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UNIVERSITY OF REDLANDS

**Addressing the Wicked Problem of English Learner Disproportionality by Examining  
Speech-Language Pathologists' Beliefs: Applying Q Methodology to Special Education**

A dissertation submitted in partial satisfaction of the requirements for the degree of  
Doctor of Education in Leadership for Educational Justice

By

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March 2020

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Jennifer Kaiser Rickard has no conflicts of interest or financial interests to disclose.

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## Abstract

The attribution of academic failure to an educational disability instead of a lack of English proficiency is one factor contributing to the disproportionate representation of English learners (ELs) in special education. As gatekeepers to special education, speech-language pathologists (SLPs) must ensure that ELs found eligible for special education under the category of Speech and Language Impairment are truly those with an impairment due to Developmental Language Disorder (DLD) or another developmental disability, not children exhibiting differences from standard English use due to cultural or linguistic differences or lack of English proficiency. However, many SLPs' ongoing reliance on invalid procedures to make a determination about an EL's language learning ability makes their ability to make appropriate determinations of special education eligibility problematic. This exploratory study hypothesized that factor(s) besides the lack of knowledge or resources as previously documented may be presenting a barrier to the fidelity with which SLPs perform bilingual assessments.

This study utilized Q methodology, a unique gestalt procedure whose aim is to reveal how configurations of themes are interconnected among a group of participants. A set of California school-based SLPs sorted a set of subjective statements about linguistic diversity, bilingualism, ELs' learning potential, and the use of EL language assessment best practices. Sorts were intercorrelated and revealed 4 distinct profiles defined by their beliefs and attitudes. While areas of consensus among the 4 profiles were discovered, the profiles diverged in their beliefs about the importance and value of using EL assessment best practices, their perceptions of social pressure to utilize these best practices, their perceptions of ELs situated in either strengths-based or deficit thinking, and their perceptions of the degree of control they have over using EL assessment best practices. Results shed new light on the association of SLPs'

assessment practices with the issue of EL disproportionality and suggest ways to enhance the ability of pre-service educators, professional development providers, and school administrators to create targeted remedies for the “wicked” problem of EL disproportionality in special education.

## Dedication

This dissertation is dedicated to all English learners in the public schools,  
and to the educators who support them.

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Love, your mom, Dr. Badass.

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## Chapter One: Introduction

It was 1913, and Henry Herbert Goddard had recently finished translating Alfred Binet's intelligence scale into English. Goddard had much work ahead of him. His goal was to demonstrate the usefulness of his English IQ scale in sorting and ranking individuals along the critical dimension of intelligence, necessary for "the survival and well-being of the civilized world" (Flanagan et al., 2013, p. 287). The low level of intelligence he perceived recent immigrants to possess posed a threat to this civilized world, and he sought to test and classify their abilities in order to attack what he perceived as America's declining intelligence and argue that it was brought about by the great wave of immigration. As travelers in the steerage class were ushered into long lines awaiting processing at Ellis Island, he and his assistants selected and tested newcomers to the United States. Through interpreters, they administered their IQ scale to illuminate the "feeble-mindedness" of European immigrants whose borderline intelligence was suspected but not immediately obvious. One interpreter questioned Goddard, saying he thought the test was unfair and that he himself could not have performed well when he had just arrived in the country. Despite a logical alternative explanation, Goddard instead attributed poor performance on his test to deficiencies in intelligence and moral character. Indeed, he found that "80% of all Jewish, Hungarian, Italian, and Russian immigrants were morons" (Flanagan et al., 2013, p. 288), and advocated for their segregation into separate colonies. A few years later, the U.S. Army commissioned Goddard and several other leading psychologists to create a method of selecting officer candidates based on levels of intelligence, moral character, and leadership qualities, and Goddard and his associates developed the Army Beta Test. Those soldiers who could speak English scored well on the test, were assigned a "Grade A" classification, and were considered good officer candidates. Those who were "handicapped by language difficulty and

illiteracy” (Goddard, 1913, p. 395, as cited in Flanagan et al., 2013) were suitable only for enlistment. So began a long history in the United States of marginalization, oppression, and segregation for those whose native language was other than English. The social injustice of inequity for English learners persists today within the institution of American public education, in part by the disproportionate representation of ELs in special education.

The United States remains a “melting pot,” its population and its ancestry reflecting worldwide immigration. Maintenance of ties to ancestral homelands is accomplished through preservation of home culture, heritage, and language during and after assimilation into the diverse U.S. populace. The ability to fulfill the American dream,<sup>1</sup> rooted in the Declaration of Independence’s proclamation that “all men are created equal,” (Jefferson, 1776) relies in large part on the degree to which immigrants successfully integrate, starting at the schoolhouse door.

English is the “national public language of the United States of America and of the State of California” (CA Education Code §300(a)), and English literacy is the “most important skill necessary to become [a] productive [member] of our society” (CA Education Code §300(h)). As such, students with limited English proficiency must develop English skills to enable them to succeed academically and in the greater U.S. society. Although CA Education Code acknowledges the “cognitive, economic, and long-term academic benefits of multilingualism and multiliteracy” (CA Education Code §300(m)) and promotes multiple pathways for students to gain proficiency in more than one language, public schools in CA must continue to ensure that their students master the English language in order to fully participate in the global economy. Those who are not yet proficient in English upon entering the CA public school system comprise

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<sup>1</sup> The set of ideals (democracy, rights, liberty, opportunity and equality) in which freedom includes the opportunity for prosperity and success, as well as an upward [social mobility](#) for the family and children, achieved through hard work in a society with few barriers (Wikipedia, 2019).



a subgroup called “English learners” (ELs).

Whereas English speaking and listening proficiency can be achieved in two to five years of public education for the majority of students who enter Kindergarten as ELs, approximately four to seven years are required for ELs to develop the sophisticated academic English proficiency needed “to signal academic competitiveness with native English speakers” (Hakuta et al., 2000, p. 12; Thompson, 2017). Still, the Common Core State Standards (CCSS) and the Next Generation Science Standards (NGSS) present heightened linguistic demands (e.g., ability to discuss mathematical problem solving via speaking and/or writing) in order for students to engage with content area learning (Hakuta et al., 2013). It is therefore not a surprise that in the U.S. public schools, where English is the primary language of instruction and accountability assessment, ELs lag behind their monolingual English-speaking peers in accountability measures such as academic achievement and graduation rates (U.S. Department of Education, n.d.). When an EL student performs poorly on an academic assessment, his teacher may wonder if the cause of that poor performance is insufficient English proficiency, a true lack of content knowledge, a test with limited validity for a student with limited English proficiency, or a disability (Linquanti & Hakuta, 2012). What may follow is an attribution of his academic failure to low intelligence or learning disability, prompting a referral to special education (Wilkinson et al., 2006). Since special education evaluators may draw conclusions about the presence of a disability based on preliminary hypotheses such as the classroom teacher believing the student to have special needs, rather than on data as confirmatory evidence (Hosp & Reschly, 2003), the attribution of academic failure to an educational disability instead of a lack of English proficiency is one factor contributing to the disproportionate representation of ELs in special education.

### **Statement of the Problem**

“60 to 80 percent of [special education students] are children from low status backgrounds including...those from nonstandard English speaking, broken, disorganized, and inadequate homes; and children from other non-middle-class environments...We must stop labeling these deprived children as mentally retarded...and segregating them by placing them into our allegedly special programs.” (Dunn, 1968, p. 6)

Concern over the disproportionate identification of racially, culturally and linguistically diverse (RCLD) students in special education is an enduring issue that was first documented 50 years ago (Dunn, 1968). Disproportionality is defined as the “overrepresentation and underrepresentation of a particular population or demographic group in special or gifted education programs relative to the presence of this group in the overall student population” (California Department of Education [CDE], 2015). Disproportionate representation of English Learners (ELs) in special education, a subset of the larger issue of disproportionality of RCLD students, is the problem addressed in this dissertation.

Disproportionality can be characterized as a “wicked” problem (McCall & Skrtic, 2009). Wicked problems are those complex issues in which the way the issue is framed implies a choice of interpretation to which a proposed solution is already linked (Blanco, 1994 as cited in McCall & Skrtic, 2009). Disproportionality could be framed in any number of ways, including as a *legal* problem (suggesting a legal remedy), or as a *political* problem (suggesting the need for political debate). The persistence of disproportionality suggests the need for additional ways to frame, and therefore solve, this tenacious issue. The current study proposes to frame disproportionality as a problem of educational and social injustice, suggesting the need for exploration of the ways in which systemic educational inequity for ELs is maintained. It seeks to investigate the beliefs, and thus the explicit and/or implicit biases, that may be impacting educator behavior.

Speech-language pathologists (SLPs) are one of the primary gatekeepers to special education, particularly for children in the early years of development and public education. They

assess the language and learning strengths and weaknesses of preschoolers and school-age students referred for special education assessment, and determine if the criteria for special education eligibility are met for the category of Speech and Language Impairment (SLI) (Figure 1.1).<sup>2</sup> Speech and language impairments often co-occur with other developmental disorders (e.g., autism, intellectual disability, cerebral palsy), but can also present without these primary conditions. When low performance on speech and language assessments cannot be explained by another developmental disorder such as intellectual disability or autism, the diagnosis of primary developmental language disorder can be made. Developmental Language Disorder (DLD) is the consensus term for a developmental childhood disorder, not otherwise explained by a biomedical condition, characterized by difficulty understanding and/or using all spoken language (Bishop et al., 2017). The speech and language assessment of ELs presents a unique challenge; ELs may perform poorly on standardized tests of English language development normed on monolingual English-speaking children simply because they lack English proficiency (especially in the case of sequential bilingualism) or because of the nature of bilingual language development (even in simultaneous bilingualism). SLPs working in California public schools must ensure that children found eligible for services under the “language disorder” definition of the CA Educational Code SLI eligibility category are not children exhibiting differences from standard English use that are secondary to cultural or linguistic differences.

### **Figure 1.1**

*California eligibility criteria for Speech and Language Impairment (SLI) (5 C.C.R § 3030)*

§ 3030. Eligibility Criteria.

(11) A pupil has a language or speech disorder as defined in Education Code section 56333, and it is

---

<sup>2</sup> The acronym “SLI” is frequently used in the communication sciences and disorders literature to represent “specific language impairment,” a term synonymous with the consensus phrase “developmental language disorder” (DLD) used in this paper. The acronym “SLI,” when used in this document, refers to the California special education eligibility category of “Speech and Language Impairment.”

determined that the pupil's disorder meets one or more of the following criteria:

(A) Articulation disorder.

1. The pupil displays reduced intelligibility or an inability to use the speech mechanism which significantly interferes with communication and attracts adverse attention. Significant interference in communication occurs when the pupil's production of single or multiple speech sounds on a developmental scale of articulation competency is below that expected for his or her chronological age or developmental level, and which adversely affects educational performance.

2. A pupil does not meet the criteria for an articulation disorder if the sole assessed disability is an abnormal swallowing pattern.

(B) Abnormal Voice. A pupil has an abnormal voice which is characterized by persistent, defective voice quality, pitch, or loudness.

(C) Fluency Disorders. A pupil has a fluency disorder when the flow of verbal expression including rate and rhythm adversely affects communication between the pupil and listener.

(D) Language Disorder. The pupil has an expressive or receptive language disorder when he or she meets one of the following criteria:

1. The pupil scores at least 1.5 standard deviations below the mean, or below the 7th percentile, for his or her chronological age or developmental level on two or more standardized tests in one or more of the following areas of language development: morphology, syntax, semantics, or pragmatics. When standardized tests are considered to be invalid for the specific pupil, the expected language performance level shall be determined by alternative means as specified on the assessment plan, or

2. The pupil scores at least 1.5 standard deviations below the mean or the score is below the 7th percentile for his or her chronological age or developmental level on one or more standardized tests in one of the areas listed in subdivision (A) and displays inappropriate or inadequate usage of expressive or receptive language as measured by a representative spontaneous or elicited language sample of a minimum of 50 utterances. The language sample must be recorded or transcribed and analyzed, and the results included in the assessment report. If the pupil is unable to produce this sample, the language, speech, and hearing specialist shall document why a fifty-utterance sample was not obtainable and the contexts in which attempts were made to elicit the sample. When standardized tests are considered to be invalid for the specific pupil, the expected language performance level shall be determined by alternative means as specified in the assessment plan.

The stakes are high for SLPs assessing young ELs when the primary concern is language impairment. Misdiagnosis of DLD can carry serious consequences. False-positive eligibility determinations (i.e. diagnosing DLD where it does not exist) can result in a variety of negative student outcomes, including labeling effects, persistent academic failure due to ineffective

special education, placement in restrictive educational settings with less rigorous academic expectations, and increased risk of school dropout before achieving high school graduation (Artiles, Kozleski, et al., 2010; Hosp & Reschly, 2003). The potential decrease of educational and post-secondary opportunities arising from false-positive special needs identification are consequences that must be taken seriously (Skiba et al., 2016). Alternatively, false-negative determinations contribute to under-representation and occur when students who should be referred for special education are not, or who are determined ineligible despite having a qualifying condition. False-negative determinations may result in a denial of services that address the specific achievement gaps experienced by students with disabilities (Samson & Lesaux, 2008), and are especially problematic for those students who have been historically underserved and systematically marginalized (Skiba et al., 2016).

There is a solid body of research evidence identifying culturally and linguistically valid assessment methods to distinguish language differences from language disorder in ELs (e.g., Anaya et al., 2016; Bedore et al., 2010; Gorman, 2015; Gutiérrez-Clellen & Peña, 2001; Gutiérrez-Clellen & Simon-Cerejido, 2009; Kraemer & Martinez, 2013; Lewis et al., 2010; Paradis et al., 2010; Peña, Gillam, et al., 2014). The practices supported by this body of research include language sampling (particularly using narrative retells in grades K-3), dynamic assessment, information processing assessment, parent and teacher interview, and the use of standardized assessments normed on bilingual children. When used in combination, these methods should offer a pattern of evidence to support or rule out a diagnostic classification of DLD. However, although public school SLPs often use some of these recommended methods, the extent to which many continue to rely on standardized English language assessments to make a determination about a child's language learning ability is concerning (Arias & Friberg, 2017;

Caesar, 2004; Caesar & Kohler, 2007; Kraemer & Fabiano-Smith, 2017). Many SLPs report low levels of personal efficacy/competence in assessing ELs' language development (Kritikos, 2003) due to inadequate training in determination of language dominance, mismatches between SLPs' (usually monolingual English) and students' languages, overestimation of English language proficiency based on social language competence instead of academic language competence, and occupational stressors such as caseload size/diversity, employment setting and location, and experience (Caesar, 2004). Speech-language pathologists who are less familiar with typical bilingual development may be less likely to recommend intervention for a bilingual child than a monolingual English child, raising serious concerns about under-identification of language impairment among young bilingual children (Kritikos, 2003).

Despite more than two decades of peer-reviewed research literature addressing the valid speech and language assessment of ELs (e.g., Laosa, 1977), a wealth of opportunities for in-service SLPs to obtain professional development on the best practices for EL speech and language assessment, and improvements in the standards required for accreditation of graduate programs in speech-language pathology, including knowledge and demonstration of cultural competence (Council on Academic Accreditation in Audiology and Speech-Language Pathology, 2019), the use of invalid assessment methods continues (Kraemer & Fabiano-Smith, 2017), casting doubt on the validity of eligibility decisions made based on those methods. The current approaches to improving the validity of EL assessments, primarily through SLP pre- and in-service education about the nature of bilingualism and the cost-effective ways to provide linguistically appropriate assessment of language comprehension and expression, have not solved this tenacious problem. Therefore, it may be possible that (an)other factor(s) besides those previously documented (Caesar, 2004; Kritikos, 2003) may be presenting a barrier to the

consistent use of valid methods to determine the language-learning ability of ELs. Previous research has shown that general education teachers' uses of discriminatory instructional practices with EL students are linked to their negative beliefs about ELs and linguistic diversity (Rizzuto, 2017). However, no research to date has investigated whether the beliefs of SLPs regarding EL students and language diversity are related to SLP assessment practices with EL students.

### **Purpose and Significance of the Study**

This study proposed to fill a gap in the literature regarding the factors influencing SLPs' approach to bilingual assessment by exploring their beliefs and attitudes about (a) linguistic diversity, (b) the nature of bilingualism, (c) the learning potential of ELs, and (d) the importance of using best practices in the assessment of ELs for special education. Specifically, the study addresses the following questions:

1. What are the beliefs, attitudes, and perceptions of California school-based SLPs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children?
2. What relationships, if any, exist between these beliefs, attitudes, and perceptions and California school-based SLPs' use of best practices for diagnosing DLD in school-age EL children?

The goal of the study is to develop preliminary belief profiles to enhance the ability of SLP educators, professional development providers, and school administrators to create targeted training/education and/or policy remedies as one way to combat the wicked problem of EL disproportionality in special education.

### **Theoretical Framework**

In order to effectively address issues of educational justice such as EL disproportionality,

we must first have a complete understanding of the factors influencing the behavior of groups invested in the education of ELs. This study extends the work of educational researchers who have explored the links between general education teachers' beliefs and their behavior toward ELs by investigating the beliefs and behavior of SLPs in the educational setting. The two theoretical constructs underlying this study are deficit thinking and the reasoned action approach (RAA) to explaining and predicting human behavior (Fishbein & Ajzen, 2015).

### **Deficit Thinking**

Disproportionality can be viewed as an expression of deficit thinking (Valencia, 1997), a paradigm whose foothold in educational thought and practice has been solidified despite the civil rights victories of the past half-century. In general, deficit thinking frameworks are medical models of disability (Baglieri et al., 2011) purporting that one must “fix, cure, accommodate, or endure” the problem (Andrews et al., 2000, p. 259). They are person-centered, relying on imputation rather than documentation to assign blame for academic failure to endogenous deficiencies of individuals or groups like ELs rather than structural or systemic factors like school segregation and the availability of high-quality interventions. The contemporary conveyors of these internal “deficits” fall in two main groups: genetic pathology (hereditarianism) and socio-cultural deprivation (Valencia, 2010). Hereditarian thought, having experienced a resurgence in such publications as *The Bell Curve* (Herrnstein & Murray, 2010) and *IQ and the Wealth of Nations* (Lynn et al., 2002), posits that genetics is the primary predeterminer of brain development and function. The socio-cultural deprivation anthropological paradigm arose out of the “culture of poverty” theory (Lewis, 1966), which described a way of life characterized by deficiencies in attitudes and personal character, family systems, community norms, and democratic citizenship. English learners may be subject to both kinds of deficit



thinking. Like Goddard's Army Beta Test, some psychometric tests of intelligence, language ability, or academic performance may capture English proficiency or acculturation instead of the language learning capacity they purport to measure. When teachers judge RCLD students' and families' deployment of social resources and strategies to ensure school success as inferior to those of White middle- and upper-class students and families, the interactional mismatch between the cultures of school and home (Mehan, 1992) causes teachers to attribute student failure to supposed deficiencies in family, community, language status, or culture (Ahram et al., 2011).

Deficit thinking appears rational and sound to those who identify differences between advantaged and disadvantaged groups and ascribe a causal relationship between those differences and problems such as the achievement gap. Deficit thinking among educators and education policymakers is attractive in its simplicity and avoids institutional self-flagellation. The achievement gap is a multifactorial issue, difficult to study and to extinguish. When genetic and/or socio-cultural deficits can conveniently account for differences in student achievement, why examine the political, organizational, financial, and pedagogical ways that schools inhibit RCLD student success? However, investigations of teacher's perspectives on linguistic diversity reveal the importance of these perspectives for EL academic success, as teachers with deficit views of ELs may hold and communicate lower expectations for ELs' academic achievement (National Research Council, 1997), and may use instructional practices that further disadvantage ELs.

### **The Belief-Behavior Link**

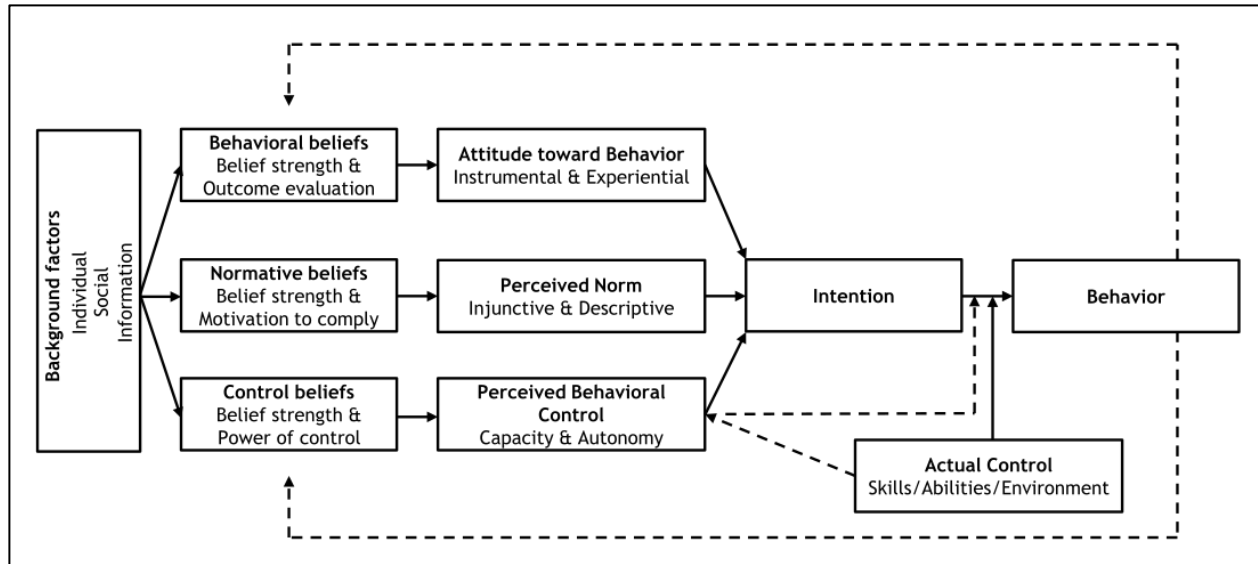
The behavior of school teams in their approach to ELs' educational needs can be explained using the theoretical model of the reasoned action approach (RAA) (Fishbein & Ajzen,

2015). The RAA posits that any particular human behavior, clearly defined and operationalized, can be explained and predicted through three primary beliefs or determinants, described here in the first person. First, I consider the consequences of performing a particular behavior and thus form positive or negative “outcome expectancies” about the behavior. These expectancies, also called “behavioral beliefs,” are the primary determiner of my *attitude* toward performing the behavior. Second, I consider others important to me and the support I perceive those “important others” would lend toward my performing the behavior, as well as my belief about whether or not the “important others” perform the behavior themselves. These considerations, also called “normative beliefs,” produce my *perceived social norm* (i.e., perceived social pressure) about performing the behavior. Finally, I consider the personal and environmental factors that facilitate or hinder my ability to perform the behavior. These “control beliefs” lead to my sense of self-efficacy (Bandura, 1989) or *perceived behavioral control* over the behavior. The strength and direction of attitudes, perceived norms, and perceived behavioral control lead to an *intention* to engage (or not engage) in a particular behavior (Figure 1.2). The stronger my intention to engage in the behavior, the more likely it is that I will actually perform the behavior if I have actual control over my ability to do so.

How might deficit thinking affect educator behavior, according to the RAA? There is evidence that deficit thinking affects the ways that ELs are perceived and treated by pre-service and in-service teachers. Since deficit thinking is a construct rooted in beliefs, explicit (the product of introspection) and/or implicit (existing outside of conscious awareness) beliefs

### **Figure 1.2**

*The reasoned action approach (Fishbein & Ajzen, 2015)*



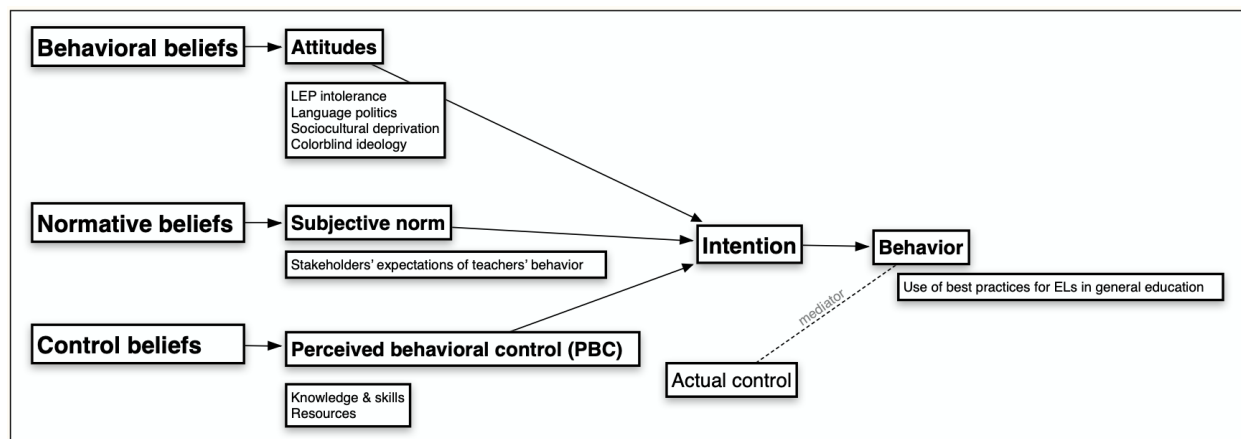
underlie teachers’ attitudes toward engaging in behavior that adequately supports ELs in the general education classroom (de Araujo, 2017; Greenfield, 2016; Kumar & Hamer, 2013; Kumar et al., 2015; Rizzuto, 2017; van den Bergh et al., 2010). The target behavior—use of best instructional practices to support ELs’ English development and content mastery—can be explained and predicted by teachers’ attitudes, perceived social norms, and perceived behavioral control over the use of those practices (see Appendix A for a list of such instructional practices). If teachers hold deficit views of ELs, they may feel indifferent or even negatively toward the expenditure of time and resources required to use EL instructional best practices or even to hold high expectations for their achievement. If teachers believe that ELs are inherently less capable or lack the sociocultural capital required for school success, their attitudes toward engaging in the target behavior may inhibit the formation of an intention to do so (Figure 1.3).

***Behavioral Beliefs → Attitudes***

Assuming that a teacher feels positive societal pressure to engage in the best instructional practices for ELs and has strong perceived behavioral control over doing so, that teacher’s

**Figure 1.3**

*Mapping of teacher behavior onto the reasoned action approach*



attitudes toward the use of EL best practices become the primary factor in forming an intention to engage in those best practices. Using their Language Attitudes of Teachers Scale (LATS), Byrnes & Kiger (1994) found three factors significantly related to general education teachers’ desire to have EL students in their classrooms: Language Politics (e.g., “English should be the official language of the United States”), LEP Intolerance (e.g., “Having a non- or limited-English proficient student in the classroom is detrimental to the learning of the other students”), and Language Support (“It is important that people in the US learn a language in addition to English”) (Byrnes & Kiger, 1994). They identified salient background factors leading to the formation of their behavioral beliefs: more tolerant language attitudes were held by teachers who were cognitively sophisticated, lived in a highly diverse region of the country, were less politically conservative, who were less psychologically insecure (Byrnes & Kiger, 1994), and who had some formal training in second-language learning (Byrnes et al., 1997).

Rizzuto (2017) demonstrated that sociocultural deprivation views also affected attitudes about and behaviors toward ELs (“The ELLs play so rough. I guess it’s because they just don’t understand or maybe it’s what they learn at home;” interview transcription) (Rizzuto, 2017, p. 191). Teachers’ implicit deficit views are reflected in their instructional practices: disallowing

the use of native languages in the classroom, refusing to modify their lessons to accommodate ELs, and outsourcing ELs to other educators. Similarly, McLaughlin and Pettit (2013) revealed that many teachers tended to blame EL student failure on perceived sociocultural deficiencies such as a lack of positive role models, inappropriate use of a collective working style, flawed or non-existent parental education, and holding the wrong priorities for children's activities (McLaughlin & Pettit, 2013). Marx (2001) also found that a group of (White) pre-service teachers held sociocultural and hereditarian deficit views toward ELs in terms of their intelligence, home environment, and home language.

Colorblind ideologies<sup>3</sup> also affect teacher behavior toward language-minority students. In a qualitative study of one Southeastern school district whose ELs performed far below their White and African-American counterparts on the statewide achievement test, teachers denied using specific strategies to support ELs: "The method I most try to remember is that I treat the child just like any other English speaking student and not try to overaccommodate" (Mantero, 2005, p. 5). Egalitarianism, although often promoted as an effective strategy to recognize commonalities among students, is a less effective style to respond to a culturally or linguistically diverse classroom (Hachfeld et al., 2011). When compared with multiculturalism, teachers with egalitarian styles agreed more strongly with prejudiced statements, had less integrative views on acculturation, and showed a higher tendency toward authoritarian teaching styles (Hachfeld et al., 2011).

### ***Normative Beliefs → Perceived Norm***

Assuming that a teacher has a positive attitude toward using instructional practices that support ELs and has perceived behavioral control over doing so, societal norms toward using

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<sup>3</sup> Colorblindness can be defined as the "avoidance of talking about race—or even acknowledging racial difference—in an effort to avoid the appearance of bias" (Apfelbaum et al., 2008, p. 918).

those practices can mediate the intention to engage in them. Societal norms may include relevant beliefs of various stakeholders, including a teacher's community, district and school site administrators, and fellow teachers. In a study of Israeli teachers (Horenczyk & Tatar, 2002), school organizational culture was found to have a significant impact on the extent to which teachers adopted a pluralistic (multicultural) or an assimilationist attitude toward immigrants, and on their perceived role in their acculturation. Wrigley (2000) reported on a school district in rural Virginia whose EL program, based on a solid foundation of research, was established by a district-level administrator, but its success, reliant on proper implementation, came from each individual school principal and the norms they established at each school site (Wrigley, 2000). Societal pressure to implement sound instructional practices for this vulnerable group arises from the larger society as well as district- and school-level stakeholders.

### ***Control Beliefs → Perceived Behavioral Control***

Assuming that a teacher has a positive attitude toward using instructional practices that support ELs and feels societal pressure to do so, a higher level of perceived behavioral control will result in a stronger intention to engage in the behavior. Perceived behavioral control includes access to sufficient knowledge, skills, and resources to successfully engage in the behavior. Importantly, even when teachers may hold positive attitudes toward ELs and perceive strong societal pressure to use certain instructional practices to support ELs, a perceived lack of control may significantly inhibit the formation of the intention to use those practices. Lack of actual control can also inhibit the successful use of EL best practices when a positive intention is formed. Both situations result in unexpectedly poor outcomes for ELs.

Adherence to state law is one way in which perceived behavioral control is formed. In California, the general population of voters adopted Proposition 227 in 1998, reducing

educational supports for ELs to the extent that ELs were offered designated pull-out English language development support for a period of no more than one year. Dual language programs were offered only if the parents of ELs asked the school to provide bilingual education *and* the students' needs met certain criteria. The passage of Proposition 227 effectively limited teachers' control over the provision of needed language supports for their students. In the five years following the proposition's passage, the percentage of ELs receiving home language supports (bilingual instruction) fell from 30% to 8% (American Institutes for Research & WestEd, 2006).

Several studies of pre-service teachers have investigated their sense of efficacy (and thus perceived behavioral control) in their ability to effectively teach cultural and linguistic minority students. Higher teacher self-efficacy is correlated with less-prejudiced attitudes about RCLD students and a higher likelihood of engaging in mastery-focused learning goals (Kumar & Hamer, 2013). Knowledge and understanding about ELs boosts perceived behavioral control: whereas in-service teachers' self-rated capacity to promote learning of ELs was significantly lower than their ratings of their general teaching efficacy (Karabenick & Noda, 2004), ESL-related coursework significantly improves pre-service teachers' sense of responsibility and efficacy in using effective teaching methods with ELs (Clark-Goff & Eslami, 2016).

Another aspect of perceived behavioral control is the extent to which a teacher has the necessary resources, including time, to implement EL-supportive pedagogy. In a survey of 729 teachers, Karabenick and Noda (2004) found that 66% of teachers believed that ELs take more of their time than non-ELs. Teachers with more positive attitudes (behavioral beliefs) about ELs were less likely to believe that ELs required more time and resources (support staff, materials, information) than their non-EL peers. However, nearly half of those surveyed did not think that their districts made ESL resources and materials available to their classrooms (Karabenick &

Noda, 2004).

In sum, it is unlikely that ELs' disproportionate representation in special education is due to intrinsic differences in intellectual capacity or academic potential between ELs and their same-age peers. Rather, systemic inequities that filter down to the level of the individual classroom may affect ELs' opportunities for robust teaching and high expectations that can overcome the English language development barrier. The reasoned action approach (Fishbein & Ajzen, 2015) can be used to explain how mainstream teachers' use of evidence-based instructional practices with ELs can be explained and predicted by their attitudes, perceived social norms, and perceived behavioral control over the use of those practices. When teachers hold negative or indifferent attitudes toward using EL best practices, feel minimal social pressure to use EL best practices, or perceive a lack of control in using EL best practices, the effect is that ELs do not achieve to their potential, reinforcing negative stereotypes about EL achievement. When ELs do not receive supportive instruction designed to simultaneously support their development of English and academic content, they become persistent low-achievers who may be referred for special education assessment in an effort to boost their progress. If found eligible for special education, an EL student could receive specialized supports (often outside of the general classroom environment) and accommodations during state accountability tests. Unfortunately, the phenomenon of EL disproportionality reminds us that a determination of special education eligibility, or lack thereof, may be invalid for ELs in part due to biased assessment practices. Therefore, it is logical to examine the assessment practices of special educators, who are the gatekeepers to special education. This project focuses on one such subset of special educators—speech-language pathologists.

There is a lack of consistently-applied standards by which SLPs provide the culturally



and linguistically valid, nondiscriminatory psychoeducational and speech/language assessments required by state (Title 5 CCR § 3030) and federal (IDEA, 2004) law. Nondiscriminatory assessment encompasses a wide range of approaches that together seek to document relevant information about the learning strengths and weaknesses of a particular student (Ortiz, 2002). English tests of speech and language development used to determine the presence of a language learning disability are largely invalid with EL populations because they measure levels of acculturation and language proficiency instead of the constructs they are designed to measure (Abedi, 2006). Eligibility for special education in a category in which the primary disability is diagnosed by a medical professional, such as Visual Impairment, Orthopedic Impairment, or Traumatic Brain Injury, tends to result in a proportionate number of minority students meeting criteria compared to majority White students. Eligibility in the more “subjective” categories, however, such as Speech and Language Impairment (SLI) or Specific Learning Disability (SLD), can be more problematic to determine because of the cultural and linguistic bias inherent in the test instruments. As such, the accuracy with which an appropriate determination of special education eligibility can be made for ELs is questionable. Considerable research exists on the ways in which ELs can be assessed that would result in a more accurate determination of special education eligibility. Unfortunately, however, many professionals continue to rely on discriminatory testing measures to determine an EL student’s special education eligibility (Kraemer & Fabiano-Smith, 2017). In so doing, the gatekeepers to special education may be acting in ways that contribute to the ongoing marginalization of ELs and affect their academic and post-secondary outcomes.

The behaviors of SLPs with respect to EL assessment best practice guidelines might be explained by the reasoned action approach. Two of the three RAA belief constructs have been

documented and/or researched as they pertain to SLPs' use of EL assessment best practices. The second belief construct, perceived social norms, is formed by the strength of the perceived social pressure to perform (or not to perform) the behavior. Considerable social pressure exists, on multiple levels, regarding SLPs' use of EL assessment best practices. State and federal laws require the use of nondiscriminatory assessment practices for culturally and linguistically diverse populations. Since 1985, the American Speech-Language-Hearing Association (ASHA), the national professional organization and governing body of SLPs in the United States, has published several documents guiding the provision of speech and language services to ELs (ASHA, 1985). The Code of Ethics (ASHA, 2016) obligates SLPs to maintain cultural and linguistic competence, a set of "congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations" (ASHA, 2017). The American Speech-Language-Hearing Association provides multiple resources via its website ([www.asha.org](http://www.asha.org)) to assist professionals and members of the public in providing and accessing appropriate services for linguistically diverse clients. Peer-reviewed research detailing the effectiveness of EL assessment best practices in differentiating language difference from disorder abounds. At the district and school site level, a competing pressure may exist: speech-language pathologists are the sole providers of language assessment and intervention services and are ultimately responsible for ensuring that appropriate eligibility determinations are made, while well-intentioned teachers and administrators may push for an EL student to be found eligible in order to access academic supports and services.

Research projects documented in several doctoral dissertations and peer-reviewed articles have focused extensively on the third belief construct, perceived behavioral control. For example, a five-state mixed methods survey study of SLPs found that the majority of

respondents reported low levels of personal efficacy/competence in assessing an individual's language development in a language they did not speak, due to lack of knowledge, target language proficiency, or experience (Kritikos, 2003). Factors beyond the knowledge gap also affected the use of best practices, including a mismatch between SLPs' and students' languages, overestimation of English language proficiency based on social language skills instead of academic language skills, and occupational stressors such as caseload size/diversity and employment setting and location (Caesar, 2004). Therefore, it appears that a perceived lack of knowledge, skills, experience, and resources (time, materials, access to interpreters, etc.) negatively affects SLPs' perceived control over consistently using EL assessment best practices.

To summarize, the RAA can be used to explain how teachers' beliefs and attitudes toward ELs affect their behavior, namely the use of effective instructional practices with ELs. Similar research is needed to extend the base of understanding about the beliefs and attitudes held by special educators, specifically those of SLPs, and to correlate those beliefs and attitudes with the formation of their intention to use appropriate language assessment practices with ELs.

## Chapter 2: Literature Review

This literature review provides a foundation for the study by summarizing the research literature surrounding the phenomenon of EL disproportionality in special education and the institutional factors contributing to it.

The first portion of the review describes the population of ELs attending public school in the United States and in California, how differences in English language proficiency may affect students' academic performance and how those differences are tracked in the public schools, and the disproportionality of EL eligibility for and placement in special education programs compared to that of other racial and cultural groups. Ideological and practical factors contributing to disproportionality are summarized. The legislative environment is reviewed, including relevant federal, California state, and case law impacting ELs referred for special education assessment.

The second section delves into the nature of bilingualism and the similarities and differences between language differences and language disorders. This section also includes an overview of language assessment practices that, when used with fidelity, can accurately determine the presence or absence of a language disorder that requires special education services.

Finally, the current state of EL language assessment is reviewed. The constructs of beliefs and attitudes are defined as they pertain to SLPs' use of EL assessment practices, and the difference in how those constructs are operationalized in the current study are explained.

### **Demographics of English Learners in Public Schools**

#### **United States**

According to the U.S. Census Bureau American Community Survey (ACS) 5-year estimates, approximately 21% of the U.S. population aged five years and over speak a language

other than English at home (U.S. Census Bureau, 2017c), and 40% of those speak English less than “very well” (U.S. Census Bureau, 2015b). Of the 48 million children enrolled in public school Kindergarten through 12<sup>th</sup> grade in the United States (U.S. Census Bureau, 2017e), 11.87 million (24.5%) speak a language other than English at home (U.S. Census Bureau, 2017b). Spanish is by far the most common language other than English, with 77% speaking Spanish at home (National Center for Education Statistics, 2017a), but over 350 languages are represented (U.S. Census Bureau, 2015b).

### **California**

In California, the state of interest for the current project, 44% of the population ages five and over speak a language other than English at home (U.S. Census Bureau, 2017a), more than double the number in the U.S. as a whole. 44% percent of those speak English less than “very well” (U.S. Census Bureau, 2015a). Of the 6.1 million children enrolled in public school Kindergarten through 12<sup>th</sup> grade in California (U.S. Census Bureau, 2017d), 57.9% speak only English at home, while 42.1% are exposed to more than one language. Again, Spanish is the most common language other than English, spoken by 81.6% of ELs in California (CDE, 2019b). California educates more than 25% of the nation’s ELs (National Center for Education Statistics, 2018).

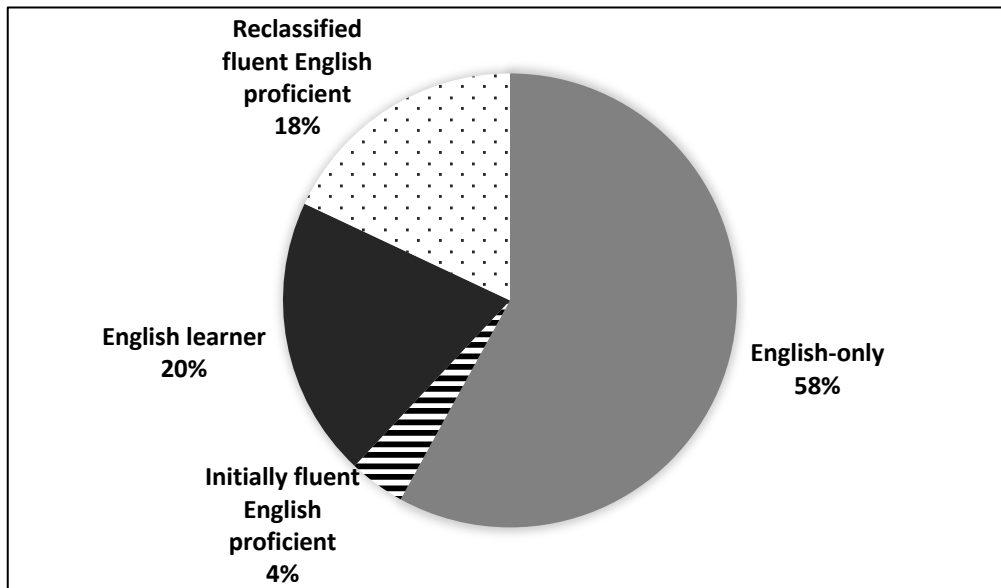
### **Not All Dual Language Learners Are ELs**

Being exposed to a language other than English at home does not, however, necessarily result in a student being classified as EL. Less than half of the public schoolchildren nationwide who speak a language other than English at home meet the federal definition of “English Language Learners” (National Center for Education Statistics, 2018). In California, English Language Acquisition Status (ELAS) encompasses three different types of students exposed to

more than one language at home: Initial Fluent English Proficient (IFEP), English Learner (EL), and Reclassified Fluent English Proficient (RFEP) (Figure 2.1). The state varies widely in its concentration of students speaking a language other than English at home enrolled in public school per county, from under 5% in some counties to >60% in others (CDE, 2019a). Its population of ELs, a subset of the non-English-Only (EO) category, varies widely per county as well, from 0% in rural Alpine county to 36-37% in Colusa, Monterey and Lassen counties (CDE, 2019a). The number of ELs varies per grade level as well, with the highest concentration in the primary grades (24.6% - 31.9% in Kindergarten through grade 4) and the lowest in high school (10.3% in grades 11 and 12), with a statewide average across grades and counties of 19.3% (CDE, 2019b). The percentage of ELs as a percent of total enrollment in California has steadily declined since 2000 (Figure 2.2) (National Center for Education Statistics, 2018).

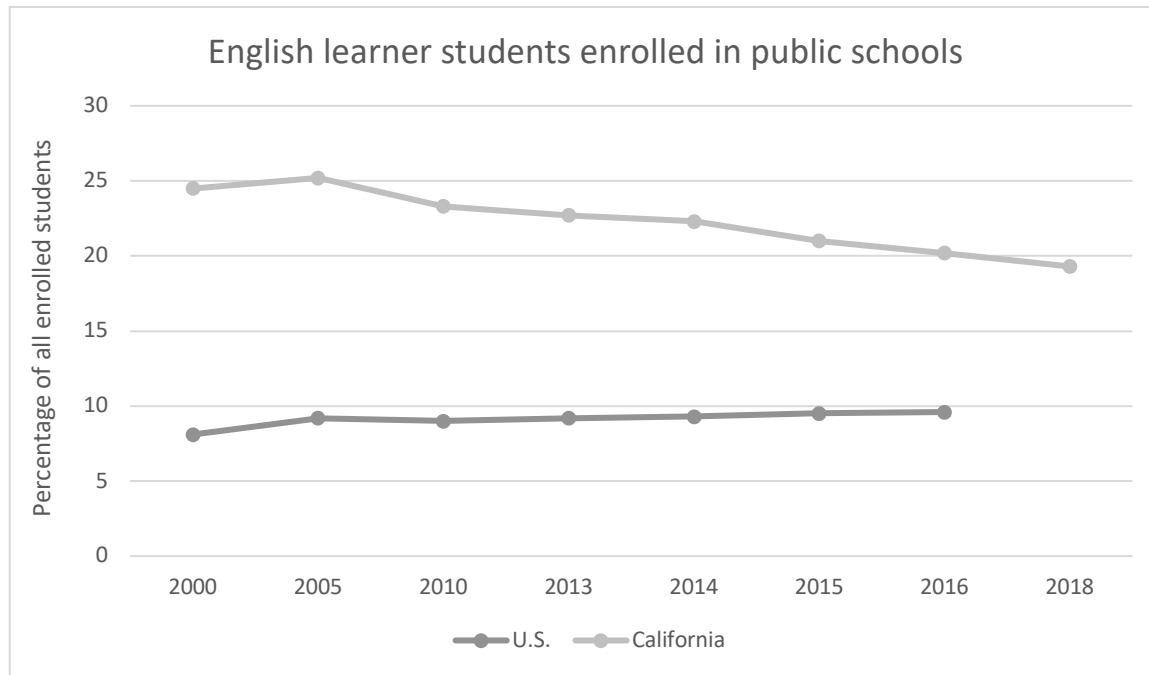
**Figure 2.1**

*English language status of California’s K-12 population, 2018-19 (National Center for Education Statistics, 2018)*



**Figure 2.2**

*Percentage of public school students classified as EL (National Center for Education Statistics, 2018)*



To summarize, ELs constitute a significant student subgroup nationwide and in California. Twenty-five percent of public schoolchildren on average nationwide, and 42% of those in California, speak a language other than English at home. Spanish is the most widely spoken language other than English by far, but over 350 languages are represented. The EL student subgroup is only a subset of those students exposed to more than one language, with others being initially fluent English proficient (IFEP) or reclassified fluent English proficient (RFEP). The impact of an EL designation should not be taken lightly. When schools are under constant pressure to improve academic and discipline indicators, ELs are monitored with hypervigilance. Those perceived to be underachievers may spend less time being exposed to core curriculum in general education and more time in outsourced locations, such as with an ELD teacher or in special education. The stress on ELs to gain academic English proficiency with all due haste can make America’s melting pot appear more like a pressure cooker.

## Academic Impact of Limited English Proficiency

“Knowledge, cognition, [and] language, these are all threads of a single fabric of learning” (Daro, 2012).

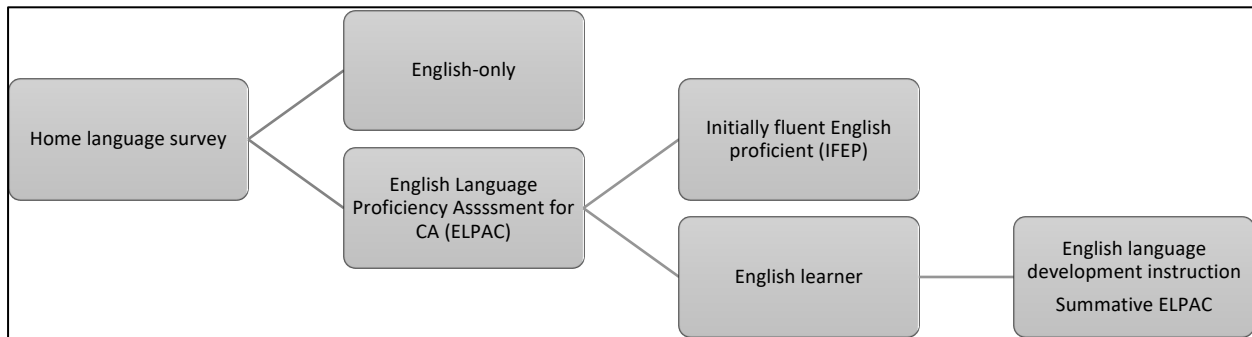
California utilizes a standardized procedure to identify those students who may be ELs upon their first enrollment in a K-12 public school (CDE, 2018). The procedure starts with administration of the Home Language Survey (HLS), a four-question survey. If the answer to any of the first three questions indicates exposure to a language other than English, the Initial English Language Proficiency Assessment for California (ELPAC) is administered. Based on the performance on the Initial ELPAC, the student may be considered IFEP and is *not* designated an English Learner, or may be an intermediate or novice speaker of English and be designated an English Learner (Figure 2.3). Those designated EL are then exposed to integrated English Language Development (ELD) through the English Language Arts/English Language Development Framework for California Schools (CDE, 2014) and to the provision of designated ELD supports via the language acquisition program selected by the parent. All districts must provide a Structured English Immersion (SEI) program, but may also offer Dual-Language Immersion, Transitional Bilingual Program, Developmental Bilingual Program, or Heritage Language Program (CDE, 2019c). They are retested annually using the Summative ELPAC to monitor progress in acquiring English proficiency. A student may be reclassified RFEP when he meets four reclassification criteria: a Summative ELPAC Overall Performance Level 4, supportive teacher evaluation, parent agreement, and roughly equal basic skills performance when compared to English proficient age-matched peers using local assessments or the Smarter Balanced Summative Assessment (CDE, 2019d).

Students who lack fluent English proficiency may be at a significant academic



**Figure 2.3**

*Process of English learner determination*



disadvantage compared to their EO or IFEP peers. The Common Core State Standards (CCSS) and the Next Generation Science Standards (NGSS) present heightened linguistic demands in order for students to engage with content area learning (Hakuta et al., 2013). They expect students to:

- Build and present knowledge in the four language domains of speaking, listening, reading, and writing across English Language Arts, history/social studies, science, and technical subjects;
- Understand and represent mathematical concepts in the pursuit of problem solving, and to communicate their math reasoning skills via spoken and written language;
- Obtain and evaluate scientific knowledge and engineering designs through interaction with linguistically sophisticated texts;
- Speak and write across contexts and audiences, from 1:1 partner work to small group interactions to presentations to a whole class or other large group.

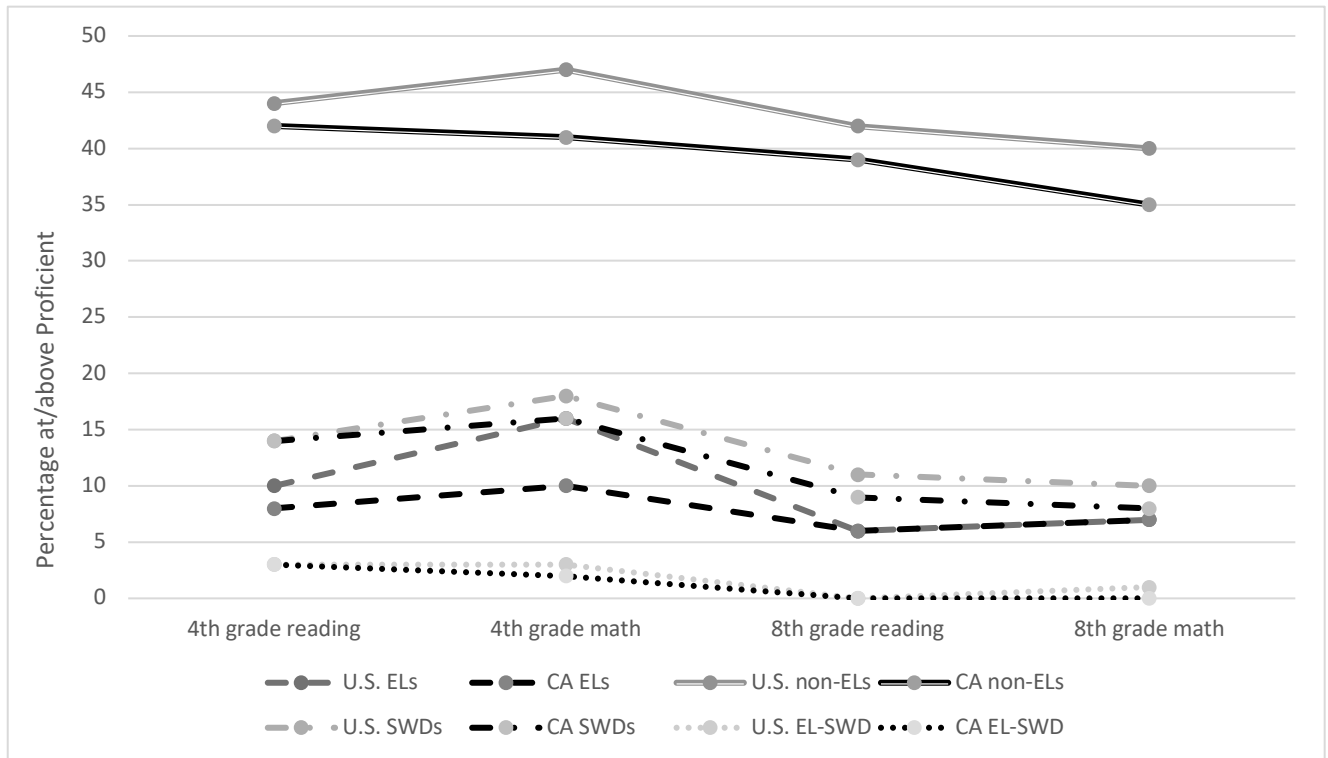
Language development is a socially constructed skill that develops alongside, supports, and facilitates content-area learning in the formation of a classroom community of practice (Hakuta et al., 2013). Poorly developed or inadequately supported English language development directly affects an EL's ability to meet grade level standards.

Dual immersion programs are again on the rise, with 520 California schools registered as “dual language schools” in 2020 (“Resources for Dual Language Schools, Parents, Teachers and Administrators,” 2020). In most CA public school classrooms, however, English proficiency is a prerequisite for academic success in classrooms where English is the language of instruction. It is therefore not a surprise that in the public schools, where English is the primary language of instruction and accountability assessment, ELs lag behind their monolingual English-speaking peers in measures of achievement. Reading and math achievement rates are significantly lower for English learners than for those who are not English learners (Figure 2.4). English learners even lag behind students with disabilities (SWDs) in their performance on the National Assessment of Educational Progress (NAEP) Mathematics and Reading assessments, and ELs with disabilities, a “twice challenged” population, perform at the lowest levels of all subgroups. English learners often face additional barriers, such as poverty or lower parental education, that affect their academic outcomes (National Academies of Sciences-Engineering-Medicine, 2017). In 2017, 85% of ELs in California were economically disadvantaged (Hill, 2018).

Graduation rates for ELs are also quite low (National Center for Education Statistics, 2017b). 84% of students enrolled in public high schools across the nation graduate from high school within four years, whereas those students with limited English proficiency graduate at rates even lower than students with disabilities (66.4% for ELs, 67.1% for SWDs). In California, graduation rates roughly mirror the percentages nationwide (Figure 2.5).

**Figure 2.4**

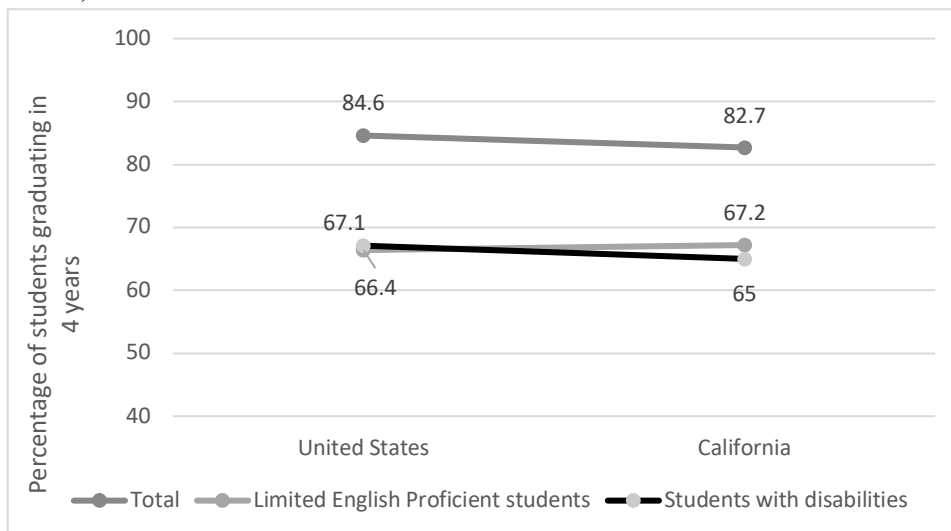
*Percentage of students scoring at or above proficient in English Language Arts, 2017*



*Note:* The following abbreviations are used in this figure: English learner (EL), English Language Arts (ELA), students with disabilities (SWD).

**Figure 2.5**

*Public high school 4-year graduation rate, 2016-17 (National Center for Education Statistics, 2017b)*



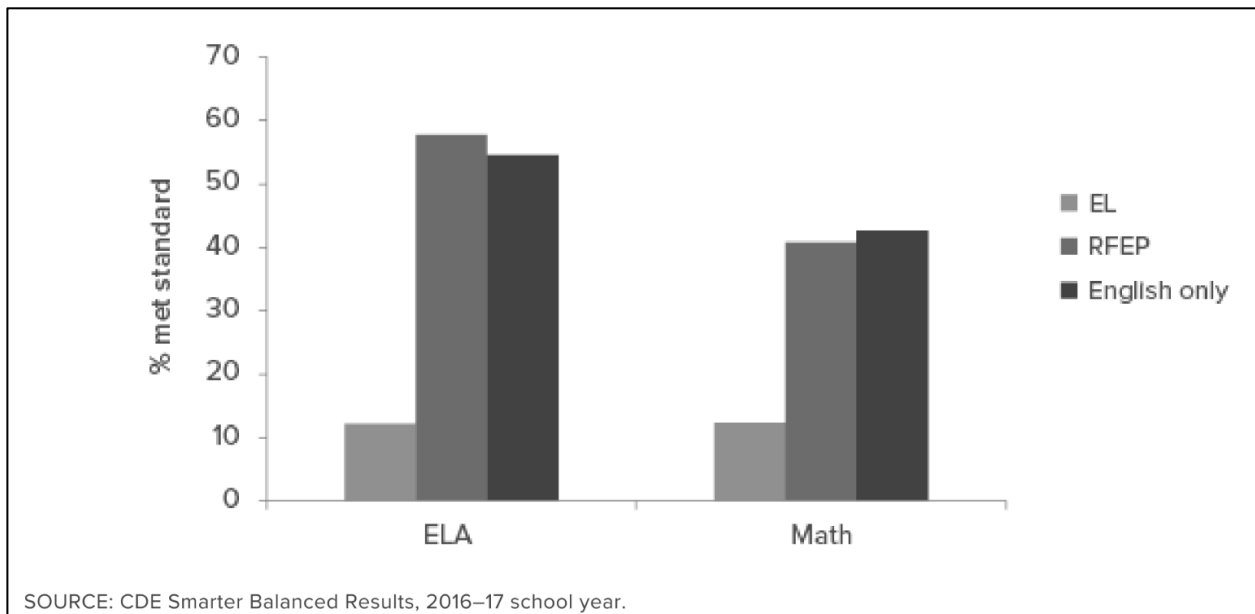
Throughout their years of public education, when provided with supports and services to acquire academic English, ELs do become English proficient and achieve academically at levels as high as or higher than their “never-EL” peers (Hill, 2018; Saunders & Marcelletti, 2013) (Figure 2.6). However, that reality is masked by data that is misleading or easily misinterpreted, and may contribute to the common belief that ELs will be persistent underperformers. English learners are defined in the law by their lack of English proficiency and their progress is measured first in terms of its development (Ramsey & O’Day, 2010). Those who successfully develop English proficiency move *out* of the EL classification as RFEP and are absorbed into the federal aggregate “Non-EL” category. This disallows the measurement of progress for all students who were *initially* deemed EL in favor of progress monitoring for only those students who *remain* in the “revolving door” EL category (Saunders & Marcelletti, 2013, p. 140). Advanced students are removed from the determination of educational progress for ELs, whereas new ELs with lower levels of proficiency replace those who have made expected progress toward English proficiency, resulting in “systematic underestimation of subgroup progress” (Ramsey & O’Day, 2010, p. 6). When RFEPs are no longer considered part of the subgroup of students for whom English proficiency is or was an issue (e.g.  $\frac{EL}{Non-EL}$  vs.  $\frac{EL+RFEP}{Non-EL}$ ), achievement data and graduation rates compared to “never-ELs” are artificially low. When reports of ELs’ comparatively poor academic achievement are publicized without a full explanation of who comprises this category, it may unfortunately prompt or reinforce stereotypic, negative views of ELs and their potential for academic and vocational success.

### **English Learners Before RFEP: An At-Risk Population**

An English learner’s English language proficiency is inextricably linked to his/her academic performance. Whereas speaking and listening proficiency can be achieved in

**Figure 2.6**

*Reclassified English learners are among the state’s strongest performers (Hill, 2018)*



two years for the majority of ELs, approximately four to seven years are required for ELs to develop the sophisticated academic English proficiency needed for school success (Hakuta et al., 2000; Thompson, 2017). During this time, ELs receive English Language Development (ELD) support through Language Instruction Educational Programs (LIEPs). A review of the foundational literature underlying the design and implementation of LIEPs (Faulkner-Bond et al., 2012) summarized key research literature for a range of topics surrounding the needs of ELs, such as theories of second-language acquisition, the construct of academic English, school culture, instructional practices, and models of LIEP design. Language Instruction Educational Programs’ supports and services offer significant academic benefits to ELs. Bilingual approaches to ELD, such as dual immersion or transitional bilingual education, produce more positive outcomes in general than do English as a Second Language (ESL) approaches (e.g. content-based ELD, stand-alone ELD instruction), although instructional practices may play a bigger role in student success than the type of ELD approach itself. Prepared, competent teachers and an

open, respectful school culture are also important for EL student outcomes (Collier & Thomas, 2004).

Although most teachers know to expect performance below the grade-level standard for ELs, particularly in the earliest stages of English proficiency, limited evidence exists regarding the expected trajectory toward grade-level performance as students become increasingly more English proficient. In a nine-year longitudinal study of ELs in the Los Angeles Unified School District (LAUSD), the district that enrolls more ELs than any other district in the nation, 86% of ELs who entered LAUSD in Kindergarten passed the California English Language Development Test (CELDT<sup>4</sup>) Speaking and Listening criteria in the second grade, after 2-3 years of instruction. However, it took 60% of ELs at least four years to reach proficiency on the CELDT Writing criteria, four years on the California Standards Test (CST) English Language Arts assessment, five years on the CELDT Reading criteria, and 6-7 years to pass all reclassification criteria simultaneously (Thompson, 2017). After nine years in the district, 25% of all ELs who had entered LAUSD in Kindergarten remained EL and *did not reclassify*; more than 30% of those qualified for special education as a student with a disability (SWD) (Thompson, 2017). Not surprisingly, students entering school with higher levels of spoken English proficiency acquire academic English proficiency sooner than their peers with beginning English skills, making it difficult for teachers to compare the academic progress of one EL student to another and to develop appropriate expectations for content-area learning for such a heterogeneous subgroup of students. Teachers may hesitate to refer an early elementary student for special education assessment understanding his need to attain English proficiency, yet may be more likely to refer at mid-late elementary, expecting that in a few years of English instruction he will

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<sup>4</sup> The CELDT was used by California until the 2018-19 school year, when it was replaced by the Initial and Summative ELPAC.

have acquired the academic English necessary for academic success.

### **English Learner Disproportionality**

In this section, RCLD disproportionality in special education is situated in a cultural-historical perspective which exposes systemic institutional and societal contributors. Aspects of disproportionality unique to ELs are also reviewed, emphasizing the ideological and practical ways this issue is of importance to educational leaders.

### **Racial Disparities in Special Education: A Cultural-Historical Perspective**

Forty-three years ago, a federal civil rights law was passed which mandated equal educational opportunities for children with disabilities as their non-disabled peers. Public Law § 94-142, the Individuals with Disabilities Education Act, previously known as the Education for All Handicapped Children Act, arose out of the civil rights victories of the 1950s and 1960s, and brought with it a new vision of educational justice that encompassed those with disabilities that impact education. Although the 1997 reauthorization of IDEA established an educational policy approach to *identifying* racial disproportionality, and the 2004 reauthorization established an approach to *addressing* it, the current law focuses more on mathematizing the ends (e.g., eligibility and placement decisions) rather than interrogating the means by which disproportionality occurs (Artiles, 2009). The Individuals with Disabilities Education Act is founded on “technical, individualized, race-neutral, and deficit-based [approaches]” (Voulgarides, 2018, p. 4) which ignore the historically intertwined constructs of race and ability that tend to locate the cause of academic failure in a RCLD student’s race or culture rather than in the institutional/societal processes of power and advantage.

Artiles (2009) places the phenomenon of racial inequities in special education at the intersection of macro (educational policy) and micro (local and individual practices) factors. At

the policy level, IDEA is a deficit model of disability which encourages ability segregation. It offers no disincentive to limit the labeling of minority children as “at-risk students” based on their sociocultural background (Valencia & Solórzano, 1997), making disproportionate placement in special education a foregone conclusion when they fail to achieve. Moreover, the latitude IDEA allows states in how they define and report disproportionality subverts efforts to rectify racial and cultural inequities (Cavendish et al., 2014). At the local/individual level, when teachers judge RCLD students’ and families’ deployment of social resources and strategies to ensure school success as inferior to those of White middle- and upper-class students’ and families’, the interactional mismatch between the cultures of school and home (Mehan, 1992) causes teachers to attribute student failure to supposed deficiencies in family, community, language status, or culture (Ahram et al., 2011).

### **Characteristics of English Learner Disproportionality**

One weakness of research on minority disproportionality in special education is its treatment of minorities as members of a monolithic, homogeneous group. In response to this, Artiles et al. (2005) studied EL placement patterns in urban California school districts, disaggregating the data to reflect within-group diversity along metrics such as grade, level of language proficiency, disability category, and type of support programs (Artiles et al., 2005). Their results, as those of other researchers in the past decade, show a more nuanced view of EL disproportionality than was previously reported in the literature. Two such examples follow.

Samson and Lesaux (2008) investigated the proportional representation of EL special education placement in the primary grades, important because delays in identification of reading disabilities have a significant effect on the development and implementation of early intervention during this critical period of literacy development (Samson & Lesaux, 2008). They found that EL



students were underrepresented in special education in Kindergarten and first grades, but overrepresented by the third grade, when compared to a group of White students. They hypothesized that ELs tended to be identified later than their English-fluent counterparts due to: teachers' reluctance to refer for special education assessment until a certain level of English proficiency is achieved, teachers' lack of confidence in identifying signs of learning difficulties in EL students, and the federal requirement that special education eligibility cannot be due to language or environmental factors.

Sullivan (2011) investigated the proportional identification of ELs in four high-incidence disability categories over a seven-year period, as well as the amount of time those students spent in more- or less-restrictive educational settings (Sullivan, 2011). She found that EL students were “increasingly overrepresented in special education in each of the high-incidence categories of [Specific Learning Disability] SLD, [Speech and Language Impairment] SLI, and [Mildly Instructionally Mentally Retarded] MIMR” (p. 324). English learners also were increasingly placed in settings that removed them from the general education classroom into resource or special class settings, a violation of the Least Restrictive Environment (LRE) mandate of IDEA. This presents an additional concern in that special education teachers often do not receive the same kind of English Language Development training as general education teachers to prepare them to work with this special population (Baca & Cervantes, 2004).

In sum, the majority of researchers agree that ELs' special education identification and placement patterns show not only disproportionality, but also substantial within-group diversity. Unlike racial minority students, who tend to be overrepresented at all levels of public education, ELs' distinct patterns of disproportionality suggest that factors unique to ELs, in addition to those experienced by other RCLD groups, may account for disproportionality in this population.

## Legislative Environment

Federal law, state law, and even case law have provided a basis for state/local education agency (SEA/LEA) policies and procedures regarding general education support for ELs, as well as for the referral, assessment, and identification of ELs for special education. Title VII of the Bilingual Education Act (1968) provided the first federal funding to support students with limited proficiency in English, signaling a significant shift away from equal educational *opportunity* toward an equalization of academic *outcomes* by allowing primary language instruction (Walsh, 2008). Shortly after Dunn (1968) identified concerns over the overrepresentation of culturally and linguistically diverse students in special education, legal cases brought challenges to the practice of assessing CLD students for special education in their non-dominant language. Passage of PL 94-192, the precursor of IDEA, introduced the concept of “least biased assessment.” A biased test is “one that systematically overstates or underestimates the value of the variable it is intended to assess” (Reynolds & Suzuki, 2013, p. 83). For school psychologists, the assessed variable is a psychological process such as attention, memory, or auditory processing, that cannot be observed or measured directly but rather must be inferred from behavior. However, the tests developed to measure those cognitive processes are “reflections of the values, attitudes, and beliefs of the culture that gave rise to them” (Vazquez-Nuttall et al., 2007, p. 266). The issue of test bias for ELs, therefore, centers around content and construct validity when the level of acculturation or English proficiency is that which is being tested, instead of the intended construct. It is quite clear that a student who just arrived from another country and speaks no English (large cultural/linguistic difference) should not be administered a standardized assessment in English and have those results used to determine special education eligibility. In California, the consent decree in the case of *Diana v. State Board*

*of Education*<sup>5</sup> held that ELs could not be found eligible for special education based on the results of IQ tests given in English or containing culturally-biased test items (Keller-Allen, 2006). The Individuals with Disabilities Education Act (2004) provided guidance to SEA/LEAs regarding the procedures for identifying ELs for special education (ELs must be evaluated in the language(s) most likely to demonstrate what the student knows or can do academically and functionally), specified that limited English proficiency could not be a determinant factor for special education eligibility, and required states to count ELs in their special education demographics.

Unfortunately, however, the guidance under IDEA is broad and vague, leaving individual states and districts to interpret the law as they see fit. It does not: (1) provide specific information on how ELs *should* be determined eligible for special education, (2) give guidance to states on how to avoid disproportionate representation of ELs in special education, or (3) require states to report indicators that track and monitor the progress of ELs with disabilities (DeMatthews, Edwards, & Nelson, 2014). The California Education Code (5 CCR §3030) states that special education eligibility cannot be determined due to limited English proficiency, requires that assessment plans indicate EL status, and requires that a copy of the Individualized Educational Program (IEP) be provided in the student's native language upon request. Thus, CA state law reiterates or gives minimal additional detail on the language already codified in IDEA.

In 2006, California was one of seven states that participated in a policy analysis regarding issues surrounding the identification of ELs with disabilities (Keller-Allen, 2006). The report

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<sup>5</sup> The consent decree in *Diana v. State Board of Education* held that: (1) If a student's native language is not English, the districts involved in the consent decree had to assess the student in both English and their primary language; (2) Culturally-biased items had to be eliminated from tests used in the assessment process; and (3) Any IQ tests used in the assessment process needed to be developed in such a way that they reflected the Mexican-American culture (Keller-Allen, 2006).

confirmed that most SEA/LEAs do not have mechanisms for collaboration and data collection/sharing between EL and special education departments. Additionally, most states, including CA, reported that they did not have dedicated staff working on issues related to ELs with disabilities. Their efforts were limited to short-term, ad hoc committee work that did not result in sustained, coordinated efforts to hire staff competent to oversee EL/special education program coordination, produce policy documents guiding the referral and identification process of ELs with disabilities, collect and analyze data, provide technical assistance to LEAs, monitor the achievement or proportional representation of ELs with disabilities, or ensure that general and special educators are adequately trained to provide linguistically and culturally appropriate education and assessment. The short-term nature of these ad hoc committees has resulted in a lack of “deliverables” that would have supported long-term change. The California Commission on Teacher Credentialing (CTC) embedded EL authorization in its required coursework for the special education credential, yet no such authorization is required for special educators charged with providing assessments for ELs suspected to have disabilities. On a more positive note, CA does require IEPs to include at least one “linguistically appropriate” goal, and for goals to be aligned with the state’s English Language Development (ELD) standards once ELs are identified as students with disabilities.

Another policy initiative that affected the education of ELs in California was the passage of Proposition 227 in 1998, which drastically reduced ELs’ primary language support systems by disallowing bilingual education programs in the state’s public school system except when waivers were obtained. After Proposition 227, most ELs were educated using English-only instruction after a brief period (at the most, one year) of “structured English immersion,” which was expected to be sufficient for ELs to develop enough English language proficiency to be

educated in English-only classrooms. Although it is beyond the scope of this paper to discuss the additive benefits of bilingual education for all students, most importantly ELs, there is considerable evidence that bilingual education programs enhance the academic achievement of ELs (Collier & Thomas, 2004). Also beyond the scope of this paper is an in-depth discussion about second language acquisition; to summarize, it takes approximately 6-8 years for ELs to develop English to the level required for academic proficiency (Hakuta, 2011). Proposition 227 attempted to shrink that window to one year, violating the first *Castañeda* standard,<sup>6</sup> yet attempts to block the implementation of Proposition 227 (e.g. *Valeria v. Davis*, 2002) were unsuccessful.

Artiles and colleagues presented three sets of findings related to EL special education placement in the years following the passage of Proposition 227 and Proposition 203 in Arizona (Artiles, Klingner, et al, 2010). Here, I will focus primarily on the findings related to California. First, regarding placement trends: while EO special education placement declined from 11% to 9% in the years following Proposition 227's passage, EL placements jumped from 6% in 1998 to 11% in 2006 (see Figure 2.7), and ELs' representation in the category of SLD reached overrepresentation levels by 2006. Second, regarding the intersection of EL and poverty and placement risk: English learners' special education placement risk was higher in low-poverty (wealthier) districts than in high-poverty districts, yet their risk for placement in the "high incidence" categories of SLD, Mental Retardation (MR, now called Intellectual Disability, ID), and SLI was higher than that of EO students in high-poverty schools. Third, regarding the educational opportunities and outcomes for ELs with high-incidence disabilities in special

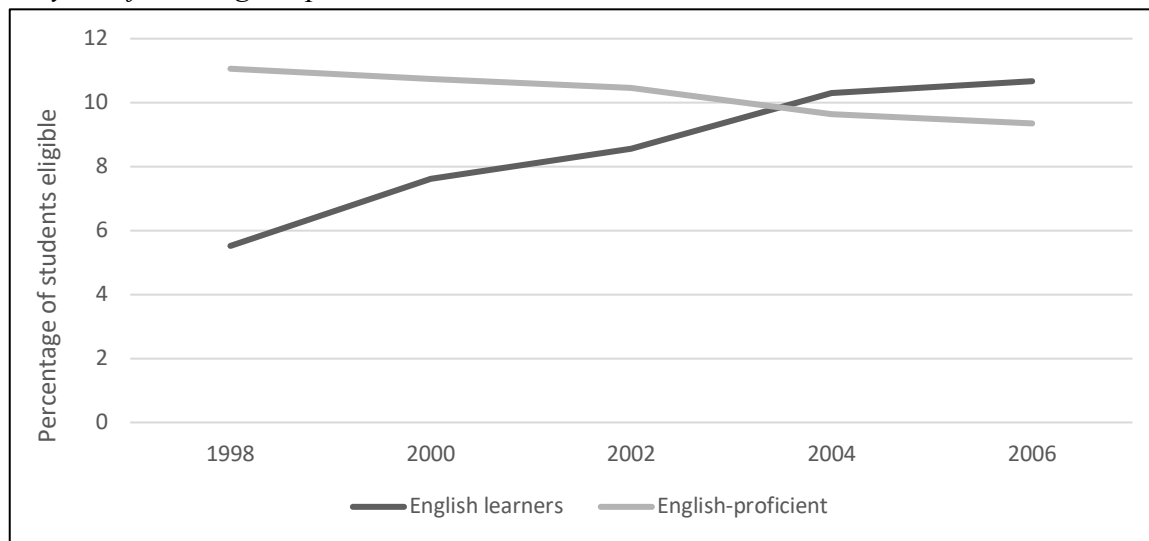
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<sup>6</sup> In the case of *Castañeda v. Pickard* (1981), the judge specified that the role of the court in determining appropriateness should be "guided by three standards: that the educational approach be based on sound educational theory; that the approach be implemented adequately; and that, after a period of time, the approach be evaluated for its effectiveness in remedying the inequity. An implicit fourth standard was that if an approach is not effective, the implementation or the theory must be revised until the inequity is remedied" (Hakuta, 2011, p. 165).

education: English learners were increasingly less likely to be provided with language support via primary language instruction (see Figure 2.8), were less likely to be placed in gifted and talented education programs (see Figure 2.9), and (in Arizona, since CA did not report this data) were more likely to be educated in separate settings than their EO counterparts.

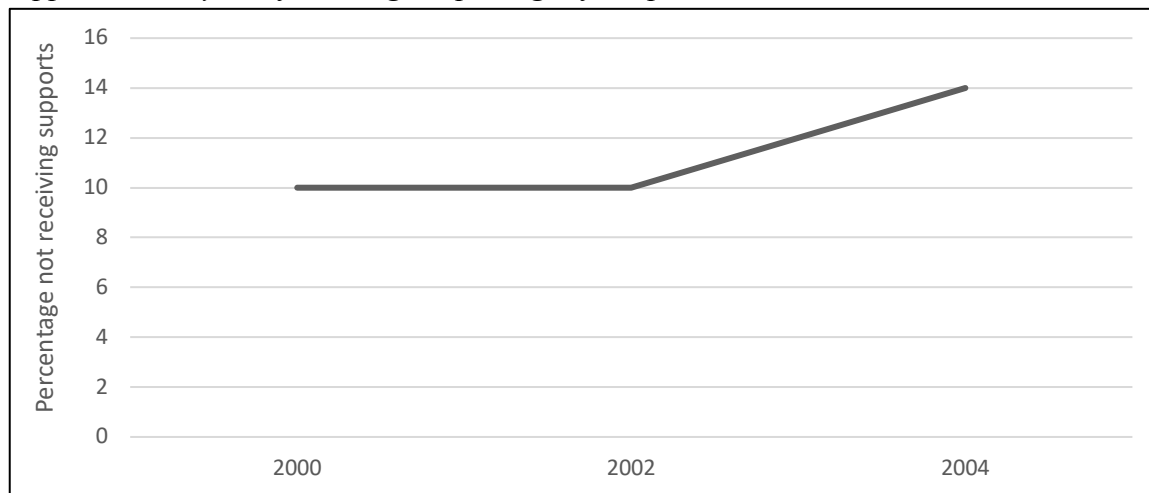
**Figure 2.7**

*Percentage of English learners and English-proficient students eligible for special education in the years following Proposition 227*



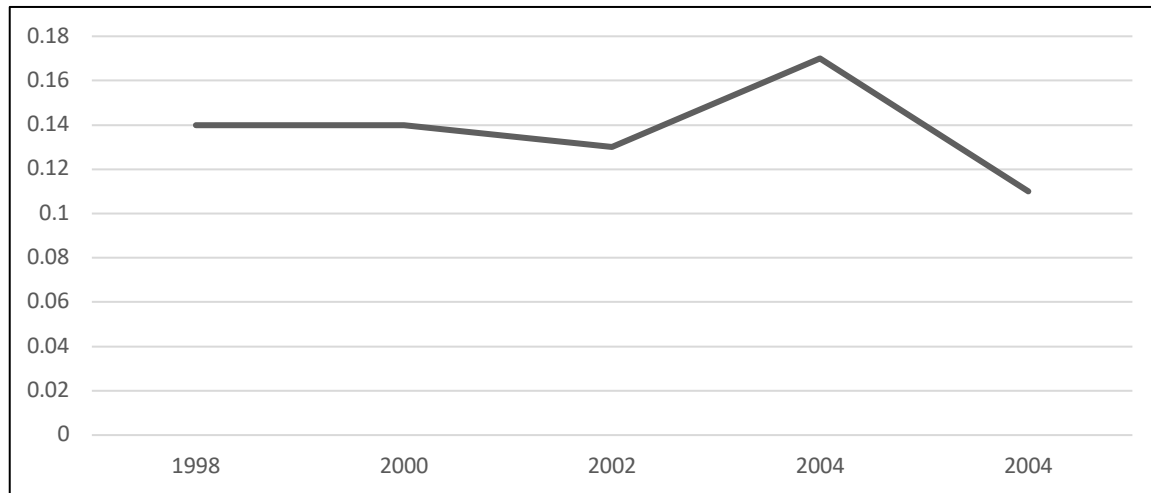
**Figure 2.8**

*Percentage of English learners in California who qualified for but did not receive language supports in the years following the passage of Proposition 227*



**Figure 2.9**

*Relative risk of English learners' opportunity to receive gifted/talented education, compared to English-proficient students', in the years following the passage of Proposition 227*



### **Factors Affecting English Learner Disproportionality**

English learners' distinct patterns of disproportionality suggest that factors unique to ELs, in addition to those experienced by other RCLD groups, may account for disproportionality in this population. This section will focus on three of these unique factors: confusion about the nature of bilingual language development, the assessment practices used by speech-language pathologists and school psychologists to identify ELs with an educationally disabling condition, and the negative beliefs that educators hold about linguistically diverse students.

### **The Nature of Bilingual Language Development**

Home and school represent two socially constructed environments in which children assume a role and act in accordance with the expectations imposed by the environment. When the home and school environments are culturally consistent, the ability of young school-age children to construct a new role as "student" and to act in accordance with often-unspoken school expectations is relatively uncomplicated. The critical transition of school entry for RCLD students, particularly those who lack English proficiency, can be more difficult. When presented

with cultural and linguistic diversity, schools' processes for and expectations of "good student" role assumption can be less about accommodation, support, and diversity celebration and more about the measurement of diverse students' progress toward the academic and social standards of the educational system (Garcia & Cuéllar, 2006). Diverse students are "othered" despite the fact that identification of otherness is based on an "artificial and variable" line drawn between them and non-diverse students (National Research Council, 2002, p. 25). Bilingualism is a unique way in which ELs are "othered."

Bilingualism (or multilingualism), defined as the regular receiving of input in two (or more) languages, is the global norm (Genessee, 2016). Nationwide, 21% of students speak languages other than English. In western states the proportion of bilingual students is higher, at 33.6% (U.S. Census Bureau, 2012), and in California the percentage is 42.1% (CDE, 2019a). Research has proven some of bilingualism's features and advantages that refute commonly held myths. For example, bilingual children meet speech and language milestones in the same timeframe as monolingual children, but in two or more languages (Conboy & Montanari, 2016). Bilingualism carries advantages in cognitive flexibility, visuospatial abilities, executive functions, and social cognition (Nicoladis, 2016). Bilingual language acquisition is a dynamic neural process that requires greater cognitive control and attention in the early developmental stages, leading to faster and more substantially integrated neural networks than are seen in monolingual subjects (Abutalebi et al., 2009). In order for "sequential bilinguals" (those children learning the home language [L1] in early childhood and the second language [L2] upon school entry) to maximize their dual language learning, a solid foundation in the L1 should be established and supported during the preschool and early elementary years (Espinosa, 2013). Alternatively, if the child comes from a fluent bilingual home and is a "simultaneous bilingual,"



quality exposure to both the L1 and L2 is encouraged from birth throughout childhood, ideally through dual immersion programs (Collier & Thomas, 2004). When the largely monolingual teaching force believes common myths about bilingualism, it perpetuates the “language-as-a-problem paradigm” (Escamilla, 2006, p. 2329) and ELs’ unique competencies are ignored or misunderstood. Bilingual students are often referred to with verbal-deficit language such as “non-nons” or “semilinguals,” reflecting the misperception that ELs possess very little language capability in either their home language or in English based on the results of “native language tests” with extremely poor construct validity (Macswan & Rolstad, 2006). Teachers may mistakenly believe that using the home language in the home/community interferes with the acquisition of English, using evidence of persistent gaps in reading comprehension (a consequence of less-well-developed English language skills) to support the erroneous conclusion that a learning disability is present (Bowyer-Crane et al., 2016). The logical way to support a learning disability is via referral to special education.

### **Language Difference vs. Language Disorder**

In the presence of supportive learning conditions, the human neuro-cognitive system is unique in its capacity for the acquisition of more than one language (Genessee, 2016). However, children acquiring more than one language, either simultaneously (exposure to more than one language from birth) or sequentially (introduction of the second language after the first language has been partially established), cannot be viewed as “two monolinguals in one” (Quay & Montanari, 2016, p. 23). Languages are not separate entities, and a child’s proficiency in each language depends on the length, quality, and context of exposure to each (Unsworth, 2016). Language proficiency is not equivalent to language learning capacity (Gathercole, 2016). Nevertheless, in the early school years, ELs may be mistakenly perceived as having language

delays or impairments due to differences in English exposure and use compared with EO children. Kohnert (2010) described three intrinsic characteristics of typical dual language learning that may mimic monolingual English language impairment. First, dual language learners show distributed skills (cumulative language learning) with uneven ability in each language depending on the topic or context. That is, when proficiency in either one language is tested, the typical EL may score below his monolingual peers in each language. Uneven linguistic performance “negates the validity of direct comparisons with monolingual speakers of either language for the purpose of identifying language disorders” (Kohnert, 2010, p. 459). Second, there is evidence of cross-language association reflecting interactions between the two languages. Such associations may be phonological (such as the use of phonemes from L1 when speaking L2), lexical (e.g., cognitive organization of words associated with concepts), grammatical/structural (e.g., omission of an implied sentence subject in the English of a Spanish-English bilingual student, which may be due to the pro-drop property of Spanish), or cognitive-interactive (such as increased attentional control; Bialystok, 2007). Associations can be positive (i.e., a facilitative effect of each language on the other) or negative (i.e., interference of one language with the other). For example, among EL Hmong-English students, the ability to “fast map” (quickly acquire and use a new vocabulary word in an L2) was negatively correlated with L1 receptive vocabulary (Kan & Kohnert, 2008), making slow English vocabulary acquisition appear as a disorder rather than reflecting strong home language development. Third, there is a high level of individual variation in language ability across developmental stages due to interactions between the contexts of acquisition, social value of each language, opportunities to develop each language, etc. Typically, developing sequential bilinguals develop oral English proficiency in 3-5 years, and academic English proficiency in 4-7 years if exposed to English

consistently since kindergarten (Hakuta et al., 2000). Thus, typical ELs may appear English-fluent in informal social interactions yet take longer to attain academic language proficiency. During this time, educators and SLPs must be vigilant in monitoring ELs' development and in striking an appropriate balance between under- and over-referring for special education assessment.

Although there are many reasons why a young child may have difficulty learning language (e.g., Autism spectrum disorder, Down Syndrome, hearing impairment, etc.), DLD is a genetically based, developmental childhood disorder characterized by difficulty understanding and/or using spoken language, in the absence of other developmental disabilities. Developmental language disorder affects approximately 7-8% of monolingual kindergarten-aged children (Tomblin et al., 1997), with 70% of those experiencing persistent language disorders throughout the lifespan. Of educational interest, approximately 50% of children with DLD experience difficulty with reading achievement (Catts, 1993). In the absence of epidemiological studies of DLD in bilingual children, it is generally accepted that bilingual children should not possess an intrinsically higher risk for, or prevalence of, DLD (Kohnert, 2010).

Certain features distinguish bilingual children with DLD from their typically developing bilingual peers. Like their monolingual counterparts with DLD, bilingual children with DLD learn language at a slower rate than their TD peers (Håkansson et al., 2003), and are at higher risk for L1 attrition if L1 is inadequately supported. Cognitive processing (e.g. working memory, sustained/selective attention, processing speed) is impaired in bilinguals, as in monolinguals, with DLD (Kohnert & Windsor, 2004). The "receptive-expressive gap," or the difference between a child's receptive language scores and his (lower) expressive language scores, is larger for bilingual children with DLD than TD bilinguals (Gibson et al., 2014). Some language-

specific markers of DLD have also been identified, indicating that bilingual children with DLD have problems with different aspects of each language they speak. Spanish-speaking children with DLD have deficits in their use of articles and clitic pronouns (Simon-Cerejido & Gutiérrez–Clellen, 2007), whereas English-speaking children with DLD have more difficulty with the acquisition and use of verb morphology and tense/agreement (Rice, 2003). Analyzing language-specific markers, particularly if observed in combination with other features of DLD, may be a promising method for predicting risk for language impairment in bilingual students (Lugo-Neris et al., 2015).

### **Special Education Assessment Practices**

School-based SLPs are special educators that assess students referred for special education. As such, they serve as the gatekeepers to the supports and services offered via special education. In order to avoid disproportionately identifying RCLD students, they must provide culturally and linguistically valid, nondiscriminatory speech/language assessments as required by state and federal law. There is currently a lack of consistently applied standards by which SLPs provide such assessment. Tests of language ability, whose “question sets, procedures, and coding schemes” are typically developed based on what is known about monolingual English speakers’ development (Peña, 2007, p. 1255), are largely invalid with EL populations because they measure levels of acculturation and language proficiency instead of the constructs they are designed to measure (Abedi, 2006). Use of biased tests, defined as those that “systematically overstate or underestimate the value of the variable [they are] intended to assess” (Reynolds & Suzuki, 2013, p. 83), make questionable the accuracy with which special educators can make an appropriate determination of eligibility. Tests that SLPs use to measure language competence or cognitive processes such as attention, memory, or auditory processing are “reflections of the

values, attitudes, and beliefs of the culture that gave rise to them” (Vazquez-Nuttall et al., 2007, p. 266) and we cannot assume valid testing results when those tests are used with RCLD students whose languages and/or cultures are not represented in the norming populations of those tests. Speech-language pathologists fall prey to using biased assessment methods and questionable determinations of special education eligibility when they use instruments designed for EO students with EL students.

Speech-language pathologists often use one of three approaches to decrease test bias and increase validity for RCLD students: modified/altered testing, native language testing, and English-only testing. Each approach confers some benefits along with significant limitations.

### **Modified Testing**

High-stakes academic achievement tests used by states to monitor accountability have utilized test modifications for students with special needs for many years. Many of the same accommodations or modifications that help students with special needs also help ELs. Abedi (2006) described a variety of linguistic features that may impact comprehensibility of academic test items for ELs by increasing cognitive load and slowing down students, including unfamiliar vocabulary (*plant will bear tomatoes*), long phrases in questions (*at which of the following times should...*), complex sentences with left-branching structure (*before she came home, ...*), conditional clauses (*given X, what is Y*), relative clauses (*a bag that contains 25 marbles...*), abstract presentation of the problem (*the weight of an object was measured*), passive voice, and negation (Abedi, 2006). Linguistic modification of the testing items was the only accommodation that narrowed or eliminated the gap in performance between English-only (EO) and EL students on a math achievement test (Abedi et al., 2000). Testing accommodations (changes that do NOT fundamentally alter the construct being tested) are sometimes used by

assessors because they are thought to increase the validity of testing with an EL by promoting fairness while maintaining construct validity. However, once an assessor violates standardization by providing testing accommodations, standard scores are invalid and cannot be used as the basis upon which an eligibility determination is made.

There are also several types of commonly-used test *modifications* (alterations that do change the construct) used in special education evaluation (Flanagan et al., 2013; Ortiz, 2002). Elimination of certain test items that are presumed to be more culturally or linguistically loaded, repetition of verbal instructions to assist comprehension, conceptual scoring (allowing responses in the native language to count as correct), or eliminating or modifying time constraints are modifications that may help the examinee to perform better on the test instrument. Although modifying tests does allow the examiner to perform qualitative observations of behavior and could be used as a type of dynamic assessment and error analysis, test modification violates standardization. The student's performance cannot then be compared to the normative sample, which is an important benefit of using standardized assessments. Normative samples themselves are problematic; test developers include racially or ethnically diverse individuals in their normative samples, but race and ethnicity "are not the same as culture or cultural differences and do not directly account for differences in experience [such as bilingualism or biculturalism] that affect language or acculturative knowledge development" (Flanagan et al., 2013, p. 297). Test developers may try to increase validity by including a set of English learners in the normative sample, yet we can never be sure that our own student is similar enough to that (small) set of ELs in the normative sample and can thus be compared adequately to them.

### **Use of Interpreters to Translate Tests**

Using an English test, translated into another language, helps to overcome the language

barrier but does not remove the cultural load of the test items and presents serious threats to validity. This type of modification may move toward *linguistic equivalence*<sup>7</sup> but may result in a different response outcome due to “differences in cultural interpretation, familiarity, or frequency of occurrence” (Peña, 2007, p. 1257). Attention must be given to other types of equivalence. For example, translation of test items or instructions that results in linguistically varied prompts in each language may provide better *functional equivalence*<sup>8</sup> or *cultural equivalence*<sup>9</sup> by enhancing a bilingual child’s ability to interpret the items through his/her cultural lens and to demonstrate performance on the tested construct. Finally, test items might not test the same construct in each language, or be more or less difficult for a child to answer correctly depending on the language in which they are presented, an example of *metric equivalence*<sup>10</sup>. For example, a vocabulary test in which the items are ordered based on level of difficulty in English might not be ordered correctly with regard to difficulty level in the target language. Many Masters’ level SLPs, and certainly the vast majority of native-language interpreters, lack a deep understanding of the myriad potential threats to validity posed by attempts to translate tests.

### **Native-Language Testing**

Testing an EL student using a standardized assessment in their native language (if such an instrument even exists) is often mistakenly called *bilingual assessment*. Rather, testing in the home language usually requires comparison of a bilingual student to a normative sample of monolingual speakers of the native language who are also receiving academic instruction in that

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<sup>7</sup> Linguistic equivalence, achieved by translation (English to L2) and back-translation (L2 back to English), attempts to ensure that the words used for test items and instructions have the same meaning in both languages (Grisay, 2003).

<sup>8</sup> Functional equivalence results in elicitation of the same target behavior by presenting the test items or instructions using the most linguistically or stylistically familiar words/phrases in each language (Fagundes et al., 1998).

<sup>9</sup> Cultural equivalence refers to the interpretation of item salience through the examinee’s unique cultural lens (Alonso et al., 1998).

<sup>10</sup> Metric equivalence requires testing and comparing the psychometric properties of the test in both languages to ensure that the items test the same construct in each (Kim, Han, & Phillips, 2003).

language. Although some speech and language assessments are now available with bilingual EL standardization samples (e.g., BESA, SALT bilingual databases), they do not solve the problem of assessing ELs whose home languages are not Spanish. Assessing bilingually requires deep knowledge of the nature of bilingual language development and of the nature of development of each language of assessment. Some graduate speech-language pathology preparation programs (e.g. San Diego State University, Arizona State University, University of Texas, Austin) offer bilingual certificate programs or bilingual specialty concentrations that provide the requisite background for bilingual assessment competency. However, such concentration is not a universal offering across the nation's graduate training programs. Additionally, cultural competence goes beyond knowledge of a student's culture to awareness of understanding of one's own biases and the potential for data collection and interpretation that is mediated through those biases (Vazquez-Nuttall et al., 2007).

### **English Assessment**

Despite the problems inherent in interpreting the results of English standardized assessments administered to English learners, the fact remains that the many monolingual SLPs providing assessment and intervention for a multilingual student population experience challenges in the selection, availability, and use of testing instruments other than English standardized assessments. Despite the legal and ethical imperatives to eschew English-only testing for the EL population, routine use of these instruments continues (Kraemer & Fabiano-Smith, 2017b). There is an extensive database of studies dating back to the 1910s (remember Goddard?) observing that nonnative English speakers consistently perform about one standard deviation or more below average than their English-only counterparts on tasks that rely on English proficiency.



## **Research Evidence Supporting English Learner Assessment Methods**

It is of utmost importance that SLPs assessing the language skills of bilingual children utilize assessment methods that can accurately determine a profile of language difference (i.e., English language skills are usually different for bilingual students compared to EO students due to the interaction of the two languages heard and/or spoken) versus language disorder, or DLD, in which all languages will be affected. This section will detail the evidence that exists to support the use of several assessment methods with ELs to determine language differences from language disorders, including language sampling, narrative retell, dynamic assessment, information processing tasks, parent and teacher report, and standardized assessments normed on bilingual student populations.

### **Language Sampling Analysis, Narrative Retell**

Language sampling analysis (LSA) assesses a child's use of language in a natural, functional, and academically relevant task such as retelling a story. Language sampling analysis can be used to examine both linguistic microstructure (vocabulary use, sentence length, use of grammatical morphemes, sentence complexity, etc.), and discourse-level linguistic organization via narrative macrostructure analysis. Narrative macrostructure refers to the overall structure of a story (e.g., character, setting, initiating event, actions, solution), and develops and deepens in complexity with age. Computerized language sampling analysis (CLSA) makes the task of LSA more efficient and thorough, and products such as SALT Software (Systematic Analysis of Language Transcripts; Miller & Iglesias, 2010) offer Spanish-English bilingual databases for age-matched comparison with the EL student being assessed.<sup>11</sup> Although hundreds of home

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<sup>11</sup> SALT and other methods of analyzing language samples can and should be used for informal analysis and progress monitoring, but SALT's unique ability to provide comparison to a database of Spanish-English bilingual age-matched peers is of significant benefit here.

languages are represented in our diverse elementary school population, the majority of our ELs—77.1% in 2014-15—are Spanish-English bilinguals (National Center for Education Statistics, 2017a), likely accounting for the greater number of research studies examining Spanish-English bilingual students. Four specific, dialect-neutral word- and sentence-level analyses can be used via CLSA to assess ELs’ Spanish and English competence (Gutiérrez-Clellen & Simon-Cereijido, 2009; Rojas & Iglesias, 2009): mean length of utterance in words (MLUw; measures morphosyntactic complexity), number of different words (NDW; measures lexical diversity), words per minute (WPM; measures verbal fluency), and percent grammatically correct utterances (PGCU) combined with MLUw. Retelling the story of wordless picture books, such as the “Frog” stories by Mercer Mayer (Mayer, 1967, 1969, 1971, 1974, 1975a, 1975b), is a valid method for eliciting and analyzing the narrative abilities of Spanish-English bilingual children. Using the “Frog” stories retold in both English and Spanish by bilingual children, Heilmann and colleagues confirmed that measures of language productivity (number of utterances, MLUw, and narrative macrostructure) may be reliably assessed (Heilmann et al., 2016). A study of growth patterns of ELs with and without DLD (Squires et al., 2014), using CLSA, indicated that ELs with DLD had more difficulty than TD ELs acquiring microstructure elements (coordinating and subordinating conjunctions, mental and linguistic verbs, adverbs, and elaborated noun phrases). Narrative language samples have also been used in a large-scale CLSA study (Rojas & Iglesias, 2013) to map ELs’ language growth trajectories, with further longitudinal studies in progress to define EL linguistic subgroups. Such studies will further refine our expectations for ELs’ English proficiency growth and identify ELs whose difficulty acquiring language indicates DLD.

### **Dynamic Assessment**

Dynamic assessment (DA), either via a test-teach-retest sequence or a “testing the limits” approach<sup>12</sup>, is another sound method for distinguishing ELs with language difference from language disorder, because the procedure tests modifiability with teaching as opposed to moment-in-time (static) assessments of English proficiency. The DA approach can be used to assess a variety of aspects of language, such as vocabulary, syntax, or narrative structure. Earlier studies of DA focused on word-learning and use of specific object labels (Kapantzoglou et al., 2012; Peña, Iglesias, & Lidz, 2001) revealing that TD ELs learn and use new words faster than ELs with DLD due to more efficient associations between the phonological and semantic representations of new words. More recent studies have focused on narrative development. In one study, age- and language-matched first- and second-graders (half EL/half EO; half DLD/half typically developing [TD]) participated in English narrative retell pretesting, followed by three sessions of scripted mediated learning experience (MLE)<sup>13</sup> focused on increasing utterance length and complexity (Peña, Gillam, et al., 2014). Post-test results classified both EOs and ELs with a variety of English exposure into DLD and TD groups with a high degree of sensitivity and specificity based on both grammaticality and story structure scores. In another study, kindergarten to third-grade ELs (10 with DLD, 32 TD) were treated with a concentrated, time-efficient DA procedure involving only two test-teach-test sessions focusing on English story grammar and syntactic complexity (Petersen et al., 2017). The procedure resulted in 100% sensitivity and specificity in discriminating those with and without language impairment.

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<sup>12</sup> In a “testing the limits” approach, the examiner determines the highest level at which the child can respond given probing (Gutiérrez-Clellen & Peña, 2001)

<sup>13</sup> Mediated learning experiences (MLE) are interactions that promote cognitive and performative growth (Lidz, 2002). Key MLE components used in the cited study included *intention to teach* (explanation of the learning goal), *mediation of meaning* (explanation that the goal is important), *transcendence* (the goal is related to meaningful every day activities), *planning* (thinking about the goal), and *transfer* (use of the newly learned strategies) (Pena et al., 2014).

Furthermore, after only a single DA session, sensitivity and specificity rates were 100% and 88% respectively. These results imply that public school SLPs may use focused DA to distinguish typical ELs from those with DLD. Several clinical tutorials on DA have been published (Gorman, 2015; Gutiérrez-Clellen & Peña, 2001; Hasson et al., 2013), as well as the *Dynamic Assessment Modifiability Scoring Guide* (Petersen & Gillam, 2015), to aid the working clinician.

### **Information Processing Tasks**

Information processing tasks, such as nonword repetition (NWR), can significantly reduce the linguistic bias of English-only standardized assessment, because these tasks do not test accumulated knowledge of English vocabulary or word/sentence structure. Instead, NWR is a measure of verbal working memory. Verbal working memory is deficient in both monolingual children with DLD (Ellis Weismer et al., 2000) and bilingual children with DLD (Gutiérrez-Clellen & Simon-Cereijido, 2010). Although a NWR task based on English phonotactics is not diagnostic of DLD in ELs (Duncan & Paradis, 2016; Gutiérrez-Clellen & Simon-Cereijido, 2010), quasi-universal crosslinguistic NWR task (Q-U NWRT) instruments show promise for distinguishing ELs with DLD vs. typical language development (Boerma et al., 2015), even when controlling for SES (Chiat & Polišenská, 2016). The Q-U NWRT, unlike other NWR tasks that are based on the syllable shapes and phoneme sequences of a single language, immunizes against the effect of bilingualism by testing shapes and sequences most commonly held by multiple languages (Boerma et al., 2015).

### **Case History Interview**

A case history interview is part of a thorough language assessment and is especially important for understanding ELs' amounts and types of language exposure (input), quality and timing of language development (output), and acquisition of English skills. Parent and teacher

ratings of ELs' language use and proficiency (in Spanish and English, respectively) are positively correlated with grammatical performance in that target language and could be used to advocate for testing in Spanish if parent report indicates Spanish proficiency (Gutiérrez-Clellen & Kreiter, 2003). Parents' reports of their bilingual children's vocabulary use, such as the *MacArthur-Bates Communicative Development Inventories* (Fenson et al., 2007) are a valid, cost-effective way of measuring and monitoring vocabulary development in young children (Mancilla-Martinez et al., 2016). The *Alberta Language Environment Questionnaire* (ALEQ; Paradis, 2010) was used to reliably compare child-internal (age, verbal working memory, and transfer of morphosyntactic structures from L1 to L2) and child-external (amount and quality of L1 and L2 exposure) factors as predictors for English L2 acquisition, indicating that parent report of an EL's L1 proficiency may be predictive of his L2 English development (Paradis, 2011). Paradis and colleagues at the University of Alberta have also developed a scoreable tool (the *Alberta Language Development Questionnaire* [ALDeQ]; (Paradis et al., 2010), administered via parent report, to assist in identifying ELs with PLI. The *Bilingual English-Spanish Assessment* (BESA) offers the Bilingual Input-Output Surveys (BIOS) for parents and teachers to report, hour by hour, the language exposure and use during weekend and school days. Finally, the Comprehensive Evaluation Process for English Learners (CEP-EL; Gaviria & Tipton, 2012) contains an "English Learner Extrinsic Factors" checklist, completed via parent/teacher interview and cumulative file review, that can investigate EL extrinsic factors—such as physical, psychological, personal, and cultural factors—that may impact academic performance.

### **Standardized Assessment**

Bilingual children with DLD show evidence of impaired language learning in all

languages, not just in English. As such, standardized assessments that compare a bilingual child to other bilingual children with the same languages of exposure and use could be helpful in determining the presence or absence of DLD. In a review of 30 commercially published assessments in 19 languages other than English (McLeod & Verdon, 2014), although several tests assessed speech sound production in languages other than English, only one assessed the receptive and expressive language capabilities in both languages of the bilingual speakers and compared their performance to that other bilingual speakers (Bilingual English-Spanish Assessment [BESA], Peña, Gutiérrez–Clellen, et al., 2014). At this time, the BESA is the only standardized assessment of bilingual language ability (Spanish-English) with proven correlation with bilingual language sampling measures and adequate sensitivity and specificity for identifying young Spanish-English ELs with DLD.

In summary, there is a solid body of research evidence identifying culturally and linguistically valid assessment methods to distinguish language difference from disorder in ELs of school age, the focus of this paper. These methods include language sampling (particularly using narrative retells), dynamic assessment, information processing assessment, parent and teacher interview, and the BESA (for younger Spanish-English bilinguals). When used in combination, these methods should offer a pattern of evidence to rule in or rule out a diagnostic classification of DLD, and will be referred to as “best practices” for the nonbiased assessment of school-age bilingual children.

### **Contemporary English Learner Assessment Practices**

The ASHA Code of Ethics (ASHA, 2016) mandates the use of culturally and linguistically appropriate measures with EL students, and ASHA offers best practice guidelines for EL service delivery on their website (ASHA, 2017). However, although contemporary EL

assessment protocols used by public school SLPs often contain elements of best practice, they do not fully conform to those practices identified, with research evidence, to distinguish ELs with typically-developing language from those with SLI. Several researchers have documented the “state of EL language assessment” in the public school sector, reaching consensus that far more progress is needed before ELs will routinely enjoy unbiased assessments.

Caesar (2004) surveyed SLPs in the state of Michigan and found that “neither graduate theoretical education nor practical training were strong predictors of SLPs’ conformity to recommended practice guidelines in the area of bilingual assessment” (Caesar, 2004, p. 104). In that study, SLPs relied on standardized assessments when assessing bilingual students to an even greater extent than they did when assessing monolingual English students. Caesar and Kohler (2007) surveyed SLPs in Michigan (n = 130) and found that 98% of respondents reported using tests of vocabulary and comprehensive language ability that were normed on monolingual English-speaking students (Caesar & Kohler, 2007). A small, nationally expanded replication study (Arias & Friberg, 2017) found that although there was increased compliance with ASHA’s best practice guidelines compared to Caesar and Kohler’s 2007 study, further training in bilingual assessment is needed. A small national sample may not capture actual practice in diverse communities across the U.S., however. Kraemer and Fabiano-Smith (2017) found, in their unique records abstraction study, that SLPs who assessed EL students in a northern California public school district used only standardized measures (80% of which were normed on monolingual populations) to determine special education eligibility for their EL students. Furthermore:

Although it was discovered that SLPs assessed all 88 Latino EL children using standardized tests and, in many cases, only assessed them in one language (Spanish or

English), they also neglected to include non-standardized measures in their assessment battery. Non-standardized measures may require more time in implementing, but these measures may possess greater ecological validity (i.e., Kapantzoglou et al., 2012; Lewis, Castilleja, Moore, & Rodriguez, 2010). It was also discovered that the vast majority of speech-language assessment reports failed to contain Spanish proficiency information, language history information (as determined by parents or caregivers), evidence of reviewing student classwork, and informal language sample data. (Kraemer & Fabiano-Smith, 2017b, p. 356)

The issue of potentially biased bilingual assessment plagues countries other than the United States. Speech-language pathologists in Australia (n = 128) who attended a seminar about cultural and linguistic diversity reported, via survey, about their assessment practices with bilingual students (Williams & McLeod, 2012). The majority (78.2%) always used informal assessments, and if standardized assessments were used, they were in English.

What factors contribute to SLPs' adherence, with fidelity, to EL assessment best practice guidelines? A five-state mixed methods survey study (n = 811; bilingual SLPs oversampled) found that the majority of respondents (72-85% across monolingual, bilingual via academic study, and bilingual via cultural experience groups) reported low levels of personal efficacy/competence in assessing an individual's language development in a language they did not speak (Kritikos, 2003). Participants reported various reasons for their high or low personal efficacy, including knowledge (or lack thereof), proficiency in the target language, and experience. 40% of respondents, including some with self-reported "low" levels of knowledge, also reported they would be less likely to recommend intervention for a bilingual child than a monolingual English child, raising serious concerns about the under-identification of DLD



among bilingual children. Lack of knowledge was also cited as the primary limiting factor in the provision of unbiased bilingual assessment among SLPs working in rural, urban, diverse (20% or more of the population Hispanic) or non-diverse communities (Hammer et al., 2004). Caesar (2004) found factors beyond the knowledge gap that affected SLPs' uses of best practices, including a mismatch between SLPs' (usually EO) and students' languages, inadequate training in determination of language dominance, overestimation of English language proficiency based on social language competence instead of academic language competence, as well as occupational stressors such as caseload size/diversity and employment setting and location (Caesar, 2004).

Although there is evidence demonstrating that knowledge gaps affect the likelihood of SLPs using EL assessment best practices, directors of speech-language pathology graduate programs (n = 113) felt that their programs adequately prepared SLPs for the challenges of assessing and treating culturally and linguistically diverse individuals, via academic and clinical training (Hammond et al., 2009). Neither undergraduate nor graduate students in a major urban college (n = 124) reported possessing adequate knowledge of language differences, whether or not they had taken a specific course in bilingual language development and disorders (Levey & Sola, 2013).

The use (or not) of assessment practices valid for diagnosing DLD in school-age ELs has a direct relationship with eligibility decisions made by SLPs. Across disability categories, EL students are under-represented in special education until grade 3, and increasingly over-represented thereafter (Samson & Lesaux, 2008; Sullivan, 2011). Developmental language disorder, a learning disability that can be diagnosed very early in life, requires early intervention for optimal outcomes. However, in two large, nationally representative studies, children whose

parents spoke languages other than English had strongly decreased odds of receiving speech and language therapy (Morgan, Farkas, et al., 2017; Morgan, Hammer, et al., 2016).

In summary, “limited understanding of developing bilingualism and [DLD] by a speech-language pathologist may result in delays in identification, identification of only the more severe cases, or insufficient support for the child’s dual-language system” (Kohnert, 2010, p. 462).

### **Beliefs and Attitudes**

“When they are clearly conceptualized, when their key assumptions are examined, when precise meanings are consistently understood and adhered to, and when specific belief constructs are properly assessed and investigated, beliefs can be... the single most important construct in educational research.” (Pajares, 1992, p. 329)

The theoretical frameworks utilized for this study propose that deficit thinking may contribute to SLPs’ reluctance to adopt assessment practices more likely to result in accurate determinations of ELs’ language difference vs. disorder, by contributing to negative attitudes toward that behavior. Since deficit thinking is a construct rooted in educator beliefs and attitudes, it is logical to examine the evidence surrounding educator beliefs and attitudes, and how those beliefs and attitudes may affect instructional practices. This section will summarize the literature about (a) the difficulty defining and operationalizing the term “beliefs;” (b) the link between beliefs and behavior; (c) the beliefs of general education teachers toward ELs and how these beliefs may affect their selection of instructional practices, and (d) the way SLP “beliefs” about EL assessment have been studied to date. It will then propose a unique way to approach the construct of beliefs as it pertains to SLPs’ use of EL assessment best practices.

### **Beliefs as a Concept**

The research literature on educator beliefs has evolved only within the last four decades or so, in part due to a focus on behaviorism in the 1940s and 1950s which discouraged investigation into such cognitive constructs (Ashton, 2014). A seminal attempt to clean up the

“messy construct” of belief research revealed that “the difficulty in studying teachers' beliefs has been caused by definitional problems, poor conceptualizations, and differing understandings of beliefs and belief structures” (Pajares, 1992, p. 307). This difficulty persists today. In a recent study investigating explicit and implicit teacher beliefs and their relationship to teacher behavior, Harrison and Lakin (2018a) clearly stated what is obvious to those attempting to understand and synthesize the literature on educator beliefs: we cannot even decide on a common vocabulary. Terms in the literature used synonymously with “belief” include attitudes, characteristics, conceptions, expectations, dispositions, implicit and explicit theories, judgments, opinions, perceptions, personal theories, personality, practical principles, rules of practices, sense of efficacy, theories, thought processes, and values (Pajares, 1992; Smith et al., 2005). Although these similar terms are infrequently defined or operationalized (see Table 2.1), it is apparent that beliefs are cognitive constructs formed by context and experience and that they influence educator behavior.

**Table 2.1**

*A selection of “belief” definitions used in empirical or qualitative studies of educator beliefs about RCLD students*

<b>Study</b>	<b>Term</b>	<b>Definition</b>
(Flores & Smith, 2008)	Attitudinal beliefs	Undefined  The reader may infer that it is too difficult to parse the differences between the concepts of knowledge and belief or to settle on a common definition of “belief system.”
(Harklau, 2000)	Representation	Undefined  The author states: “...the images, archetypes, or even stereotypes of identity with which students are labeled...[there is] interplay between student and teacher agency and wider societal representations of language and ethnicity in re-creating institutional representations in each setting” (pp. 37-38).
(Harrison & Lakin, 2018)	Attitudinal beliefs	Attitude is defined as, “a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols,” (Hogg & Vaughan, 2005, p. 150)...Attitude is a sub-construct of belief, so that when attitudes are being observed or identified, they are interconnected with beliefs in such a way as to make the terminology

Study	Term	Definition
		interchangeable (Pajares, 1992)...Understanding that beliefs and attitudes are unique yet somewhat interrelated constructs, we will use attitudinal beliefs (Flores & Smith, 2008) to represent beliefs that include an aspect of evaluation that might imply favor or disfavor which could also include attitudes or associations (Eagly & Chaiken, 1993)...All teachers hold beliefs which have an impact on their decisions at the classroom level and are integral to teacher growth and behavior” (p. 55).
(Horenczyk & Tatar, 2002)	Attitudes	Undefined  “Teachers’ attitudes toward multiculturalism in schools are influenced by aspects of the school’s organizational culture as it relates to cultural diversity.” (p. 436)
(Karabenick & Noda, 2004)	Beliefs and attitudes	Undefined  “Teachers’ attitudes toward ELLs and bilingual education...are important because they affect teachers’ motivation to engage with their students...[and] can also affect teachers’ receptivity to professional development efforts to improve ELL-related capabilities and to dispel unwarranted beliefs about language and cognition that, unchallenged, can impede attempting new instructional practices that re more conducive to ELL student success.” (p. 56)
(Kumar et al., 2015)	Implicit attitudes, explicit beliefs	Undefined  “Teachers, whether they are consciously aware of it or not, belong to cultural communities that define their cultural identities, form their beliefs and attitudes (Nisbett, 2003; Rogoff, 2003), and guide their behavior (Kroeber, Kluckhohn, & Meyer, 1960). Teachers’ culturally constructed beliefs and attitudes can, in turn, influence their interactions with students, among whom teachers may distinguish according to such cultural dimensions as ethnicity, class, religion, and language (Ibarra, 1999).” (p. 533)
(Lazar, 2009)	Beliefs	Undefined  It is inferred that teachers from mainstream backgrounds and the dominant culture hold deficit “beliefs” blaming minority students for their own school failure.
(Marx, 2001)	Beliefs	Undefined  Terms used synonymously: attitudes, focus, identities, thoughts, feelings, values, characteristics, biases, prejudices, expectations
(Pappamihiel, 2007)	Beliefs and attitudes	Undefined  “Belief systems tend to be influential and can have a great effect on how teachers interact with students.” (p. 44)
(Pohan & Aguilar, 2001)	Beliefs	Undefined  “Attitudes, beliefs, and expectations have been found to guide and direct teachers’ responses toward various students...teachers hold beliefs about students that lead to differential expectations and treatment” (p. 159)
(Ruiz, 1984)	Orientations	“A complex of dispositions toward language and its role, and toward languages and their role in society. These dispositions may

Study	Term	Definition
		be largely unconscious and pre-rational because they are at the most fundamental level of arguments about language...Orientations are related to language attitudes in that they constitute the framework in which attitudes are formed...[they] determine what is thinkable about language in society” (p. 16).
(Terrill & Mark, 2000)	Expectations	Undefined  The reader may infer that expectations are formed by “a certain cultural, racial, linguistic, and economic background” (p. 49) and that expectations can shape behavior.
(van den Bergh et al., 2010)	Attitude	Undefined  The difference between explicit and implicit attitudes was demonstrated; “the implicit measure of teacher prejudiced attitudes...was found to explain differing ethnic achievement gap sizes across classrooms via teacher expectations.” (p. 497)
(Walker, Shafer, & Iiams, 2004)	Ideological beliefs and attitudes	Undefined  “Attitudinal assessment is important because teachers’ attitudes and beliefs about language-minority children play a crucial role in determining the educational outcomes for this population of students (Valdes, 2001). Teachers who hold negative, ethnocentric or racist attitudes about ELLs, or who believe in any of the numerous fallacies surrounding the education of language-minority students, often fail to meet the academic and social needs of these students (Tse, 2001; Valdes, 2001; Youngs & Youngs, 2001) and work to maintain the hegemonic legitimacy of the dominant social order.” (p. 130)
(Ying & Garcia, 2009)	Perceptions and Attributions	Undefined  Perceptions moderate teachers’ attribution of student success or failure to common stereotypes about the group of which the student is a member.
(Youngs & Youngs, 2001)	Attitudes	Undefined  The reader may infer that attitudes can be predicted based on 6 background factors and that “mainstream teachers’ attitudes toward ESL students are likely to affect what ESL students learn” (p. 98)

### The Link between Belief and Behavior

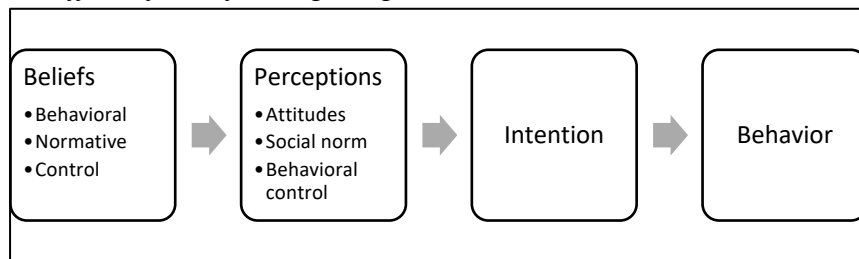
Pajares (1992, p. 311) suggested that “beliefs are far more influential than knowledge in determining how individuals organize and define tasks and problems and are stronger predictors of behavior”. Consistent with this statement, in their exhaustive literature review of educator beliefs, Fives and Buehl (2012) posited that beliefs have three primary purposes: (1) as a

FILTER for interpretation, (2) as a FRAME for defining problems, and (3) as GUIDES or STANDARDS for action. Drawing on the theory of Triadic Reciprocal Determinism (Bandura, 1978), they asserted that educator beliefs exist in a mutually influential system of context and experience—each shapes and is shaped by the other (Fives & Buehl, 2012). Because beliefs are often inferred from behavior (Shiveley & Misco, 2010), educator behavior may be the best logical starting point from which to study beliefs.

Returning to the study’s theoretical framework, the reasoned action approach (RAA) suggests that in order to explain and predict any human behavior, once that behavior is clearly defined, we must “assume that human social behavior follows reasonably and often spontaneously from the information or beliefs people possess about the behavior under consideration” (Fishbein & Ajzen, 2015, p. 20), namely behavioral, normative, and control beliefs. A chain of effects occurs as follows (Figure 2.10):

**Figure 2.10**

*The effect of beliefs and perceptions on intention and behavior*



A considerable amount of research, both empirical studies and meta-analyses (see for example Armitage & Conner, 2001; Christian et al., 2018; Godin et al., 2008; R. R. C. McEachan et al., 2011; R. McEachan et al., 2016; Wang et al., 2015), has supported the RAA’s validity for predicting the formation of an intention to perform a behavior given positive beliefs and perceptions about the behavior in question.

**General Education Teachers’ Beliefs about ELs and Beliefs’ Effects on Instruction**

Overt acts of bias of educators against those of non-majority races, ethnicities, or language backgrounds are relatively rare. However, implicit bias, fueled by deficit thinking, appears to affect educator behavior toward ELs. A representative sample of the recent research linking educator beliefs and behaviors follows, both for RCLD students in general, and for ELs specifically.

Kumar and colleagues (2015) studied the explicit and implicit attitudes of White teachers toward Arab American students as a mediator of their pedagogical choices. Thirty percent of the variance in teachers' use of mastery-focused (vs. performance-focused) instruction was accounted for by their implicit preference for White students over RCLD students. In another study, secondary math teachers erroneously believed that limited English proficiency implied intrinsic deficits in mathematical reasoning and problem-solving ability, and therefore employed repetitive, procedure-focused, decontextualized mathematics tasks with ELs (de Araujo, 2017). Teachers with positive attitudes toward linguistic diversity were more willing to expand their pedagogical repertoire, more likely to engage in reflective practice about ELs' education, and less likely to outsource their EL students to other educators or to the special education referral process (Greenfield, 2016). Rizzuto (2017) demonstrated that, although a small cohort of elementary teachers reported positive attitudes toward linguistic diversity (via quantitative analysis of explicit belief surveys), during qualitatively-analyzed interviews they expressed negative implicit attitudes about ELs ("The ELLs play so rough. I guess it's because they just don't understand or maybe it's what they learn at home;" interview transcription, Rizzuto, 2017, p. 191). Their instructional practices reflected their implicit deficit views: disallowing the use of native languages in the classroom, refusing to modify their lessons to accommodate ELs, and outsourcing ELs to other educators. Finally, Ahram and colleagues (2011) identified deficit

thinking as a significant factor contributing to referrals for special education. Teachers assumed that parents of minority students had poor schooling experiences themselves and thus didn't value their children's education. An "us vs. them" dynamic was exposed in which RCLD students were labeled "at risk" until full adoption of the majority culture and language and were referred to special education when acculturation occurred slowly (Ahram et al., 2011).

The sampling of studies described above, along with a host of others (e.g., Johnson & Reiman, 2007; Karabenick & Noda, 2004; Mantero, 2005; McLaughlin & Pettit, 2013; Pettit, 2011; Vázquez-Montilla et al., 2014) confirm that teacher beliefs and attitudes about students with diverse linguistic and cultural backgrounds affect their instructional practices with those students, including the referral process for special education.

### **The Focus of "Belief" Studies for SLPs**

There is scant literature on the subject of SLP beliefs, attitudes, and perspectives in general, and even less regarding their attitudes toward English learner assessment or how their attitudes and beliefs may affect their practice. Table 2.2 lists all nine studies to date that have surveyed SLPs' beliefs and attitudes about matters pertaining to EL assessment (and/or intervention) practices. In no study was the term "belief" (or a synonym) clearly defined and operationalized. Beliefs were surveyed about competence and confidence in providing assessment and intervention to ELs (Guiberson & Atkins, 2012; Kimble, 2013; Kritikos, 2003), confidence in their ability to provide service to bilingual clients (Hammer et al., 2004), satisfaction in their selection of appropriate testing instruments with bilingual students (O'Toole & Hickey, 2013), perceptions about the most useful EL practice modifications (Maul, 2015), and satisfaction with their graduate preparation for the valid assessment of ELs (Arias & Friberg, 2017). In only one doctoral dissertation (Caesar, 2004) were SLPs surveyed as to their beliefs



about the importance of the outcomes of bilingual assessment (e.g., correct differentiation between language differences and disorders, correct determination of special education eligibility). In that dissertation, 100% of the study participants indicated it was somewhat important or very important to correctly distinguish a language difference from a language disorder, and >90% agreed on the importance of gathering information about language proficiency, language learning capability, language dominance, and language learning style in order to make this crucial differential diagnosis.

**Table 2.2**

*Studies of SLPs' beliefs and attitudes about matters pertaining to EL assessment (and/or intervention) practices (emphases added)*

<b>Reference</b>	<b>Term</b>	<b>Definition</b>	<b>Results</b>
(Arias & Friberg, 2017)	Perceptions	Perceptions of graduate preparation for working with RCLD students	38% positive (compared to 28% in Caesar & Kohler, 2007)
(Caesar, 2004)	Beliefs, perceptions	“[SLPs’] beliefs regarding the importance of selected bilingual assessment outcomes” (p. 46)	“The findings regarding SLPs’ <u>beliefs about assessment outcomes contradict their self-reports</u> of the frequency with they use selected practices, as well as the types of procedures they use with bilingual children” (p. 115).
(Guiberson & Atkins, 2012)	Perspectives	Perspectives include confidence, practices, and challenges reported.	Respondents were comfortable working with racially and culturally diverse students but that they had <u>less competence</u> with linguistically diverse populations. Multiple challenges were reported.
(Hammer et al., 2004)	Confidence	Participants’ confidence levels [part of the perceived behavioral control construct] along various aspects of multicultural service provision were correlated with their training.	“Respondents <u>lacked confidence</u> when assessing bilingual children whose primary language was Spanish and when working with parents who do not speak English” (p. 91).
(Kimble, 2013)	Perceptions	Perceptions regarding their comfort levels in assessment of and intervention with English learners	“Most SLPs are <u>uncomfortable</u> assessing ELL/LEP students” (p. 27).

Reference	Term	Definition	Results
(Kritikos, 2003)	Beliefs	Beliefs about their competence in the assessment process  “Professionals’ personal and professional experiences, class characteristics, and external factors (e.g., social norms) influence their routine, planning, and knowledge and beliefs regarding assessment and instruction. These beliefs, in turn, affect service behaviors. Furthermore, these service behaviors influence client behavior and client outcomes (Porter & Brophy, 1998)” (p. 74).	“Most SLPs reported <u>low efficacy</u> in bilingual assessment for both their own skills (personal efficacy) and those of the field in general (general efficacy)... Most of these participants (40%) reported that they would be <u>more conservative in recommending language therapy for a bilingual than a monolingual child</u> , particularly due to the respondent’s own lack of knowledge of bilingual issues” (p. 73).
(Maul, 2015)	Perceptions	Perceptions of SLPs regarding “modifications of usual practices when interacting with CLD students and their families” (p. 750)	Many modifications were reported, some of which are not addressed in the current research literature.
(O’Toole & Hickey, 2013)	Perceptions	Perceptions of the challenges in diagnosing DLD in Irish-English bilingual children.	No standardized tests available in Irish, requiring translation of existing English-based assessments.

On the other hand, Caesar’s (2004) groundbreaking doctoral study also found that only two types of information gathering, when deemed “very important,” correlated with a change in behavior. First, those SLPs who viewed determination of a student’s language proficiency as “very important” employed interpreters more often than those who did not. Second, those who believed that it was “very important” to understand an EL’s language learning style (defined as “how best the child learns a new language,” p. 97) tended to assess ELs in a variety of educational contexts more often than those who did not. These results hardly point to a robust correlation between SLPs’ behavioral beliefs and their routine use of EL assessment best practices! Several other studies (Table 2.3) document the state of affairs regarding the use of EL assessment best practices. Although two studies (Arias & Friberg, 2017; Guiberson & Atkins, 2012) showed that some progress is being made, Kraemer and Fabiano-Smith’s (2017) records abstraction study clearly indicated that increasing use of EL assessment best practices is less than widespread.

**Table 2.3***Studies investigating SLPs' actual use of EL assessment best practices*

<b>Reference</b>	<b>Results</b>
(Arias & Friberg, 2017)	“SLPs within schools are attempting to use a combination of measures in order to gain a more detailed account of the student’s overall language abilities in the first language and English” (p. 9). “Although SLPs have become more compliant to ASHA and IDEA guidelines, there is room for improvement in terms of adequate training in bilingual language assessment” (p. 1).
(Caesar & Kohler, 2007)	“SLPs used formal, standardized English tests more frequently than informal assessment procedures when assessing bilingual students” (p. 190).
(Caesar, 2004)	“Close to 98% of the respondents utilized or administered procedures designed for students of English...The majority of respondents (75%) indicated English as the test language they used most frequently when assessing bilingual children” (p. 71).
(Guiberson & Atkins, 2012)	“A major decrease was observed in the percentage of SLPs who reported using standardized English assessments with CLD students. ...Still, nearly 75% of respondents reported that the lack of appropriate assessment and screening tools was a challenging aspect of assessing CLD students” (pp. 173-74).
(Kraemer & Fabiano-Smith, 2017)	“Latino EL children in this cohort were assessed solely by way of a standardized test...There was no mention of a child’s language dominance, English proficiency, exposure to English, parental or caregiver primary language spoken at home, or analysis of a child’s schoolwork in any of the reports” (.p. 355)

**How This Study Differs**

Whereas previous studies of teacher behavior have been empirically linked in part to their beliefs about ELs, and a variety of factors have been correlated with those beliefs (e.g., language politics, deficit views of ELs), the *behavioral beliefs* construct has not yet been investigated as it pertains to SLPs working with ELs. Although several studies have used the term “beliefs” about the language assessment of ELs (e.g., Kritikos, 2003), those studies have largely addressed the construct of *perceived behavioral control* rather than personal beliefs or attitudes. No attempts have been made to investigate the beliefs, attitudes, and perceptions of SLPs about the value of routinely using EL assessment best practices to maximize the validity of differential diagnosis (language difference vs. disorder), the use of which can mitigate EL disproportionality in special education. Furthermore, if the selection of EL assessment practices is in part related to deficit

views of ELs, as in teachers, it is important to understand significant factors contributing to those views. This study advances an innovative method for exploring the belief profiles of SLPs in California, a state heavily impacted by linguistic diversity, to determine if SLPs' beliefs about ELs might influence their intention, and ultimately their choice, to routinely use best practices in the assessment of ELs.

## Chapter 3: Methodology<sup>14</sup>

This chapter will introduce the reader to a *qualiquantilological research method* (Stenner & Stainton Rogers, 2004). Also referred to as Q methodology, it is uniquely suited for the study of human beliefs and behavior and is thus my choice for the collection of data for this research project. First, I will describe the origins and concepts of Q methodology, revealing the rationale for its use in the current project. Next, I will chronicle the development of the concourse and the study's Q-set based on the literature surrounding current beliefs and opinions about EL language assessment and eligibility determination specifically, and linguistic diversity more broadly. A description of the P-set (participant set) will follow. Fourth, I will detail the process of Q-sorting. Finally, I will describe additional data collection tools, including reflection questions and a demographics and caseload composition questionnaire. The chapter concludes with a description of the procedure for data analysis and interpretation.

### **Q Methodology**

Q methodology was developed by the British physicist-psychologist William Stephenson in the 1930s as a way to “explore the subjective dimension of any issue towards which different points-of-view can be expressed” (Stenner et al., 2011, p. 215). Today, it remains a hybrid methodology which confers upon the researcher the capacity for systematic and rigorous quantitative analysis of *subjectivity*, in Q defined as “a person’s communication of a point of view on any matter of personal or social importance” (McKeown & Thomas, 2013, p. ix). Fundamentally, Q methodology is at once a data collection technique (via the Q-sort) *and* a method of analysis (via participant factor analysis) designed to identify groups of subjects who hold similar beliefs about the research topic (Watts & Stenner, 2005). Unlike traditional

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<sup>14</sup> Although referenced throughout, this chapter relies heavily on the seminar texts on Q methodology by Watts and Stenner (2005, 2012), McKeown and Thomas (2013), and Brown (1993).

quantitative research, and unlike qualitative methods such as narrative inquiry or phenomenology, Q methodology is a gestalt procedure whose aim is not to carve human personality into its component themes or aspects in order to describe them, but rather to reveal how configurations of themes are interconnected among a group of participants (Watts & Stenner, 2005).

In a Q research study, a set of statements (the Q-set) is drawn by the researcher from the existing viewpoints (the *concourse*) about a particular topic. Participants engage with these statements through the completion of a Q-sort. During the sorting procedure, participants must subjectively determine the psychological significance or value each statement holds for them and rank-order the statements, along a standardized continuum or distribution, relative to each other (Watts & Stenner, 2005). The resulting Q-sort comprises a single *n*. Once all participants have completed their Q-sorts, the total *n* Q-sorts are correlated, and the resulting matrix undergoes by-person factor analysis “as a means of identifying the range and nature of truly independent viewpoints” about a topic (McKeown & Thomas, 2013, p. 3). Thus, instead of finding that certain variables are intercorrelated across certain individuals as in R methodologies, the Q researcher can conclude that certain points of view (emergent factors) are shared across subsets of participants (Watts & Stenner, 2005). “The result of a Q study is hence the holistic identification of a finite range of distinct viewpoints relating to the addressed issue or subject matter” (Stenner et al., 2011, p. 3 online version). Q methodology has been used across a variety of social science disciplines, including education. For example, in a Q study examining the perceptions of leaders in special education about the relative priority of professional standards for special education administration (Boscardin et al., 2018), two distinct viewpoints were illuminated. Understanding these perspectives allowed the researchers to propose an action

model for special education leadership involving strategic use of leadership approaches depending on contextual demands (Boscardin et al., 2018).

Q methodology revolutionizes the way beliefs and attitudes are studied. In traditional attitude scales, each scale item purports to measure a portion of a fixed psychological construct, has been defined and operationalized by the researcher, and hence is affixed with meaning *a priori*. In the study of attitudes using Q methodology, each statement is assigned meaning by the individual participant and, taken together, the relative significance of the statements form the participant's "gestalt configuration" (Watts & Stenner, 2005, p. 74), or relative evaluation, of their perspectives on the topic. The factors that are illuminated via Q analysis are represented by "all the presented items configured in different but characteristic ways" (p. 74). Meaning is derived *following* analysis, not before. In this way, Q methodology does not merely add a quantitative aspect to a qualitative study, or vice versa, but is itself a "monstrous...discomforting hybrid" that reforms the two methods that are joined in forming it (Stenner & Stainton Rogers, 2004, p. 166).

### **Why Q is Appropriate**

Q methodologists are less concerned with the study of objective aspects of human behavior that can be more easily subjected to hypothesis formation and prediction confirmation, and more concerned with curiosity—the exploration of subjective human viewpoints<sup>15</sup> and how those viewpoints are communicated through the process of ranking strength of agreement or disagreement with opinion statements on the topic at hand (Rhoads, 2014).

Recalling from Chapter 1 that this study proposes to explore SLPs' beliefs and attitudes

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<sup>15</sup> Rhoads (2014) gives a variety of examples of such exploration: "You could study the structure of opinion regarding President Obama, the last Harry Potter book, what economists think of supply-side economics, what people think of singer Justin Bieber, and so on. You should concentrate, however, on subjects that would be of academic interest in your field" (Rhoads, 2014, p. 2 online version).

about (a) linguistic diversity, (b) the nature of bilingualism, (c) the learning potential of ELs, and (d) the importance of using best practices in the assessment of ELs for special education, and from Chapter 2 that SLPs' behavioral beliefs may represent an untheorized determinant of their intention to routinely use best practices for diagnosing DLD in school-age EL children, I intend to utilize Q methodology to develop preliminary SLP belief profiles to understand the range of viewpoints that exist about these topics. Ultimately, the goal is to use profiles such as these to enhance the ability of SLP educators, professional development providers, and school administrators to create targeted training/education and/or policy remedies as one way to combat the wicked problem of EL disproportionality in special education.

### **Development of the Concourse and Q-set**

In a Q study, the research question dictates the “nature and structure” of the Q-set (Watts & Stenner, 2005, p. 75). In the current study, the research questions are:

1. What are the beliefs, attitudes, and perceptions of California school-based SLPs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children?
2. What relationships, if any, exist between these beliefs, attitudes, and perceptions and California school-based SLPs' use of best practices for diagnosing DLD in school-age EL children?

The next step involved the creation of a *concourse*, “the universe of subjective communicability surrounding any topic, of the kind found in ordinary conversation, back-fence gossip, commentary deposited on Internet blogs and exchanged in chat rooms, and extending to the high-level discourses of epistemic communities across all the sciences” (Brown & Good, 2012, p. 2 online version). In the current study, the concourse was a set of statements



representing the complete range of behavioral, normative, and control beliefs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children. Item generation was undertaken through the literature review, using the study's theoretical framework (the reasoned action approach) as a method to categorize opinions about the themes. Concourse statements reflect the various aspects of the themes in the form of self-referential expression ("I believe that ..."), proposition ("The best way to...is..."), or opinion statement ("all EL assessment should...") (Stenner et al., 2011). More than 300 statements were initially generated to populate this study's concourse, with the concourse considered complete when saturation occurred (i.e. no additional novel opinions revealed). Because SLPs assess ELs for special education only after a referral has been made, opinion statements regarding pre-referral issues such as teacher beliefs and behavior, teacher knowledge, and the behavior of SST teams were included in the concourse. Also, because this study's theoretical framework purports a link between beliefs and behavior, opinion statements regarding this link were also included in the concourse.

The paring down of the 300+ statement concourse into a representative Q-set was the next step. Ultimately, each statement selected for inclusion in the final Q-set would become a unit of analysis. It was therefore of fundamental importance that the Q-set truly represent the total range of opinions that are contained in the concourse and that the statements were not ambiguous or repetitive (Akhtar-Danesh et al., 2008). This study's Q-set design was undertaken in several phases according to the guidance provided by Paige and Morin (2016), using a deductive (structured) approach (McKeown & Thomas, 2013). This structured approach required assignment of Q-set statements within the conceptual and theoretical frameworks for the study (Akhtar-Danesh et al., 2008). First, each statement was categorized by theme, strand, and

substrand according to the reasoned action approach’s framework (Table 3.1):

**Table 3.1**

*Concourse themes, strands, and substrands*

<b>Theme</b>	<b>Strand</b>	<b>Substrands</b>		
Behavioral beliefs	ELs as learners	Sociocultural deprivation	Colorblind ideology	Hereditarianism
	Bilingualism	Language politics	Myths	Value of bilingualism
	Assessment practices	Attitude about EL best practices	Eligibility determination	
	Belief-behavior link	Teacher beliefs-behavior	General beliefs-behavior	
Normative beliefs	Stakeholder expectations of SLP behavior	School/district culture	ASHA	State, federal, case law
Control beliefs	Knowledge and skills	Bilingualism – development & disorders	Assessment methods	Self-efficacy
	Resources	Time	Interpreters	Materials
	Pre-referral process	Teacher beliefs	Teacher behavior	Teacher knowledge

Each substrand’s statements were further organized into subcategories. For example, statements in the substrand of “Sociocultural deprivation,” could generally be divided into subcategories of “cultural capital,” “parents,” and “values.” Second, the statements in those subcategories were examined and essential elements derived. Third, a revised statement was generated that reflected the essential elements such that no more than one revised statement remained in each subcategory. For example, the statements in the “values” subcategory all reflected the relative value English learners’ home cultures placed on education, resulting in the revised statement “Many English learners’ home culture prioritizes family and work over education.” A target number (40-50) of final Q-set statements was defined by the guidelines offered by Brown (1980) and Watts and Stenner (2012). Within each substrand cell, a number of revised statements was selected, determined loosely by the number of essential elements in each theme. Table 3.2 shows the distribution of statements desired (or actually chosen) within each substrand.

**Table 3.2***Number of Q-set statements per theme, strand, and substrand*

<b>Theme</b>	<b>Strand</b>	<b>Substrands</b>		
Behavioral beliefs 24 statements	ELs as learners	Sociocultural deprivation (3)	Colorblind ideology (2)	Hereditarianism (2)
	Bilingualism	Language politics (3)	Myths (3)	Value of bilingualism (3)
	Assessment practices	Attitude about EL best practices (2)	Eligibility determination (3)	
	Belief-behavior link	Teacher beliefs-behavior (1)	General beliefs-behavior (2)	
Normative beliefs 5 statements	Stakeholder expectations of SLP behavior	School/district culture (3)	ASHA (1)	State, federal, case law (1)
Control beliefs 19 statements	Knowledge and skills	Bilingualism – development & disorders (2)	Assessment methods (2)	Self-efficacy (3)
	Resources	Time (1)	Interpreters (1)	Materials (2)
	Pre-referral process (2)	Teacher beliefs (2)	Teacher behavior (2)	Teacher knowledge (2)

The diversity of opinions on each substrand sometimes required a different number of statements in order to allow the Q-sample to be fully representative of the opinions reflected in the concourse. At this point, therefore, a less structured approach was used so the Q-set represented opinions from the entire population of themes and strands, not a quota sample from each cell (Watts & Stenner, 2012).

Further refinement of the Q-set took place through domain expert consultation and piloting of the instrument with four school-based SLPs who did not participate in the final study. Modifications were made to the sorting instructions and to the Q-set statements based on pilot participants’ “think-alouds” during the process. For example, a participant would read a statement aloud and might ask the researcher “what do you mean by that?” After discussion and clarification, a revision to the statement was made and agreed-upon by the researcher and participant. Please refer to Table 3.10 for the final Q-set.

### **Participant-set (P-set) Selection**

Unlike the large sample sizes needed to ensure representativeness and increase the likelihood of generalizability in traditional quantitative survey studies, a relatively small number of participants in a Q-methodological study can nevertheless produce generalizations about the essence of human behavior (McKeown & Thomas, 2013). In this intensive Q analysis, the range and character of perspectives on the beliefs, attitudes, and perceptions of California school-based SLPs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children were investigated. As the goal was to illuminate the distinct perspectives that exist on this topic, the P-set needed to only be as large as to illuminate those unique points of view (Brown, 1980); the emerging factors, which are generalizations of attitudes held by members of the P-set, “permit direct comparisons of attitudes as attitudes irrespective of the number of people who populate them” (McKeown & Thomas, 2013, p. 32). In order to establish the existence of viewpoints on the study’s topic, and to “understand, explicate and compare them” (Watts & Stenner, 2012, p. 72), a starting point for participant recruitment is at a ratio of one participant per two Q-set statements. Therefore, in the current study, the Q-set of 48 statements pointed to a target P-set of 24-25.

Watts and Stenner (2012) provided helpful guidance for the current study’s P-set development. First, the members of the P-set each comprise a variable in the study. As such, consideration was given to finding participant SLPs who had defined viewpoints on the study’s topic (e.g. SLPs working in the public schools vs. medical settings, SLPs in California vs. nationwide, SLPs who have completed an EL’s language assessment those who have not). Second, in order to illuminate any potential differences in attitudes based on demographic factors, the researcher attempted to gather Q-sorts from as many pertinent demographic groups as possible (e.g. bilingual vs. monolingual, race & ethnic group membership, population density

in home and work zip code, geographic location within the state, etc.).

Participants were recruited through a number of avenues, including:

- American Speech-Language-Hearing Association’s Special Interest Groups (SIG) 16 “School-Based Issues,” SIG 1 “Language Learning and Education,” and SIG 14 “Cultural and Linguistic Diversity” listservs;
- Facebook groups: “SLPs for Evidence-Based Practice,” “Bilingual Speech-Language Pathologists,” “Speech Language Pathologists role in Language and Literacy,” “Speech Language Pathologist’s role in RTI,” and “SLPs in California schools;”
- Special Education Administrators of County Offices (SEACO) listserv;
- Word of mouth

Participation proceeded slowly, with multiple recruitment bids for participation completed. Finally, given the time constraints imposed by the University’s semester schedule and dissertation defense deadlines, the data collection phase was closed prior to achieving the target number of participants. Nevertheless, the extraction of four distinct factors (viewpoints) with robust analysis and interpretation was possible and indicates viable results.

A total of 15 California school-based SLPs (93% female) completed the procedure. One participant’s data contained grave errors as indicated in her reflection statements (“I totally misinterpreted these statements [at (-5)]. I completely agree with them.”). These errors could not be resolved and therefore her data were not included in the final analysis. The 14 remaining participants varied in ethnicity, age, type of educational setting, years of experience, and geographic location (Table 3.3). All participants’ highest educational level was master’s degree or equivalent. Ten out of the 14 (71%) identified as being bilingual, significantly higher than the 12.4% of California ASHA members who indicated they met the ASHA definition of bilingual

service provider (ASHA, 2019). This is likely a result of two primary factors: (1) recruitment in online forums of interest to bilingual SLPs (Facebook group, ASHA SIG) and (2) a possible natural interest in EL issues by bilingual SLPs. Interestingly, however, only five of the 10 self-identified bilingual SLPs (50%) reported proficiency across language domains (understanding, speaking, reading, writing). This would indicate that several participants know “enough” of a language other than English to feel comfortable reporting it despite the fact that it may not be their first, or best, language. Most participants work full-time and carry a reasonable to high caseload, including the participant from far-Northern CA with 90 students on her caseload! All participants had at least some percentage of their caseload that is EL, ranging from 2% (the far-Northern CA SLP) to 75% (Central Valley).

**Table 3.3**

*Participants’ demographic characteristics*

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Age range		
30-35	4	29
36-40	3	21
41-45	1	7
46-50	0	0
50-60	2	14
Older than 60	4	29
Average age	45.93	
Race-ethnicity identification		
White or Caucasian only	9	64
Other than White or Caucasian only		
Latina	2	14
Caucasian/Hispanic	1	7
Hispanic/Asian	1	7
No response	1	7
Bilingual status		
Bilingual	10	71
Not bilingual	4	29
Level of bilingual proficiency (n=10)		
Understanding	7	70
Speaking	9	90
Reading	7	70
Writing	6	60

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Years of experience as a school-based SLP		
0-5	3	21
6-10	4	29
10-20	3	21
More than 20	4	29
Average years of experience	16.64	
Employment status		
Full-time (30 or more hours/week)	11	79
Part-time (less than 30 hours/week)	3	21
Work setting (may choose more than one)		
Preschool	10	71
Elementary	11	79
Middle school	7	50
High school	2	14
Other		
Infants	1	7
NPS, continuation HS, adult transition	1	7
Geographic location (n = 13)		
Los Angeles area	3	23
Inland Empire	3	23
Orange County area	2	15
San Diego area	1	8
Central Valley	3	23
Far Northern	1	8

Participants were coded according to the criteria listed in Table 3.4. For example, the participant 4FB30M6 completed Sort 4, is a female, identified as bilingual, is 30 years of age, married, and has six years' experience as a school-based SLP.

**Table 3.4**

*Participant coding scheme*

<b>Demographic marker</b>	<b>Codes</b>
Sort number	1-15
Gender	F (female) M (male)
Bilingual status	B (bilingual) M (monolingual)
Age	Age (in years)
Years of experience as a school-based SLP	Years of experience





participants according to their position on those traits (van Alphen et al., 1994). Response categories are considered to be linear with respect to strength and intensity, and the psychological distance intervals between each response equal (Wakita et al., 2012). Although Likert-type scales have several advantages, some limitations include difficulty translating numerical data into actionable change around a multifaceted construct, diminishing a rich, nuanced and complex belief system into a unidimensional view, and limiting analysis of differences in attitudes and perceptions to *how much* instead of *how* (Ho, 2017).

In Q-methodology, on the other hand, participants reveal the nuance and complexity of their belief systems through the process of ranking a set of statements, each statement being considered for the participant's level of agreement or disagreement relative to every other statement (Ho, 2017) but not necessarily linear in strength or intensity a la Likert scale. The participants make decisions about how statements compare to one another within and across constructs:

A completed sort may be considered a complete and holistic construction of each participants' perception or attitude about the given topic, and this data collection approach allows us to understand perceptions and attitudes in their totality where nuances are preserved, and as multifaceted, subjective, and individualized constructs. (Ho, 2017, p. 680)

In this way, the Q-set statements are *entangled*, interacting with one another within a single Q-sort such that they take on meaning only in relationship to one another (Brown & Good, 2012).

The participants in this study sorted the Q-set statements into a forced-choice normal distribution<sup>16</sup> that allowed direct comparisons among the  $n$  Q-sorts. The distribution of items

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<sup>16</sup> Other types of rank ordering of items have proven no better than the fixed quasi-normal distribution model (Brown, 1980).

ranged from “completely agree” to “completely disagree,” with meaning extending in opposite directions from zero, becoming most intense at the extremes (Brown & Good, 2012). The range and slope of the distribution was crafted based on the characteristics of the participants and the Q-set. Brown (1980) suggested that for Q-sets ranging from 40-60 statements, an 11-point (-5 to +5) distribution be used. He also advised that a platykurtic distribution be used when the participants are likely to be more familiar with the topic, since they are more likely to have formed strong views on the topic and are able to make small distinctions between the items at the tails of the distribution (Watts & Stenner, 2012). The distribution in Figure 3.1 was used for the current study, with descriptions at the poles indicating “completely disagree” (-5) to “completely agree” (+5).

The Q-sort procedure was completed in several steps using Q-sorTouch. An instructional video (<https://youtu.be/ug3N8IgT4Ac>) was created to guide the participants through the procedure.

### **Initial Sorting**

1. The participant was given a condition of instruction: “To what extent do you agree with the following statements?”
2. The participant read the first statement and clicked “Agree,” “Disagree,” or “It depends/Not sure.”
3. The participant continued to sort each of the Q-set statements into those three initial sorting bins.

### **Second (refined) Sorting**

1. The participant reviewed the statements in bin 1 (Agree), determined with which two statements they felt most strongly in agreement, and placed those statements (either

via drag-and-drop or by clicking “move” and selecting “+5”) in the two available +5 distribution cells.

2. The participant then reviewed the statements in bin 2 (Disagree), determined with which two statements they felt most strongly in disagreement, and placed those statements (either via drag-and-drop or by clicking “move” and selecting “-5”) in the two available -5 distribution cells.
3. The participant proceeded to move all statements out of the initial 3 bins into the distribution cells.

When all cells contained one statement, the participant clicked “Next” and the *Q-sorTouch* program recorded the completed Q-sort. The participant then moved to the next screen to complete the remaining tasks in the procedure.

### **Other Data Tools**

Although Q-sorts are valuable in their own right, as they provide the raw data for factor analysis, the study of beliefs and perspectives is subjective and as such additional opportunities for participants to elaborate on their perspectives and on the process of Q-sorting is advised (Brown & Good, 2012). The purpose of a post-sort interview is to allow the participants to construe the meanings they attributed to the Q-set statements and to defend the salience they ascribed to each (Brown & Good, 2012). For the current study, the collection of reflection statements occurred within the online program at the conclusion of the sorting activity. Watts and Stenner (2012) provided guidance on the content and structure of the post-sort interview:

The primary goal is to explore each participant’s wider understanding of the issue, to discover why they have sorted the items as they have and to get them to focus on the meaning and significance of particularly important and salient items...It is equally as

important to explore the meaning of the items placed at the *extremes* of the distribution...After that, the focus shifts to other items in the distribution that either you, or perhaps especially the participant, want to talk about. (p. 82)

The Q-sorTouch program displayed the participant's statements placed in the +5 and -5 cells and asked, "What causes you to disagree/agree so strongly with these statements?" Participants typed their responses in the boxes provided for these and three additional questions:

1. Are there any other statements in the Q-sort that deal with issues you find important?  
What is the personal meaning or significance of those issues to you?
2. Were there any opinions you have about EL language assessment that were not addressed in the Q-sort?
3. What are your overall thoughts and opinions about SLPs assessment of English learners for special education?

Finally, participants responded to a questionnaire concerning their demographic information and caseload characteristics. The purpose of this questionnaire was to collect information that may potentially influence participants' viewpoints in any way (Watts & Stenner, 2012). Traditional quantitative methodological techniques were then used to assess the extent to which any of those demographic variables correlated with the perspectives gleaned, and to compare those unique perspectives (factors) along those demographic parameters.

### **Data Analysis**

Q data analysis involves three significant methodological transitions (Watts & Stenner, 2012). Figure 3.2 below illustrates the process. All data analysis was completed using the dedicated computer application KADE (Banasick, 2019).

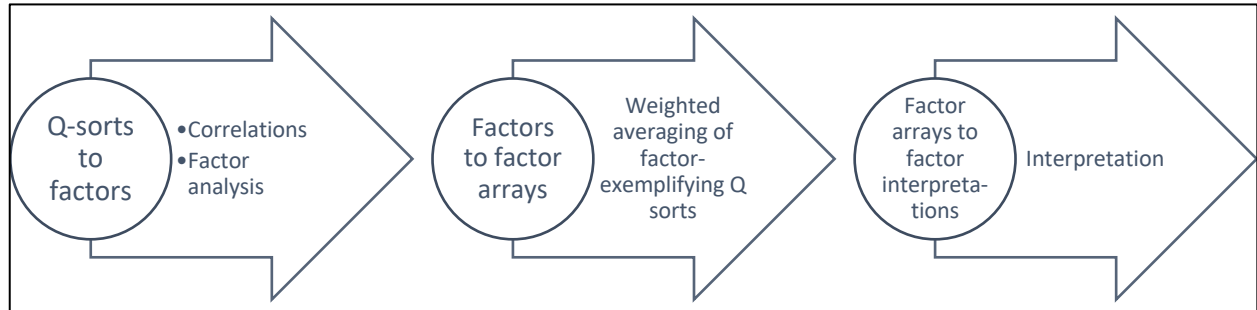
### **Q-sorts to Factors**

## Step 1: Correlation

The first data transition consists of the intercorrelation of each Q-sort with all other Q-sorts. The resulting correlation matrix reflects the nature and extent of relationship of

**Figure 3.2**

*Methodological transitions in Q data analysis*



each Q-sort with every other Q-sort, or “100% of the meaning and variability present in the study” (Watts & Stenner, 2012, p. 98). This total variability is also known as the study variance, and can be divided into three components:

1. Common variance: the proportion of meaning that is held in common by all participants in the study;
2. Specific variance: the proportion of meaning that is unique to specific participants/Q-sorts;
3. Error variance

In the current study, 14 Q-sorts were intercorrelated, resulting in the correlation matrix seen in Table 3.5. A brief look at the matrix reveals some hints about the way the sorts may ultimately be grouped together in factors. For example, Sort 4 (participant 4FB30M6) has relatively strong correlations with Sorts 1, 2, 3, 5, 9, 12, 14 and 15, whereas Sort 6 (participant 6FB62W17) lacks strong correlation with any other sort.

## Step 2: Factor Extraction

The purpose of factor extraction is to account for as much as possible of the study's common variance by identifying sizable portions of meaning that are shared among the study's Q-sorts. These portions of meaning are known as *factors*, and in Q-methodology are the shared key viewpoints held by a subset of the study's participants. Each factor extraction changes the intercorrelations of Q-sorts, requiring the recalculation of residual correlations following each factor extraction. In this way, areas of difference between two seemingly similar Q-sorts can be revealed (Watts & Stenner, 2012).

The choice regarding how many factors to extract lies with the researcher. A number of objective criteria exist to assist with this important decision, and are outlined below:

**Kaiser-Guttman Criterion.** This often-used rule suggests that for a factor to be worth extracting, it should at least count for as much variance as would a single variable (Wilson & Cooper, 2008). Eigenvalues indicate the amount of variance explained by a factor, and since the average of all eigenvalues is one, extracted factors should hold an eigenvalue greater than one. Upon examination of the factor matrix in Table 3.6 using the Kaiser-Guttman criterion, one (possibly two) factors should be extracted.

**The Magic Number Seven.** Brown (1980) argues that seven factors should be the starting point. In the present study, the extremely small number of usable participants (14) sowed doubt that the magic number seven was appropriate. Review of the factor loadings in Figure 3.3 confirms this hunch—Factor 5 does not have a single sort loading on it and the analysis would not run.

**Humphrey's Rule.** Humphrey's rule states that "a factor is significant if the cross-product of its two highest loadings (ignoring the sign) exceeds twice the standard error" (S. R. Brown, 1980, p. 223). The standard error for the current project is calculated as follows:

$$\text{Standard error} = \frac{1}{\sqrt{\text{number of items in } Q\text{-sort}}} = \frac{1}{\sqrt{48}} = \frac{1}{6.9282} = 0.1443 \text{ (rounded up to 0.15)}$$

Twice the standard error is 0.30. The two highest loadings on Factor 1 (using the 4-factor extraction) are from sorts 4 (0.8811) and 5 (0.8247). Their cross product (0.88 x 0.82) is 0.72, so the factor should be extracted.

**Table 3.5**

*Correlation matrix*

Participant	1MB68W40	2FB37W5	3FB31M5	4FB30M6	5FB30N6	6FB62W17	7FM62W40	8FB61W38	9FM54W20	10FB39N12	11FM54W25	12FB38X9	14FB32W4	15FM45W6
1MB68W40	100	41	10	52	43	9	15	11	50	41	37	35	43	32
2FB37W5		100	41	60	56	-18	42	7	40	54	33	47	78	47
3FB31M5			100	52	57	-2	17	35	35	5	30	40	46	38
4FB30M6				100	73	14	31	29	62	38	41	69	59	55
5FB30N6					100	6	44	29	55	32	35	63	54	51
6FB62W17						100	-32	10	27	-13	12	3	-2	8
7FM62W40							100	7	18	15	-7	36	36	15
8FB61W38								100	42	24	40	24	40	10
9FM54W20									100	33	43	52	58	41
10FB39N12										100	25	17	47	27
11FM54W25											100	29	40	32
12FB38X9												100	56	38
14FB32W4													100	42
15FM45W6														100



**Table 3.6**

*Eigenvalues of each extracted factor*

Participant	Factor 1	Factor 2	Factor 3	Factor 4
1MB68W40	0.5584	-0.0858	0.0037	0.1871
2FB37W5	0.7187	-0.5111	0.2876	-0.1807
3FB31M5	0.5347	0.2547	0.0696	-0.2886
4FB30M6	0.8811	0.0902	0.0106	-0.1388
5FB30N6	0.8247	0.0465	0.0036	-0.28
6FB62W17	0.0287	0.5354	0.4405	0.2535
7FM62W40	0.3059	-0.2244	0.0386	-0.3914
8FB61W38	0.4021	0.1961	0.0417	0.2522
9FM54W20	0.7603	0.1212	0.0171	0.2752
10FB39N12	0.4523	-0.3763	0.1273	0.2316
11FM54W25	0.5178	0.1378	0.0215	0.2677
12FB38X9	0.6896	0.0428	0.003	-0.1983
14FB32W4	0.8233	-0.2855	0.0671	0.0882
15FM45W6	0.5831	0.0223	0.0011	-0.0908
Eigenvalues	5.3707	0.9785	0.3064	0.7862
% Explained Variance	38	7	2	6

**Figure 3.3**

*Factor loadings when 7 factors are extracted*

Default sort is by factor group (FG - highest loading factor). Click the column headers to re-sort.

Num	Participant	FG	Factor 1	F1	Factor 2	F2	Factor 3	F3	Factor 4	F4	Factor 5	F5	Factor 6	F6	Factor 7	F7
4	4FB30M6	F1-1	0.7983	✓	0.2879	☐	0.0723	☐	0.1717	☐	0.0196	☐	0.2314	☐	0.187	☐
5	5FB30N6	F1-2	0.7018	✓	0.2076	☐	0.0091	☐	0.1807	☐	0.0207	☐	0.2426	☐	0.3935	☐
9	9FM54W20	F1-3	0.6042	✓	0.271	☐	0.205	☐	0.4639	☐	-0.0209	☐	-0.1049	☐	0.1218	☐
12	12FB38X9	F1-4	0.5818	✓	0.1376	☐	0.0326	☐	0.2041	☐	0.0828	☐	0.104	☐	0.3874	☐
1	1MB68W40	F1-5	0.5191	✓	0.379	☐	0.0906	☐	0.0917	☐	-0.0691	☐	-0.0867	☐	-0.0352	☐
14	15FM45W6	F1-6	0.5186	✓	0.2609	☐	-0.0067	☐	0.0742	☐	-0.0267	☐	0.2394	☐	0.0274	☐
2	2FB37W5	F2-1	0.3469	☐	0.774	✓	-0.1446	☐	0.0138	☐	0.083	☐	0.2927	☐	0.3188	☐
10	10FB39N12	F2-2	0.2102	☐	0.6046	✓	-0.0462	☐	0.1321	☐	-0.0416	☐	-0.0642	☐	0.0268	☐
13	14FB32W4	F2-3	0.4275	☐	0.5751	☐	-0.164	☐	0.4383	☐	0.0949	☐	0.1233	☐	0.2467	☐
6	6FB62W17	F3-1	0.0986	☐	-0.0974	☐	0.774	✓	0.0865	☐	-0.004	☐	-0.0085	☐	-0.1329	☐
8	8FB61W38	F4-1	0.0979	☐	0.0757	☐	0.0643	☐	0.6474	✓	0.0167	☐	0.1083	☐	0.0672	☐
11	11FM54W25	F4-2	0.3335	☐	0.2766	☐	0.0789	☐	0.3978	☐	-0.1257	☐	0.1834	☐	-0.1727	☐
3	3FB31M5	F6-1	0.2949	☐	0.011	☐	-0.0229	☐	0.3606	☐	0.0064	☐	0.5564	✓	0.2432	☐
7	7FM62W40	F7-1	0.1364	☐	0.0962	☐	-0.1375	☐	0.032	☐	-0.0007	☐	0.082	☐	0.6264	✓

Application of Humphrey’s rule to the remaining 3 factors is seen in Table 3.7:

**Table 3.7**

*Use of Humphrey’s rule to determine the optimal number of factors to extract*

Factor	Highest loadings	Cross product	Decision
2	sort 6 (0.5354) sort 2 (-0.5111)	.28	No (borderline)
3	sort 6 (0.4405) sort 2 (0.2876)	.13	No
4	sort 7 (-0.3914) sort 3 (-0.2886)	.11	No

Using Humphrey’s rule, only one factor (possibly two) should be extracted and analyzed.

**Two (or more) Significantly Loading Q-Sorts.** Brown (1980) also offers a suggestion to “accept those factors that have two or more significant factor loadings following extraction” (Watts & Stenner, 2012, p. 107). In this case (Figure 3.4), Factors 1, 2, and 4 should be extracted (note that Sort 13 loads on each of those three factors and is therefore excluded).

**Figure 3.4**

*Factor loadings when 4 factors are extracted*

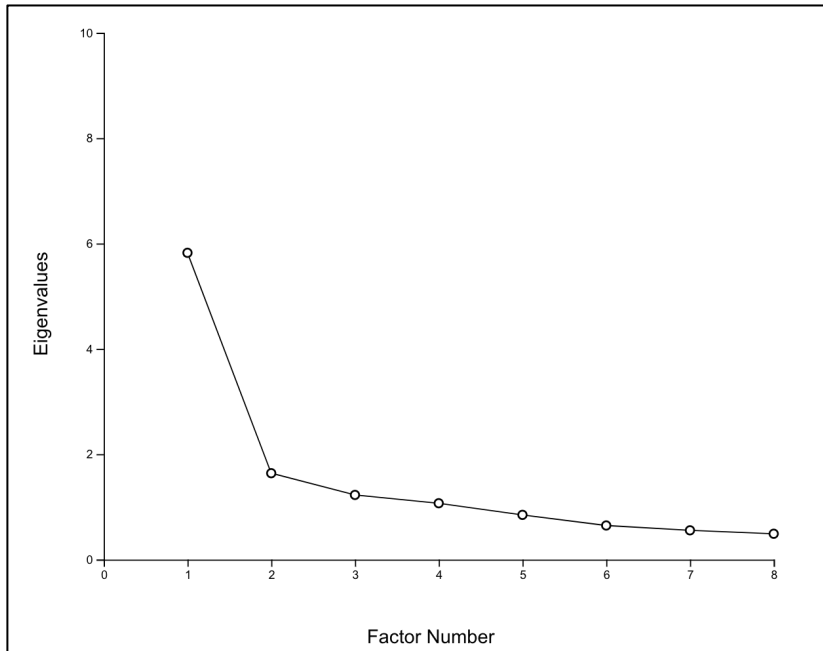
Default sort is by factor group (FG - highest loading factor). Click the column headers to re-sort.										
Num	Participant	FG	Factor 1	F1	Factor 2	F2	Factor 3	F3	Factor 4	F4
5	5FB30N6	F1-1	0.7492	<input checked="" type="checkbox"/>	0.2363	<input type="checkbox"/>	-0.0463	<input type="checkbox"/>	0.3761	<input type="checkbox"/>
4	4FB30M6	F1-2	0.6932	<input checked="" type="checkbox"/>	0.245	<input type="checkbox"/>	0.0098	<input type="checkbox"/>	0.513	<input type="checkbox"/>
3	3FB31M5	F1-3	0.616	<input checked="" type="checkbox"/>	0.0059	<input type="checkbox"/>	0.1321	<input type="checkbox"/>	0.2049	<input type="checkbox"/>
12	12FB38X9	F1-4	0.6013	<input checked="" type="checkbox"/>	0.199	<input type="checkbox"/>	-0.0296	<input type="checkbox"/>	0.3387	<input type="checkbox"/>
14	15FM45W6	F1-5	0.4495	<input checked="" type="checkbox"/>	0.1874	<input type="checkbox"/>	-0.0195	<input type="checkbox"/>	0.3336	<input type="checkbox"/>
7	7FM62W40	F1-6	0.4342	<input checked="" type="checkbox"/>	0.2546	<input type="checkbox"/>	-0.181	<input type="checkbox"/>	-0.1122	<input type="checkbox"/>
2	2FB37W5	F2-1	0.4937	<input type="checkbox"/>	0.7805	<input checked="" type="checkbox"/>	-0.1185	<input type="checkbox"/>	0.1615	<input type="checkbox"/>
13	14FB32W4	F2-2	0.4089	<input type="checkbox"/>	0.5652	<input type="checkbox"/>	-0.1161	<input type="checkbox"/>	0.521	<input type="checkbox"/>
10	10FB39N12	F2-3	0.0458	<input type="checkbox"/>	0.5465	<input checked="" type="checkbox"/>	-0.0828	<input type="checkbox"/>	0.3293	<input type="checkbox"/>
6	6FB62W17	F3-1	-0.0305	<input type="checkbox"/>	-0.1302	<input type="checkbox"/>	0.7054	<input checked="" type="checkbox"/>	0.174	<input type="checkbox"/>
9	9FM54W20	F4-1	0.3212	<input type="checkbox"/>	0.2314	<input type="checkbox"/>	0.1149	<input type="checkbox"/>	0.7063	<input checked="" type="checkbox"/>
11	11FM54W25	F4-2	0.1731	<input type="checkbox"/>	0.1309	<input type="checkbox"/>	0.1332	<input type="checkbox"/>	0.5426	<input checked="" type="checkbox"/>
1	1MB68W40	F4-3	0.2075	<input type="checkbox"/>	0.2954	<input type="checkbox"/>	-0.0258	<input type="checkbox"/>	0.4724	<input checked="" type="checkbox"/>
8	8FB61W38	F4-4	0.123	<input type="checkbox"/>	0.053	<input type="checkbox"/>	0.1829	<input type="checkbox"/>	0.4628	<input checked="" type="checkbox"/>

**The Scree Test (Cattell, 1966).** The scree test, an extremely conservative method of

factor retention, is typically used in principal component analysis (PCA), not the centroid factor analysis (CFA) used in this study. Eight factors were extracted using PCA (in this analysis the researcher is not afforded the option of choosing the number of factors to extract) and the resulting scree plot analyzed. The points in the scree plot represent the eigenvalues of each factor. The number of factors to extract is indicated by the factor number to the left of the “elbow,” or the point at which the line changes slope—in this case Factor 2. The scree test (Figure 3.5) therefore recommends extraction of only one factor.

**Figure 3.5**

*The scree test using principal component analysis factor extraction*



Analysis of the scree plot created after 7-factor CFA suggests a different decision, however (Figure 3.6).

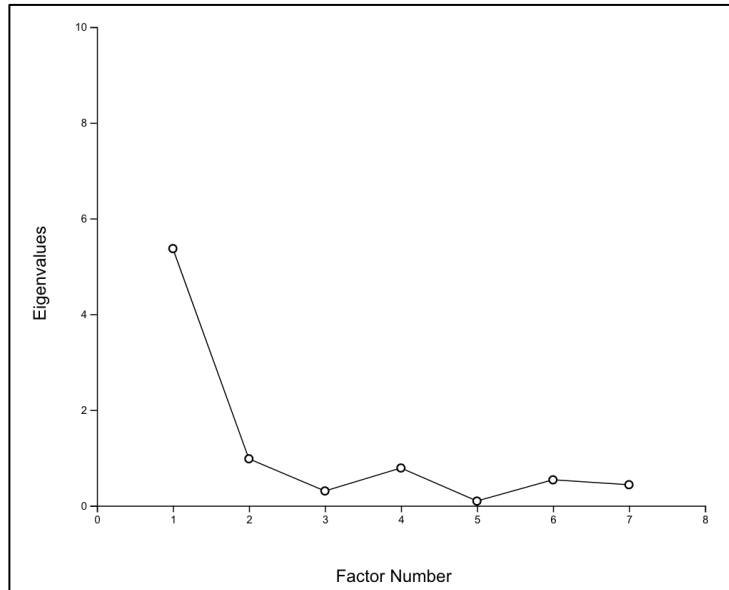
In this plot, two “elbows” are seen, indicating the possible value of extracting four factors rather than just one or two.

**Parallel Analysis (Horn, 1965).** Horn’s (1965) parallel analysis method calculates eigenvalues that would have resulted from the current data set even if the participants had all

configured their sorts randomly (O'Connor, 2000). Using the parallel analysis syntax

### Figure 3.6

*The scree test using centroid factor analysis for factor extraction*



provided by Brian P. O'Connor (<https://people.ok.ubc.ca/briocconn/nfactors/parallel.sps>), parallel analysis was run in SPSS with 1000 random data sets that parallel the current study in terms of number of cases ( $N = 48$ ) and variables ( $N = 14$ ). If the actual EV (observed in the actual dataset) is larger than the 95<sup>th</sup> percentile EV from the 1000 random data sets, there is less than a 95% chance that the corresponding factor would have occurred if there in fact were no factors in the dataset. Similarly, if the actual EV is larger than the 90<sup>th</sup> percentile EV from the random data sets, there is less than a 90% chance the corresponding factor would have occurred if there were no factors in the dataset.

Using this method of analysis and the 95<sup>th</sup> percentile cutoff, Factors 1 and 4 should be extracted. Using the 90<sup>th</sup> percentile cutoff, Factors 1, 2, and 4 should be extracted (Table 3.8).

**The Final Decision.** Objective criteria aside, Watts & Stenner (2012) caution against abandoning factors at this stage, since “a viewpoint of interest and theoretical significance may

get overlooked as a result” (p. 110). In the end, I decided, based on subsequent robust analysis

**Table 3.8**

*Parallel analysis*

Factor	Actual EV (observed in our data)	Mean EV for 1000 random data sets	95 <sup>th</sup> percentile EV for 1000 random data sets	90 <sup>th</sup> percentile EV for 1000 random data sets
1	5.3707	1.3642	1.6499	1.583
2	.9785	1.0720	1.2990	1.2416
3	.3064	.847358	1.0266	.9880
4	.7862	.659802	.8073	.7790

of a 4-factor solution, application of the “two (or more) loading rule,” and expert opinion via the Q-method listserv, to extract four factors and to explore analysis of at least Factors 1, 2, and 4.

As the reader will ultimately appreciate, although Factor 3 appears to be objectively worthless, it in fact was retained due to its theoretical significance to the study.

In sum, four factors were extracted via centroid factor analysis. These factors represent four distinct viewpoints on the beliefs, attitudes, and perceptions of California school-based SLPs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children. Together, these four factors account for 54% of the variance (range of meaning and variability) in the data. Thirteen of the fourteen Q-sorts loaded significantly on one of the four factors (Table 3.9).

**Table 3.9**

*Sorts significantly loading on each factor*

Q-sort	Factor 1	Factor 2	Factor 3	Factor 4
1MB68W40	0.2075	0.2954	-0.0258	0.4724
2FB37W5	0.4937	0.7805	-0.1185	0.1615
3FB31M5	0.616	0.0059	0.1321	0.2049
4FB30M6	0.6932	0.245	0.0098	0.513
5FB30N6	0.7492	0.2363	-0.0463	0.3761
6FB62W17	-0.0305	-0.1302	0.7054	0.174
7FM62W40	0.4342	0.2546	-0.181	-0.1122
8FB61W38	0.123	0.053	0.1829	0.4628

9FM54W20	0.3212	0.2314	0.1149	0.7063
10FB39N12	0.0458	0.5465	-0.0828	0.3293
11FM54W25	0.1731	0.1309	0.1332	0.5426
12FB38X9	0.6013	0.199	-0.0296	0.3387
14FB32W4	0.4089	0.5652	-0.1161	0.521
15FM45W6	0.4495	0.1874	-0.0195	0.3336
% Variance explained	<b>20</b>	<b>12</b>	<b>5</b>	<b>17</b>

### Step 3: Factor Rotation

Once the desired number of factors are extracted, factor rotation is required. The goal of factor rotation is to ensure that each factor provides the best possible interpretation of the perspective/viewpoint held by its participants.

Varimax (automatic) orthogonal rotation was completed using KADE software. Varimax rotation ensures that each sort has a high factor loading on only one factor (Table 3.9) and therefore maximizes the amount of variance explained.

### Development of Factor Arrays

Each sort loading on a particular factor is unique and does not correlate 100% with the viewpoint expressed by that factor (no sort loads with a perfect +1.00 correlation). Factor rotation aimed to position each factor so that its viewpoint approximates, as closely as possible, a certain group of Q-sorts (Watts & Stenner, 2012). These representative Q-sorts were then used to derive a “composite” sort for each of the 4 factors. This “best estimate” sort was then used to meaningfully interpret the viewpoint represented by each factor. The study statements, and the score assigned by the best-estimate sort, are found in Table 3.10. This table is also called a *factor array*. It is these arrays that form the basis of interpretation for the four extracted factors.

### Conclusion

This chapter introduced the reader to the unique *qualiquantological* method of data

collection and analysis called Q methodology used in this study. Q methodology affords the researcher the capacity for systematic and rigorous quantitative analysis of *subjectivity*, or a person's communication about their perspective on an issue. It is a procedure designed to reveal how configurations of opinions are interconnected among a group of participants.

This study utilized Q methodology to develop preliminary SLP belief profiles to understand the range of viewpoints that exist about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children. Using a representative group of statements (Q-set), California school-based SLPs sorted these statements into a forced quasnormal distribution and in doing so revealed their level of agreement or disagreement with each statement relative to all other statements. The set of  $n$  Q-sorts was subjected to factor analysis in an attempt to reveal a more nuanced and complex range of perspectives on EL language assessment than has previously been illuminated. Four such perspectives were revealed, each indicating a unique viewpoint expressed on the study's topic. The third methodological transition is one of translating factor arrays into a meaningful interpretation. This interpretation awaits the reader in Chapter 4: Results.

**Table 3.10***Factor array*

#	Statement	Factor 1	Factor 2	Factor 3	Factor 4
1	Allowing an English learner to use a language other than English in the classroom supports his acquisition of English and his mastery of academic content.	4	0	3	1
2	Parents of English learners should speak English with their children whenever possible in order to help them learn English faster.	-4	-5	-1	-4
3	Multilingualism should be promoted in public education and in society.	1	5	2	4
4	It is important for English learners to continue to develop their home language.	3	1	4	5
5	Having too many English learners in the classroom might negatively affect the learning of English-fluent students.	-3	-3	-1	-4
6	Teachers should be "colorblind" and focus on the similarities among students, regardless of the differences in their cultural or language backgrounds.	-3	-4	0	2
7	Teachers find it difficult to justify the alteration of coursework for English learners.	0	-1	-3	0
8	If an English learner does not respond quickly to instructional "best practices" used in general education, he is likely to have a language impairment or learning disability.	-2	0	-4	-3
9	Most English learners are "typical" learners.	3	3	1	0
10	Many English learners come to school with deficits in background and experience that set them up for school failure.	1	0	3	2
11	Many English learners' home culture prioritizes family and work over education.	-3	-1	-2	-1
12	Parents of English learners support and care for their children in ways that benefit their school success.	2	2	1	1
13	I can name at least 4 evidence-based assessment methods or tools recommended for the language assessment of English learners.	2	4	2	0
14	I received enough training in my graduate program or through professional development to competently administer and interpret evidence-based language assessments for English learners.	-1	4	1	1
15	I received enough training in my graduate program or through professional development to accurately differentiate language differences from language disorders in English learners.	-2	2	-4	0



#	Statement	Factor 1	Factor 2	Factor 3	Factor 4
16	When assessing the language skills of English learners, I am challenged by gaps in my knowledge of second language development and how disorders present in second-language learners.	0	1	-5	0
17	With the help of an interpreter, I feel competent in my ability to administer and interpret informal assessments (such as dynamic assessment or language sampling analysis) with English learners.	0	3	-3	1
18	When it comes to English learners, I often question the reliability of my speech and language assessment.	0	0	-1	-1
19	I am confident that when the student study team (SST) makes a referral for speech and language assessment for an English learner, they have first pursued interventions to support the student's academic skills AND language acquisition.	-2	-1	-5	-3
20	There are enough general education services and supports for English learners at my school site.	-3	-2	0	-3
21	Teachers should reduce the level of academic demand placed on English learners until they achieve a certain level of English proficiency.	-1	0	-2	-1
22	Teachers who actively affirm and nurture English learners' home languages are more effective in promoting their academic achievement than those who do not.	3	2	-3	3
23	Many teachers believe that limited English proficiency is a detriment to academic progress.	0	-1	-1	3
24	The experiences English learners will have in school are partly dependent on the degree to which their teachers hold positive beliefs and high expectations for them.	2	3	0	4
25	The use of speech-language assessment practices that are biased against English learners negatively affects their educational experiences.	5	0	-1	-1
26	Most teachers have the knowledge and experience needed to conduct high quality pre-referral academic interventions for English learners.	-2	-1	2	-5
27	It is worth the investment of extra time to learn and use evidence-based techniques for English learner language assessment.	4	5	-3	1
28	Teachers don't sufficiently understand the process of second language acquisition in order to make informed instructional and referral decisions for English learners.	1	-2	4	2
29	I might be more likely to recommend special education speech or language intervention for an English learner than for an English-only child.	-4	-5	3	-4
30	When an English learner is referred for assessment, I can find an interpreter and/or bilingual SLP to assist me if needed.	0	3	-2	-1

#	Statement	Factor 1	Factor 2	Factor 3	Factor 4
31	Special education services are sometimes needed to provide language support to an English learner, even if the presence of a language impairment is uncertain.	-5	0	1	-2
32	In my assessment of English learners, I am challenged by the lack of appropriate formal and informal language assessment instruments available at my site(s).	2	-3	0	0
33	Over-identification or under-identification of English learners for special education violates public education's core principles of fairness and civil rights.	5	2	-2	5
34	Leaders in the field of speech-language pathology have developed reliable methods or tools to distinguish language differences from language disorders.	0	1	-1	-2
35	Educational policies concerning English learners might not be implemented with fidelity if they are out of alignment with individual teachers' beliefs.	2	1	0	3
36	I don't have enough TIME to routinely use informal assessment tools like dynamic assessment or parent/teacher interviews to evaluate the language skills of English learners.	-1	-2	2	-1
37	Educators' beliefs about students' learning, behavior and motivation are central to their actions toward students, and therefore are important targets for growth and change.	4	1	5	3
38	ASHA strongly encourages me to use evidence-based practices in performing speech and language assessments of English learners.	1	4	0	2
39	My culture powerfully influences the beliefs I hold and the actions I take in life experiences such as childrearing, employment, money management, voting, and so on.	3	0	1	1
40	CA Educational Code requires me to use the results of standardized tests to determine an English learner's eligibility for special education in the category of Speech and Language Impairment (SLI).	-5	-3	0	0
41	I would support legislation making English the official language of the United States.	-1	-2	-4	-5
42	I often feel pressured by the teachers and/or administrators on my school site(s) to determine that an English learner is eligible for special education supports and services.	-1	-3	1	-2
43	English learners' right of expression is violated when public institutions expect the exclusive use of English.	0	1	0	2
44	My school district expects me to use standardized tests in the assessment of English learners.	-1	-4	4	4

#	Statement	Factor 1	Factor 2	Factor 3	Factor 4
45	Improving the educational experiences of English learners should be a high priority in educational research and legislation.	1	2	-2	0
46	The law's requirement to ensure the nonbiased assessment of English learners for special education is hard for me to enact in practice.	-2	-2	2	-2
47	When a school-age English learner uses her home language frequently in the home and community, this can pose an obstacle to her timely acquisition of English.	-4	-4	5	-3
48	When it comes to English learners, I often question the reliability of my speech and language assessment.	1	-1	3	-2

## Chapter 4: Results

The previous chapter concluded with the presentation of four factor arrays calculated through weighted averaging of the Q-sorts comprising them. Each array represents an “ideal” complete Q-sort. In the sections on factor interpretation to follow, each unique perspective about ELs and EL assessment practices will be described. These descriptions are the product of a careful, holistic inspection of the ways in which the Q-set statements are patterned in the factor arrays. The goal of interpretation is to “uncover, understand, and fully explain the viewpoint captured by the factor and shared by the significantly loading participants” (Watts & Stenner, 2012, p. 181).

Each factor’s description begins with a paragraph describing some of the demographic and caseload characteristics exhibited by the participants who loaded significantly on that factor. The composite sort that most typifies each factor’s perspective will be referenced in terms of statement and relative ranking (e.g. 9: +3; statement 9 and a ranking of +3). When clarifying quotes from the participants are used, the reference to the particular participant will be given in the form of “Sort X,” indicating the participant’s entry was the X’t h sort entered in the online system.

### **Factor 1: Social Justice Warriors**

All six participants representing this viewpoint were female, ranging in age from 30-62 (average 39.3 years). Four (66%) were bilingual, although one of those four bilingual participants did not indicate proficiency in understanding, speaking, reading, or writing; the other bilingual participants were proficient in three domains (understanding, speaking, reading) or four domains (including writing). Four live in coastal Southern California, and two in the Central Valley. Four (66%) work full-time, and all participants’ settings were limited to grades PreK-8.

All but one have been working as a school-based SLP for less than 10 years (mean = 12, median = 6, range 5-40). On average, 46% of their caseloads are comprised of ELs (range 27-75%).

They range in ethnicity: two identify as Caucasian/white, one as Latina, two as mixed ethnicity (Caucasian/Hispanic and Hispanic/Asian), and one declined to state. All hold the ASHA Certificate of Clinical Competence (CCC) and a CA license to practice speech-language pathology, and all but one also hold a CA speech pathology or rehabilitative services credential (Table 4.1).

**Table 4.1**

*Demographic characteristics of Social Justice Warriors*

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Age range		
30-35	3	50
36-40	1	16.66
41-45	1	16.66
46-50	0	0
50-60	0	0
Older than 60	1	16.66
Average age	39.33	
Race-ethnicity identification		
White or Caucasian only	2	33.33
Other than White or Caucasian only		
Latina	1	16.66
Caucasian/Hispanic	1	16.66
Hispanic/Asian	1	16.66
No response	1	16.66
Bilingual status		
Bilingual	4	66.66
Not bilingual	2	33.33
Level of bilingual proficiency (n=4)		
Understanding	3	75
Speaking	3	75
Reading	3	75
Writing	2	50
Not proficient	1	25
Years of experience as a school-based SLP		
0-5	1	16.66
6-10	4	66.66
10-20	0	0
More than 20	1	16.66

Demographic marker	No. of SLPs	% of participants
Average years of experience	12.0	
Employment status		
Full-time (30 or more hours/week)	4	66.66
Part-time (less than 30 hours/week)	2	33.33
Work setting (may choose more than one)		
Preschool	5	83.33
Elementary	5	83.33
Middle school	3	50
High school	0	0
Other	0	0
Geographic location		
Los Angeles area	2	33.33
Inland Empire	1	16.66
Orange County area	1	16.66
San Diego area	0	0
Central Valley	2	33.33
Far Northern	0	0

Social Justice Warriors are deeply concerned—to the point of conviction—regarding the (un)just educational and social treatment of English learners and their correct identification for special education. They are keenly aware of the vexing problem of EL disproportionality in special education, viewing it as a violation of public education’s core principles of fairness and civil rights (33: +5), and are cognizant of some of the negative outcomes that can result from misidentification of limited English proficiency as a language learning disability (emphases added):

- “It seems self-evident that under- or over-identification of students could *negativity[sic] impact the course of their entire life*, and go against what we’re trying to do” (Sort 12).
- “It is a black/white concept for me. There is *no reason* why over or under-identification should ever be appropriate” (Sort 3).
- “Determining eligibility is a *powerful moment* in a child’s academic career and can *change the course of their future* in ways unknown” (Sort 4).
- “I believe it to be an *ethical violation* if we say that someone has a disability when they

really do not and vice versa” (Sort 15).

One participant commented on her frustration in knowing that EL families are often ill-advised and coerced into actions that are not in the best interests of their children (2: -5):

Families of ELL students are so frequently pressured and misinformed by professionals (e.g., pediatrician, teacher, etc.) to abandon their home language in order to best support their child, when that has been consistently proven through research that it is not in the best interest of the child to do so. These families are vulnerable, and I have found that with the current political climate are quick to acquiesce to professional advice that may include qualifying their child for special education when it has not yet been proven to be required. It is imperative for California SLPs, whom are overwhelmingly mismatched culturally to the populations they serve, to understand the underlying bias that frequently accompanies the treatment of ELL students so that they may better serve and advocate for their students. (Sort 4)

Social Justice Warriors agree more strongly than the others that their own cultural heritage “provides a lens of understanding” (Sort 4) and strongly influences their own beliefs and actions (39: +3). They reflect on their own practice in this respect: “Cultural beliefs are strong and sometimes I wonder if I am being culturally sensitive and aware when it comes to other cultures” (Sort 15).

Recognizing that the SLP is often the gatekeeper to special education in the preschool and early elementary years, Social Justice Warriors acknowledge the importance of using evidence-based testing instruments for this unique population of students in order to avoid the potential negative effects that the use of biased assessment practices could have on ELs’ educational experiences (25: +5). Disproportionality is viewed by these participants primarily as

a phenomenon of *over*-representation rather than a double-pronged problem that includes *under*-representation:

It is terribly unjust and wrong to put a child in special education services on the basis of limited English proficiency! If I move to China and am not proficient in Chinese, does that mean I suddenly have an impairment? Of course not. (Sort 12)

Social Justice Warriors revealed their sophisticated knowledge of second language development in their agreement that general education teachers who actively affirm and nurture ELs' home language, and allow home language use in the classroom (1: +4), are more effective in promoting ELs' academic achievement than those who do not (22: +3): "All the research that I have read supports using the bilingual child's first language to help acquire the second language" (Sort 5).

General education is the place for ELs, according to these participants, since they hold a strengths-based view of ELs as "typical" learners (9: +3). Language difference or lack of English proficiency do not signal disability, and as such, participants completely disagree that special education services are sometimes needed to provide language support to an EL when the presence of a language impairment is uncertain (31: -5). A strengths-based perspective is also focused toward linguistically diverse families and the support that they offer their children:

The issues related to how CLD families support their children struck a nerve, because I know there are still professionals out there who believe that these families are inherently ill-equipped to raise their children when this couldn't be further from the truth. (Sort 4)

Federal and state laws' requirements to ensure the nonbiased assessment of ELs is a widespread challenge to enact in practice. However, Social Justice Warriors are uniquely knowledgeable about California's Educational Code requirements for determination of special education eligibility in the category of Speech and Language Impairment. Social Justice Warriors are



confident in their knowledge and ability to uphold both the spirit and the letter of the law: “I have read the CA Educational Code and know that {the requirement to use standardized tests in the assessment of ELs] is factually untrue” (Sort 12). One participant further commented on the long-term consequences of misidentification as a result of biased assessment (emphasis added):

In my experience I have encountered too many situations in which English learner students have been placed in SDC [special day class] classes without being assessed properly due to being English learners. After being wrongly placed for several years, they are lacking so many academic skills by the time they reach 5<sup>th</sup>-12<sup>th</sup> grade and *some do not receive a high school diploma.* (Sort 5)

Social Justice Warriors are not without challenges with respect to EL assessment, however. Many feel challenged by the lack of appropriate assessment tools available at their school site(s) (32: +2): “I work in a district where tests are shared among the SLPs. Therefore, I do not always have access to assessments” (Sort 3). The use of informal assessments, and the perceived lack of “standardization” of those tools, is another obstacle, particularly given the limited time that many SLPs have to complete a thorough assessment: “[Dynamic assessment] is hard for me to practice because there is not a simple and straightforward procedure. [It] is up to the examiner to choose the target. I would prefer a test that is already created for me to use” (Sort 3).

One participant felt challenged because of her sense that her knowledge about the world’s languages, received through training (in her graduate program or through professional development), couldn’t possibly have addressed this topic thoroughly: “There are so many types of languages that I could not learn how to correctly identify a language difference vs. disorder. I could understand the basics but may not be able to understand what a disorder looks like in a

language that I have not yet encountered or is a more uncommon language in my region” (Sort 3). Finally, participants reflected on the difficult task of implementing EBPs for EL assessment, particularly in the face of pressure from other educators: “[I] still struggle with implementation... I feel “foggy” on this topic” (Sort 3); “There is still pressure to use standardized tests, particularly for legal cases” (Sort 15).

### **Use of Evidence-based Assessment Methods**

Although Social Justice Warriors’ use of testing instruments did not rise to the level of statistically significant difference when compared to their use by participants in the other factors (Table 5.3), some observed trends are worth noting. First, their use of standardized tests in English (used by 43%) is lower than for the other three factors (used by 100%). Language sampling appears relatively important to Social Justice Warriors, with all four types of LSA used. Social Justice Warriors were the only participants who used computerized language sampling analysis (CLSA), with two of the six F1 participants using it in both English and Spanish. Robust comparison to other bilingual Spanish-English students of the same age and/or grade is possible with CLSA, significantly enhancing the validity of the ELs’ assessments (Heilmann et al., 2016). Finally, one Social Justice Warrior was the only SLP in the study to use information processing assessment.

Social Justice Warriors relied much more heavily on the results of informal assessments than on other reasons to make a determination of eligibility for their EL students, although they did also rely on results of standardized assessments given in English and Spanish. One of the limitations of this study is that we are unable to ascertain if those standardized assessments compared ELs to monolingual English and/or Spanish students (such as with the PLS-5 Spanish or the CELF-4 Spanish) or to bilingual Spanish-English learners (such as with the BESA). Two

of the four Social Justice Warriors who did use standardized assessments in their eligibility determination were ones who used CLSA in both English and Spanish, and therefore likely were able to weigh the results of standardized and informal tests side by side to arrive at a conclusion about the presence or absence of a language impairment.

### **Factor 2: Competent and Confident Professionals**

Two female participants (average age 38), identifying as Caucasian and Latina (respectively), defined this second viewpoint. Both were bilingual, one proficient in a language other than English in the domains of speaking, reading, and writing, and the other in all four domains (including understanding). They live in relatively affluent cities in Southern California. They both work full-time, with an average of 8.5 years' experience as a school-based SLP (range 5-12), both in elementary settings and one additionally in preschool and middle school. ELs comprise 24% and 53% of their caseloads, respectively. Both hold the ASHA Certificate of Clinical Competence (CCC) and a CA license to practice speech-language pathology, and one also holds a CA speech pathology or rehabilitative services credential (Table 4.2).

**Table 4.2**

*Demographic characteristics of Competent and Confident Professionals*

Demographic marker	No. of SLPs	% of participants
Age range		
30-35	0	0
36-40	2	100
41-45	0	0
46-50	0	0
50-60	0	0
Older than 60	0	0
Average age	38.0	
Race-ethnicity identification		
White or Caucasian only	1	50
Other than White or Caucasian only		
Latina	1	50
Caucasian/Hispanic	0	0
Hispanic/Asian	0	0
No response	0	0

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Bilingual status		
Bilingual	2	100
Not bilingual	0	0
Level of bilingual proficiency (n=4)		
Understanding	1	50
Speaking	2	100
Reading	2	100
Writing	2	100
Years of experience as a school-based SLP		
0-5	1	50
6-10	0	0
10-20	1	50
More than 20	0	0
Average years of experience	8.5	
Employment status		
Full-time (30 or more hours/week)	2	100
Part-time (less than 30 hours/week)	0	0
Work setting (may choose more than one)		
Preschool	1	50
Elementary	2	100
Middle school	1	50
High school	0	0
Other	0	0
Geographic location		
Los Angeles area	1	50
Inland Empire	1	50
Orange County area	0	0
San Diego area	0	0
Central Valley	0	0
Far Northern	0	0

Competent and Confident Professionals report competence in EL assessment (17: +3), in large part due to their solid base of knowledge of and resources for EL assessment best practices. They have received adequate training, in their graduate programs and/or through professional development, to competently administer and interpret evidence-based language assessments for ELs (14: +4) and to differentiate language difference from language disorder (15: +2). They are able to name several evidence-based methods/tools for the assessment of ELs (13: +4). They are able to find an interpreter or bilingual SLP to assist them if needed (30: +3) and are not otherwise

challenged by a perceived lack of appropriate formal and/or informal language assessment instruments available at their work sites (32: -3). One participant provided a detailed summary of the resources at her disposal:

I am lucky to work in a school district that is VERY diverse... and honors diversity and multilingualism. Further, because it is so large we have tons of resources at our disposal. I never have to feel that I am limited in what I can and can't do during an assessment simply because of lack of resources. I have access to translators in any language, hundreds of standardized tests, and a library of books and resources on performance-based assessments most of which are provided electronically for our convenience. Our district regularly provides training specifically about second language acquisition and identifying language disorders in language learners. At my primary school site, just in the last three years I have assessed students in Arabic, Mongolian, Spanish, Korean, Russian, Vietnamese, and Punjabi. (Sort 2)

Competent and Confident Professionals also feel supported by the norms in their local and national organizations. They believe that their school sites/districts do not expect them to use (invalid) standardized tests in their assessment of ELs (44: -4) (“I wish that all school districts were as open and supportive as mine to English learners” [Sort 2]), that school site teachers and/or administrators do not pressure them to find an EL eligible for special education (42: -3), and that ASHA strongly encourages them to use evidence-based practices in the assessment of ELs for special education (38: +4). Regarding the CA Ed Code, one participant commented matter-of-factly, “The law is very clear that standardized tests are not required” (Sort 2).

They, more than other viewpoints, report that they have enough time to routinely use informal assessment tools like dynamic assessment or parent/teacher interviews to evaluate the

language skills of ELs (36: -2). Perhaps the appearance of “adequate time” is in fact due to the priority that Competent and Confident Professionals place on EL assessment, shown by their very strong agreement that it is worth the investment of extra time to learn and use evidence-based techniques for EL language assessment (27: +5).

Competent and Confident Professionals reflected sophisticated understanding of factors important to the maintenance of home culture and language. They strongly disagreed, as did Social Justice Warriors and Dichotomous Maintainers, that parents of ELs should speak English with their children whenever possible to in order to help them learn English faster (2: -5): “Parents should speak in whatever language they are comfortable with in their own home. If they are forced to speak in a language they don’t know, the children will not be getting a good language model anyway” (Sort 2). They are aware that a “colorblind” approach, often embraced proudly by well-meaning educators wanting to promote fairness and equality in the classroom, does not affirm and nurture the unique strengths that different cultural and linguistic backgrounds bring to the school community (6: -4).

Finally, Competent and Confident Professionals are strongly supportive of multilingualism throughout public education and society at large (3: +5) for its variety of social and intellectual benefits: “I firmly believe that knowing more than one language sets a person up for success in life and opens more doors for adults. It also promote[sic] brain development in children” (Sort 2). They believe that educational experiences of ELs should be prioritized, both legislatively and in a research agenda (45: +2). They view ELs as a group of typical learners (9: +3) for whom they believe first best instruction in the general education classroom, along with general education ELD supports and services, should be effective in promoting English proficiency and academic success in the EL populations. For this reason, they do not disagree, as

other perspectives do, that ELs who do not respond to these instructional best practices may have a language impairment or learning disability (8: 0) and special education supports may be needed (31: 0). They believe that general education teachers are also knowledgeable about the process of second language acquisition and are thus able to make informed instructional and referral decisions for ELs (28: -2). As for their own potential contribution to disproportionality, one participant admitted “If anything, I think I would tend to under-identify English learners, rather than over-identify, because I would hate to put a label on a student that was incorrect and could follow them for years” (Sort 2).

Although Competent and Confident Professionals and Social Justice Warriors share many similarities in knowledge and skills, the viewpoint expressed by Competent and Confident Professionals lacks the inexorable conviction and moral imperative toward educational justice for ELs which characterize the Social Justice Warriors. They feel less strongly than do Social Justice Warriors about the concept of disproportionality as a civil rights issue (33: +2) and of the benefits of encouraging L1 use in the classroom to support English acquisition and academic learning (1: 0). Only one participant in this factor offered any written reflection to emphasize or expand upon her views about her sorting choices, and did so using a matter-of-fact tone less emotionally charged than did Social Justice Warriors.

### **Use of Evidence-based Assessment Methods**

Competent and Confident Professionals, despite their sophisticated knowledge and skills about evidence-based practices, both used standardized assessments and informal assessments in English with their EL students. To make their determination of eligibility, both Competent and Confident Professionals relied on information gleaned from informal assessments and the levels of English and home language proficiency. One participant also relied on social, cultural, and

environmental factors, standardized assessments, and educational need.

### **Factor 3: The Parti Pris Pessimist**

While this perspective was represented by only one person, her inclusion in the overall analysis is included because of its theoretical significance (Ramlo, 2016). Without its contribution, the extent of bias that exists surrounding EL education and special education assessment could not be revealed. The perspective of the Parti Pris Pessimist differs qualitatively from the others in the extent of her views on knowledge/skills, available resources, the value of learning and using evidence-based assessment methods, perceived social norms, the importance of beliefs in impacting behavior, and tenets of social justice.

This White female participant is 62 years of age and has 17 years of experience as a school-based SLP. She works full-time in secondary grades, including a continuation high school and adult Transition program. Her data entry for her caseload counts contained an error (total students on caseload = 55, number of ELs on caseload = 90) so it is unclear what proportion of EL students she serves. She reports being bilingual, proficient in understanding and speaking a language other than English. She holds the ASHA Certificate of Clinical Competence (CCC), a CA license to practice speech-language pathology, and a CA rehabilitative services credential with Special Class Authorization. She lives and works in Southern California.

Despite reporting proficiency in understanding and speaking Spanish, and likely learning this second language as an adult (“I learned Spanish so that I could communicate better with the parents”), the Parti Pris Pessimist lacks understanding about second language development. She strongly agrees that frequent use of the home language in the home and community can pose an obstacle to an EL’s timely acquisition of English (47: +5) and as such does not disagree with the suggestion that parents of ELs should speak English to their children whenever possible (2: -1).



A natural corollary is that she does not believe that teachers are more effective in promoting ELs' academic success if they nurture and affirm the home language (22: -3). Although she has not received enough training to accurately differentiate language differences from language disorders (15: -4) and does not feel competent, even with the help of an interpreter, to administer and interpret informal assessments such as language sampling analysis with ELs (17: -3), she admits that she does not feel challenged by these gaps in her knowledge (16: -5). She lacks resources, particularly time, to use evidence-based informal assessments (36: +2), yet she does not feel it worth the investment of time to learn and use these types of tools (27: -3). Her apathy toward use of evidence-based assessments is seen in her opinion that using biased assessment tools doesn't correlate with negative educational experiences by ELs (25: -1).

Furthermore, the Parti Pris Pessimist does not place much confidence in the general education instruction, supports, and services offered to ELs. In her opinion, teachers lack the knowledge of second language development needed to make informed instructional and referral decisions for ELs (28: +4). Similarly, student study teams (SSTs) ignore the need for ELD supports in the pre-referral process (19: -5) even though she does not disagree that those services and supports exist (20: 0) nor that teachers have the knowledge and experience needed to provide high quality interventions in the pre-referral process (26: +2).

Other than her opinion that the law's requirement to ensure the nonbiased assessment of English learners for special education is difficult to enact in practice (46: +2), more than any other factor the Parti Pris Pessimist does not perceive social or professional pressure to ensure the law's requirements are fulfilled. She appears unsure if ASHA strongly promotes and encourages the use of evidence-based practices for EL assessment (38: 0) or if CA Ed Code requires the use of standardized assessments for that population even if the results may be invalid

(40: 0). She reports some pressure by teachers and administrators to determine an EL eligible for special education supports and services (42: +1), a result which is more likely to occur given her perception that the school district expects that she utilize standardized tests in EL assessment (44: +4). She acknowledges that she might be more likely to recommend special education speech or language intervention for an EL than for an English-only child (29: +3). However, she expresses frustration with SLPs who may over-qualify ELs: “We often see women who are not bilingual and working in elementary schools qualifying kids for speech who are still learning English.”

The Parti Pris Pessimist offers some conflicting views on the impact of beliefs on behavior. For example, she completely agrees that educators’ beliefs about students’ learning, behavior and motivation are central to their actions toward students, and therefore are important targets for growth and change (37: +5): “I am surrounded by teachers who sometimes give up on the ESL students.” However, she does not hold a strong view that if educational policies are out of alignment with individual teachers’ beliefs, they may not be implemented with fidelity (35: 0), nor that teachers’ positive beliefs and high expectations for ELs have a significant effect on their educational experiences (24: 0). She minimizes the influence of her own culture on her beliefs and actions in life experiences such as childrearing, employment, money management, and voting (39: +1).

Unlike the perspectives represented by the three other factors, the Parti Pris Pessimist endorses several *parti pris* (biased) notions. She does not believe that the disproportionate representation of ELs in special education violates public education’s principles of fairness and civil rights (33: -2), and does not feel that EL concerns should be prioritized in a legislative or research agenda (45: -2). English learners may not be a group of largely “typical” learners (9:

+1): “Many of them have years of learned helplessness...often these students aren’t serious about school and they are low achievers and have behaviors.” She offers some inconsistent views about the tenets of social justice. While she finds consensus with the other perspectives that ELs’ families do not under-value education in favor of family and work priorities (11: -2) and generally support and care for their children in ways that promote their school success (12: +1), she expresses that ELs’ sociocultural deprivation sets them up for school failure (10: +3): “Many of the parents of the students I work with are illiterate.” Whereas she strongly rejects the notion that she would support legislation making English the official language of the United States (41: -4), she does not believe that ELs’ right of expression would be violated if public institutions were to expect the exclusive use of English (43: 0).

#### **Factor 4: Dichotomous Believers/Maintainers of the Mainstream Modus Operandi**

This factor is so named because of its two distinct characteristics: one of dichotomous beliefs (opposing explicit and implicit beliefs) and one of maintenance of the status quo in EL assessment. Herein these participants will be named the “Dichotomous Maintainers” for the sake of brevity.

Four participants, three female (75%), represented this view (Table 4.3). Two (50%) report being bilingual, one with proficiency in speaking only, and the other in all four domains. They ranged in age from 54-68 years of age (average age 59.25) and have worked as school-based SLPs for an average of 30.75 years (range 20-40 years). Two work in multiple settings; all with younger students (preschool and/or elementary) and one with a caseload encompassing birth through age 22. In comparison to the other groups, their caseloads contain significantly fewer ELs (average EL caseload percentage 14%, range 2-40%). All identified as White, and their places of work and residence are dispersed throughout the state. All hold the ASHA Certificate

of Clinical Competence (CCC), a CA license to practice speech-language pathology, and a CA speech pathology or rehabilitative services credential. One holds an additional clear CLAD K-8 teaching credential.

Whereas participants comprising the first two factors have a solid foundation of knowledge and resources for evidence-based EL language assessment, the Dichotomous Maintainers tend to be less knowledgeable about EL best practices. They doubt the existence of reliable methods or tools to distinguish language differences from language

**Table 4.3**

*Demographic characteristics of Dichotomous Maintainers*

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Age range		
30-35	0	0
36-40	0	0
41-45	0	0
46-50	0	0
50-60	2	50
Older than 60	2	50
Average age	59.25	
Race-ethnicity identification		
White or Caucasian only	4	100
Other than White or Caucasian only		
Latina	0	0
Caucasian/Hispanic	0	0
Hispanic/Asian	0	0
No response	0	0
Bilingual status		
Bilingual	2	50
Not bilingual	2	50
Level of bilingual proficiency (n=4)		
Understanding	1	50
Speaking	2	100
Reading	1	50
Writing	1	50
Years of experience as a school-based SLP		
0-10	0	0
10-20	1	25
More than 20	3	75
Average years of experience	30.75	
Employment status		

<b>Demographic marker</b>	<b>No. of SLPs</b>	<b>% of participants</b>
Full-time (30 or more hours/week)	3	75
Part-time (less than 30 hours/week)	1	25
Work setting (may choose more than one)		
Preschool	3	75
Elementary	3	75
Middle school	1	25
High school	1	25
Other (infants)	1	25
Geographic location		
Los Angeles area	1	25
Inland Empire/Orange County	0	0
San Diego area	0	0
Central Valley	1	25
Far Northern	1	25
Bay Area	1	25

disorders (23: -2) and in fact may not be able to name at least four evidence-based methods or tools recommended for the language assessment of English learners (13: 0). Despite these knowledge gaps, they do not often question the reliability of their speech and language assessment of ELs (48: -2).

The Dichotomous Maintainers appear to work in environments in which their administrators may be similarly unfamiliar with the legal and ethical requirements for valid EL language assessment, reporting that their school district expects them to use standardized assessments in the assessment of ELs (44: +4). They are weakly in agreement that ASHA strongly encourages the use of EBPs for EL language assessment (38: +2) but unsure or ambivalent about CA Ed Code's requirement to use the results of standardized assessments to determine eligibility (40: 0). One participant commented on the need to use, yet the lack of availability of, standardized assessments for ELs: "The state, feds and ASHA requires[sic] us to use standardized assessments whenever possible. That is difficult when not a lot exist" (Sort 8).

Perhaps as a result of their considerable years of experience in the public school system, during which time English learners were likely subjected to educational practices biased against

them and before ELs' educational outcomes were an area of intense focus statewide, Dichotomous Maintainers hold a largely pessimistic view of the general education instruction, supports, and services offered to ELs, evident in their sorting choices on a number of relevant statements:

- Many teachers believe that limited English proficiency is a detriment to academic progress (23: +3).
- Most teachers have the knowledge and experience needed to conduct high quality pre-referral academic interventions for English learners (26: -5): "I am constantly reminding and educating general education teachers about both 'regular' language acquisition and second language acquisition. Most do not have a clue" (Sort 8).
- There are enough general education services and supports for English learners at my school site (20: -3): "Teachers seem to prefer to refer any kids with differences out for others to educate" (Sort 11).
- I am confident that when the student study team (SST) makes a referral for speech and language assessment for an EL, they have first pursued interventions to support the student's academic skills AND language acquisition (19: -3).

General education teachers' knowledge and skills in working with English learners disappoint Dichotomous Maintainers, who strongly believe that the experiences ELs will have in school are partly dependent on the degree to which their teachers hold positive beliefs and high expectations for them (24: +4). They imply negative effects on ELs of general education teachers' biases, agreeing that educational policies concerning ELs might not be implemented with fidelity if they are out of alignment with individual teachers' beliefs (35: +3).

Dichotomous Maintainers "talk the talk" of cultural competence and social justice. They

show very strong agreement that the disproportionate representation of ELs in special education goes against public education's priorities of fairness and civil rights (33: +5): "The core of our belief is that everything should be fair, if we over qualify we are not being fair" (Sort 9). They would not support legislation making English the official language of the United States (41: -5): "We should be a society that allows everyone to be included. This includes language as well" (Sort 9). They do not worry about negative effects on the English-fluent students if there are "too many" ELs in the classroom (5: -4): "Many times 'English Only' students learn from the English language learners. They help each other out" (Sort 8).

Looking more deeply at the Dichotomous Maintainers' profile, however, areas of implicit bias are revealed that sow doubt on their intentions to "walk the walk." Although they believe in the importance of ELs continuing to develop their home language (4: +5) and that teachers who affirm and nurture ELs' home languages are more effective than those who do not (22: +3) ("The best way to achieve competency in English is to promote language competence...and gradually move the student into English over a period of years" [Sort 1]), they are without the strong agreement of Social Justice Warriors that allowing an EL student to use L1 in the classroom is supportive of his academic progress (1: +1). They lack a strengths-based perspective that most ELs are typical learners (9: 0) and promote a common misperception that colorblind ideologies show support for ELs in the classroom (6: +2). Further evidence of implicit bias may be seen in their attitudes toward the use of evidence-based EL assessment methods. They lack conviction about the value of additional investments of time needed to learn and use evidence-based techniques for EL assessment (27: +1), and in fact do not correlate the use of biased assessment practices to negative effects on ELs' educational experiences (25: -1).

### **Use of Evidence-based Assessment Methods**

Dichotomous Maintainers do report using informal measures such as language sampling (in English and the home language) in their assessment of ELs. Nevertheless, standardized tests play a significant role in their assessment and eligibility decision-making profile, as does the level of proficiency in the home language.

### **Areas of Consensus**

Although the purpose of a Q-methodological study is to determine the number and type of distinct viewpoints on a topic, it is rather natural that some areas of consensus would emerge. These areas of consensus are useful to explore when trying to highlight areas for further professional development.

The inclusion of the Parti Pris Pessimist (sort 6) in the study’s analysis and interpretation is an important one, as mentioned above. When analyzing areas of consensus, however, it may be important to consider these areas both with and without the influence of her perspective. As seen by the factor correlations (Table 4.4), Factors 1, 2, and 4 are positively correlated, whereas Factor 3 (the Parti Pris Pessimist) is not correlated with any of the other factors.

**Table 4.4**

*Factor score correlations*

	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>	<b>Factor 4</b>
Factor 1	1	0.6132	0.0373	0.6337
Factor 2		1	-0.1819	0.4735
Factor 3			1	0.2286
Factor 4				1

### **Consensus Across All Four Factors**

Participants representing each of the four distinct viewpoints had some areas of mutual understanding in the areas of behavioral beliefs and control beliefs, arriving at statistical consensus with 11 (23%) of the study statements. All statements discussed below are non-



significant in distinguishing between any pair of factors at  $p < .01$ . References to the statement number and the composite factor grid position assignments for each four factors are as follows: (statement number: F1 score, F2 score, F3 score, F4 score).

**Behavioral Beliefs.** All participants loading on one of the four factors felt generally neutral-to-positive about statements concerning the link between beliefs and behavior, including recognition of the impact of their own culture on choices made regarding life experiences (39: +3, 0, +1, +1). Views on certain aspects of bilingualism were also shared. Participants agree that the presence of English learners in the classroom does NOT negatively affect the learning of English-fluent students (5: -3, -3, -1, -4), and they are relatively neutral about whether or not the expectation of exclusive English use by public institutions constitutes a violation of ELs' right to expression (32: 0, +1, 0, +2).

Additionally, they reach agreement on some of their views about the sociocultural backgrounds of ELs, although these views appear potentially conflicting. They generally feel neutral to positive that parents of ELs support and care for their children in ways that benefit their school success (12: +2, +2, +1, +1), and mildly disagree that ELs' home culture prioritizes family and work over education (11: -3, -1, -2, -1), yet they also somewhat agree that many ELs come to school with deficits in background and experience that set them up for school failure (10: +1, 0, +3, +2). The lack of disagreement with this statement by the Social Justice Warriors and the Competent and Confident Professionals may appear inconsistent with their profiles of knowledge, skills, and (particularly for Social Justice Warriors) concern for educational justice. Perhaps their ambivalence is reflective of their shared recognition of institutionalized bias in which public education rewards the preparation of a White, middle-class child for Kindergarten entry and future school success, but may not recognize the strengths that culturally and

linguistically diverse students bring to the school setting. The stronger agreement with this statement by the Parti Pris Pessimist and Dichotomous Maintainers is consistent with their biases against ELs.

**Control Beliefs.** Participants across the four factors also share agreement regarding their assessment self-efficacy and the pre-referral period. None of the viewpoints expressed feel strongly questioning of the reliability or validity of their EL assessment (18: 0, 0, -1, -1). Whereas this statement seems appropriate for participants who are using evidence-based practices such as L1 assessment, informal assessment, and L1 parent interviews, it is concerning for those who lack knowledge and skill in the administration and interpretation of these evidence-based practices. Participants are mildly in disagreement with the statement that teachers should reduce task complexity or academic demand for ELs until they achieve a certain level of English proficiency (21: -1, 0, -2, -1), and they generally do not believe that there are enough general education supports and services available to meet the needs of ELs (20: -3, -2, 0, -3).

#### **Consensus Across Study Factors 1, 2, and 4**

Participants representing the three viewpoints expressed in Factors 1, 2, and 4 arrived at consensus with far more statements (25: 52%) than all participants when taken as a whole. This is logical given the positive intercorrelations among these factors (table above). All statements discussed below are non-significant in distinguishing between any pair of factors at  $p < .01$ . References to the statement number and the composite factor grid position assignments for each of the three factors are as follows: (statement number: F1 score, F2 score, F4 score).

**Behavioral Beliefs.** Social Justice Warriors, Competent and Confident Professionals, and Dichotomous Maintainers share views, albeit with differing levels of conviction, with beliefs about ELs as learners, bilingualism, and the relationship between beliefs and behavior. They

generally agree that educators' beliefs are central to their actions toward students (37: +4, +1, +3) and that educational policies concerning ELs might not be implemented with fidelity if out of alignment with individual teachers' beliefs (35: +2, +1, +3). They hold supportive views toward the sociocultural influences of diverse families, believing that ELs' parents support them in positive ways (12: +2, +2, +1) and prioritize the education of their children (11: -3, -1, -1). They believe that ELs are learners who, if they do not respond quickly to general education instructional practices, should *not* automatically be funneled toward special education (8: -2, 0, -3).

They are generally knowledgeable about the basics of bilingual language development, understanding that use of the home language does not negatively influence English language development (47: -4, -4, -3) and that parents should not be advised to use English over the home language to help their children learn English faster (2: -4, -5, -4). They do not feel challenged by gaps in knowledge of second language development and disorders (16: 0, +1, 0), nor do they often question the reliability of their speech and language assessment or eligibility decisions (18: 0, 0, -1). Interestingly, Dichotomous Maintainers do lack knowledge in EL assessment best practices, raising concern over their lack of reflection in this respect.

As a group, they do not hold strong feelings about certain aspects of language politics, including the importance of EL educational issues holding a legislative and research priority (45: +1, +2, 0) or that ELs' rights are violated when U.S. public institutions expect interactions in English (43: 0, +1, +2).

**Normative Beliefs.** Participants in these three factors generally agree that legal requirements to ensure nonbiased assessment are not difficult to achieve (46: -2, -2, -2) and that ASHA promotes the use of evidence-based practices in EL assessment (38: +1, +4, +2). They do

not feel strongly or frequently pressured by teachers or school administrators to determine an EL eligible for special education supports and services (42: -1, -3, -2).

**Pre-Referral Period.** The general education supports and services offered to ELs prior to any discussion of concerns about their achievement exist at the level of the school site and the individual classroom. In the classroom, study participants agree that high teacher expectations (24: +2, +3, +4) and home language affirmation (22: +3, +2, +3) effectively promote EL academic achievement. They also agree that teachers should not lower their expectations or the standards by which ELs are evaluated (21: -1, 0, -1) since it is difficult if not impossible for them to “catch up” if not exposed to rigorous academic standards from the outset. Participants are concerned, however, about the lack of EL supports and services on their school sites (20: -3 -2, -3) and do not feel confident that SST teams consistently pursue English language development interventions prior to referral for special education speech and language assessment (19: -2, -1, -3).

### **Conclusion**

This chapter described in detail the four distinct perspectives (factors) held and EL assessment practices used by the study’s participants: Social Justice Warriors, Competent and Confident Professionals, The Parti Pris Pessimist, and Dichotomous Believers/Maintainers of the Mainstream Modus Operandi, as well as described the consensus existing among at least viewpoints 1, 2, and 4. The remainder of the paper will discuss why and how these distinct viewpoints are important to the field of speech-language pathology and to the advancement of knowledge about the wicked problem of disproportionality in special education.

## Chapter 5: Discussion

Speech-language pathologists' behavior surrounding their selection and use of assessment tools used with English learners, and in thus in their ability to make appropriate determinations of special education eligibility, continues to be problematic. SLPs continue to rely on outdated and invalid methods to assess the language learning skills of ELs, and to make determinations of special education eligibility. This exploratory study hypothesized that factor(s) besides the lack of knowledge or resources as previously documented may be presenting a barrier to the fidelity with which SLPs perform bilingual assessments. This study sought answers to the following research questions:

1. What are the beliefs, attitudes, and perceptions of California school-based SLPs about ELs, bilingualism, and use of best practices for diagnosing DLD in school-age EL children?
2. What relationships, if any, exist between these beliefs, attitudes, and perceptions and California school-based SLPs' use of best practices for diagnosing DLD in school-age EL children?

In the previous chapter, the four distinct perspectives (factors) held by the study's participants were described in detail (Figure 5.1). The four factors were described as:

### **Factor 1: Social Justice Warriors**

These participants are deeply concerned—to the point of conviction—regarding the just educational and social treatment of English learners and of their correct identification for special education. They recognize the importance of using evidence-based testing instruments for this unique population of students, and indeed, their assessment practices reflect a less frequent use of standardized assessments and a greater reliance on the information gleaned from informal

measures in their eligibility decision-making process. They possess a sophisticated knowledge of second language development and the ways in which disorders present in the EL population, and they hold a strengths-based perspective toward linguistically diverse students and families. They are reflective practitioners who use sophisticated social justice vocabulary and draw parallels between the current political climate and risk to school-age ELs.

**Figure 5.1**

*Graphic illustrating the four factors*



**Factor 2: Competent and Confident Professionals**

These participants possess a solid base of knowledge of and resources for utilizing best practices for diagnosing DLD in school-age EL children. They feel supported by the cultural norms in their local and national organizations. They reflected sophisticated understanding of factors important to the maintenance of home culture and language and are strongly supportive of multilingualism throughout public education and society at large for its wide-ranging social

and intellectual benefits. The viewpoint expressed by Competent and Confident Professionals lacks the inexorable conviction and moral imperative toward educational justice for ELs which characterize Social Justice Warriors.

### **Factor 3: The *Parti Pris* Pessimist**

Although this viewpoint was represented by a single participant, her inclusion in the overall analysis was included because of its theoretical significance. This participant lacks understanding about second language development and yet does not feel challenged by these gaps in her knowledge. She does not place much confidence in the general education instruction, supports, and services offered to ELs. She does not feel a moral imperative to engage in unbiased assessment practices and does not perceive social or professional pressure to ensure the law's requirements in this respect are fulfilled. Most worrisome is that this participant endorses several *parti pris* (biased) notions, including that the disproportionate representation of ELs in special education does not violate public education's principles of fairness and civil rights.

### **Factor 4: Dichotomous Believers/Maintainers of the Mainstream Modus Operandi (referred to as “Dichotomous Maintainers”)**

Participants with this perspective tended to be less knowledgeable about best practices for diagnosing DLD in school-age EL children, and work in environments in which the administration may be similarly unfamiliar with the legal and ethical requirements for valid EL language assessment. They hold a largely pessimistic view of the general education instruction, supports, and services offered to ELs. They “talk the talk” of cultural competence and social justice yet fall prey to implicit deficit-thinking that can inhibit them from “walking the walk.”

These four perspectives provide a new lens of interpretation on the topic of SLPs' use of assessment methods for the diagnosis of ELs with developmental language disorder. The

remainder of this discussion section will place these perspectives back into the theoretical framework of the reasoned action approach to explaining and predicting human behavior, and will offer preliminary implications for practice.

In the introduction section, I proposed that the behavior of school teams in their approach to ELs' educational needs might be explained using the theoretical model of the reasoned action approach (RAA) (Fishbein & Ajzen, 2015). To recap, the RAA proposes that any particular human behavior, clearly defined and operationalized, can be explained and predicted through three primary beliefs or determinants: behavioral beliefs (attitudes), normative beliefs (perceived social norms), and control beliefs (perceived behavioral control). Positive beliefs in all three categories leads to a strongly positive intention to engage in the defined behavior, which is expected to be carried out if in fact the actor has actual control over the ability to follow through.

### **What the Results Revealed About SLPs' Control Beliefs**

Prior research into SLPs' use of assessment methods for diagnosing DLD in school-age ELs has reported that a perceived lack of knowledge, skills, experience, and resources (time, materials, access to interpreters, etc.) negatively affect SLPs' perceived control over the use of evidence-based assessment techniques (Caesar, 2004; Kritikos, 2003). The participants in the current study diverged in their perceptions of control, both in the areas of knowledge/skills/resources and in the realm of general education supports that are provided to ELs before they are referred for special education assessments.

Participants expressing the viewpoints represented by the Social Justice Warriors, the Dichotomous Maintainers, and the Parti Pris Pessimist, consistent with prior research, feel challenged in the area of EL assessment resources. There are differences among those three perspectives here, however, in that whereas Social Justice Warriors seem to lack access to



resources (“I work in a district where tests are shared among the SLPs... I do not always have access to assessments” (Sort 3)), the Dichotomous Maintainers and the Parti Pris Pessimist lacked awareness that those evidence-based resources and tools even exist. In contrast to prior research, the Competent and Confident Professionals reported that they did receive adequate training in their graduate programs or through professional development in order to accurately discriminate language difference from language disorder and to competently administer and interpret evidence-based (often informal) assessments with ELs, and that they do not lack for testing materials (“I never have to feel that I am limited in what I can and can't do during an assessment simply because of lack of resources” [Sort 2]).

Time can also be considered a valuable resource and one that is in short supply to the often over-worked school-based SLP. The Social Justice Warriors, the Dichotomous Maintainers, and the Parti Pris Pessimist generally agree that they do not have enough time to routinely administer and interpret informal assessments, often the most valid approach in EL assessment. This view does not always appear to arise from caseload stressors as suggested in prior research, however: both the Dichotomous Maintainers and the Parti Pris Pessimist do not feel strongly (the Parti Pris Pessimist even moderately disagrees) that learning and using such assessment tools is worth the investment of time. The Social Justice Warriors and the Confident and Competent Professionals, on the other hand, are concerned about the time required (“time constraints are a biggie” (Sort 3)) and yet have made nonbiased assessment of ELs a priority in terms of time management.

What might make the Competent and Confident Professionals feel a higher level of perceived control than the other three groups? Looking to their demographic profile, the Competent and Confident Professionals ( $n = 2$ , age  $\bar{x} = 38.00$ ,  $SD 1.41$ ) were younger than the

Dichotomous Maintainers ( $n = 4$ , age  $\bar{x} = 59.25$ ,  $SD 6.70$ ) and the Parti Pris Pessimist ( $n = 1$ , age 62.00). Competent and Confident Professionals ( $n = 2$ , years of experience  $\bar{x} = 8.50$ ,  $SD 4.95$ ) also had fewer years of experience as school-based SLPs than the Dichotomous Maintainers ( $n = 4$ , years of experience  $\bar{x} = 30.75$ ,  $SD 9.78$ ) and the Parti Pris Pessimist ( $n = 1$ , years of experience 17.00). These observations of practical significance may indicate that generational differences, as well as the mandatory inclusion of cultural competence education in ASHA-accredited graduate-level training programs, via infusion of multicultural/multilingual issues into multiple existing courses or via a dedicated course, may be endowing our younger generation of professionals with greater understanding and celebration of diversity in all its forms. Further research with larger P-sets is needed to determine if the differences among groups of SLPs' age and/or years of experience is of statistical significance.

### **What the Results Revealed About SLPs' Normative Beliefs**

Prior research has not reported on the strength of the perceived social pressure to use evidence-based EL assessment techniques. It might be assumed that due to the influence that exists via state (Title 5 CCR § 3030) and federal (IDEA, 2004) legal requirements for nonbiased assessment—and the professional obligation for SLPs to maintain cultural and linguistic competence mandated by ASHA via the Code of Ethics (ASHA, 2016)—that perceived social norms are strong and would positively influence SLPs to routinely utilize the most current evidence-based practices for diagnosing DLD in school-age EL children. However, results of the current study reflect more nuanced views on this belief construct.

### **State and Federal Norms**

Federal and state laws' requirements to ensure the nonbiased assessment of ELs is a widespread challenge to enact in practice, in part due to the lack of specificity codified in the

law, and in part due to misinterpretation of the law. California Educational Code 5 CCR § 3030's requires that in order for a student to meet eligibility for SLI with a language impairment, they must meet one of the following criteria: (1) scores of at least 1.5 standard deviations below the mean, or below the 7<sup>th</sup> percentile, for his chronological age or developmental level on TWO standardized assessments, or (2) scores as in (1) on ONE standardized assessment and corresponding deficits noted in a representative 50-item language sample. These criteria are often cited by SLPs as the explanatory factor in their decisions to use and rely on the results of (invalid) standardized assessments with ELs. What is frequently overlooked is the last sentence in 5 CCR § 3030(a)(11)(D)2 (emphasis mine): "When standardized tests are considered to be invalid for the specific pupil, the expected language performance level *shall be determined by alternative means* as specified in the assessment plan." Furthermore, effective January 1, 2019, state law required the California Department of Education to develop a manual providing guidance to districts in part on the appropriate ways to identify at-risk ELs as students with disabilities. The manual, *California practitioners' guide for educating English learners with disabilities* (CDE, 2019b), clarifies that each testing instrument must be "administered in the language and form most likely to provide accurate information on what the student knows and can do academically, developmentally, and functionally" (EC 56320[b][1]). Further, "the procedures and materials for use with English learners...shall be in the individual's native language" (CDE, 2019b, p. 147).

Social Justice Warriors and Competent and Confident Professionals are uniquely knowledgeable about California's Educational Code requirements for determination of special education eligibility in the category of Speech and Language Impairment and are confident in their knowledge and ability to uphold both the spirit and the letter of the law: "I have read the

CA Educational Code and know that [the requirement to use standardized tests in the assessment of ELs] is factually untrue” (Sort 12); “The law is very clear that standardized tests are not required” (Sort 2). On the other hand, Dichotomous Maintainers and the Parti Pris Pessimist are unsure or ambivalent about CA Ed Code’s requirement to use the results of standardized assessments to determine eligibility: “The state, feds and ASHA requires[sic] us to use standardized assessments whenever possible” (Sort 8).

### **Professional Norms**

Only Competent and Confident Professionals agreed strongly that ASHA strongly encourages the use of evidence-based practices in the language assessment of ELs. Given that all participants hold the ASHA CCC, it is curious that the other participants lacked strong feelings about ASHA’s position on EL assessment. It is possible that study participants interpret ASHA’s EBP mandate as fact rather than opinion, rendering “feelings” on the statement difficult to rate.

### **School Site/District Norms**

Participants in each of the four factors also differed to some extent in their perspectives of school and district expectations about their EL assessment and eligibility decision-making. The Parti Pris Pessimist differed somewhat from the other three perspectives in her view that she does experience pressure from teachers and administrators at her site to find an EL eligible for special education, an act that could result from the desire to “outsource” ELs to other professionals (Greenfield, 2016). Those with other viewpoints tended to disagree with a sense of “pressure to qualify.” However, significant differences were noted between Social Justice Warriors/Competent and Confident Professionals and the Parti Pris Pessimist/Dichotomous Maintainers in the pressure they feel on behalf of their sites/districts to use standardized assessments with ELs. Here we see the interaction of control beliefs with normative beliefs—

those study participants with higher knowledge and skills (Social Justice Warriors and Competent and Confident Professionals) likely convey that knowledge to their school and district teams (or have received professional development from those schools/districts in order to raise their level of knowledge and skill), thereby feeling less pressure to rely on potentially biased test results in the eligibility decision-making process. Conversely, the participants who lack knowledge about EL assessment best practices (the Parti Pris Pessimist and Dichotomous Maintainers) also lack the means to influence the culture of their sites and districts.

### **What Results Revealed About SLPs' Behavioral Beliefs**

According to the RAA, assuming that an SLP feels positive societal pressure to engage in evidence-based assessment practices for diagnosing DLD in school-age ELs and has strong perceived behavioral control over doing so, that SLP's attitudes toward their use become the primary factor in forming an intention to engage in those best practices. Results of this exploratory study indicate divergent views among the groups on the influence of culture to impact behavior, the strengths of bilingualism and ELs as learners, and the value of evidence-based assessment practices for diagnosing DLD in school-age ELs.

#### **Belief in the Power of Beliefs to Influence Behavior**

All study participants agreed to some extent that educators' beliefs about students' learning, behavior and motivation are central to their actions toward students (37: +4, +1, +5, +3) and may even supersede educational policies in place (including those at the district and site level) regarding ELs. Nevertheless, they appeared to agree to a much lesser extent that culture might be at the root of educators' beliefs, most importantly their own (39: +3, 0, +1, +1).

The development of cultural competence, perhaps most importantly understanding one's own culture, is "complex and requires a systematic, deliberate, intentional, and explicit effort and

strategies” (Ukpokodu, 2011, p. 449). In an educator field that is majority White, it is common for educators to think about race or culture being about others (Lewis, 2004) and in doing so furthering the concept of “normal” as white and cultureless (Perry, 2001). The field of speech-language pathology is 92% White, 95% non-Hispanic/Latino (ASHA, 2019), with White SLPs potentially unaware of the assumed “normalcy” of their Whiteness. Interestingly, the Social Justice Warriors, the group that most strongly acknowledged the effects of their own culture in shaping their beliefs and actions, had a higher percentage of participants who identified as non-White (three out of the five Social Justice Warriors who provided a response on the question of ethnicity), compared to the other three factors. Although this study focused on linguistic diversity instead of racial and ethnic diversity, it may be true that the two cannot truly be separated. This finding points to the need for the development of SLPs’ own cultural awareness in the process of developing the cultural competence needed to proficiently serve diverse students.

### **Attitudes Toward Bilingualism, ELs, and EL Assessment Methods**

In this study, the existence of firm beliefs about the value of bilingualism, the strengths that ELs possess that prepare them positively for school success, and the injustice of discriminatory assessment and/or eligibility decisions were exhibited primarily by the Social Justice Warriors, who also possessed the strongest awareness of the impact of their culture on their beliefs and actions. Social Justice Warriors hold a strengths-based view of ELs, believing them to be a group of typical learners who benefit from a school environment that encourages the use of the home language to support English proficiency and academic achievement. Whereas the Competent and Confident Professionals also strongly support multilingualism for its many benefits and believe ELs to be typical learners, they lack the inexorable conviction and moral imperative toward educational justice for ELs which characterize the Social Justice Warriors.

Deficit thinking featured prominently in the Parti Pris Pessimist's perspective. From her opinion that ELs' sociocultural deprivation sets them up for school failure, to her characterization of ELs as unmotivated low achievers, to her lack of concern for the civil rights issue of EL disproportionality, her deficit lens likely impacts the value she places on the need to use the most effective, research-based methods for valid EL language assessment.

The Dichotomous Maintainers revealed an interesting divergence of their explicit and implicit beliefs. Fairness and inclusion are front and center in their language politics, yet below the surface lies an absence of confidence in ELs as typical learners, a promotion of culture-stifling colorblindness, and a laissez-faire attitude toward the potential effect of biased assessment on ELs' educational experiences.

### **Beliefs and EL Assessment Practices**

What role do beliefs appear to play in the formation of intention to use certain EL assessment practices?

Chi-square tests of independence (two-tailed) were calculated comparing the use of individual types of assessment methods among the four factors. Fisher's Exact Test was used due to the small number of cases (Table 5.1). Although statistical significance was not derived from any test-use comparisons among the four groups, there appears (Figure 5.2) to be a slightly less frequent use of standardized assessments and a stronger use of language sampling, particularly the more robust computerized language sampling analysis, by the Social Justice Warriors. Other informal measures, such as dynamic assessment and parent interview, are used more frequently by the Competent and Confident Professionals and Social Justice Warriors than by the other two groups. Reliance on the results of standardized assessments to determine eligibility remains standard practice for the Parti Pris Pessimist and the Dichotomous Maintainers, whereas informal

assessment data is much more heavily weighted in the eligibility decision-making process of the Social Justice Warriors and Competent and Confident Professionals (Figure 5.3).

Therefore, it does appear that knowledge, skills, access to resources, a supportive legal, professional, and school cultural environment—as well as positive attitudes toward ELs and toward evidence-based EL assessment methods themselves—allows and even promotes more routine use of assessment practices more likely to accurately differentiate language difference from disorder in ELs referred for speech and language assessment.

**Table 5.1**

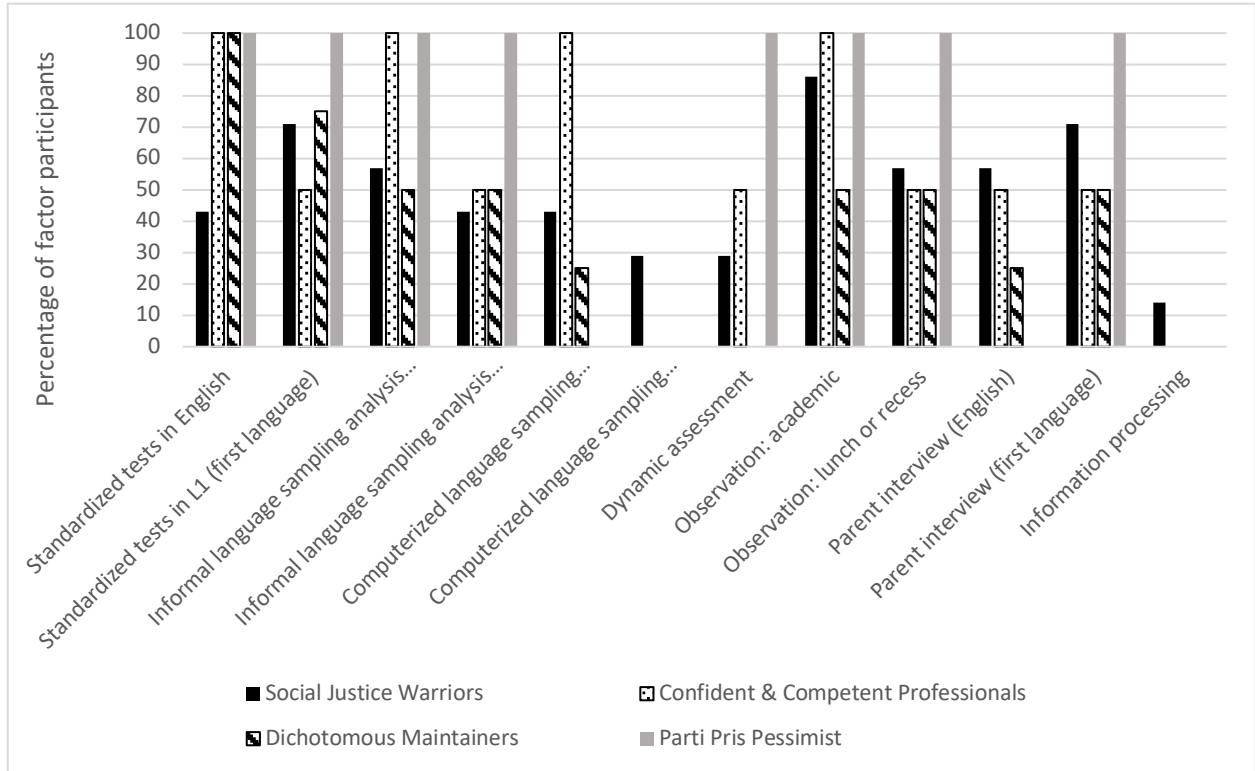
*Crosstabulation of factor and assessment methods used*

Test	Factor				Value		<i>p</i> value	
	SJW	CCP	PPP	DM	$\chi^2$	FET	$\chi^2$	FET
Standardized tests in English	2	2	1	4	6.741	5.548	.083	.099
Standardized tests in another language	4	1	1	3	.873	1.389	1.000	1.000
Informal language sampling analysis in English	3	2	1	2	2.437	2.248	.643	.736
Informal language sampling analysis in another language	2	1	1	2	1.599	1.866	.860	.860
Computerized language sampling analysis in English	2	2	0	1	4.198	3.635	.361	.361
Computerized language sampling analysis in another language	1	0	0	0	1.264	2.661	1.000	1.000
Dynamic assessment	2	0	1	0	5.489	4.262	.196	.238
Observation in academic setting	5	1	1	2	2.046	2.410	.832	.594
Observation at lunch/recess	4	2	1	2	2.046	1.964	.832	.832
Parent interview in English	4	0	0	1	4.198	3.635	.361	.361
Parent interview in another language	4	2	1	2	2.046	1.96	.832	.832
Information processing	1	0	0	0	1.264	2.661	1.000	1.000

**Figure 5.2**

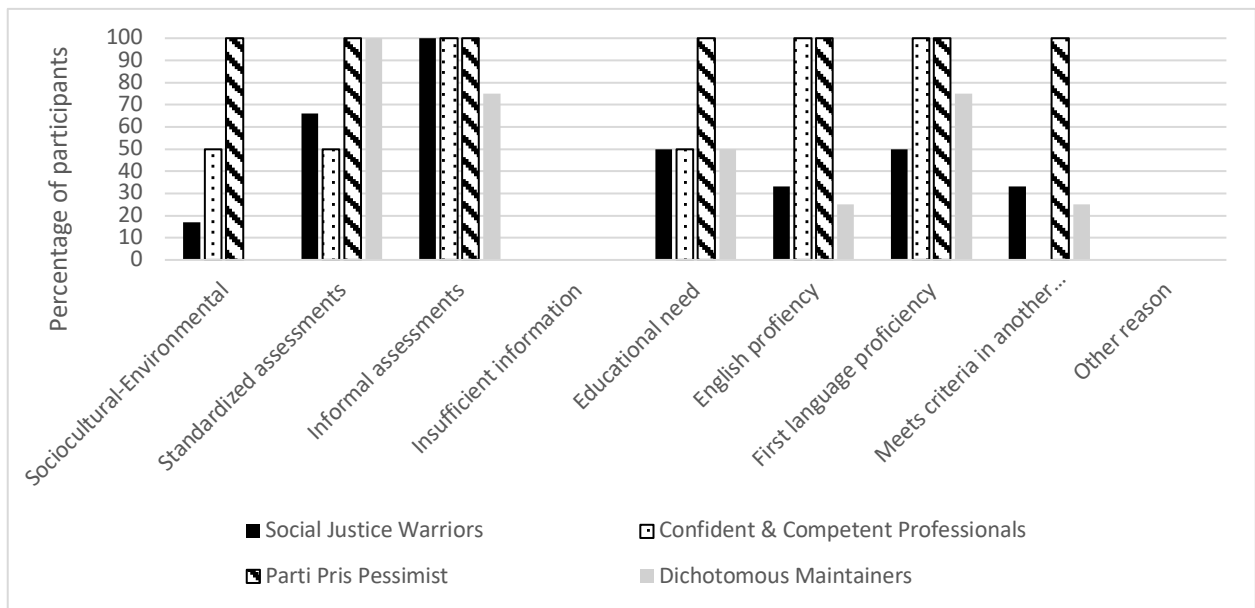
*Percentage of factor participants utilizing each assessment method*





**Figure 5.3**

*Percentage of factor participants relying on type of assessment method to assist in eligibility determination*



**Implications for Practice**

This exploration of SLPs' beliefs through Q methodology revealed nuanced and complex views that can inform both future research and the ways in which SLPs are taught to conduct non-biased EL assessment via pre-service coursework or in-service professional development. Through their Q-sorts and their reflections on their sorting choices, participants provided a rich context in which to situate their four distinct perspectives. The compelling story told by this mixed methods approach highlights the advantages of Q methodology to shed new light on the association of SLPs' assessment practices with the issue of EL disproportionality. The next section focuses attention on the potential implications for ways to enhance the ability of SLP educators, professional development providers, and school administrators to create targeted remedies for the wicked problem of EL disproportionality in special education.

### **Fostering Positive Control Beliefs**

Many SLPs are challenged by gaps in their knowledge of, and their access to, evidence-based methods for diagnosing DLD in school-age EL children. Therefore, ongoing communiqués about the existence and validity of these methods and trainings/tutorials on their use are important. These messages should be as specific as possible, providing the names of developed tools and links to print or order them. Even SLPs knowledgeable about dynamic assessment in this study feared the subjectivity required to select an appropriate target and interpret the results meaningfully. Please refer to Appendix B for examples of available tools.

Finding an interpreter or a bilingual SLP to assist with EL language assessment can be a challenge. Some SLPs facing the assessment of a student for whom they do not speak the language need assurance that they can indeed provide nonbiased assessment, and specific guidance on how to plan for and execute the assessment itself. Trainings like “English Learner Assessment: What Can the English-Only SLP Do?” might include suggestions for procedures

that can be administered in English (e.g. information processing, English narrative language sampling and dynamic assessment of retells, and the English portion of the BESA).

Finally, the extent to which ELs have access to robust general education English language development and academic support opportunities is crucial in fostering a strengths-based perspective of ELs and to prevent inappropriate referrals for special education assessment that through confirmatory bias can result in over-identification. In this regard, SLPs' routine participation in school- and district-wide ELD trainings and on SST teams could allow both general and special educators to operate from the same knowledge and resource base. Similarly, their involvement could foster relationships and trust among general educators, administrators, and SLPs that would provide a context for SLPs to provide meaningful input on pre-referral language interventions for at-risk ELs.

### **Fostering Positive Normative Beliefs**

This study revealed distinct differences in participants' perceived social pressure to use evidence-based EL assessment techniques, and therefore a variety of remedies are suggested.

### **Professional Organization Norms**

The American Speech-Language Hearing Association may wish to consider requiring a certain amount of continuing education in issues related to cultural and linguistic diversity. This action would likely stimulate a proliferation of varied professional development opportunities that could focus on different aspects of EL assessment and intervention, including the importance of culture in the development of beliefs and intentions for action. In addition, the imposition of a requirement for would-be SLPs to have a basic foundation in a language other than English might stimulate both interest in second language learning and reasonable expectations for that learning, along with academic content, in EL students.

## **Legal Norms**

Pre-service and in-service training must include accurate and complete information about the laws' requirement for nonbiased assessment. The mistaken impression that CA Ed Code requires the use of standardized assessments to determine special education eligibility must be interrogated fully so SLPs understand and can educate others about the law's actual guidance. A stronger focus on special education in educational administration training and induction programs is also necessary to inform and empower school administrators to expect nonbiased EL assessments for special education.

## **Site and District Norms**

Administrator training, as described above, is one way to encourage district- and site-level adherence to the laws' requirements for nonbiased assessment. Consistency of practice across the SLPs in the district is also important and suggests that SLPs need regular opportunities to meet together, to review cases and assessment approaches, to share resources, and to encourage a sense of best-practice-as-norm among SLPs. Training programs looking for clinical placements for their graduate students might also seek to place student interns with SLPs holding viewpoints consistent with the Social Justice Warriors' or the Competent and Confident Professionals'. Although the small sample size requires caution in drawing conclusions about significant differences in demographic factors among the participants, it is interesting to note that these SLPs tend to be younger and have fewer years of experience compared to the Parti Pris Pessimist and Dichotomous Maintainers. The commonly held viewpoint that more = better when it comes to desired years of experience for clinical mentors may be hampering the speed at which EL assessment practices are changing in our public schools.

## **Fostering Positive Behavioral Beliefs**

No prior attempts have been made to investigate the beliefs, attitudes, and perceptions of SLPs about the value of routinely using EL assessment best practices to maximize the validity of differential diagnosis (language difference vs. disorder) in order to combat the social injustice of EL disproportionality in special education. The discovery of four distinct viewpoints about these practices and their perceived value do appear to correlate, as in the teacher literature, with nuanced attitudes toward ELs in public education, and suggest remedies in the form of social justice education.

### **Recognition of “Culture” and its Effects on Beliefs and Actions**

Although this study focuses on linguistic diversity much more than racial/ethnic diversity where the literature’s discussion of “culture” is much more prominent, this study revealed differences in the ways the participants viewed the effect of their own culture on the development of beliefs and intentions for action. Whereas White culture is often perceived thinly as a heterogeneous group of individuals who share little more than the same skin color (Marx, 2001), “other” racial and ethnic groups are considered richly cultural homogeneous units. The risk for ELs to continue to be considered “Others” exists as long as the “norm” is perceived as White (aka: monolingual, middle-class, heterosexual, Christian...). The construct of White culturelessness must be unpacked. Like a coloring book before any color has been added, the pages are not blank, they are white, with the addition of color adhering to prescribed boundaries (Milne, 2013). Schools must recognize they are “white spaces” controlled by “normal” majority White teachers, administrators, and special educators who encourage assimilation into the “norm” within the prescribed boundaries. Even SLPs who are multiracial or bilingual may not be aware of the extent to which they operate in these “white spaces.” Training should guide SLPs to examine their own culture, and how it influences their worldview, as well as counter-stories in

which ELs represent the “norm.” How would the persistent EL achievement gap be viewed when not juxtaposed against the privilege of norm-stream students? Would ELs continue to be at-risk for over-referral and over-identification for special education?

Colorblind ideologies, supported by the Parti Pris Pessimist and the Dichotomous Maintainers, appear well-intentioned, yet they are typically held by those who have never had the opportunity or impetus to investigate and critically interrogate their own unspoken beliefs about their own race and culture, let alone those of various minority races and cultures. Pretending not to see color “renders students of color invisible” (Howard, 2015, p. 123). Saying that one doesn’t see differences in their diverse students means that one doesn’t recognize one’s own color (white) as being the cultural ideal and norm.

The Parti Pris Pessimist and the Dichotomous Maintainers also agreed more strongly with sociocultural deprivation views of ELs than did the other two groups, suggesting that SLPs must also engage with these beliefs to avoid entrenchment of deficit thinking.

### **Starting with the End in Sight**

All four groups agreed that multilingualism has value and should be promoted in society. If we start with that end in sight, we can no longer accept the marginalization of ELs in any form. SLPs must become confident in knowing how their culture impacts their beliefs, to defy the notion that culture is something that “others” have. They must then recognize the ways in which the dominant culture may unintentionally promote deficit views of ELs. Finally, they must continually move toward “Social Justice Warrior” status in their attitudes, advancing a social norm of unbiased assessment, and honing their knowledge and skill until their use of EL assessment best practices is so routine that it cannot revert back to previous practices.

### **Study Limitations**

The biggest limitation of this study is its smaller-than-desired P-set that is not representative of CA school-based SLP demographics as a whole, in terms of race/ethnicity and bilingual status. The result is that the variability in demographic, language experience, and caseload factors could not be adequately sampled and the perspectives that were elucidated in the study's results may differ from those if conducted with a more varied sample. However, the value of Q methodology to illuminate nuanced perspectives on the topic of EL assessment practices cannot be understated. My recommendation would be to repeat the study with purposive sampling from both the monolingual and bilingual SLP populations and from a wider range of geographic locations to further explore belief profiles and EL assessment practices in those populations.

Another of the study's limitations is its inadvertent focus on over-representation of ELs in special education, when under-representation and under-utilization of early speech and language intervention may be just as problematic. In being cautious not to over-identify ELs, could SLPs be unintentionally under-identifying? My recommendation would be to modify the Q-set to include a statement such as "I might be *less* likely to recommend special education speech and language services to an EL than an English-fluent student."

Finally, the questions on the demographic and caseload characteristics questionnaire were too vague in the testing instruments sampled. Participants were asked if they used standardized assessments in a language other than English, but not all such instruments are created equal. Parent interviews may vary widely in their utility depending on if they were unstructured or if they utilized a structured set of questions as in the ALEQ/ALDeQ or in the BIOS tool of the BESA. Language sampling might have included a mix of conversational sampling and narrative retell, when narrative retell has a much more robust ability to identify DLD and to be used in

dynamic assessment. My recommendation would be to ask participants to describe the actual testing instruments used in their EL assessment, and code their responses more finely in the analysis stage.

### **Conclusion**

This study sought to add to the current body of knowledge about English learner (EL) assessment for special education generally, and about California school-based speech-language pathologists' (SLPs') use of evidence-based techniques for diagnosing developmental language disorder (DLD) in the EL population specifically. The study explored SLPs' beliefs and attitudes about linguistic diversity, bilingualism, the learning potential of ELs, and the value of using best practices in the assessment of ELs for special education. Using a unique mixed methods approach called Q methodology, four distinct viewpoints about these issues were revealed. While it is important to note that the results of this Q-methodological study, like all Q studies, cannot be used to generalize findings to the population of CA school-based SLPs as a whole, the study's exploration into perspectives that may affect use of best practices for diagnosing DLD in school-age EL children is the first of its kind, and can confirm that viewpoints do vary. Most importantly, since beliefs and attitudes are an important driver of behavior, discovery of beliefs and attitudes may take the field of speech-language pathology a step further in understanding the protracted timeline with which evidence-based methods are converted into daily practice in school settings.

One way that Q-methodological studies are set apart from more traditional research methods is in the small number of participants required to yield robust results. In the current study, 24-25 participants were desired but only 15 were successfully recruited. It would have been interesting to see, if another ten SLPs had participated, if the four viewpoints became more



or less discrete, or if in fact even more unique perspectives were illuminated. Moreover, the SLPs who did participate were recruited through avenues of access and convenience, resulting in a participant set of SLPs who were more interested in the subject of EL assessment than perhaps is the cohort of CA school-based SLPs as a whole. Future studies could replicate the current one with various subgroups of SLPs (e.g. those within a single school district, monolingual SLPs, those in rural settings, those in highly diverse settings, etc.) to understand the fuller range of beliefs and attitudes affecting SLPs' behavior. Analysis of belief profiles within SLP subgroups can reveal implications for customized training and professional development that take these viewpoints into account.

The disproportionate identification of English learners in special education, and their unique pattern of under-identification (in the early years of schooling), over-identification (after third grade), and increasing identification in the “subjective” eligibility categories of SLI and SLD, is an enduring issue of educational concern. Prior research has focused on documenting the issue through surveys tallying the actual use of various assessment tools and exploring control-based factors, such as self-efficacy, knowledge, resources, and time. The current study filled a gap in the research literature, offering a unique angle from which to view the perpetual use of invalid and biased methods for EL assessment by exploring beliefs and attitudes about not only EL assessment practices, but linguistic diversity, bilingualism, and ELs as a whole. The study was therefore an important starting place for additional research exploring the relationship between beliefs and behavior that may contribute to the wicked problem of EL disproportionality in special education.

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