration of background variables such as second language proficiency. Stakeholders must further evaluate the appropriateness of instruction provided to CLD students, promote reflection of the cultural responsiveness of teacher

practices, and develop culturally responsive practices that connect classroom instruction to students' sociocultural backgrounds. Beasley, Gartin, Lincoln, and Penner-Williams (2013) found that teachers reported students of diverse backgrounds or limited English proficiency as having the greatest influence on classroom instruction.

In turn, the literature highlights themes in educational decision-making practices for CLD students, particularly related to special education. This encompasses the consideration of the sociocultural needs of students as well as the competence of educational professionals. The literature points toward a lack of training on pre-referral, referral, and eligibility determination processes related to CLD students as well as an overall lack of competence regarding the needs of such learners with diverse backgrounds.

The CLD Learner in the Educational Decision-Making Processes

The literature on CLD students highlights the breadth of interconnected factors that can impact the performance and behaviors of students from diverse backgrounds. As posited by sociocultural theory, learning and development are impacted by an array of interconnected social, cultural, and individual factors (Fosnot & Perry, 1996). Learners who are from diverse backgrounds may present with unique sociocultural and linguistic characteristics that can impact educational outcomes. This may include information regarding cultural norms, socialization, parenting styles, and expectations of behaviors across settings (Ortiz, 1997). As Vygotsky states, a student's current learning has a prior history that extends beyond the context of school (Mahn, 1999)

Sociocultural Influences

Culture is defined as a "group's preferred way of understanding and interacting" (Chamberlin, 2005, p.197). It encompasses behaviors, customs, beliefs, and expectations that may differ from the mainstream culture. As Cartledge and Kourea (2008) explain, there are often differences between students' cultural backgrounds and that of educational professionals, which may cause a discrepancy in the expected and actual performance. For example, a student's lack of participation in the classroom may be perceived as a learning disability or limited self-care skills may be considered an intellectual disability rather than cultural mores. Views on what constitutes a disability is also influenced by culture, which can affect how diverse families perceive a behavior and the school's response to this behavior (Hoover & deBettencourt, 2018). Culture may also influence individuals' learning preferences (Joy & Kolb, 2009).

Distress stemming from perceived discrimination, particularly within the school setting, has also been reported by students of various racial and ethnic backgrounds (Fisher, Wallace, & Fenton, 2000). Perceived institutional discrimination (e.g., at businesses) is also more frequently reported by students from Hispanic or African American backgrounds (Fisher et al., 2000). Youngsters from immigrant minority families may also experience discrimination as well as acculturative stress regardless of age (Kulis, Marsiglia, & Nieri, 2009; Suarez-Morales & Lopez, 2009). Acculturative stress occurs when individuals must adjust to a mainstream culture that is distinct from their own (Suarez-Morales & Lopez, 2009). Suarez-Morales and Lopez found that acculturative stress in preadolescent Hispanic immigrants was associated with symptoms of anxiety such as difficulty concentrating, feeling worried, and being concerned with

issues of discrimination. Such stress has also been shown to be positively correlated with substance use and acceptance by Hispanic youth (e.g., Kulis et al., 2009) as well as symptoms of depression and anxiety among African American youth (e.g., Gaylord-Harden & Cunningham, 2009). These sociocultural influences and stressors can potentially impact the learning trajectories of CLD students and educational decisions made thereof.

Second Language Considerations

The process of acquiring English as a second language can also affect the performance of CLD students (Shore & Sabatini, 2009). English language learners demonstrate lower levels of reading comprehension when compared to native-English speakers and may lag in their vocabulary repertoire, particularly when entering U.S. schools at later grades (Carlo et al., 2009; Farnia & Geva, 2013). According to the model postulated by Cummins (1981), English language learners acquire Basic Interpersonal Communication Skills (BICS), or language used in everyday interpersonal exchanges, relatively early in the second language learning process. Cognitive Academic Language Proficiency (CALP), which is closely related to literacy and needed for academic performance, requires five to seven years to develop. An English language learner who evidences well-developed interpersonal communication skills in conversation, for example, may not necessarily have the repertoire needed to manage the language demands of learning tasks. While learning difficulties may be confounded with this second language process, Samson and Lesaux (2009) explain that educators may, in part, delay in referring English language learners with suspected disabilities for special education evaluation due to students' perceived English proficiency. Distinguishing

between second-language proficiency and social communication deficits can also affect the identification of students with disabilities such as Autism Spectrum Disorder (ASD; Dennison, Hall, Leal, & Madres, 2018).

Primary and secondary language acquisition are distinct yet interconnected processes that can be influenced by the extent and quality of the language exposure students receive at home (Winsler et al., 2014). Homes with English-only and dual-language exposure typically experience higher parental education levels, income, and English proficiency. In general, a student's linguistic background and home language are formative aspects of his or her early development and future academic outcomes (Branum-Martin, Mehta, Carlson, Francis, & Goldenberg, 2014). Increased exposure to English in the home has been associated with higher levels of English vocabulary (Mancilla-Martinez & Lesaux, 2011); mastery of higher-Lexile texts (Palacios & Kibler, 2016); and the narrowing gap in reading achievement of English language learners as they are exposed to English language at home (Jang, Dunlop, Wagner, Kim, & Gu, 2013).

Prior educational experiences and temporal factors related to second language acquisition can also influence performance in the classroom. The grade in which English language learners demonstrate proficiency in English has been shown to influence their performance in reading and math as well as their rate of progress through the primary and secondary grades (Halle, Hair, Wandner, McNamara, & Chien, 2012). Kindergarteners who entered school being English proficient demonstrated similar reading levels as native English speakers when compared to students who gained proficiency in English in 1st grade. Reading performance of English language learners evidenced a steady growth,

albeit still below that of native English speakers (Halle et al., 2012). Lower math skills were also found regardless of the timing of English proficiency when compared to the math performance of native English speakers, yet only English language learners with earlier proficiency demonstrated steady growth in math achievement (Halle et al., 2012). Earlier English language proficiency was also associated with fewer endorsements of externalizing behaviors in Halle et al.

According to Shrifrer, Muller, and Callahan (2011), students who received schooling in the United States since early primary grades were more likely to be identified as having a learning disability than students who entered the educational system in the secondary grades. Shrifrer et al. explain that this difference could be due to educational professionals more readily attributing academic difficulties to students' limited English proficiency rather than a learning disability when they have had less schooling in English. Grade-level trends have also been found in the referral of English language learners to special education. In a study using data from the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K), Samson and Lesaux (2009) found that students who spoke a language other than English in the home were less likely to be referred to special education in kindergarten and first grade; yet, by third grade, these students were both delayed in being referred and then overrepresented in special education programs when compared to students who were primarily English speaking. Special education placement in Samson and Lesaux was predicted by reading proficiency and teacher ratings of language and literacy skills in kindergarten. This relationship was stronger than when predicting special education placement solely on having an ESOL status. Moreover, Samson and Lesaux found that English language learners identified as

having a disability and receiving special education services were more closely reflected the characteristics of other students with disabilities who were primarily English speaking.

Impact on Educational Outcomes

The connection between the characteristics of CLD students and educational outcomes and processes is illustrated in the study conducted by Shrifrer et al. (2011) using data from the Education Longitudinal Study (ELS). The researchers explored the relationship between variables related to CLD students and identification for a learning disability. Variables positively correlated with identification of CLD students included being a male, having a history of school retention, and prior participation in early intervention programs (e.g., Head Start). When controlling for gender, race was significantly predictive of identification for a learning disability as it related to students of African American or Hispanic backgrounds; when controlling for socio-economic status (SES) this difference was nonsignificant. Current or past identification as an English language learner was also significantly predictive of a learning disability. Unlike the relationship between race and socioeconomic status, however, controlling for this latter variable did not decrease the chances of an English language learner being identified as having a learning disability. Likewise, Cooc (2018) also used data from Educational Longitudinal Study (ELS) to explore reasons educators disagreed about whether secondary students evidenced a disability. Disagreement was most often reported for cases involving students who were male, African American, and of lower socioeconomic status as well as students with current IEPs. Teachers were also more

likely to disagree when there were differences in students' disruptive behaviors and level of attention across settings.

The Educational Professional in CLD Decision-Making Processes

Cultural Competence and Special Education

Larson and Bradshaw (2017) broadly define the cultural competence of educational professionals, including educators and school-based mental health professionals, as the "attitudes and skills practitioners need to effectively work with diverse populations" (p.100). In a systematic review of the literature, Larson and Bradshaw noted that research on cultural competence, particularly in instrument development, has been most prominent in the general field of mental health, including the practice of school-based mental health professionals such as school psychologists (e.g., Lopez & Bursztyn, 2013) and school counselors (e.g., Nelson, Bustamante, Wilson, and Onwuegbuzie, 2008). Yet, cultural competence has become an expanding area of interest in education and has been explored in relation to multilingual skills, study abroad or immersion programs, and cross-cultural interactions (e.g., Landa, Odòna-Holm, & Shi, 2017; Lopes-Murphy & Murphy, 2016).

Sue and Sue (2012) provide a framework for understanding cultural competence. Although developed around the practice of mental health professionals, this framework has been used to explore cultural competence in education (e.g., Sarraj, Carter, & Burley, 2015). Sue and Sue identify three dimensions of cultural competence: awareness, knowledge, and skills. Awareness involves an introspective reflection of an individual's values, beliefs, attitudes, and biases. Practitioners also need practical knowledge of different cultures and how these shared beliefs, values, and customs impact an

individual's life. Finally, a culturally competent practitioner translates this knowledge into skills, including the ability to align services and treatment goals with an individual's culture.

Awareness. Classroom teachers are often the primary source of referrals for special education (Harry & Klingner, 2014; Klingner & Harry, 2006). The values, beliefs, attitudes, and biases held by education professionals as well as the confounding of disability with diversity has been historically discussed in relation to culturally responsive practices and the disproportionality of CLD students in special education (Gay, 2002b). The reasoning for referring a student to special education has included teachers' perceptions of whether students can apply the academic skills they are taught; teacher observations of students' presentation, attitudes, and interactions; students' inability to complete tasks independently and need for additional teacher assistance; and behaviors such as being easily distracted, getting off task, or struggling to sustain attention (Dunn, 2006). Dunn concludes that referrals for special education are in part based on the preconceived ideas teachers hold about how special education students might behave or learn. Gay (2002b) further described the confounding of diversity and disability as stemming from a cultural incongruity, wherein the standards of acceptable behavior differ across the home and school environments of CLD students. In a review of the literature, Chu (2011a) found that students' characteristics influenced decisions regarding referrals through a deficit thinking model, which posits that student's performance is due to factors related to the student (e.g., limited English proficiency, lack of parent support, limited cultural experiences) rather than external factors related to the school (e.g., lack of culturally responsive teaching, negative school climate). Educators

may be more likely to relate students' difficulties to sociocultural factors (Cavendish et al., 2016); make assumptions about students and their families (e.g., assuming families also had limited English; Greenfield, 2013); and implement RTI programs based on a deficit model (Orosco & Klingner, 2010). International studies in particular have indicated that educators' perceptions can also be influenced by students' disability status (e.g., Vialle & Woodcock, 2011; Woodcock & Vialle, 2010) and immigrant background (e.g., Froehlich, Martiny, Deaux, & Mok, 2016).

Teacher attitudes, as measured by the Language Attitudes Teacher Survey (LATS), and past coursework has also been shown to influence their knowledge of practices and processes involved in language diversity and special education, respectively (Greenfield, 2016). Greenfield found that teachers reported understanding the special education process overall, yet they identified a need for additional development in applying the process to linguistically diverse students. Vazquez-Montilla, Just, and Triscari (2014) also used the LATS to explore the attitudes and beliefs of in-service and pre-service teachers towards teaching CLD students. Although respondents expressed positive views regarding the rights of CLD students, the majority of the responses indicated that teachers did not agree on instructional modifications to address CLD needs and viewed having a student with limited English proficiency as impacting the learning of other students.

Teachers with training in diversity issues, interactions with English language learners in their classrooms, and at least some proficiency in students' native language have reported more positive views about language diversity as a whole (Flores & Smith, 2008). Chiner, Cardona-Molto, and Puerta (2015) used the Personal Beliefs about

Diversity Scale and the Professional Beliefs about Diversity Scale to explore factors related to the beliefs of elementary school teachers in Spain. The researchers found that teachers expressed high sensitivity toward diversity issues as a whole both in personal and professional capacities. However, teachers in the study reported less sensitivity with issues related to cultural, linguistic, and social diversity in a professional role when compared to their personal beliefs about diversity. Cardona-Moltó, Rao, Chiner, and Soffer (2017) explored the cultural competence of teachers in an intercultural study in the U.S. and Spain. Participants self-reported high levels of acceptance towards student diversity, namely in the areas of culture and disability. Grade-level analysis indicated that elementary level teachers held more positive attitudes, particularly in the areas of cultural and behavioral diversity, when compared to secondary teachers. Despite the overwhelming positive attitudes reported by teachers across countries, Cardona-Moltó et al. found that the level of cultural competence reported by teachers was more variable. Participants reported lacking training and competence in addressing the instructional needs of diverse students.

Mahatmya, Lohman, Brown, and Conway-Turner (2016) used data from a longitudinal study on families in urban and low socioeconomic communities to explore variables affecting teachers' perception of students' educational attainment, including teachers' cultural awareness, teacher and student perceptions of school connectedness, and student race. When comparing teachers' perception about the educational attainment of students of various minority groups, teachers reported lower academic expectations for Hispanic students when compared to African American students. Teachers reported lower educational attainment for students whom they perceived as being less connected to the

school irrespective of students' self-perceptions of school connectedness. Teachers' cultural awareness lessened the association between perceived school connectedness and academic expectations for African American students yet not for Hispanic students. Such expectations, or lack thereof, may potentially impact the learning trajectories of students and their progress in pre-referral and referral processes that can lead to evaluation and eligibility determination for special education services.

Attitudes and beliefs toward learning English as a second language has also been explored in the literature. English proficiency has been viewed as being synonymous to students' use of social language (Cavendish et al., 2016). Thus, the level of conversational English is mistakenly believed to be indicative of students' academic achievement. If a student has high conversational proficiency yet is underperforming academically, the discrepancy is assumed to be a result of a learning disability. English-language learning has also been reported by educators as an educational priority for English language learners, with academic content as secondary in comparison (Vazquez-Montilla et al., 2014). Education professionals also reported misunderstanding the distinction between limited English proficiency and low cognitive processing, that is, that a lack of understanding due to second language acquisition does not necessarily indicate a low intellectual ability. This misunderstanding is relatable to the statistics and trends that indicate an overrepresentation of CLD students in certain lower incidence disabilities.

Likewise, teachers' perceptions of CLD students has been shown to influence educational placement. Riley (2015) conducted a qualitative study of secondary teachers' educational recommendations when given information about the academic achievement,

cultural background, and language proficiency of students depicted in hypothetical scenarios. Participants' responses revealed overreaching themes of bias towards students of diverse cultural or linguistic backgrounds when controlling for academic achievement. Students of diverse backgrounds were more likely to be recommended for placement in a lower achieving classroom despite their academic achievement. Moreover, participants were more likely to note a need for additional information related to students' family and social background when students were of diverse backgrounds. Participants viewed these factors as important determinants of student placement beyond academic achievement. Fish (2016) also found differences in the referral of students for evaluation based on race/ethnicity and referral concern. Students who were identified in vignettes as being white and having academic problems were more likely to be referred for an evaluation than black or Hispanic students with similar concerns. When the vignettes portrayed black or Hispanic students with behavioral problems, these students were more likely to be referred than the former.

Overall, the literature on educators' awareness towards culture and diversity, including their attitudes and beliefs, is dichotomous. Studies show that education professionals hold mostly positive attitudes towards diversity and culture; nevertheless, recurring themes in the literature indicate a confounding of diversity with disability, use of a deficit thinking model, and lower expectations for CLD students. These attitudes and beliefs can in turn impact their knowledge of practices and processes involved in cultural and linguistic diversity, particularly as it relates to special education.

Knowledge and Skills

Researchers continue to note gaps with regards to the cultural responsiveness and the relevance of the interventions and instruction employed with CLD students (e.g., Cartledge et al., 2016; Cramer 2015) despite reports of positive attitudes and beliefs (e.g., Cardona-Moltó et al., 2017; Vazquez-Montilla et al., 2014). The extant gaps in the literature have been accentuated with the increase of students of CLD backgrounds represented in U.S. schools, particularly those in urban communities with the greatest CLD representation (Cramer, 2015). A common theme noted among the models proposed for CLD students is a need for educational professionals to acquire knowledge of the various factors that impact the learning and performance of CLD students, such as high mobility rates, limited educational records, language dominance, and exposure to stress (Fernandez & Guzman, 2014; Klingner & Harry, 2006). Scott, Alexander, Fritton, and Thoma (2014) found that preservice teachers in special education programs reported lacking knowledge about cultural diversity as it relates to the instruction for and learning of students of diverse backgrounds. Teachers have identified lack of cultural understanding and openness to learning about diversity as barriers towards the instruction of CLD students (Robinson, 2016). As discussed in Hart (2009), the academic and behavioral achievement of CLD students is, however, dependent upon the use of research-based assessment and instructional strategies. Doran (2014) sampled middle school teachers from a culturally and linguistically diverse school who reported a need for training focusing on classroom management and instructional strategies, particularly as it related to teaching students with limited English proficiency. Teachers noted that

valuable professional developments were those that included information on linguistic and cultural factors in addition to specific ESOL strategies such as sheltered instruction.

In a qualitative study, Dee (2012) explored the cultural competence of preservice teachers through work samples of lesson plans. Work samples were coded and organized into four categories representing development of cultural competence: static, reactive, active, and proactive. Static referred to samples that lacked culturally-relevant factors related to students (e.g., sociocultural background, community connections) and indicated no progression towards cultural competence. Reactive samples acknowledged culturally-relevant factors (e.g., identifying student as an English language learner), yet lacked detailed information (e.g., second-language classification). Active cultural competence was represented by work samples that provided more descriptive information regarding student's sociocultural backgrounds (e.g., ethnicity, religion, preferred home language). Finally, preservice teachers whose work samples were categorized as representing proactive cultural competence connected culturally-relevant factors to teaching and learning, including accommodations, differentiation, and selection of culturally-relevant materials. The overall results revealed that most preservice teachers were in the active stage of cultural competence when compared to the static, reactive, and proactive stages. Proactive work samples, considered the ideal, were one of the least prevalent.

The knowledge and skills of education professionals for working with CLD students has also been addressed in the special education literature. In exploring the implementation of the RTI framework with English language learners in an urban, multicultural school, Cavendish et al. (2016) found a general lack of understanding from educators on the purpose and implementation of RTI. This included an understanding of

how to adequately monitor progress and select interventions that were appropriate for the specific needs of students who had limited English proficiency. RTI was perceived to be an additional piece needed for qualifying a student for special education rather than a method of prevention for academic and behavior concerns. Orosco and Klingner (2010) also explored such pre-referral decisions for English language learners receiving RTI support for reading concerns. The results indicated that instruction was not connected to the needs of students, and teachers lacked professional development and curricular resources to adequately address these needs. This need was emphasized by Cartledge, Kea, and Oif (2016) who in a systematic review of the literature found limited studies on the intersection of RTI and culturally relevant practices, noting a need for professional development and further research in the area. As emphasized by Orosco and Klingner (2010), this lack of consideration and alignment of intervention with the needs of CLD students can lead to special education as an ultimate outcome. The lack of clarity in defining what constitutes a lack of progress is also cited by O'Connor and Klingner (2010) as a barrier to adequately identifying students with learning disabilities that carries implications for learning outcomes of CLD students.

Fernandez and Guzman (2014), for example, explored the associations between school-level factors (e.g., team processes, options for program placement) and the academic achievement of Mexican-American elementary students identified as being at-risk for a possible learning disability. Educators reported difficulty with discerning if students' academic difficulties stemmed from a learning disability or limited English proficiency. Fernandez and Guzman concluded that training was needed on language-related factors affecting student achievement, collaborative problem-solving, and the

purpose of various educational programs (e.g., bilingual education, special education). Klingner and Harry (2006) reached a similar conclusion in a study investigating how school-based teams determined when to refer an English language learner and what factors were considered in referral and placement decisions. Similar to Fernandez and Guzman, the findings in Klingner and Harry indicated that school-based teams were inconsistent in how they discerned between English proficiency and learning disabilities, particularly in determining if students with less well-developed English language skills should be referred for an evaluation. When comparing special education referral decisions for native English speakers and English language learners, the perceptions of teachers in an urban elementary school revealed differences in their ability to discern when a student should be referred for special education (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010).

Greenfield (2013) further investigated the perceptions of undergraduate and graduate students in a teacher education program regarding students who spoke a primary language other than English. Participants were given a case study that depicted a scenario in which a teacher was educating a linguistically diverse student without being provided with specific training on how to do so. One of the overarching themes that arose from participants' responses was uncertainty about whether linguistically diverse students were struggling academically due to second language acquisition or an inherent learning disability. This led participants to question whether these students should be referred for special education, retained, or provided pre-referral academic interventions such as those described in Orosco and Klingner (2010).

When discussing English language learners, teachers in Greenfield et al. (2010) reported concerns with possible overrepresentation, yet in doing so participants considered the relevance of cultural and linguistic factors (e.g., number of years in the country, language classification based on second language tests). Klingner and Harry (2006) note, however, that education professionals do not consistently consider other factors beyond the assessment results and collaborative problem solving does not tailor pre-referral strategies to students' CLD needs. These findings are consistent with the literature on pre-referral process and CLD students (e.g., Cartledge et al., 2016; Cavendish et al., 2016; Orosco & Klingner, 2010). Teachers report a lack of understanding of acculturative processes as well as limited information about students' backgrounds (Fernandez & Inserra, 2013). Despite this gap in understanding, Fernandez and Inserra highlighted the lack of attempts to screen for acculturative variables or gather sociocultural information prior to referring a CLD student for special education. In one model proposed by Garcia and Ortiz (2008), the inclusion of educational professionals with training in issues related to the education of CLD students is encouraged in order to gather an accurate representation of the students' needs. In this endeavor, Garcia and Ortiz emphasize the shared responsibility of education professionals in providing all students with quality education.

Educators' self-efficacy beliefs, that is their belief in their ability and skills to perform a task, has further been explored within educational decision-making processes. Seminal studies by Soodak and Podell (1993) and Meijer and Foster (1988) found that self-efficacy was related to teachers' referral and placement decisions in special education settings; teachers with higher teacher self-efficacy were less likely to refer.

Recent studies have continued to maintain this relationship between self-efficacy and student outcomes, including referrals to school-based consultation teams and school-wide supports (e.g., Pas, Bradshaw, Hershfeldt, & Leaf, 2010) and the inclusion and social integration of students with disability (Urton et al., 2014). Researchers have found that educators report less efficacy in communicating with students who are English language learners (Siwatu, 2007); collaborating with CLD students and their families as well as identifying cultural bias in assessment and instructional materials (Malo-Juvera, Correll, & Cantrell, 2018); and adapting and using instructional strategies with students of minority background (Geerlings, Thijs, & Verkuyten, 2018). Chu (2011b), in particular, found that special education teachers reported the highest self-efficacy in establishing supportive and warm learning environments and using prior knowledge and culturally relevant examples to motivate CLD students with disabilities. However, special education teachers felt less efficacious about understanding how to support students' native languages and implementing interventions that reduced home-school cultural differences. The ability of teachers to implement culturally responsive practices was positively correlated to their perceptions on the adequacy of their training for working with CLD students (Chu & Garcia, 2014).

In sum, a review of the literature on the role of professionals in educational practices and decision-making processes indicates that there are gaps in the cultural competence of professionals involved in various professional capacities with CLD students. There is lacking knowledge among educators about social, cultural, and linguistic factors that influence educational practices and outcomes for CLD students. Yet, this knowledge is necessary to inform instructional practices and when coupled with

special education processes carries connotations for educational decision-making for CLD students with suspected disabilities. Models of cultural competence take into account components such as awareness of attitudes and biases, reflection of acquired knowledge, and application of skills or lack thereof. The emphasis of many of these models according to Ang and Van Dyne (2008) is on behavior rather than the cognitive and motivational processes. Unlike the Cultural Intelligence Scale, most instruments do not account for all four dimensions involved in cultural competence, including metacognitive, cognitive, motivational, and behavioral processes (Ang & Van Dyne, 2008).

The Construct of Cultural Intelligence

Cultural intelligence is defined as an individual's ability to adapt to and function in culturally diverse situations. Cultural intelligence is considered individual to each person and can be impacted by factors such as values and personal interests (Earley & Ang, 2003). One commonly cited predictor of cultural intelligence is previous experience, including exposure to other cultures (Crowne, 2013) and previous international experiences (Morrell, Ravlin, Ramsey, & Ward, 2013; Rehg, Gundlach, & Grigorian, 2012), including non-work related experiences (e.g., leisure versus business trips; Moon, Choi, & Jung, 2012). Individual differences were also found to be a relevant factor in the literature on cultural intelligence. One such avenue of research is the exploration of personality traits, particularly as it relates to the Big Five personality traits developed by Costa and McCrae (1992; i.e., extraversion, agreeableness, conscientiousness, emotional stability, and openness). Ang, Van Dyne, and Koh (2006) found that openness to experiences predicted cultural intelligence across all four

dimensions (i.e., metacognitive, cognitive, motivational, and behavioral). Other studies noted relationships between the dimensions of cultural intelligence and personality traits such as extraversion (e.g., Presbitero, 2016; Şahin, Gurbuz, & Köksal, 2014) and agreeableness (e.g., Li, Mobley, & Kelly, 2016). Researchers have further linked cultural intelligence to psychological capital, defined by Luthans, Youssef, and Avolio (2007) as the psychological resources (e.g., hope, optimism, self-efficacy, and resilience) that promote an individual's positive state of development. Gulistan-Yunlu and Clapp-Smith (2014) found that motivational cultural intelligence was positively correlated to cultural psychological capital, while in Reichard, Dollwet, and Louw- Potgieter (2014), participants who received cross-cultural training to develop cultural psychological capital also evidenced increased cultural intelligence. The relationship between the latter and other forms of intelligence have also been explored (e.g., Jyoti & Kour, 2016; Lin, Chen, & Song, 2012). In particular, Jyoti and Kour found that emotional and social intelligence predicted the cultural intelligence of individuals working in international settings.

Cultural intelligence can also be developed through training. Earely and Ang (2003) state that the dimensions that conceptualize cultural intelligence are also applied to the training model. An individual can improve his or her cultural knowledge, motivation, and capacity for applying culturally responsive behaviors. When cultural intelligence is assessed, training can be focused on the dimensions that are underdeveloped and tailored to the intensity, duration, and nature of the cultural exchanges an individual may be preparing for. This training model includes metacognition and motivation, which according to Earely and Ang is lacking in other cultural training models. Empirical studies indicate that cultural intelligence can increase

following cross-cultural trainings (e.g., Eisenberg et al., 2013; MacNab & Worthley, 2012; Moon et al., 2012; Rehg et al., 2012). When compared to multicultural interactions alone, individuals receiving cross-cultural training have reported higher levels of cultural intelligence (Eisenberg et al., 2013). MacNab and Worthley describe cultural intelligence training as interventions targeted at improving an individual's skills and competencies for interacting effectively in cross-cultural situations. Training methods for improving cultural intelligence have included lectures (e.g., Rehg et al., 2012), experiential learning, or a combination of both methods (e.g., Eisenberg et al., 2013). Such trainings have focused on expanding broad cultural knowledge and awareness (e.g., defining culture, examining cultural similarities and differences, recognizing the influence of culture on behavior), yet have also included examination of cultural elements associated with particular regions. MacNab (2012) outlines a specific experiential approach for cultural intelligence learning that focuses on direct experiences and reflection. These experiential approaches have been shown to improve cultural intelligence (e.g., Bucker & Korzilius, 2015; Erez et al., 2013; Kurpis & Hunter, 2017).

Likewise, the outcomes of cultural intelligence include both cultural adjustment and performance-related variables. Cultural adjustment is defined as the "adaptation process of living and working in different cultures and it is the perceived degree of psychological comfort and familiarity that a person has in different cultures" (Moon et al., 2012, p.186). Lin et al. (2012) found that cultural intelligence across the four dimensions predicted the cultural adjustment of international college students. Ang et al. (2007) specifically associated the motivational and behavioral dimensions of cultural intelligence with cultural adjustment. Cultural intelligence has also been shown to

mediate the relationship between cultural training, past experiences, and the cultural adjustment of individuals living or working in a foreign country (Moon et al., 2012). Jyoti and Kour (2016) further found that cultural adjustment mediated the relationship between cultural intelligence and job performance. This relationship between cultural intelligence and cultural adjustment was moderated by participants' prior cross-cultural work experiences and perceived social support from family, peers, and supervisors. An individual with high cultural intelligence is able to efficiently process information and adapt to cultural changes.

Positive performance outcomes have also been associated with cultural intelligence. The effectiveness with which an individual can perform a culturally-related task has been predicted by dimensions of cultural intelligence (Ang et al., 2007). The latter has been linked to job satisfaction of employees working internationally (Bucker, Furrer, Poutsma, & Buyens, 2014) as well as college students in international fields of study (Morrell et al., 2013). Cultural intelligence has also been associated with more effective cross-cultural communication and self-reported reduced anxiety in cross-cultural interactions (Bucker et al., 2014; Yeke & Semercioz, 2016). Rockstuhl, Seiler, Ang, Dyne, and Annen (2011) explored the positive effects of cultural intelligence on the leadership competency of individuals engaged in domestic and foreign leadership roles and their effectiveness to lead in culturally diverse situations.

Most notably, cultural intelligence can influence cultural judgment and decision-making, defined as the processes involved in making decisions regarding cross-cultural interactions (Ang et al., 2007). Ang and colleagues found that cultural judgement and decision-making was positively correlated with cognitive and metacognitive dimensions

of cultural intelligence. In this study, participants were provided with scenarios depicting situations with individuals of different cultural backgrounds faced with a challenge in cross-cultural interaction. Participants were asked to select the best explanation for the situation depicted. Ang and colleagues concluded that accurate judgements and decision-making in culturally diverse situations requires an individual to engage in cognitive tasks, make adjustments to their schemas, and use cultural knowledge.

Cultural Intelligence in Educational Practices

The relevance of cultural intelligence in educational settings has been noted by researchers such as Collins, Duyar, and Pearson (2016), Goh (2012), Griffer and Perlis (2007), Kennedy (2016), and Keung and Rockinson-Szapkiw (2013). Molina (2013), for example, adapted the Cultural Intelligence Scale to interview teachers about their cultural competence and effectiveness in working with CLD students. Themes that arose from participants' responses included a need to connect student's background to the content being taught and develop student-teacher relationship. Kennedy further explored the cultural intelligence of preservice teachers and their understanding of culturally relevant pedagogy, that is, their use of instructional practices and materials that are relevant to students' cultural and linguistic background. To do so, Kennedy gathered qualitative responses regarding participants' views on culturally relevant pedagogy and how cultural intelligence aligned with their instructional practices. Kennedy found qualitative differences between teachers who reported high and low cultural intelligence in their understanding of culturally relevant pedagogy. Teachers with higher cultural intelligence had knowledge of culturally relevant practices and reported a greater application of these practices. Recurring themes across levels of cultural intelligence included participants

recognizing the applicability of cultural intelligence to instruction and building student connections, particularly how self-reflecting on their knowledge and attitudes could inform their practices and target areas for further professional development.

In particular, Goh (2012) applied cultural intelligence to an instructional model wherein to promote cultural competence in students, educators must teach with cultural intelligence. Thus, Goh proposed that culturally intelligent instructional practices involve (a) teachers' awareness of their cultural intelligence and need for further development; (b) infusion of the four dimensions of cultural intelligence in instruction; (c) students' self-assessment of their cultural intelligence; and (d) teacher-student partnerships. Watkins and Noble (2016) further applied the concept of cultural intelligence to school-based research on restructuring multicultural education in Australia. Watkins and Noble concluded that educators exhibit cultural intelligence not only when they demonstrate cultural knowledge of and adapt to students' diverse needs, but most notably when they are willing to actively engage with culturally diverse populations.

The relationship between cultural intelligence and teacher and student outcomes have further been explored. In the study conducted by Collins et al. (2016) within the K-12 setting, cultural intelligence of administrators, in particular, predicted the achievement of eighth grade Hispanic students on state standardized academic assessments. Cultural intelligence was also related to the leadership styles of school-based administrators overseeing international schools. Keung and Rockinson-Szapkiw (2013) found that administrators with higher cultural intelligence reported higher levels of transformational leadership styles, the latter which promotes efforts toward positive change.

The line of research on cultural intelligence in educational settings has also identified predictors of cultural intelligence of educational professionals. The results in Cui (2016) revealed that self-reported cultural and linguistic competence and frequent interactions with individuals of diverse backgrounds positively predicted the cultural intelligence of preservice teachers. Participants with previous teaching experiences also reported higher levels of cultural intelligence. Dogutas (2015) found differences in the level of cultural intelligence of preservice teachers in Turkey based upon sociodemographic factors, including gender and department of study. In a study of elementary school teachers in Serbia, Petrovic (2011) found that cultural intelligence was strongly predicted by reported enjoyment of intercultural interactions. Cultural intelligence was also predicted by contacts with individuals of diverse cultures, openness to cultural learning, and viewing having a class of students of multicultural backgrounds as a challenge. Collins et al. (2016) found differences in cultural intelligence by the type of professional role (i.e., administrative versus teaching). Teachers scored significantly higher on the motivational dimension of cultural intelligence when compared to administrators. Thus, teachers were more likely to report being driven to expand their knowledge of and engage in culturally diverse situations. Pantić and Wubbels (2012) supported that teachers with liberal beliefs evidenced higher metacognitive and motivational dimensions of cultural intelligence. Liberal beliefs included concepts of equality, social justice, and autonomy. Pantić and Wubbels concluded that teachers with such beliefs may be more cognizant of cultural differences and driven to address these differences.

Summary

In sum, several major themes emerged from the extant literature. In tandem with Vygotsky's sociocultural theory, students who are CLD experience a gamut of factors that can potentially impact their achievement, behavior, and outlook on school. Statistical trends indicate that students of diverse backgrounds have grown exponentially in U.S. schools, yet they continue to face disproportionality in terms of their identification for and placement in special education. Scholars have emphasized the need to promote educational practices that are responsive to this interplay of factors as well as develop the cultural competence of education professionals. Despite advancement toward this endeavor and the development of culturally responsive instructional models, there continues to be gaps in the knowledge and skills of education professionals, including a lack of consensus on how CLD factors are discerned from disabilities. Although education professionals report overall positive attitudes towards diversity, there is less consistency with their competence to impart culturally relevant practices and engage in educational decision-making for CLD students. Adding to the literature base on cultural competence is the concept of cultural intelligence, which has been applied to the field of education. Among the outcomes associated with cultural intelligence are cultural judgement and decision-making, cultural adaptability, and task performance. In considering the gaps in the competence reported in the literature and the potential effects this can render on student outcomes, the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making for CLD students merits further exploration within the field of education.

Chapter III

METHODOLOGY

Research Questions and Hypothesis

This study explored factors related to the cultural intelligence and perceptions of educational decision-makers regarding educational decision-making for CLD students who may have disabilities. The three research questions were as follows:

1. To what extent do individual-level factors predict the cultural intelligence of educational decision-makers?
    a. Do individual demographic factors (i.e., ethnicity/race, gender, multilingual skills, intercultural experiences) predict the cultural intelligence of educational decision-makers?
    b. Do individual professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) predict the cultural intelligence of educational decision-makers?
2. How do educational decision-makers perceive factors that relate to educational decision-making processes for CLD students who may have disabilities?
3. Is there a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities?

For the first research question, it was hypothesized that individual-level factors including professional experiences and demographic factors would predict the cultural intelligence of educational decision-makers. For the second research question, it was

hypothesized that educational decision-makers would have different perceptions of the factors that have been identified in the literature as influencing educational decision-making processes for CLD students who may have disabilities. Finally, for the third research question, it was hypothesized that there would be a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities.

Research Design

This study employed a non-experimental, quantitative research design. The first research question examined the relationship between individual-level factors, including variables identified from the literature as potential predictors of cultural intelligence. The predictor variables included type of professional role, grade level, educator certification, specializations, years of experience, amount of professional development on CLD topics, and demographic factors (i.e., ethnicity/race, gender, multilingual skills, intercultural experiences). The type of professional role included teachers, school psychologists, and professionals who act as local education agents (LEA). Educator certifications included qualifications for teaching in a world language subject area, an ESOL endorsement, or special education. Other specializations or credentials for working with students who are culturally and linguistically diverse (CLD) were also considered (e.g., being a designated bilingual professional in the field). Multilingual skills were defined as participants' ability to speak a language other than English. Intercultural experiences included visiting or living in a country outside of the United States, respectively. Professional development included the frequency with which participants attended professional trainings on topics related to

cultural and linguistically diverse students (e.g., ESOL strategies, engaging minority students). Additional variables were also examined (i.e., ethnicity/race, gender, grade level, years of experience). The second research question aimed to investigate the perceptions of different educational decision-makers regarding factors that relate to educational decision-making processes for CLD students who may have disabilities. The final research question explored the relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes.

Participants

Convenience sampling methods were used to recruit educational professionals practicing in Broward County Public Schools, a large, urban school district in south Florida with a large population of CLD students. The school district this study was conducted at serves a population of approximately 270,000 students. It is the 6th largest school district in the United States and the 2nd largest in the state of Florida. Of the student population, 12.5% of students are identified as being English language learners and 12.8% include students with disabilities. Table 1 outlines district-level student demographics reported for the 2017-2018 school year.

Table 1

District-Level Student Demographics

Category	Number of Students	Percent
White	139,325	51.3
Black or African American	109,338	40.3
Native American/Native Alaskan	2,091	0.8

Asian	10,255	3.8
Native Hawaiian/Pacific Islander	581	0.2
Multiracial	9,927	3.7
Hispanic or Latino Ethnicity	91,725	33.8
English Language Learners	34,065	12.5
Free or Reduced Lunch	170,266	62.7
Students with Disabilities	34,822	12.8
Male	139,755	51.5
Female	131,762	48.0

For the purpose of this current study, the researcher aimed to sample at least 100 practicing education professionals. This included teachers, school psychologists, and professionals who act as LEA. In the county this study was conducted and for the purpose of the research, LEA refers to the school-based professional who is referred to as a specialist in special education and acts as the designated LEA in order to coordinate all meetings regarding students with disabilities. The online survey was sent to approximately 721 participants. A total of 126 participants responded to the online survey. Respondents who did not indicate currently holding a position in instruction, school psychology, or as a local education agent were excluded from the sample (e.g., administrators, behavior specialists, teacher assistants). Incomplete surveys were also removed. The final sample consisted of 120 participant responses.

Data Collection

Participants were recruited from Broward County Public Schools via district employee emails. To recruit potential participants in instructional positions, individual principals of three district schools were contacted and asked to distribute to instructional

staff the recruitment email with the online survey link. This included two elementary schools and a combined elementary and middle school. Similar procedures were followed to recruit school psychologists and local education agents from their respective departments. District administrators from the psychological services and exceptional student education departments were contacted and asked to distribute the recruitment email with the online survey link to school psychologists and local education agents on staff.

Research materials included a sociodemographic questionnaire, the Cultural Intelligence Scale, additional items assessing perceptions of educational decision-making for CLD students, and the Socially Desirable Response Set Five-Item Survey (SDRS-5). Instruments are outlined in the appendix. The online survey tool Qualtrics was used to distribute the research materials to participants in an online survey format. An online platform was selected as online surveys aid in the recruitment of participants, ensure efficient distribution of survey materials, allows participants to complete the survey at a convenient time, and facilitates organization and analysis of survey responses (Evans & Mathur, 2005; Van Selm & Jankowski, 2006). It should be noted that limitations to online survey methodologies that may affect response rates include technological considerations (e.g., issues with connectivity), unclear administration instructions, and emails being viewed as spam (Evans & Mathur, 2005). Given that online surveys are self-administered, Evans and Mathur further note that they may also lack the depth that is provided by other methodologies such as interviews. To address these limitations and minimize non-response rates, the researcher followed recommendations by Evans and Mathur as well as Van Selm and Jankowski such as maintaining participants' identifying

information confidential and anonymous and sending follow up reminder emails. A pre-test was also completed of the survey link to ensure clarity of instructions and accessibility of the online link.

Cultural Intelligence Scale. This 20-item, self-report scale assesses cultural intelligence across four dimensions: metacognitive (four items), cognitive (six items), motivational (five items), and behavioral (five items). The metacognitive dimension is defined as the higher-order mental processes that are involved in individuals' awareness of their cultural knowledge when engaged in culturally diverse interactions (Ang & Van Dyne, 2015; Van et al., 2007). The cognitive dimension examines the extent of an individual's cultural knowledge. The motivational dimension involves an individual's drive to expand his or her knowledge of and engagement in culturally diverse situations. Finally, the behavioral dimension assesses an individual's ability to demonstrate culturally-appropriate verbal and nonverbal behaviors. Responses are solicited through a seven-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = neither agree nor disagree, 5=agree somewhat, 6= agree, and 7 = strongly agree. Higher scores represent higher levels of cultural intelligence.

The Cultural Intelligence Scale is considered a theoretically-based and empirically supported measures of cultural intelligence (Ang et al., 2007; Van Dyne et al., 2008). Confirmatory factor analysis yielded factor loadings ranging from .52 to .80. Reliability was reported to range from .70 to .86. The corrected item-to-total correlations supported strong internal consistency, with coefficients ranging from .47 to .71. The composite reliabilities for each of the dimensions of cultural intelligence further ranged from .72 to .86. Evidence supports the discriminant validity, construct validity, and incremental

validity of the Cultural Intelligence Scale (Ang et al., 2007; Koh, Ang, & Van Dyne, 2015). This measure has additionally been cross validated across samples, times, methods (i.e., peer-report observations of cultural intelligence), and countries (e.g., Singapore, United States). Aligned with the purpose of this study, Collins et al. (2016) established the internal consistency, reliability, and convergent validity of the Cultural Intelligence Scale for use within the educational arena. When validated with a sample of education professionals, principle axis or common factor analysis yielded item communalities that ranged from .37 to .74. Cronbach's alpha coefficients ranged from .82 to .92, indicating acceptable to high reliability. Overall, Collins et al. (2016) concluded that the Cultural Intelligence Scale was applicable for use with educational professionals. For the current study, the Cronbach's alpha coefficient for the overall Cultural Intelligence Scale was .91, which indicated high reliability. Alpha coefficients for the metacognitive ($\alpha = .85$) and motivational ($\alpha = .82$) dimensions yielded acceptable reliabilities while the cognitive ($\alpha = .90$), and behavioral ($\alpha = .90$) dimensions further indicated high reliability. Permission to use the Cultural Intelligence Scale was obtained from the second author via electronic communication.

Perceptions of Education Professionals. A researcher-created instrument was developed to assess the perceptions of education professionals on the importance of factors that relate to educational decision-making for students who are CLD. Factors were identified from the literature pertaining to pre-referral/referral and eligibility determination decisions as it relates to CLD students. This included school-level factors (e.g., availability of resources, school-wide policies and procedures, and school-based team dynamics) as well as professional-level factors (e.g., the knowledge and skills teachers and evaluation specialists have for working with CLD students).

Prior to administering the researcher-created instrument as part of the main study, a pilot study was completed for the purpose of validating the instrument. This consisted of an expert panel review process and cognitive interviews. To establish content validity and ensure that the developed items addressed the content area of interest, an expert review panel process was implemented based on recommendations in the literature (e.g., Davis, 1992; Rubio, Berg-Weger, Tebb, Lee, & Rauch, 2003). This process involved the selection of a recommended three to ten individuals with expertise in the discipline of interest including research or work-related experience. Expert panelists served to provide feedback on the clarity and appropriateness of the items. For the purpose of the study, five individuals were selected based on their expertise in the field of education, including involvement in special education decision-making or knowledge of CLD students. These individuals included an expert in instrument validation, an individual with a doctoral degree in special education, an individual with a doctoral degree in school psychology, a bilingual school psychologist, an LEA, and a school-based specialist in Response to Intervention (RTI). The expert panel was asked to rate each item for clarity and relevancy based on a four-point Likert scale adapted from Rubio et al. (2003). Expert panel members were also asked to provide additional feedback such as suggestions for adding, rewording, or deleting factors. The ratings and feedback obtained from the expert panel served to revise the items prior to conducting cognitive interviews.

Upon completion of the expert panel process, cognitive interviews were completed with four additional participants in the field of education including school psychologists and teachers. Cognitive interviews are a method of pre-testing and revising surveys based on a “think aloud” interview process wherein participants read survey

items aloud and verbalize their thought process as they respond (Desimone & Le Floch, 2004). Cognitive interviews provide insight into participants' understanding and reasoning of survey items to ensure that the survey is measuring what the researcher intended. This in turn improves their validity and reliability. Following guidelines from Desimone and Le Floch (2004), participants were asked to read each item in the researcher-created instrument aloud while "thinking aloud" about each item. Participants were asked follow-up questions such as, "What do you think this question is asking you?", "Can you tell me more about your response to this question?", and "What were your thoughts when you marked the question that way?" The cognitive interviews were audio recorded and transcribed for analysis. Revisions and improvements to the survey were made to address any areas needing clarification before completing the cognitive interview with the next participant. The interviews were expected to take up to two hours.

To assess the reliability of the research-created instrument, Cronbach's alpha coefficients were calculated for items addressing factors related to pre-referral/referral and eligibility determination, respectively. The pre-referral/referral item set ($\alpha = .82$) and the eligibility determination item set ($\alpha = .76$) each consisted of 6 items. The alpha coefficients indicate acceptable reliability for the researcher-created instrument.

The final instrument consisted of 6 items related to pre-referral/referral decisions and 6 items related to eligibility determination. Participants rated the importance of each factor on a four-point Likert scale: 1 = not important, 2 = somewhat important, 3 = important, 4 = very important. Participants' also self-reported on a scale ranging from 1 (i.e., lowest level of confidence) to 10 (i.e., highest level of confidence) their confidence for making decisions during pre-referral/referral processes or eligibility determination for

CLD students who may have disabilities. Finally, open-ended questions were included for participants to add other factors they perceived as impacting educational decision-making.

Socially Desirable Response Set Five-Item Survey (SDRS-5). Hays, Hayashi, and Stewart (1989) define social desirability as the tendency of individuals to respond in a manner that reflects behaviors or attitudes that they perceive to be socially appropriate. This tendency can influence self-report measures as participants may respond in a manner that they perceive to be acceptable. Specifically, Larson and Bradshaw (2017) emphasize the importance of addressing social desirability bias in cultural competence research. Thus, to control for social desirability for the purpose of the present study, participants also completed the Socially Desirable Response Set Five-Item Survey (SDRS-5), which is brief, five-item measure for assessing social desirability. The SDRS-5 yielded Cronbach alpha coefficients of 0.66 for the original sample and 0.68 for the cross-validation sample while test-retest reliability was reported to be 0.75 (Hays et al., 1989).

Data Analysis

The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS). The first research question was examined through correlational and multiple regression analyses of individual-level factors as predictors of cultural intelligence. To produce an overall cultural intelligence score, an average of the responses was first calculated for items in each of the four subscale dimensions of the Cultural Intelligence Scale (i.e., metacognitive, cognitive, motivational, and behavioral). An overall score was calculated by averaging the average scores of each of the four dimensions of the Cultural Intelligence Scale. The individual-level factors included demographic factors (i.e., ethnicity/race, gender, multilingual skills, and intercultural

experiences) and professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience, amount of professional development on CLD topics). Demographic factors were entered simultaneously in the first regression conducted as were professional experiences in the second regression. To control for the potential influence of social desirability on cultural intelligence, this variable was also simultaneously entered in each regression conducted.

The second research question was addressed via descriptive analysis and independent samples t-tests to explore the perceptions of different educational decision-makers on the factors that relate to educational decision-making processes for CLD students who may have disabilities. Items from the researcher-created instrument were aggregated to create two independent variables based on participants' perceptions of the importance of factors that relate to educational decision-making for pre-referral/referral processes and eligibility determination, respectively. Participants' self-reported confidence for making decisions during pre-referral/referral processes and eligibility determination for students who are culturally and linguistically diverse was additionally analyzed via an independent samples t-test. Thematic analysis of open-ended questions was conducted following recommendations from Braun and Clarke (2012). Responses were coded, labeled, and grouped by themes accordingly. Each theme was then coded with a numeric value. The frequency of each theme was calculated via SPSS.

The third research question was examined via correlational analysis and a simple linear regression of the relationship between cultural intelligence and participants' perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities. As part of the linear regression,

cultural intelligence was examined as a predictor of participants' perceptions of the importance of factors that relate to decision-making for CLD students. In the first regression, cultural intelligence was entered as the predictor variable and the aggregated survey items for factors related to pre-referral/referral processes were entered as the outcome variable.

Summary

This study purported to explore the cultural intelligence of educational decision-makers as well as their perceptions of the importance of factors that relate to educational decision-making for CLD students. The aim of this study was to expand the literature on the cultural competence of educational decision-makers as well as the understanding of factors that in educational decision-making for CLD students. Participants were sampled from a large, urban school district in south Florida with a large population of CLD students. Participants included education professionals engaged in educational decision-making, including teachers, school psychologists, and local education agents. The research questions explored the cultural intelligence of these educational decision-makers as well as their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities. To do so, this study drew upon a non-experimental, quantitative research design.

Chapter IV

RESULTS

The purpose of the present study was to explore the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making for CLD students who may have disabilities. This consisted of an examination of individual-level factors that may potentially predict the cultural intelligence of educational decision-makers: individual professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) and demographic factors (i.e., ethnicity/race, gender, multilingual skills, and intercultural experiences). This study also explored the perceptions of educational decision-makers regarding factors in educational decision-making such as in pre-referral/referral processes and eligibility determination. The three research questions were as follows:

1. To what extent do individual-level factors predict the cultural intelligence of educational decision-makers?
    a. Do individual demographic factors (i.e., ethnicity/race, gender, multilingual skills, intercultural experiences) predict the cultural intelligence of educational decision-makers?
    b. Do individual professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) predict the cultural intelligence of educational decision-makers?

2. How do educational decision-makers perceive factors that relate to educational decision-making processes for CLD students who may have disabilities?
3. Is there a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities?

For the first research question, it was hypothesized that individual-level factors would predict the cultural intelligence of educational decision-makers. It was further hypothesized for the subsequent research question that educational decision-makers would have different perceptions of the importance factors that have been identified in the literature as influencing educational decision-making processes for CLD students. Finally, it was hypothesized that there would be a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities.

Descriptive Analysis

Selected statistics from the descriptive analysis of demographic factors and professional experiences are presented in Table 2. Analysis of demographic factors revealed that participants included males (7.5%) and females (90.8%) of various racial and ethnic backgrounds. Most participants identified as White, Non-Hispanic (52.5%, *n*=63); Hispanic (25.8%, *n*=31); or Black or African American (18.3%, *n*=22). Results further revealed that 38.3% (*n*=46) of participants indicated fluently speaking a language

other than English; 25.8% (*n*=31) reported having lived in a country outside of the United States; and 95.8% (*n*=115) reported having visited a country outside the United States.

In terms of participants' professional experiences, 56.7% (*n*=68) of participants were school psychologists, 23.3% (*n*=28) were local education agents, and 20% (*n*=24) held an instructional position. Participants had an average of 15.8 years of experience in the field of education (*SD*=8.72). Participants reported working at the elementary (27.5%; *n* = 33), middle (14.2%; *n* = 17), and high school (5%; *n* = 6) grade levels with most participants working with multiple grade levels (53.3%; *n* = 64). The highest level of education attained by participants was a doctorate degree (11.7%; *n* = 14;) while an educational specialist degree was the most common degree earned (46.7%; *n* = 56). Sixty percent (*n* = 72) of participants held an English for Speakers of Other Languages (ESOL) certification endorsement; 5.8% (*n* = 7) of participants held a certification to teach in a world language subject area; and 22.5% (*n* = 27) of participants reported holding a specialization or credential for working with students who are CLD such as being a designated bilingual professional in the field. Moreover, 21.7% (*n*=50) of participants held a certification in special education. The majority reported occasionally (56.7%, *n*=68) attending professional development trainings on topics related to CLD students.

Table 2

Descriptive Analysis of Demographic Factors and Professional Experiences

Factor	Frequency	Percent
Gender		
Males	9	7.5
Females	109	90.8
Ethnicity		
White, Non-Hispanic	63	52.5

Hispanic	31	25.8
Black or African American	22	18.3
Native American/Native Alaskan	0	0
Asian	1	.8
Native Hawaiian/Pacific Islander	0	0
Multiracial	3	2.5
Professional Role		
Instructional	24	20
School Psychologist	68	56.7
Local Education Agents	28	23.3
Grade Level		
Elementary	33	27.5
Middle	17	14.2
High	6	5.0
Multiple Levels	64	53.3
Degree		
Bachelor's	23	19.2
Master's	27	22.5
Educational Specialist	56	46.7
Doctorate	14	11.7
Years of Experience in Education		
1 to 5	16	13.3
6 to 10	26	21.7
11 to 15	18	15
16 to 20	25	20.8
21 to 25	20	16.7
26 or more	15	12.5
World Language Certification		
No	113	94.2
Yes	7	5.8
ESOL Endorsement		
No	47	39.2
Yes	72	60.0
Other CLD Specialization/Credential		
No	90	75.0
Yes	27	22.5
Certification in Special Education		
No	67	27.9
Yes	52	21.7

Professional Development on CLD topics		
Never	5	4.2
Rarely	26	21.7
Occasionally	68	56.7
Frequently	21	17.5
Multilingual Skills		
No	74	61.7
Yes	46	38.3
Lived Outside of the United States		
No	89	74.2
Yes	31	25.8
Visited a Country Outside of the United States		
No	5	4.2
Yes	115	95.8

Note. CLD=Culturally and Linguistically Diverse; ESOL= English for Speakers of Other Languages.

Descriptive analysis of participants' responses to the Cultural Intelligence Scale was further conducted. Participants' cultural intelligence overall was on average 5.36 (*SD*=.77). Results for each dimension of cultural intelligence is summarized in Table 3.

Table 3

Descriptive Analysis of Participants' Cultural Intelligence

Factor	*n*	*M*	*SD*	Minimum	Maximum
Cultural Intelligence (Total)	120	5.36	.77	3.45	6.80
Metacognitive	120	6.04	.80	1.00	7.00
Cognitive	120	4.48	1.13	1.83	7.00
Motivational	120	5.7	.88	3.00	7.00
Behavioral	120	5.23	1.21	1.40	7.00

Quantitative Analysis

Predictors of Cultural Intelligence

Correlational and regression analyses served to examine individual-level factors as potential predictors of cultural intelligence. For each regression, demographic factors

(i.e., ethnicity/race, gender, multilingual skills, and intercultural experiences) or professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) were entered simultaneously. Social desirability was also included in each regression to control for its potential effect on cultural intelligence.

Results of the correlational analysis revealed a positive correlation between cultural intelligence and multilingual skills (r=.403), having lived in country outside of the United States (r=.304), and having visited a country outside of the United States (r=.201). The analysis also indicated a positive correlation between cultural intelligence and world language certification (r=.315), special education certification (r=.209), and a specialization for working with students who are CLD (r=.240). As outlined in Table 4, several positive correlations were further found between the various demographic and professional experience variables. Most notably, seeking professional development on CLD topics was positively correlated with having a specialization for working with students who are CLD (r=.308.), educational degree (r=.421), professional role (r=.405), and having lived in a country outside of the United States (r=.229). Multilingual skills were correlated to ethnicity (r=.202) and having lived in a country outside of the United States (r=.474) as well as to holding a world language certification (r=.316) and having a specialization for working with students who are CLD (r=.560).

Table 4

Pearson R Correlations for Demographics and Professional Experiences

Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CQ	1	-.032	-.008	.403**	.304**	.201*	-.121	-.070	-.024	.136	.315**	.061	.240**	.081	.209*
Gender	-	-	.119	.099	.099	-.060	-.026	.041	-.076	-.070	.072	.022	.081	.166	.117
Ethnicity	-	-	-	.202*	.048	-.070	-.184*	-.057	-.025	-.126	-.050	-.061	.105	-.047	-.087
Multilingual	-	-	-	-	.474**	.164	-.083	-.048	-.062	-.141	.316**	-.091	.560**	.087	.175
Lived Outside U.S.	-	-	-	-	-	.123	.015	.056	.046	-.113	.422**	.054	.366**	.229*	-.017
Visited Outside U.S.	-	-	-	-	-	-	.149	-.088	.159	.101	.052	-.085	.112	.021	.098
Professional Role	-	-	-	-	-	-	-	.317**	.739**	-.015	-.294**	-.265**	.103	.405**	-.276**
Grade Level	-	-	-	-	-	-	-	-	.207*	-.144	-.051	-.033	.004	.099	-.111
Degree	-	-	-	-	-	-	-	-	-	.109	-.250**	-.340**	.156	.421**	-.279**
Years of Experience	-	-	-	-	-	-	-	-	-	-	.006	.082	-.056	.126	.193*
WL Certification	-	-	-	-	-	-	-	-	-	-	-	.203*	.206*	.090	-.002
ESOL Endorsement	-	-	-	-	-	-	-	-	-	-	-	-	-.171	-.115	.302**
Specialization	-	-	-	-	-	-	-	-	-	-	-	-	-	.308**	-.028
PD on CLD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-.171
ESE Certification															1

Note: CQ=Cultural Intelligence; WL=World Language; ESOL=English for Speakers of Other Languages; ESE=Exceptional Student Education; PD=Professional Development; CLD=Culturally and Linguistically Diverse. * p < .05. **p <.01.

When all demographic variables were entered in the regression, the results yielded an R^2 of .193, indicating that approximately 19% of the variance in cultural intelligence was accounted for by the demographic variables (F[6,107]=4.253, p<.01). Additionally, multilingual skills positively predicted cultural intelligence (β= .492, SE=.155, t= 3.172, p<.01). In contrast, ethnicity/race, gender, and intercultural experiences were not significant factors. Social desirability was also an insignificant factor. Table 5 summarizes the results of the regression analysis for demographic factors.

Table 5

Regression Analysis of Demographic Factors as Predictors of Cultural Intelligence

Factor	β	SE	t
Social Desirability	-.638	.765	-.835
Gender	-.215	.275	-.781
Ethnicity	-.063	.056	-1.122
Multilingual Skills	.492	.155	3.172*
Lived Outside of the U.S.	.270	.171	1.577
Visited a Country Outside of U.S.	.291	.361	.806
R^2		.193	
F		4.253*	

*p<.01

In terms of professional experiences, results revealed that the overall model was significant, (F[10, 101] = 2.866, p < .01). The results yielded an R^2 of .221, indicating that approximately 22% of the variance in cultural intelligence was accounted for by professional experiences. In particular, the results indicated that holding a certification in a world language subject area (β = .975, SE=.304, t= 3.203, p<.01) or in special education (β= .374, SE=.147, t= 2.538, p<.05) positively predicted cultural intelligence. The

remaining predictor variables, including social desirability, were not statistically significant.. Table 6 summarizes the results of the regression analysis for professional experiences.

Table 6

Regression Analysis of Professional Experiences as Predictors of Cultural Intelligence

Factor	*β*	*SE*	*t*
Social Desirability	-.079	.719	-.109
Grade Level	-.004	.053	-.078
Professional Role	-.105	.129	-.815
Degree	.133	.108	1.230
Years of Experience in Education	.000	.008	-.027
World Language Certification	.975	.304	3.203*
ESOL Endorsement	-.064	.149	-.428
CLD Specialization/Credential	.279	.170	1.644
Certification in Special Education	.374	.147	2.538**
Professional Development on CLD	.055	.105	.523
R^2		.221	
F		2.866*	

Note: ESOL=English for Speakers of Other Languages; CLD=Culturally Linguistically Diverse.
**p<.01, **p<.01*

Perceptions of Factors that Relate to Educational Decision-Making

The second research question was addressed via descriptive analysis and independent samples t-test to explore the perceptions of different educational decision-makers on the factors that relate to educational decision-making processes for CLD students who may have disabilities. This included educational decision-making that

occurs during pre-referral/referral processes as well as eligibility determination. Tables 7 and 8 delineate the descriptive statistics for each factor.

Table 7

Descriptive Analysis of Perceptions of Factors in Pre-Referral/Referral Processes

Factor	*M*	*SD*
Collaboration among members of the school-based team.	3.80	.420
Availability of instructional programs and resources including interventions and progress monitoring tools that are appropriate for students who are culturally and linguistically diverse (CLD).	3.81	.392
Clear school-wide progress monitoring and referral processes.	3.79	.426
The knowledge school-based team members have about the purpose of progress monitoring and referral processes.	3.74	.476
The knowledge school-based team members have about the impact of culture and language on learning.	3.81	.392
The skills classroom teachers have for instructing students who are culturally and linguistically diverse (CLD).	3.86	.369

Table 8

Descriptive Analysis of Perceptions of Factors in Eligibility Determination

Factor	*M*	*SD*
Collaboration among members of the school-based team.	3.78	.453
Availability of student records (e.g., cumulative school records, health records).	3.70	.514
The knowledge school-based team members have about the criteria for determining eligibility for a suspected disability.	3.80	.461
The knowledge school-based team members have about the impact of culture and language on learning.	3.80	.461
The skills classroom teachers have for instructing students who are culturally and linguistically diverse (CLD).	3.75	.491
The skills evaluators (e.g., speech-language pathologists, school psychologists) have for administering and interpreting standardized assessments given to students who are culturally and linguistically diverse (CLD) as part of formal evaluations.	3.91	.294

An independent samples t-test was conducted to investigate differences in participants' overall perceptions of the importance of factors in decision-making for students who are CLD. Survey items were aggregated to create two independent variables based on participants' perceptions of the importance of factors that relate to decision-making for pre-referral/referral processes and eligibility determination, respectively. With

equal variances assumed, participants perceived factors related to pre-referral/referral processes (*M*=22.82, *SD*=1.80) to be as a whole more important in decision-making, *t*(231)= 17.413, *p* < .001, when compared to factors related to eligibility determination (*M*=18.96, *SD*=1.58). Table 9 highlights these results.

Table 9

Independent Samples T-Test for Aggregated Factors that Relate to Decision-Making for Pre-referral/Referral and Eligibility Determination

Decision-Making	*M*	*SD*	*t*	*df*	*p*
Pre-Referral/Referral	22.82	1.80	17.413	231	.000*
Eligibility Determination	18.96	1.58			

** p <.001.*

Further analysis was conducted via an independent samples t-test to examine differences in participants' reported confidence for making decisions during pre-referral/referral processes and eligibility determination for students who are culturally and linguistically diverse. With equal variances assumed, participants' reported confidence for making such educational decisions was significantly higher, *t*(228) = -2.256, *p* < .05, for decisions involving eligibility determination (*M*=8.20, *SD*=1.291) than pre-referral/referral processes (*M*=7.82, *SD*=1.283). The results are indicated in Table 10.

Table 10

Independent Samples T-Test for Confidence for Educational Decision-Making

Decision-Making	*M*	*SD*	*t*	*df*	*p*
Pre-Referral/Referral	7.82	1.283	-2.256	228	.025*
Eligibility Determination	8.20	1.291			

**p <.05.*

Open-ended responses. Open-ended responses on the questionnaire afforded participants the opportunity to include additional factors that may relate to educational decision-making in pre-referral/referral or eligibility determination involving CLD students who may have disabilities. When quantitatively analyzing themes that emerged regarding pre-referral/referral processes, the most prevalent factors were related to academics (31.8%) and language (29.4%). Other themes that emerged included culture (14.1%), home/family (11.8%), social-emotional considerations (5.9%), and cultural awareness of educational professionals (2.5%). The most prevalent factors for eligibility determination were related to culture (22.9%) and language (24.3%). Academics (15.7%), cultural awareness of educational professionals (15.7%), home/family (12.9%), social-emotional (5.7%), and health-related factors (2.9%) also emerged from the open-ended responses. Table 11 summarizes these results.

Overlapping themes emerged from the thematic analysis of educational decision-making involved in pre-referral/referral and eligibility determination. Language was a prevalent theme across pre-referral/referral and eligibility determination. This encompassed factors related to students' exposure to English and their native language, second language skills (e.g., ESOL status, English proficiency), and differentiating between English language learning and the presence of a disability. Academic factors arose as a more prevalent theme for pre-referral/referral processes than eligibility determination. Academic factors included students' academic history (e.g., schooling in native country versus United States), academic skills in English compared to their native language, and their attendance. Cultural factors were cited more often ineligibility determination. This included students' cultural exposure (e.g., amount of time living in

the United States), cultural views about education and disability, and acculturation. A theme of cultural awareness of educational professionals also emerged. Although less prevalent, in pre-referral/referral processes this reflected the knowledge of educational professionals regarding cultural factors, availability of culturally appropriate progress monitoring and diagnostic assessments, and school communications in family's native languages. Cultural awareness was cited more often as a factor for eligibility determination. At this stage, cultural awareness focused on culturally appropriate practices during evaluation such as appropriate instrument selection, consideration of language for testing, and the use of interpreters. Home/family factors, social-emotional, and health-related factors also emerged as themes, yet were less prevalent. For pre-referral/referral processes, home/family factors focused on parents' English-speaking skills, their knowledge of the educational system in the United States, and their involvement in their child's education (e.g., ability to help with schoolwork at home). For eligibility determination, home/family factors focused on parents' involvement in the eligibility process and being part of the school-based team. Finally, social-emotional considerations included behavioral problems as well as adverse childhood experiences students might have been exposed to (e.g., socio-political climate in students' native country, exposure to violence or war). Health-related factors only emerged as a theme for eligibility determination and included diagnosis and access to medical records from students' native countries.

Table 11

Frequency of Themes for Pre-Referral/Referral and Eligibility Determination

Factor	Frequency	Percent
Pre-Referral/Referral Factors		
Academic	27	31.8
Culture	12	14.1
Language	25	29.4
Home/Family	10	11.8
Cultural Awareness	6	7.1
Social/Emotional	5	5.9
Eligibility Determination		
Academic	15.7	11
Culture	22.9	16
Language	24.3	17
Home/Family	12.9	9
Cultural Awareness	15.7	11
Social/Emotional	5.7	4
Health	2.9	2

Cultural Intelligence and Factors that Relate to Educational Decision-Making

The third research question was examined via correlational analysis and a simple linear regression of the relationship between cultural intelligence and participants' perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities. As presented in Tables 12 and 13, the results indicated a positive correlation between cultural intelligence and participants' perceptions of the importance of factors that relate to educational decision-making processes. When examining pre-referral/referral processes, the results indicated that cultural intelligence was positively correlated with participants' perceptions of the importance of clear school-wide processes (r = .194), knowledge of education professionals have about the impact of culture and language on learning (r = .191), and

the skills classroom teachers have for instructing students who are culturally and linguistically diverse (r = .270). In relation eligibility determination, there was a positive correlation between cultural intelligence and participants' perceptions of the importance of the skills classroom teacher have for instructing students who are culturally and linguistically diverse (r =.257).

Table 12

Pearson R Correlations for Perceived Importance of Pre-Referral/Referral Factors

Factor	1	2	3	4	5	6	7
Cultural Intelligence	1	.156	.075	.194*	.181	.191*	.270**
Collaboration among members of the school-based team.	-	-	.349**	.543**	.478**	.349**	.270**
Availability of instructional programs and resources	-	-	-	.437**	.339**	.384**	.476**
Clear school-wide progress monitoring and referral processes.	-	-	-	-	.715**	.386**	.368**
The knowledge school-based team members have about the purpose of progress monitoring and referral processes.	-	-	-	-	-	.432**	.436**
The knowledge school-based team members have about the impact of culture and language on learning.	-	-	-	-	-	-	.535**
The skills classroom teachers have for instructing students who are culturally and linguistically diverse (CLD).	-	-	-	-	-	-	1

*p<.05, **p<.01

Table 13

Pearson R Correlations for Perceived Importance of Eligibility Determination Factors

Variables	1	2	3	4	5	6	7
Cultural Intelligence	1	.115	-.018	.030	.055	.257**	.031
Collaboration among members of the school-based team.	-	-	.539**	.293**	.168	.381**	.106
Availability of student records (e.g., cumulative school records, health records).	-	-	-	.479**	.406**	.284**	.211*
The knowledge school-based team members have about the criteria for determining eligibility for a suspected disability.	-	-	-	-	.632**	.240**	.373**
The knowledge school-based team members have about the impact of culture and language on learning.	-	-	-	-	-	.470**	.309**
The skills classroom teachers have for instructing students who are culturally and linguistically diverse (CLD).	-	-	-	-	-	-	.256**
The skills evaluators (e.g., speech-language pathologists, school psychologists) have for administering and interpreting standardized assessments given to students who are culturally and linguistically diverse (CLD) as part of formal evaluations.	-	-	-	-	-	-	1

*p<.05, **p<.01.

As part of the linear regression, cultural intelligence was examined as a predictor of participants' perceptions of the importance of factors that relate to decision-making for CLD students who may have disabilities. In the first regression, cultural intelligence was

entered as the predictor variable and the aggregated survey items for factors related to pre-referral/referral processes were entered as the outcome variable. The linear regression indicated that cultural intelligence predicted participants' perceptions of the importance of factors that relate to pre-referral/referral processes ($F[1, 115] = 7.175$, $p < .01$). Albeit small, the results yielded an R^2 of .059, indicating that approximately 6% of the variance in participants' perceptions was accounted by cultural intelligence. To further note, the β of .577 indicated that for each unit increase in cultural intelligence there is a .577 increase in participants' perceptions of the importance of factors that relate to pre-referral/referral processes. In contrast, cultural intelligence was not found to be a significant predictor of participants' perceptions ineligibility determination (R^2=.011, $F[1, 114] = 1.258$, p >.05). Table 14 outlines these results.

Table 14

Regression Analysis of Cultural Intelligence as a Predictor of the Perceptions of Educational Decision-Makers

Variable	*β*	*SE*	*t*
Pre-Referral/Referral	*.577*	*.216*	*2.679**
R^2		.059	
F		7.175	
Eligibility Determination	.220	.196	1.122
R^2		.011	
F		1.258	

**p<.01*

When examining participants' self-reported confidence for making educational decisions for CLD students, cultural intelligence was found to be a significant predictor when examining decisions related to pre-referral/referral processes (R^2= .287, $F[1, 114]$ =

45.896, $p < .001$). Approximately 29% of the variance in participants reported confidence was accounted by cultural intelligence. Furthermore, in a subsequent regression, cultural intelligence was also found to be significant predictor of participants' reported confidence for making decisions regarding CLD students during eligibility determination ($F[1, 112] = 18.348$, $p < .001$). The R^2 of .141 indicated that approximately 14% of the variance in participants' reported confidence for eligibility determination was predicted by cultural intelligence. These results are illustrated in Table 15.

Table 15

Regression Analysis of Cultural Intelligence and Participants' Confidence for Decision-Making

Variable	*β*	*SE*	*t*
Pre-Referral/Referral	*.907*	*.134*	*6.775**
R^2		.287	
F		45.896	
Eligibility Determination	.646	.151	4.283*
R^2		.141	
F		18.348	

**p<.001*

Summary

The current study aimed to investigate the cultural intelligence and perceptions of educational decision-makers regarding educational decision-making for CLD students who may have disabilities. The first research question examined the extent to which individual-level factors predicted the cultural intelligence of educational decision-makers. Correlational and regression analysis revealed that demographic factors and professional experiences were significant predictors of cultural intelligence. The second research

question explored how educational decision-makers perceive the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities. Independent sample t-tests revealed that participants perceived factors related to pre-referral/referral processes to be more important in influencing decision-making when compared to factors related to eligibility determination. The final research question analyzed the relationship between cultural intelligence and participants' perceptions of the importance of factors that relate to educational decision-making processes. As cultural intelligence increased so did participants' perceived importance for factors that relate to decision-making; however, only a small percent of the variance in such decision-making processes was explained by cultural intelligence.

Chapter V

DISCUSSION

The literature surrounding culturally and linguistically diverse learners has centered around the educational needs these students present as well as the lack of school-based supports and training among educational professionals (Trent et al., 2014). This has led to the continued overrepresentation of CLD students in special education programs (e.g., Zhang, Katsiyannis, Ju, & Roberts, 2014). Educational decision-making is a process that involves stakeholders, including teachers, school psychologists, and other professionals, working collaboratively to make decisions such as referring a student for an evaluation and determining special education services. Although the focus of the research has been investigating factors specific to the cultural competence of education professionals, other researchers (e.g., Collins, Duyar, & Pearson, 2016) have expanded this avenue to include broader constructs such as cultural intelligence. This study purported to further the application of cultural intelligence within the educational arena and explore the perceptions of educational decision-makers as it relates to decision-making and CLD students who may have disabilities.

Summary of the Study

The present study aimed to examine the cultural intelligence of educational professionals as well as their perceptions of the importance of factors that relate to educational decision-making for CLD student who may have disabilities. Participants included stakeholders who engage in educational decision-making in varying capacities, including teachers, school psychologists, and local education agents. A sample of 120

educational professionals were sampled from a large, urban school district in south Florida with a large population of CLD students. The research questions were as follows:

1. To what extent do individual-level factors predict the cultural intelligence of educational decision-makers?
    a. Do individual demographic factors (i.e., ethnicity/race, gender, multilingual skills, intercultural experiences) predict the cultural intelligence of educational decision-makers?
    b. Do individual professional experiences (i.e., type of professional role, grade level, educator certification, specialization, years of experience in education, and amount of professional development on CLD topics) predict the cultural intelligence of educational decision-makers?
2. How do educational decision-makers perceive factors that relate to educational decision-making processes for CLD students who may have disabilities?
3. Is there a relationship between the cultural intelligence of educational decision-makers and their perceptions of the importance of factors that relate to educational decision-making processes for CLD students who may have disabilities?

Overview of Analytic Outcomes

Predictors of Cultural Intelligence

The first research question investigated various individual-level factors that relate to and predict cultural intelligence. Positive correlations were found between cultural intelligence and demographic factors such as multilingual skills (r=.403), having lived in country outside of the United States (r=.304), and having visited a country outside of the United States (r=.201). The analysis also indicated a positive correlation between cultural

intelligence and professional experiences including having a world language certification (r=.315), special education certification (r=.209), or a specialization for working with students who are CLD (r=.240). Results from the regression analysis further indicated that approximately 19% of the variance in cultural intelligence was accounted for by the demographic variables (R^2 = .193 $F(6,107)=4.253$, $p<.01$) while approximately 22% of the variance in cultural intelligence was accounted for by professional experiences (R^2=.221, $F(10, 101) = 2.866$, $p < .01$). Multilingual skills (β= .492, SE=.155, t= 3.172, $p<.01$), certification in a world language subject area (β = .975, SE=.304, t= 3.203, $p<.01$), and certification in special education (β= .374, SE=.147, t= 2.538, $p<.05$) all positively predicted cultural intelligence.

Perceptions of Factors That Relate To Educational Decision-Making

The second research question explored the perceptions of different educational decision-makers on the factors that may relate to educational decision-making processes for CLD students who may have disabilities. Results from the independent samples t-test revealed that participants perceived factors related to pre-referral/referral processes (M=22.82, SD=1.80) to be more important in decision-making when compared to factors related to eligibility determination (M=18.96, SD=1.58). Further analysis indicated that participants self-reported feeling more confident in making decisions involving eligibility determination (M=8.20, SD=1.291) than pre-referral/referral processes (M=7.82, SD=1.283). Thematic analysis of participants' open-ended responses revealed that for pre-referral/referral processes the most prevalent factors were related to academics (31.8%) and language (29.4%) while the most prevalent factors for eligibility determination were related to culture (22.9%) and language (24.3%).

Cultural Intelligence and Factors that Relate to Educational Decision-Making

The third research question examined the relationship between cultural intelligence and participants' perceptions of the importance of factors that relate to educational decision-making. The findings indicated that cultural intelligence was positively correlated with participants' perceptions of the importance of clear school-wide processes (r = .194), the knowledge education professionals have about the impact of culture and language on learning (r = .191), and the skills classroom teachers have for instructing students who are culturally and linguistically diverse (r = .270). There was only a positive correlation between cultural intelligence and the skills classroom teacher have for instructing students who are culturally and linguistically diverse (r =.257) when considering eligibility determination. Results of the linear regression further indicated that cultural intelligence was a significant predictor of participants' perceptions of the importance of factors that relate to pre-referral/referral processes, yet it only accounted for a small percent of the variance (R^2= .059, $F(1, 115) = 7.175$, $p < .01$). Cultural intelligence was found to be a significant predictor of participants' reported confidence for making decisions regarding culturally and linguistically diverse students during pre-referral/referral processes (R^2= .287, $F(1, 114) = 45.896$, $p < .001$) and eligibility determination (R^2=.141, $F(1, 112) = 18.348$, $p < .001$).

Discussion

In brief, the current study yielded several noteworthy results. The first research question sought to explore the extent to which individual-level factors related to and predicted the cultural intelligence of educational decision-makers. As hypothesized, the results revealed that demographic factors and professional experiences predicted the

cultural intelligence of educational decision-makers. This is consistent with the body of literature on cultural intelligence (e.g., Collins et al., 2016; Crowne, 2013; Cui, 2016; Earley and Ang, 2003) that indicates that cultural intelligence can be predicted by individual differences. Specifically, multilingual skills, certification in a world language subject area, and certification in special education were positive predictors. Moreover, cultural intelligence was positively correlated with multilingual skills and having lived or visited a country outside of the United States. This aligns with previous research in which cultural intelligence was correlated to intercultural experiences (e.g., Cui 2016; Petrovic, 2011). Although demographic variables and professional experiences were overall predictors of cultural intelligence, independent analysis did not reveal significant results for certain variables previously identified in the literature such as gender (e.g., Dogutas, 2015) and type of professional role (e.g., Collins et al., 2016). However, this may possibly be due to the sample sizes for these groups. The results further revealed that educational decision-makers who frequently attended professional development on CLD topics were those who had a specialization for working with students who are CLD, had lived in a country outside of the United States, and had a higher educational degree.

The second research question examined how educational decision-makers perceived factors that relate to educational decision-making processes for CLD students who may have disabilities. The hypothesis was supported as results revealed differences in the perceptions of educational decision-makers. Factors related to pre-referral/referral processes were perceived to be more important in decision-making when compared to factors related to eligibility determination. Interestingly, participants self-reported greater confidence in making decisions involving eligibility determination than pre-

referral/referral processes. A possible explanation for these findings may be that educational decision-makers perceive pre-referral/referral processes to be affected by social, cultural, and linguistic factors more than eligibility determination. Thus, they may report feeling more confident in determining a student's eligibility for special education services than the decision to refer a student for an evaluation. This is consistent with the literature on the cultural competence of educational professionals that highlights the challenges school-based teams face when differentiating social, cultural, and linguistic factors from disabilities (e.g., Greenfield, 2013; Klingner & Harry, 2006). Thematic analysis of participants' responses to open-ended questions further supported that the most prevalent factors that were perceived to relate to educational decision-making in pre-referral/referral processes were related to academics and language, such as differentiating between second language acquisition and disability. Cultural and linguistic factors were the most common themes reported for eligibility determination.

The final research question investigated the relationship between cultural intelligence and the perceptions of educational decision-makers. The hypothesis was partially supported. As participants' cultural intelligence increased so did their perceived importance for certain factors related to pre-referral/referral processes and eligibility determination, respectively. For pre-referral/referral processes, these factors included clear school-wide processes, the knowledge education professionals have about the impact of culture and language on learning, and the skills classroom teachers have for instructing students who are culturally and linguistically diverse. For eligibility determination, this only included skills classroom teachers have for instructing students who are culturally and linguistically diverse. These findings are commensurate with prior

studies that highlight the lack of understanding of the purpose of such processes, cultural knowledge, and implementation of culturally appropriate practices among educational professionals (e.g., Cavendish et al., 2016; Orosco & Klingner, 2010). However, despite cultural intelligence being a significant predictor of participants' perceptions of pre-referral/referral factors, it only accounted for a small percentage of the variance. Cultural intelligence was not found to be a predictor of participants' perceptions of factors related to eligibility determination.

Limitations

One of the potential limitations of the present study is the response rate and sampling size. Although adequate for the analysis conducted, a larger sampling size could further enhance the analysis and generalizability of the results. The results may also be limited to educational decision-makers in Broward County Public Schools where the study was conducted. Thus, expanding the sample to include educational decision-makers across counties and schools may serve to extend these findings to professionals working in a variety of settings. Unequal sampling sizes across certain variables, such as types of professional role and gender, can also limit the interpretation of the results as most participants reported being female and employed as school psychologists.

Additionally, although the Cultural Intelligence Scale has been previously validated, including in education, the limited sample size did not allow for a confirmatory factor analysis to further establish the validity of the scale with educational professionals. This can potentially limit the interpretation of results. However, the internal consistencies of the Cultural Intelligence Scale and its dimensions (i.e., metacognitive, cognitive, motivational, behavioral) was high when assessed with the current dataset.

Online survey methodologies used for the current study also present with potential limitations that may have affected response rates, such as emails being viewed as spam. Recommendations were also followed from the literature (e.g., Evans & Mathur, 2005; Van Selm & Jankowskby, 2006) to minimize these potential limitations of online survey methodologies. Another limitation of this study is not being able to ascertain if potential participants received the recruitment email and online survey link. Direct access to individual district employee emails may serve to address this limitation in future research. Moreover, given the research materials employed, the limitations of self-reported measures should also be considered. One limitation that was controlled for and found to be insignificant was the potential for social desirability to influence participants' responses particularly as it relates to cultural intelligence.

Recommendations and Implications

Recommendations for Future Research

The present study explored the cultural intelligence and perceptions of educational decision-makers and yielded noteworthy findings that can be used to further build upon the body of literature. Given the current sampling method, one recommendation for future research is to expand the sampling size to include educational decision-makers working across various counties to further the generalizability of the results. The county this study was conducted at was a large, urban county with a large population of CLD students. Thus, it may be worthwhile to explore the cultural intelligence and perceptions of educational decision-makers working in smaller, rural counties. A larger sampling size would also allow for further validation of the Cultural Intelligence Scale with educational professionals and thus add to the literature on cultural intelligence and cultural competence

in education. Likewise, the adaption of cultural intelligence training to be used in the field of education can be further piloted and researched through methods such as a randomized control trial with education professionals. The current study also focused on educational decision-makers that most often participate in educational decision-making in schools, including those in instructional positions, school psychologists, and local education agents. Future research can further examine the cultural intelligence and perceptions of other educational professionals involved in educational decision-making. This can include other evaluation specialists such as such as speech-language pathologists. Future research can also expand the scope of educational decision-making to include decisions beyond referral and eligibility, specifically decisions involving placement and provision of services.

Despite the implications of this study, the findings indicated that cultural intelligence only accounted for a small percentage of the variance in the perceptions of educational decision-makers for pre-referral/referral processes and no significant relationship was found for eligibility determination. A future research direction could be to explore other factors that may contribute to how educational decision-makers perceive factors related to such decision-making processes in special education. The individual dimensions of cultural intelligence (e.g., metacognitive, cognitive, motivational, and behavioral) can also be explored in relation to these perceptions. The differences in the confidence for making educational decisions for CLD students with disabilities and the overall importance participants placed on pre-referral/referral and eligibility determination processes similarly merits further research.

Implications for Theory

The conceptual framework for this study drew upon Vygotsky's sociocultural theory and the multi-foci theory of intelligence. Both of theories intersect on the interplay of the individual with the environment. These theories served to understand differences in the cultural competence of education professionals as well as the educational needs of diverse learners. Sociocultural theory emphasizes how social, cultural, and individual factors relate to learning and development. The multi-foci theory of intelligence states that intelligence encompasses the individual, the environment, and the interaction between the individual and the environment. The findings from this study indicated that individual differences in educational professionals accounted for differences in the cultural intelligence of educational professionals, including demographic factors and professional experiences. These findings, in turn, contribute to sociocultural theory and the multi-foci theory of intelligence, as well as the body of literature on cultural intelligence.

Furthermore, as Vygotsky postulated, sociocultural theory supports the need to assess and instruct students with disabilities in a holistic and dynamic manner that is responsive to their cultural and linguistic needs. The current study added to this theory as it explored the perceptions of educational decision-makers regarding the importance of factors that relate to decision-making processes in pre-referral/referral and eligibility determination, which may ultimately impact student outcomes. The findings from this study supported the role of factors related to the student (e.g., cultural exposure, second language skills) as well as the environment (e.g., clear school-wide policies, culturally appropriate practices) in development and learning. This intersect between the individual and environment further contributes to the multi-foci theory of intelligence.

Implications for Practice

In sum, the findings from this study may serve to inform policies and procedures related to the field of education, particularly as it relates to special education practices involving students of culturally and linguistically diverse backgrounds. Cultural intelligence involves an individual's ability to effectively manage culturally diverse situations (Ang & Van Dyne, 2015). Cultural intelligence can impact cultural judgment and decision-making, which are the processes involved in making decisions in culturally diverse situations (Ang et al., 2007). In education, the cultural intelligence of educational professionals can potentially impact educational decision-making involving students of diverse backgrounds. The findings indicated that cultural intelligence was a significant predictor of participants' perceived confidence for making decisions regarding pre-referral/referral and eligibility determination. Albeit small, cultural intelligence predicted the perceptions of educational decision-makers, specifically as it relates to pre-referral processes.

Individual differences were found to be predictors of cultural intelligence. There were differences in the cultural intelligence of educational decision-makers with multilingual skills, certification in a world language subject area, and certification in special education. Individuals with such skill sets and certifications may in turn have greater ability for making decisions in culturally diverse situations. Including such educational professionals within school-based teams may facilitate educational decision-making for CLD students who may have disabilities. Findings further indicated that educational professionals with a specialization for working with students who are CLD, a higher educational degree, or certain intercultural experiences attended professional

development on CLD topics more frequently. Such individuals can contribute their professional experiences and knowledge of CLD topics as part of school-based teams in order to facilitate educational decision-making processes.

Given the multidisciplinary nature of school-based teams, educational decision-makers may contribute various intercultural and professional experiences and thus various levels of cultural intelligence. As indicated by the findings, cultural intelligence can predict the perceptions and confidence of educational professionals for educational decision-making and CLD students who may have disabilities. However, as cited in the literature, cultural intelligence can be improved through cross-cultural training. Thus, it may be worthwhile to assess and provide cultural intelligence training to professionals who frequently engage in educational decision-making involving students of CLD background with potential disabilities.

Based on prior literature (e.g., Eisenberg et al., 2013; MacNab, 2012; Rehg et al., 2012), training for cultural intelligence would be aimed at improving the abilities of educational professionals for effectively managing cross-cultural situations such as the increasingly diverse U.S. classroom. Such trainings would involve direct experiences and reflection as outlined by other researchers such as MacNab (2012). The Cultural Intelligence Scale can be used in this endeavor as a pre-post tool for measuring the cultural intelligence of educational professionals as well as a tool for identifying training needs. Previous researchers (e.g., Kennedy, 2006) have noted how self-reflecting on cultural intelligence can inform the practices of educational professionals as well as identify areas in need of professional development. The Cultural Intelligence Scale can assess an individuals' awareness, cultural knowledge, motivation, and ability to display

culturally responsive behaviors. The dimensions measured by the scale (i.e., metacognitive, cognitive, motivational, behavioral) can in turn be applied to focus training on dimensions that may be underdeveloped in educational professionals as a whole. Moreover, cultural intelligence training addresses both broad cultural knowledge and awareness as well as cultural elements associated with particular regions. This may be of particular interest to in-service and preservice training programs to train educational professionals across the United States who work with varying levels of cultural diversity in their schools.

It may also be worthwhile to consider including cultural intelligence as a competency for preservice training programs for educational professionals. Including cultural intelligence as a course in preservice programs may further aid in preparing preservice educators for effectively adapting and responding to culturally diverse populations. Previous research has shown how the construct of cultural intelligence can be adapted and used to explore culturally relevant practices of preservice and in-service educators (e.g., Kennedy, 2016; Molina, 2013). Yet, as Watkins and Noble (2016) emphasize, cultural intelligence is reflected not only through such culturally relevant practices but also educators' willingness for engaging with culturally diverse populations. Preservice courses aimed at improving the cultural intelligence of educational professionals would aid in developing both their culturally relevant practices as well as their overall ability for adapting to culturally diverse situations.

Exploration of the perceptions of educational decision-makers regarding the importance of factors that relate to pre-referral/referral and eligibility determination also carries implications for practice. In tandem with the literature and Vygotsky's

sociocultural theory, school-level factors as well as individual-level factors related to the competence of educational professionals can impact educational decision-making regarding students of CLD backgrounds who may have disabilities (e.g., Burr et al., 2015; Flores & Smith, 2008; Greenfield, 2016; Park & Thomas; 2012; Shore & Sabatini, 2009; Cardona-Moltó et al., 2017). Specifically, cultural intelligence was positively related to the perceptions of educational decision-makers regarding the importance of factors that relate to pre-referral/referral and eligibility determination. Teachers' skills for instructing students who are CLD was viewed as an important factor in both pre-referral/referral and eligibility determination. Clear school-wide processes and the knowledge education professionals have about the impact of culture and language on learning were viewed as important for pre-referral/referral processes and was positively correlated with cultural intelligence. Open-ended questions also highlighted the importance of cultural awareness for educational professionals, including their knowledge for and use of culturally appropriate practices in progress monitoring and evaluation. Thus, these findings can serve to inform professional development for educational decision-makers, including instructional strategies for working with CLD student's, knowledge of the impact of culture and language on learning and development, and best practices for formally evaluating students of CLD background.

The findings from this study may also serve to inform school-wide policies and procedures. Open-ended questions highlighted the impact of factors related to academics, culture, and language on educational decision-making. An overreaching theme was the need to gather information regarding students' educational history, cultural exposure, and second language skills during pre-referral/referral and eligibility processes. In tandem,

findings also indicated that pre-referral/referral processes may potentially be more impacted by such factors than eligibility determination, which may explain the greater confidence reported for making decisions for eligibility determination than the former. An implication for practice could be the revision of school-wide policies for identifying CLD students during pre-referral/referral processes. School-based teams may consider gathering information regarding socio-cultural factors during the initial stages of identifying students' who may have disabilities in order to facilitate educational decision-making.

Conclusion

The purpose of this study was to expand the literature on the cultural competence of educational decision-makers through the construct of cultural intelligence as well as explore their perceptions of the importance of factors that relate to educational decision-making for CLD students who may have disabilities. Results revealed that individual-level factors predicted the cultural intelligence of educational-decision makers. Pre-referral/referral factors overall were perceived as being more important in decision-making than factors related to eligibility determination. Educational decision-makers reported having greater confidence in making decisions for eligibility determination than pre-referral/referral processes. Cultural intelligence was also a predictor of educational-decision makers' perceptions of pre-referral/referral factors, yet it only accounted for a small percentage of the variance. In closing, the findings from this study further expands the application of cultural intelligence to the field of education. These findings may serve to inform special education policies and practice and improve educational decision-making regarding diverse students with diverse educational needs.

REFERENCES

Ang, S., & Van Dyne, L. (2015). *Handbook of cultural intelligence*. Armonk, New York: M.E. Sharp.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision-making, cultural adaptation and task performance. *Management and Organization Review*, *3*(3), 335-371.

Avant, D. W., & Swerdlik, M. E. (2016). A Collaborative Endeavor: The Roles and Functions of School Social Workers and School Psychologists in Implementing Multi-tiered System of Supports/Response to Intervention. *School Social Work Journal*, *41*(1).

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, *4*(3), 359-373.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175.

Bandura, A. (1988). Self-efficacy conception of anxiety. *Anxiety Research*, *1*(2), 77-98.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*(2), 117-148.

Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, *2*(1), 21-41.

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology*, *51*(2), 269-290.

Bardack, S. (2010). Common ELL terms and definitions. Retrieved from https://www.air.org/sites/default/files/downloads/report/NEW_-_Common_ELL_TERMS_AND_DEFINITIONS_6_22_10_0.pdf

Becker, G. I., & Deris, A. R. (2019). Identification of Hispanic English Language Learners in Special Education. *Education Research International*, 9.

Bender, W. N. & Shores, C. (2007). *Response to intervention: A practical guide for every teacher.* Thousand Oaks, California: Corwin Press.

Björn, P. M., Aro, M. T., Koponen, T. K., Fuchs, L. S., & Fuchs, D. H. (2016). The many faces of special education within RTI frameworks in the United States and Finland. *Learning Disability Quarterly*, *39*(1), 58-66.

Branum-Martin, L., Mehta, P. D., Carlson, C. D., Francis, D. J., & Goldenberg, C. (2014). The nature of Spanish versus English language use at home. *Journal of Educational Psychology*, *106*(1), 181.

Braun, V. & Clarke, V. (2012) Thematic analysis. In Cooper, H. (Ed.), *The Handbook of Research Methods in Psychology*. Washington, DC: American Psychological Association.

Brown, J. E., & Doolittle, J. (2008). A cultural, linguistic, and ecological framework for response to intervention with English language learners. *Teaching Exceptional Children*, *40*(5), 66-72.

Bücker, J. J., Furrer, O., Poutsma, E., & Buyens, D. (2014). The impact of cultural intelligence on communication effectiveness, job satisfaction and anxiety for Chinese host country managers working for foreign multinationals. *The International Journal of Human Resource Management*, *25*(14), 2068-2087.

Bücker, J. J., & Korzilius, H. (2015). Developing cultural intelligence: assessing the effect of the Ecotonos cultural simulation game for international business students. *The International Journal of Human Resource Management*, *26*(15), 1995-2014.

Burr, E., E. Haas, and K. Ferriere. 2015. *Identifying and Supporting English Learner Students with Learning Disabilities: Key Issues in the Literature and State Practice*. Retrieved from http://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2015086.pdf.

Bylund, J. (2011). Thought and second language: A Vygotskian framework for understanding BICS and CALP. *Communique*, *39*(5), 4-6.

Carlo, M. S., August, D., McLaughlin, B., Snow, C., Dressler, C., Lippman, D., ... & White, C. E. (2009). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Journal of Education*, *189*(1-2), 57-76.

Callahan, R. M. (2013). The English Learner dropout dilemma: Multiple risks and multiple resources. Retrieved from http://cdrpsb.org/download.php?file=researchreport19.pdf

Cardona-Moltó, M. C., Rao, S., Chiner, E., & Soffer, R. (2017). Exploring Attitudes and Competence to Teach Diverse Students: A Cross-cultural Study of Teacher Perceptions in Spain and the United States. *International Journal of Diversity In Education*, 17(*4*), 19.

Cartledge, G., Kea, C. D., Watson, M., & Oif, A. (2016). Special education disproportionality: A review of response to intervention and culturally relevant pedagogy. *Multiple Voices for Ethnically Diverse Exceptional Learners*, *16*(1), 29-49.

Cartledge, G., & Kourea, L. (2008). Culturally responsive classrooms for culturally diverse students with and at risk for disabilities. *Exceptional children*, *74*(3), 351-371.

Castro-Villarreal, F., Rodriguez, B. J., & Moore, S. (2014). Teachers' perceptions and attitudes about Response to Intervention (RTI) in their schools: A qualitative analysis. *Teaching and Teacher Education*, *40*, 104-112.

Cavendish, W., Harry, B., Menda, A., Espinosa, A., & Mahotiere, M. (2016). Implementing response to intervention: Challenges of diversity and system change in a high stakes environment. *Teachers College Record*, *118*(050301), 1-36.

Chalfant, J. C., VanDusen Pysh, M., & Moultrie, R. (1979). Teacher assistance teams: A model for within-building problem solving. *Learning Disability Quarterly*, *2*(3), 85-96.

Chiner, E., Cardona-Moltó, M.C, & Puerta, J.M.G. (2015). Teachers' beliefs about diversity: an analysis from a personal and professional perspective. *New Approaches in Educational Research*, *4*(1), 19-24.

Chu, S. (2011a). Teacher perceptions of their efficacy for special education referral of students from culturally and linguistically diverse backgrounds. *Education*, 132(1), 3-15.

Chu, S. (2011b). Teacher efficacy beliefs toward serving culturally and linguistically diverse students in special education: Implications of a pilot study. *Education and Urban Society*, *45*(3), 385-410.

Chu, S. Y., & Garcia, S. (2014). Culturally responsive teaching efficacy beliefs of in-service special education teachers. *Remedial and Special Education*, *35*(4), 218-232.

Collins, K. S., Duyar, I., & Pearson, C. L. (2016). Does cultural intelligence matter? Effects of principal and teacher cultural intelligence on Latino student achievement. Journal for Multicultural Education, *10*(4), 465-488.

Cooc, N. (2018) Understanding when teachers disagree about student disability. Exceptionality, *26*(2), 63-80.

Costa Jr, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, *13*(6), 653-665.

Counts, J., Katsiyannis, A., & Whitford, D. K. (2018). Culturally and linguistically diverse learners in special education: English learners. *NASSP Bulletin*, *102*(1), 5-21.

Cramer, L. (2015). Inequities of Intervention among Culturally and Linguistically Diverse Students. *Penn GSE Perspectives on Urban Education*, *12*(1).

Crowne, K. A. (2013). Cultural exposure, emotional intelligence, and cultural intelligence: An exploratory study. *International Journal of Cross Cultural Management*, *13*(1), 5-22.

Cui, Q. (2016). A study of factors influencing students' intercultural competence. *Journal of Language Teaching and Research*, *7*(3), 433-439.

Cummins, J. (1981). Empirical and theoretical underpinnings of bilingual education. *Journal of Education*, *163*(1), 16-29.

Davis, L. L. (1992). Instrument review: Getting the most from a panel of experts. *Applied nursing research*, *5*(4), 194-197.

Dee, A. L. (2012). Evidence of cultural competence within teacher performance assessments. *Action in Teacher Education*, *34*(3), 262-275.

Dennison, A., Hall, S. P., Leal, J., & Madres, D. A. (2018). ASD or ELL? Distinguishing Differences in Patterns of Communication and Behavior. *Contemporary School Psychology*, 1-11.

Desimone, L. M., & Le Floch, K. C. (2004). Are we asking the right questions? Using cognitive interviews to improve surveys in education research. *Educational Evaluation and Policy Analysis*, *26*(1), 1-22.

De Valenzuela, J. S., Copeland, S. R., Qi, C. H., & Park, M. (2006). Examining educational equity: Revisiting the disproportionate representation of minority students in special education. *Exceptional Children*, *72*(4), 425-441.

De Valenzuela, J. S., Connery, C. M., & Musanti, S. I. (2000). The theoretical foundations of professional development in special education: Is sociocultural theory enough. *Remedial and Special Education*, *21*(2), 111-120.

De Pry, R., & Cheesman, E. (2010). Reflections on culturally responsive teaching: Embedding theory into practices of instructional and behavioral support. *Journal of Praxis in Multicultural Education*, *5*(1), 36-51.

Drame, E. R., & Xu, Y. (2008). Examining sociocultural factors in response to intervention models. *Childhood Education, 85*(1), 26-32.

Dogutas, A. (2015). Cultural intelligence level of Turkish teacher candidates in globalized world. *Bartin University Journal of Faculty of Education, 4*(2), 530.

Dunn, M. W. (2006). It was written all over him: Classroom teachers' referral criteria for special education services. *International Journal of Special Education, 21*(2), 124-139. Retrieved from http://ezproxy.fiu.edu/login?url=https://search-proquest-com.ezproxy.fiu.edu/docview/61861176?accountid=10901

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, California: Stanford University Press.

Eisenberg, J., Lee, H. J., Brück, F., Brenner, B., Claes, M. T., Mironski, J., & Bell, R. (2013). Can business schools make students culturally competent? Effects of cross-cultural management courses on cultural intelligence. *Academy of Management Learning & Education, 12*(4), 603-621.

Erez, M., Lisak, A., Harush, R., Glikson, E., Nouri, R., & Shokef, E. (2013). Going global: Developing management students' cultural intelligence and global identity in culturally diverse virtual teams. *Academy of Management Learning & Education, 12*(3), 330-355.

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research, 15*(2), 195-219.

Fan, C. H., Bocanegra, J. O., Ding, Y., & Neill, M. W. (2016). Examining school psychologists' perceptions of barriers to Response to Intervention (RtI) implementation. *Trainer's Forum: Journal of the Trainers of School Psychologists*, 54-76.

Farnia, F., & Geva, E. (2013). Growth and predictors of change in English language learners' reading comprehension. *Journal of Research in Reading, 36*(4), 389-421.

Fernandez, M. R., & Guzman, N. (2014). Educational Decisions and Academic Achievement: A Focus on Mexican American Students. *Research in Higher Education Journal, 26*.

Fernandez, N., & Inserra, A. (2013). Disproportionate Classification of ESL Students in US Special Education. *Tesl-Ej, 17*(2), 1-22.

Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of youth and adolescence, 29*(6), 679-695.

Fletcher, J.M., & Reschly, D. J. (2005). Changing procedures for identifying learning disabilities: The danger of perpetuating old ideas. *The School Psychologist*, 10–15.

Flores, B. B., & Smith, H. L. (2009). Teachers' characteristics and attitudinal beliefs about linguistic and cultural diversity. *Bilingual Research Journal, 31*(1-2), 323-358.

Ford, D. Y. (2012). Culturally different students in special education: Looking backward to move forward. *Exceptional Children, 78*(4), 391-405.

Fosnot, C. T., & Perry, R. S. (1996). Constructivism: A psychological theory of learning. *Constructivism: Theory, Perspectives, and Practice, 2*, 8-33.

Froehlich, L., Martiny, S. E., Deaux, K., & Mok, S. Y. (2015). It's their responsibility, not ours. *Social Psychology, 47*(2), 74-86.

Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research & Practice, 18*(3), 157-171.

Garcia, S., & Ortiz, A. (2008). A framework for culturally and linguistically responsive design of response-to-intervention models. *Multiple Voices for Ethnically Diverse Exceptional Learners, 11*(1), 24-41.

Gay, G. (2002a). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(*2*), 106-116.

Gay, G. (2002b). Culturally responsive teaching in special education for ethnically diverse students: Setting the stage. *International Journal of Qualitative Studies in Education*, 15(*6*), 613-629.

Gaylord-Harden, N., & Cunningham, J. A. (2009). The impact of racial discrimination and coping strategies on internalizing symptoms in African American youth. *Journal of Youth and Adolescence, 38*(4), 532-43.

Geerlings, J., Thijs, J., & Verkuyten, M. (2018). Teaching in ethnically diverse classrooms: Examining individual differences in teacher self-efficacy. *Journal of School Psychology, 67*, 134-147.

Goddard, R., Goddard, Y., Sook Kim, E., & Miller, R. (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective efficacy beliefs in support of student learning. *American Journal of Education, 121*(4), 501-530.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, *37*(2), 479-507.

Goh, M. (2012). Teaching with cultural intelligence: developing multiculturally educated and globally engaged citizens. *Asia Pacific Journal of Education*, *32*(4), 395-415.

Greenfield, R. A. (2013). Perceptions of elementary teachers who educate linguistically diverse students. *The Qualitative Report, 18*(47), 1-26. Retrieved from http://ezproxy.fiu.edu/login?url=https://search-proquest-com.ezproxy.fiu.edu/docview/1505318053?accountid=10901

Greenfield, R. A. (2016). Educating Linguistically Diverse Students: A Mixed Methods Study of Elementary Teachers' Coursework, Attitudes, and Practice. *Current Issues in Education*, *19*(1).

Greenfield, R., Rinaldi, C., Proctor, C. P., & Cardarelli, A. (2010). Teachers' perceptions of a response to intervention (RTI) reform effort in an urban elementary school: A consensual qualitative analysis. *Journal of Disability Policy Studies, 21*(1), 47-63.

Gindis, B. (1999). Vygotsky's vision: Reshaping the practice of special education for the 21st century. *Remedial and Special Education, 20*(6), 333-340.

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*, *33*(3), 3-13.

Goddard, R. D., & Skrla, L. (2006). The influence of school social composition on teachers' collective efficacy beliefs. *Educational Administration Quarterly*, *42*(2), 216-235.

Griffer, M. R., & Perlis, S. M. (2007). Developing cultural intelligence in preservice speech-language pathologists and educators. *Communication Disorders Quarterly*, *29*(1), 28-35.

Gulistan Yunlu, D., & Clapp-Smith, R. (2014). Metacognition, cultural psychological capital and motivational cultural intelligence. *Cross Cultural Management, 21*(4), 386-399.

Hale, J.B., Naglieri J. A., Kaufman, A. S., & Kavale, K. A. (2004). Specific learning disability classification in the new Individuals with Disabilities Education Act: The danger of good ideas. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.465.1701&rep=rep1&type=pdf

Halle, T., Hair, E., Wandner, L., McNamara, M., & Chien, N. (2012). Predictors and outcomes of early versus later English language proficiency among English language learners. *Early childhood research quarterly, 27*(1), 1-20.

Harris-Murri, N., King, K., & Rostenberg, D. (2006). Reducing disproportionate minority representation in special education programs for students with emotional disturbances: Toward a culturally responsive response to intervention model. *Education and Treatment of Children, 29*(4), 779-799.

Harry, B., & Klingner, J. (2014). *Why are so many minority students in special education?* New York, NY: Teachers College Press.

Hays, R. D., Hayashi, T., & Stewart, A. L. (1989). A five-item measure of socially desirable response set. *Educational and Psychological Measurement, 49*(3), 629-636.

Hoover, J. J. (2010). Special education eligibility decision-making in response to intervention models. *Theory into Practice, 49*(4), 289-296.

Hoover, J. J., & deBettencourt, L. U. (2018). Educating culturally and linguistically diverse exceptional learners: The need for continued advocacy. *Exceptionality, 26*(3), 176-189.

Jang, E. E., Dunlop, M., Wagner, M., Kim, Y. H., & Gu, Z. (2013). Elementary school ELLs' reading skill profiles using cognitive diagnosis modeling: Roles of length of residence and home language environment. *Language Learning, 63*(3), 400-436.

John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist, 31,* 191-206.

Joy, S., & Kolb, D. A. (2009). Are there cultural differences in learning style? *International Journal of intercultural relations, 33*(1), 69-85.

Jyoti, J., & Kour, S. (2017). Factors affecting cultural intelligence and its impact on job performance: Role of cross-cultural adjustment, experience and perceived social support. *Personnel Review, 46*(4), 767-791.

Kennedy, D. (2016). Cultural intelligence (CQ) as a mirror and path in pre-service teacher candidate preparation. *Teaching & Learning,* 29(*2*), 51-88.

Keung, E. K. & Rockinson-Szapkiw, A. J. (2013). The relationship between transformational leadership and cultural intelligence: A study of international school leaders. *Journal of Educational Administration, 51*(6), 836-854.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, *102*(3), 741.

Klassen, R. M., & Chiu, M. M. (2011). The occupational commitment and intention to quit of practicing and pre-service teachers: Influence of self-efficacy, job stress, and teaching context. *Contemporary Educational Psychology*, *36*(2), 114-129.

Klingner, J. K., Artiles, A. J., Kozleski, E., Harry, B., Zion, S., Tate, W., ... & Riley, D. (2005). Addressing the disproportionate representation of culturally and linguistically diverse students in special education through culturally responsive educational systems. E*ducation Policy Analysis Archives*, *13*(38), 1-38.

Klingner, J. K., & Harry, B. (2006). The special education referral and decision-making process for English Language Learners: Child study team meetings and staffings. *Teachers College Record*, *108*, 2247-2281.

Klingner, J. K., & Edwards, P. A. (2006). Cultural considerations with response to intervention models. *Reading Research Quarterly*, *41*(1), 108-117.

Kulis, S., Marsiglia, F. F., & Nieri, T. (2009). Perceived ethnic discrimination versus acculturation stress: Influences on substance use among Latino youth in the Southwest. *Journal of Health and Social Behavior*, *50*(4), 443-459.

Kurpis, L. H., & Hunter, J. (2017). Developing students' cultural intelligence through an experiential learning activity: A cross-cultural consumer behavior interview. *Journal of Marketing Education*, *39*(1), 30-46.

Landa, M. H., Odòna-Holm, J., & Shi, L. (2017). Education Abroad and Domestic Cultural Immersion: A Comparative Study of Cultural Competence among Teacher Candidates. *Teacher Educator*, *52*(3), 250-267.

Larson, K. E., & Bradshaw, C. P. (2017). Cultural competence and social desirability among practitioners: A systematic review of the literature. *Children and Youth Services Review*, *76*, 100-111.

Li, M., Mobley, W. H., & Kelly, A. (2016). Linking personality to cultural intelligence: An interactive effect of openness and agreeableness. *Personality and Individual Differences*, *89*, 105-110.

Lin, Y. C., Chen, A. S. Y., & Song, Y. C. (2012). Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *International Journal of intercultural relations*, *36*(4), 541-552.

Liu, Y. J., Ortiz, A. A., Wilkinson, C. Y., Robertson, P., & Kushner, M. I. (2008). From early childhood special education to special education resource rooms: Identification, assessment, and eligibility determinations for English language learners with reading-related disabilities. *Assessment for Effective Intervention*, *33*(3), 177-187.

Lopes-Murphy, S. A., & Murphy, C. G. (2016). The Influence of Cross-Cultural Experiences & Location on Teachers' Perceptions of Cultural Competence. *Journal of The Scholarship Of Teaching And Learning*, 16(*3*), 57-71.

Lopez, E. C., & Bursztyn, A. M. (2013). Future challenges and opportunities: Toward culturally responsive training in school psychology. *Psychology in the Schools*, *50*(3), 212-228.

Luthans, F., Youssef, C.M. and Avolio, B.J. (2007). *Psychological capital: Developing the human competitive edge*. New York, NY: Oxford University Press.

MacNab, B. R. (2012). An experiential approach to cultural intelligence education. *Journal of Management Education*, *36*(1), 66-94.

MacNab, B. R., & Worthley, R. (2012). Individual characteristics as predictors of cultural intelligence development: The relevance of self-efficacy. *International Journal of Intercultural Relations*, *36*(1), 62-71.

Mahatmya, D., Lohman, B. J., Brown, E. L., & Conway-Turner, J. (2016). The role of race and teachers' cultural awareness in predicting low-income, Black and Hispanic students' perceptions of educational attainment. *Social Psychology of Education*, *19*(2), 427-449.

Mahn, H. (1999). Vygotsky's methodological contribution to sociocultural theory. *Remedial and Special Education*, *20*(6), 341-350.

Malo-Juvera, V., Correll, P., & Cantrell, S. (2018). A mixed methods investigation of teachers' self-efficacy for culturally responsive instruction. *Teaching and Teacher Education*, *74*, 146-156.

Mancilla-Martinez, J., & Lesaux, N. K. (2011). Early home language use and later vocabulary development. *Journal of Educational Psychology*, *103*(3), 535.

Meijer, C., & Foster, S. (1988). The effect of teacher self-efficacy on referral chance. J*ournal of Special Education*, *22*(3).

Meyer, M. M., & Behar-Horenstein, L. S. (2015). When leadership matters: Perspectives from a teacher team implementing response to intervention. *Education and Treatment of Children*, *38*(3), 383-402.

Molina, S. C. (2013). Romanticizing culture: The role of teachers' cultural intelligence in working with diversity. *CATESOL Journal, 24*(1), 220-244.

Moon, K. H., Choi, K. B., & Jung, S. J. (2012). Previous international experience, cross-cultural training, and expatriates' cross-cultural adjustment: Effects of cultural intelligence and goal orientation. *Human Resource Development Quarterly, 23*(3), 285-330.

Morgan, P. L., Farkas, G., Hillemeier, M. M., & Maczuga, S. (2017). Replicated evidence of racial and ethnic disparities in disability identification in U.S. schools. *Educational Researcher, 46*(6), 305-322.

Morrell, D. L., Ravlin, E. C., Ramsey, J. R., & Ward, A. K. (2013). Past experience, cultural intelligence, and satisfaction with international business studies. *Journal of Teaching in International Business*, *24*(1), 31-43.

Mulvey, P. W., & Klein, H. J. (1998). The impact of perceived loafing and collective efficacy on group goal processes and group performance. *Organizational Behavior and Human Decision Processes, 74*(1), 62-87.

Murawski, W. W., & Hughes, C. E. (2009). Response to intervention, collaboration, and co-teaching: A logical combination for successful systemic change. *Preventing School Failure: Alternative Education for Children and Youth, 53*(4), 267-277.

National Center for Education Statistics. (2011). Projections of Education Statistics to 2020. Retrieved from https://nces.ed.gov/pubs2011/2011026.pdf

Nellis, L. M. (2012). Maximizing the effectiveness of building teams in response to intervention implementation. *Psychology in the Schools, 49*(3), 245-256.

Nelson, J., Bustamante, R., Wilson, E., & Onwuegbuzie, A. (2008). The school-wide cultural competence observation checklist for school counselors: An exploratory factor analysis. *Professional School Counseling, 11*(4), 207-217.

Orosco, M. J., & Klingner, J. (2010). One school's implementation of RTI with English language learners: "Referring into RTI." *Journal of Learning Disabilities*, 43(3), 269-288.

Ortiz, A. A. (1997). Learning disabilities occurring concomitantly with linguistic differences. *Journal of Learning disabilities, 30*(3), 321-332.

Overton, T., Fielding, C., & Simonsson, M. (2004). Decision-making in determining eligibility of culturally and linguistically diverse learners: Reasons given by assessment personnel. *Journal of learning disabilities, 37*(4), 319-330.

Paige, R. (2004). The legacy of brown versus board of education. *Society*, *41*(5), 7-11.

Palacios, N., & Kibler, A. (2016). Oral English language proficiency and reading mastery: The role of home language and school supports. *The Journal of Educational Research*, *109*(2), 122-136.

Park, Y., & Thomas, R. (2012). Educating English-language learners with special needs: Beyond cultural and linguistic considerations. *Journal of Education and Practice*, *3*(9), 52-58.

Pas, E. T., Bradshaw, C. P., Hershfeldt, P. A., & Leaf, P. J. (2010). A multilevel exploration of the influence of teacher efficacy and burnout on response to student problem behavior and school-based service use. *School Psychology Quarterly*, *25*(1), 13-27.

Pantić, N., & Wubbels, T. (2012). Teachers' moral values and their interpersonal relationships with students and cultural competence. *Teaching and Teacher Education*, 28(*3*), 451-460.

Petrović, D. S. (2011). How do teachers perceive their cultural intelligence? *Procedia Social and Behavioral Sciences*, *11*, 276-280.

Pfeiffer, S. I. (1982). The superiority of team decision-making. *Exceptional Children*, *49*(1), 68-69.

Pfeiffer, S. I., & Naglieri, J. A. (1983). An investigation of multidisciplinary team decision-making. *Journal of Learning Disabilities*, *16*(10), 588-590.

Presbitero, A. (2016). Cultural intelligence (CQ) in virtual, cross-cultural interactions: Generalizability of measure and links to personality dimensions and task performance. *International Journal of Intercultural Relations*, 50, 29-38.

Rehg, M. T., Gundlach, M. J., & Grigorian, R. A. (2012). Examining the influence of cross-cultural training on cultural intelligence and specific self-efficacy. *Cross Cultural Management: An International Journal*, *19*(2), 215-232.

Reichard, R. J., Dollwet, M., & Louw-Potgieter, J. (2014). Development of cross-cultural psychological capital and its relationship with cultural intelligence and ethnocentrism. *Journal of Leadership & Organizational Studies*, *21*(2), 150-164.

Riley, T. (2015). "I know I'm generalizing but…": How teachers' perceptions influence ESL learner placement. *TESOL Quarterly*, *49*(4), 659-680.

Robinson, G. G. (2016). Culturally responsive beliefs and practices of general and special education teachers within a response to intervention framework. *Multiple Voices for Ethnically Diverse Exceptional Learners*, 16(*2*), 22-36.

Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., & Annen, H. (2011). Beyond general intelligence (IQ) and emotional intelligence (EQ): The role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world. *Journal of Social Issues*, *67*(4), 825-840.

Rockstuhl, T., & Van Dyne, L. (2018). A bi-factor theory of the four-factor model of cultural intelligence: Meta-analysis and theoretical extensions. *Organizational Behavior and Human Decision Processes*, *148*, 124-144.

Rubio, D. M., Berg-Weger, M., Tebb, S. S., Lee, E. S., & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. *Social work research*, *27*(2), 94-104.

Sahin, F., Gurbuz, S., & Köksal, O. (2014). Cultural intelligence (CQ) in action: The effects of personality and international assignment on the development of CQ. *International Journal of Intercultural Relations*, *39*, 152-163.

Samson, J. F., & Lesaux, N. K. (2009). Language-minority learners in special education: Rates and predictors of identification for services. *Journal of Learning Disabilities*, *42*(2), 148-162.

Sanchez, M.T., Parker, C., Akbayin, B., &McTigue, A. (2010). Processes and challenges in identifying learning disabilities among students who are English language learners in there New York state districts. Retrieved from http://ies.ed.gov/ncee/edlabs.

Sarraj, H., Carter, S., & Burley, H. (2015). Literature review of multicultural instrumentation. *Multicultural Perspectives*, 17(*4*), 225-233.

Scott, L. A., Alexander, Q., Fritton, S., & Thoma, C. (2017). An Evaluation of Culturally Responsive Practices in Special Education Program for Preservice Educators. *Journal of Curriculum and Teaching*, *3*(2), 79-93.

Shifrer, D., Muller, C., & Callahan, R. (2011). Disproportionality and learning disabilities: Parsing apart race, socioeconomic status, and language. *Journal of Learning Disabilities*, *44*(3), 246-257.

Shore, J. R., & Sabatini, J. (2009). English language learners with reading disabilities: A review of the literature and the foundation for a research agenda. *ETS Research Report Series*, 1-48.

Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and Teacher Education*, 23*(7*), 1086-1101.

Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of educational psychology*, *99*(3), 611.

Skiba, R. J., Simmons, A. B., Ritter, S., Gibb, A. C., Rausch, M. K., Cuadrado, J., & Chung, C. (2008). Achieving equity in special education: History, status, and current challenges. *Exceptional Children*, *74*(3), 264-288. Retrieved from http://ezproxy.fiu.edu/login?url=https://search-proquest-com.ezproxy.fiu.edu/docview/201209818?accountid=10901

Soodak, L. C., & Podell, D. M. (1993). Teacher efficacy and student problem as factors in special education referral. *The Journal of Special Education*, *27*(1), 66-81.

Sosa, L. V., & McGrath, B. (2013). Collaboration from the ground up: Creating effective teams. *School Social Work Journal*, *38*(1), 34-48.

Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009). Collective efficacy, group potency, and group performance: Meta-analyses of their relationships, and test of a mediation model. *Journal of Applied Psychology*, *94*(3), 814-828.

Stark, P., & Noel, A. M. (2015). Trends in High School Dropout and Completion Rates in the United States: 1972-2012. Compendium Report. NCES 2015-015. *National Center for Education Statistics*.

Sternberg, R. J., & Detterman, D. K. (Eds.). (1986). *What is intelligence?: Contemporary viewpoints on its nature and definition*. Norwood, New Jersey: Ablex Publishing Corporation.

Suarez-Morales, L., & Lopez, B. (2009). The impact of acculturative stress and daily hassles on pre-adolescent psychological adjustment: Examining anxiety symptoms. *The Journal of Primary Prevention*, *30*(3-4), 335-349.

Sue, D. W., & Sue, D. (2012). *Counseling the culturally diverse: Theory and practice*. Hoboken, New Jersey: John Wiley & Sons.

Sullivan, A. L. (2011). Disproportionality in special education identification and placement of English language learners. *Exceptional Children*, *77*(3), 317-334.

Sullivan, A. L., & Bal, A. (2013). Disproportionality in special education: Effects of individual and school variables on disability risk. *Exceptional Children*, *79*(4), 475-494.

Sulkowski, M. L., Wingfield, R. J., Jones, D., & Coulter, W. A. (2011). Response to intervention and interdisciplinary collaboration: Joining hands to support children's healthy development. *Journal of Applied School Psychology, 27*(2), 118-133.

Trent, S. C., Rodriguez, D., Oh, K., Stewart, S., Kea, C., Artiles, A., & Hull, M. (2014). Beyond" Brown": Empirical Research on Diverse Learners with or At-Risk for Specific Learning Disabilities from 1994-2012. *Multiple Voices for Ethnically Diverse Exceptional Learners*, *14*(2), 12-29.

U.S. Department of Education Office of Special Education Programs. (2017). Individuals with Disabilities Education Act (IDEA). Retrieved from https://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html#bcc

Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the CQS. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence,* (pp.16-40). Armonk, New York: M.E. Sharp.

Van Selm, M., & Jankowski, N. W. (2006). Conducting online surveys. *Quality and Quantity, 40*(3), 435-456.

Vazquez-Montilla, E., Just, M., & Triscari, R. (2014). Teachers' Dispositions and Beliefs about Cultural and Linguistic Diversity. *Universal Journal of Educational Research*, *2*(8), 577-587.

Viel-Ruma, K., Houchins, D., Jolivette, K., & Benson, G. (2010). Efficacy beliefs of special educators: The relationships among collective efficacy, teacher self-efficacy, and job satisfaction. *Teacher Education and Special Education, 33*(3), 225-233.

Vygotsky, L. (1978). Interaction between learning and development. In *Mind and Society* (pp.79-91). Cambridge, MA: Harvard University Press.

Watkins, M., & Noble, G. (2016). Thinking beyond recognition: Multiculturalism, cultural intelligence, and the professional capacities of teachers. *Review of Education, Pedagogy, and Cultural Studies*, *38*(1), 42-57.

Will, M. C. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children*, *52*(5), 411-415.

Winsler, A., Burchinal, M. R., Tien, H. C., Peisner-Feinberg, E., Espinosa, L., Castro, D. C., ... & De Feyter, J. (2014). Early development among dual language learners: The roles of language use at home, maternal immigration, country of origin, and

socio-demographic variables. *Early Childhood Research Quarterly*, *29*(4), 750-764.

Woodcock, S., Vialle, W. (2010). Attributional beliefs of students with learning disabilities. *International Journal of Learning, 17*(7), 177-191.

Woodcock, S., & Vialle, W. (2011). Are we exacerbating students' learning disabilities? An investigation of preservice teachers' attributions of the educational outcomes of students with learning disabilities. *Annals of Dyslexia, 61*(2), 223-241.

Yeke, S., & Semerciöz, F. (2016). Relationships between personality traits, cultural intelligence and intercultural communication competence. *Procedia - Social and Behavioral Sciences, 235*, 313-319.

Zhang, D., Katsiyannis, A., Ju, S., & Roberts, E. (2014). Minority representation in special education: 5-year trends. *Journal of Child and Family Studies*, *23*(1), 118-127.

APPENDIX

Sociodemographic Questionnaire

1. **What is your gender?**
    a. Male
    b. Female
    c. Prefer not respond

2. **Which ethnic/racial group best describes you?**
    a. White, Non-Hispanic
    b. Hispanic
    c. Black or African American
    d. Native American/Native Alaskan
    e. Asian
    f. Native Hawaiian/Pacific Islander
    g. Multiracial

3. **What grade level do you primarily work with? Check all that apply.**
    a. Preschool
    b. Elementary
    c. Middle
    d. High

4. **Which best describes your current role?**
    a. General education teacher
    b. Local Education Agent (i.e., ESE or staffing specialist)
    c. School Psychologist
    d. Other _____

5. **What is the highest degree you have received?**
    a. Bachelor's degree
    b. Master's degree
    c. Educational Specialist
    d. Doctorate

6. **How many years of experience in the field of education do you have?**
    _____

7. **Do you hold a certification to teach in a world language subject area?**
    a. Yes
    b. No

8. **Do you hold an English for Speakers of Other Languages (ESOL) certification endorsement?**
    a. Yes
    b. No
9. **Do you hold any other specialization or credential for working with students who are culturally and linguistically diverse (CLD) or are you designated as a bilingual professional in your field (e.g., bilingual school psychologist)?**
    a. Yes
    b. No

10. **Do you hold a certification in Exceptional Student Education (ESE) or Special Education?**
    a. Yes
    b. No

11. **Do you fluently speak a language other than English?**
    a. Yes
    b. No

12. **Have you lived in a country outside of the United States?**
    a. Yes
    b. No

13. **Have you visited a country outside the United States?**
    a. Yes
    b. No

14. **How frequently have you attended professional development trainings on topics related to cultural and linguistic diverse learners?**

Never	Rarely	Occasionally	Frequently
1	2	3	4

The Cultural Intelligence Scale (CQS)

Read each statement and select the response that best describes your capabilities. Select the answer that BEST describes you AS YOU REALLY ARE (1 = strongly disagree; 7 = strongly agree).

Metacognitive CQ

1. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.
2. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.
3. I am conscious of the cultural knowledge I apply to cross-cultural interactions.
4. I check the accuracy of my cultural knowledge as I interact with people from different cultures.

Cognitive CQ

1. I know the legal and economic systems of other cultures.
2. I know the rules (e.g., vocabulary, grammar) of other languages.
3. I know the cultural values and religious beliefs of other cultures.
4. I know the marriage systems of other cultures.
5. I know the arts and crafts of other cultures.
6. I know the rules for expressing nonverbal behaviors in other cultures.

Motivational CQ

1. I enjoy interacting with people from different cultures.
2. I am confident that I can socialize with locals in a culture that is unfamiliar to me.
3. I am sure I can deal with the stresses of adjusting to a culture that is new to me.
4. I enjoy living in cultures that are unfamiliar to me.
5. I am confident that I can get accustomed to the shopping conditions in a different culture.

Behavioral CQ

1. I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.
2. I use pause and silence differently to suit different cross-cultural situations.
3. I vary the rate of my speaking when a cross-cultural situation requires it.
4. I change my nonverbal behavior when a cross-cultural situation requires it.
5. I alter my facial expressions when a cross-cultural interaction requires it.

Perceptions of Factors that Relate to Educational Decision-Making

I. Consider a scenario in which a general education student of culturally and linguistically diverse (CLD) background is performing below grade level expectations (i.e., academically, behaviorally, and/or socially). The student is referred to the school-based team (e.g., teacher, school psychologist, academic coaches). The school-based team meets to review information about the student's progress and make decisions about the next steps regarding progress monitoring and referral processes such as Response to Intervention (RTI).

1. Please indicate the level of importance for each of the following **factors** for the educational decision-making that occurs during **progress monitoring and referral processes** such as Response to Intervention (RTI):

   a. Collaboration among members of the school-based teams.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

   b. Availability of instructional programs and resources including interventions and progress monitoring tools that are appropriate for students who are CLD.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

   c. Clear school-wide progress monitoring/referral processes.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

   d. The knowledge school-based team members have about the purpose of progress monitoring and referral processes such as RTI.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

   e. The knowledge school-based team members have about the impact of culture and language on learning.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

f. The skills classroom teachers have for instructing students who are CLD.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

2. What other factors may impact educational decision-making in **progress monitoring and referral processes** such as Response to Intervention (RTI) involving students who are CLD?

   Please specify: _____

3. Indicate the number on the scale which most accurately reflects your confidence in making educational decisions in **progress monitoring and referral processes** for students who are **culturally and linguistically diverse**. One represents the lowest level of confidence and 10 represents the highest level of confidence.

Lowest									Highest
1	2	3	4	5	6	7	8	9	10

II. Consider another scenario in which a student of culturally and linguistically diverse (CLD) background is referred for an evaluation to determine if the student has a disability and a need for special education. The school-based team (e.g., teacher, school psychologist, academic coaches) meets to review the completed evaluation(s). The team must decide whether the student meets eligibility for a suspected disability (e.g., specific learning disability, emotional/behavioral disability, autism spectrum disorder).

4. Please indicate the level of importance for each of the following **factors** for the educational decision-making that occurs during **eligibility determination:**

   a. Collaboration among members of the school-based team.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

   b. Availability of students' records (e.g., cumulative school records, health records).

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

c. The knowledge school-based team members have about the criteria for determining eligibility for a suspected disability.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

d. The knowledge school-based team members have about the impact of culture and language on learning.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

e. The skills classroom teachers have for instructing CLD students.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

f. The skills evaluators (e.g., speech-language pathologists, school psychologists) have for administering and interpreting standardized assessments given to CLD students as part of formal evaluations.

Not Important	Somewhat Important	Important	Very Important
1	2	3	4

5. What other factors may impact educational decision-making in **eligibility determination** involving students who are CLD?

   Please specify: _____

6. Indicate the number on the scale which most accurately reflects your confidence in making educational decisions regarding **eligibility determination** for students who are culturally and linguistically diverse. One represents the lowest level of confidence and 10 represents the highest level of confidence.

Lowest									Highest
1	2	3	4	5	6	7	8	9	10

Socially Desirable Response Set Five-Item Survey (SDRS-5)

Listed below are a few statements about your relationships with others. How much is each statement TRUE or FALSE for you?

Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
1	2	3	4	5

1. I am always courteous even to people who are disagreeable.
2. There have been occasions when I took advantage of someone.
3. I sometimes try to get even rather than forgive and forget.
4. I sometimes feel resentful when I don't get my way.
5. No matter who I'm talking to, I'm always a good listener.

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Costa, A., & Pelaez, M. (2014). Implementing intensive tact instruction to increase frequency of spontaneous mands and tacts in typically developing children. *Behavioral Development Bulletin, 19*(1), 19-24.

Lazarus, P. J. & Costa, A. (in press). Fostering emotional-self regulation in youth. In P. J. Lazarus, S. Suldo, & B. Doll (Eds.), *Fostering the emotional well-being of youth: A school-based approach.* New York: Oxford University Press.

Pham, A. V., Goforth, A. N., Chun, H., Castro-Olivo, S., & Costa, A. (2017). Acculturation and help-seeking behavior in consultation: A sociocultural framework for mental health service. *Journal of Educational and Psychological Consultatio*n, 1-18.