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**A SURVEY OF PRACTITIONER METHODS AND DECISION-MAKING
IN EVALUATION OF DIVERSE STUDENTS**

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A SURVEY OF PRACTITIONER METHODS AND DECISION-MAKING IN
EVALUATION OF DIVERSE STUDENTS

A dissertation submitted in partial fulfillment
of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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ABSTRACT

A SURVEY OF PRACTITIONER METHODS AND DECISION-MAKING IN EVALUATION OF DIVERSE STUDENTS

Noelle Ferrara

It is estimated by the year 2060, minority students will make up more than 50% of the United States population (Ding, Cho, Wang & Yu, 2019). The importance of correctly identifying and placing students in special education is becoming crucial as the population of Culturally and Linguistically Diverse students (CLD) and English Language Learners (ELL) is increasing. Bilingual school psychologists are few in number across the nation. Moreover, the most significant problem with regard to bilingual assessment is the lack of a set of standards or guidelines by which practitioners can be held responsible for their assessment practices. The Standards for Educational and Psychological Testing Version 2 (AERA, APA, & NCME, 2014) offers recommendations for best practices when conducting bilingual assessment called, Fairness Standards. The current study examines how school psychologists of varying levels of education, years of experience, and regions in which they work conduct cognitive assessments for native English speakers in comparison to English learners. Survey findings indicate the presence of bias in school psychologists' practices when conducting an assessment, determining the presence of a learning disability, and when making program placement recommendations. Results show that student race and native language impact school psychologists' practice.

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Chapter I

Introduction

Statement of the Problem

Culturally and Linguistically Diverse (CLD) students, also identified as English Language Learners (ELL) or English Learners (Els) - often used interchangeably, are more likely to be diagnosed with learning or intellectual disabilities than native English speakers (Sullivan, 2011). This leads to disproportionality amongst special education populations. Disproportionality is defined as the overrepresentation in special education of minorities diagnosed with a learning disability or another type of disability (Kincaid & Sullivan, 2017). Literature first began discussing the issue of disproportionality 40 years ago (Sullivan, 2011). Despite laws in place to regulate the issues of disproportionality among minorities in special education, students identified as ELL are often overlooked (Sullivan, 2011).

Additionally, it is becoming more common that school psychologists must evaluate CLD students as the population of minority students is increasing. It is estimated by the year 2060, minority students will make up more than 50% of the US population (Ding, Cho, Wang & Yu, 2019). School psychologists, along with the Committee on Special Education, are the individuals primarily responsible for assessment and classifications of the students in schools. With this increase, it is becoming more crucial that school psychologists are trained to competently assess all students referred to them which should include cultural and diversity training as it relates to comprehensive assessment. School psychologists who are lacking the appropriate cultural training may lack the skills necessary to work with this population (Constantine & Yeh, 2001).

In 2015, the National Association of School Psychologists (NASP) released a position statement regarding a School Psychologist's role in working with bilingual children. As outlined by the position statement, NASP argues that:

Best practices require training that includes, but is not limited to, the developmental processes of language acquisition and acculturation, their effect on standardized test performance, and the effectiveness of instructional strategies and interventions. All school psychologists are responsible for providing equitable and culturally responsive services to students and families. (NASP Position Statement, 2015, pp.1)

Much of the research supports that school psychologists are being trained in multicultural competency, but that these programs fall short in their effects to provide students with adequate training (White, 2013). It is unclear if there is any continuity between school psychology training programs with regard to their training in this area.

The most significant issue is the current lack of existing best practice guidelines or standards for "bilingual assessment" to which we can hold practitioners accountable. It can be argued that the inconsistencies in conducting bilingual assessments are due to that the term "bilingual assessment" does not have a definition. Unless the psychologist explicitly outlines what they are doing during the assessment the term is open to assumptions and inconsistencies in practice. The American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) suggest guidelines for Fairness Standards when conducting psychological assessment including guidelines for assessment with English learners (AERA, APA, & NCME, 2014).

The current study examined how school psychologists conduct cognitive assessments for native English speakers in comparison to English learners in order to determine if these practices follow Fairness Standards (AERA, APA, & NCME, 2014) in order to clarify best practices that may qualify as a standard for the future.

Chapter II

Literature Review

Disproportionality in Special Education

Disproportionality is defined as the overrepresentation in special education of minorities diagnosed with a learning disability or another type of disability (Kincaid & Sullivan, 2017). There may be multiple reasons for why disproportionality occurs, but it is difficult to find the exact cause because of how considerably different diagnostic practices are among states, schools, and individual psychologists (Sullivan, 2011). The ongoing problem of disproportionality indicates systemic problems of inequity, prejudice, and marginalization within the system under which school psychologists currently operate, in addition to, the limited array of assessment batteries for most English learners, lack of appropriate training, and shortage of bilingual school psychologists (Sullivan, 2011). Additionally, Ochoa, Powell and Robles-Pina (1996) argued that disproportionality is due to socioeconomic status of minority students, test bias associated with cultural differences, factors associated with second-language acquisition, and inappropriate referrals. Moreover, Diver, Raines, Dowdy, and Hostutler (2016) found that demographics including gender, race, and socioeconomic status were more predictive of special education status than self-report risk and suggest that a more data-driven method of identification be used to combat the effects of race and socioeconomic status bias.

Additionally, this problem is vast on a national level regarding inappropriate and discriminatory assessment and placement (Sullivan, 2011). *Diana v. State Board of Education, 1970*, for example, set the precedent that students were to be assessed in their native language or with a nonverbal assessment. The Individuals with Disabilities

Education Act (IDEA, 2004) defines “native language” as the language normally used by the individual or by the parents of the individual (in the case of younger children).

However, testing a child in their native language does not provide insight into the child’s language history which may also impact the assessment results.

Misplacing children into special education has significant consequences. The greatest levels of disproportionality are found in the intellectually disabled and emotional disturbance categories (Strand & Lindsay, 2009). Both of these categories have negative attributions and stereotypes about certain types of behavior. Students who do not belong in special education are not appropriately receiving their education in the Least Restricted Environment (LRE) which also has negative consequences for the student. The LRE is the requirement in federal law that students with disabilities receive their education, to the maximum extent appropriate, with nondisabled peers and that special education students are not removed from regular classes unless, even with supplemental aids and services, education in regular classes cannot be achieved satisfactorily (Wright & Wright, 2007). When a nondisabled student is receiving their education with disabled peers, the child is subject to being limited socially.

Thus, the importance of correctly identifying, assessing, and placing minority students is becoming increasingly essential. There is a quickly growing diverse population in the United States (Individuals with Disabilities Education Act, 2004). The IDEA (2004) states that limited English proficient students are the fastest growing population in the nation. Additionally, in the nation’s two largest school districts, English learners make up almost half of the students entering at the kindergarten level (Individuals with Disabilities Education Act, 2004). Overall, more minority children are

being served in special education than is expected given the percentage of minority students in the whole population (Individuals with Disabilities Education Act, 2004).

School Psychologists' Training in "Bilingual Assessment"

Currently, with the exception of New York and Illinois, there is no universal criterion for proficiency required to function as a bilingual school psychologist (Ding, Cho, Wang & Yu, 2019). In New York, school psychologists must achieve a passing score on an exam to obtain a certificate that documents their bilingual language abilities (Ding, Cho, Wang & Yu, 2019). However, just because a psychologist is proficient in two languages does not qualify the person to be a bilingual school psychologist unless there had been training experiences (fieldwork/coursework) that directly works with CLD populations (Ding, Cho, Wang & Yu, 2019). Thus, an individual who is not bilingual can still provide "bilingual assessment" services in the United States.

Just as there is no universal criterion for training in bilingual assessment, there are currently no existing best practice guidelines or standards for "bilingual assessment" to which we can hold practitioners accountable. It can be argued that the inconsistencies in conducting bilingual assessments are due to that the term "bilingual assessment" does not have a definition. Unless the psychologist explicitly outlines exactly what they are doing during the assessment the term is open to assumptions and inconsistencies in practice.

Additionally, there is a shortage of bilingual school psychologists in the United States making up only 10.8% of all school psychologists as of 2010 (O'Bryon & Rogers, 2010). However, even with an increase in bilingual school psychologists, there is still difficulty when considering the large number of second languages that students may speak and the need to match a psychologist to each language (O'Bryon & Rogers, 2010).

Few training programs in school psychology offer training specifically aimed at developing skills to deliver services to bilingual students (O'Bryon & Rogers, 2010). In 2004, only 33% of school psychologists conducting bilingual assessments were bilingual (Ocoha, Riccio, Jiminez, Garcia de Alba & Sines, 2004). Sotelo-Dynega and Dixon (2014) recommend that because there are limited numbers of qualified bilingual school psychologists that all school psychologists should be trained in nondiscriminatory assessment practices or use with CLD or ELL students. Additionally, from a survey of 480 practitioners, 12% identified as bilingual, while 86% reported that they regularly evaluate students who are culturally and linguistically diverse (Sotelo, Cuskley, Geddes, McSwiggan & Soldano, 2011).

McCloskey and Athanasiou (2000) present the "iceberg theory" of language acquisition. This proposes that language has two parts, the part of the iceberg on top of the water is called the Basic Interpersonal Communicative Skills (BICS) and the portion underneath the water is called the Cognitive Academic Language Proficiency Skills (CALPS). It is considered that the BICS skills can develop for a second-language learner in one to two years, but that CALPS skills take approximately five to seven years (McCloskey & Athanasiou, 2000). CALPS skills are considered to be more high level and utilize more abstract language functions which is also why it is mostly CALPS skills that are measured with verbal portions of cognitive assessment (McCloskey & Athanasiou, 2000). The authors argue that considering the "iceberg theory" is important when deciding if low scores of a cognitive assessment are due to poor CALPS acquisition or because of a learning disability (McCloskey & Athanasiou, 2000). The Culture-Language Interpretative Matrix was designed explicitly for the purpose of identifying if

there is a disability present or if low scores are due to issues with language (Flanagan, Ortiz, Alfonso, 2013). It is unclear how, if at all, school psychology training programs are teaching students how to determine if a cognitive assessment is valid given differences in language acquisition and learning opportunity or a true learning disability.

Assessment Practices with English Learners

Best practices for traditional cognitive or psychoeducational assessment include choosing measures according to their inherent psychometric properties, the reason for referral, and the unique characteristics of the examinee (Sotelo-Dynega & Dixon, 2014). It was found that in general, there is more variety and diversity in test usage in bilingual psychoeducational assessment than when conducting assessments with native English speakers (Ochoa, Powell and Robles-Pina, 1996). Overall, school psychologists tend to use curriculum-based assessment and nonverbal assessments primarily with English learners (Ochoa, Powell and Robles-Pina, 1996; Ochoa, Riccio, Jiminez, Garcia de Alba & Sines, 2004; McCloskey & Athanasiou, 2000). The most commonly used nonverbal assessments include the Bender Visual Motor Gestalt Test, Draw-A-Person, House-Tree-Person, and the Kinetic Family Drawing tests which also happen to be the four least psychometrically valid assessments available (Ochoa, Riccio, Jiminez, Garcia de Alba & Sines, 2004). However, NASP argues that there are still issues associated with the primary use of nonverbal assessments for this population, “the use of ‘nonverbal’ tools or native language instruments are not automatic guarantees of reliable and valid data. Nonverbal tests rely on some form of effective communication between examiner and examinee, and may be as culturally loaded as verbal tests, thus limiting the validity of evaluation results.” (NASP, 2015, pp. 2).

Best practice suggests that when working with English learners, one of the first steps is to establish the student's language proficiency in both of their languages (O'Bryon & Rogers, 2010). Rhodes, Ochoa, and Ortiz (2005) recommend that language proficiency be determined by the use of formal and informal measures but that there is currently no evidence to support what types of measures are being used in practice. There is also little knowledge about who is or who should be responsible for conducting language proficiency exams (O'Bryon & Rogers, 2010). However, another challenge is presented with regard to availability of assessment measures. It is difficult to find batteries with norms representative of an English learner student (O'Bryon & Rogers, 2010). Additionally, there is no typical "English learner student" to create norms with. Each student's history varies in their languages spoken and understood, language acquisition of both languages, exposure to language in school and at home, gaps in language development, and parents' education. An alternative solution when working with, specifically, a native Spanish speaker, school psychologists may opt to use the WISC-IV Spanish. This is a great tool unless the student has been receiving an education in the United States for five consecutive years (Flanagan, Ortiz, & Alfonso, 2013), giving more weight to the fact that a child's native language may not be the best language to test in order to get the most valid representation of their abilities. Additionally, issues arise when the student's native language is a language other than Spanish. Not many cognitive assessments have been adapted in other languages.

Another option for conducting bilingual assessment is with the use of an interpreter (O'Bryon & Rogers, 2010). Issues with using interpreters for assessment include that the interpreter may add or delete information that the examiner did not

provide, that interpreters may not be able to translate concepts with the same equivalence to English, the difficulty level of words used in English may not translate with the same difficulty in another language, that the interpreter must not have a relationship with the examinee (with is difficult in smaller communities), and that interpreters are not familiar with standardization procedures (O'Bryon & Rogers, 2010). Additional problems present with considering the school psychologists' level of experience with using interpreters (O'Bryon & Rogers, 2010). It was found that slightly more than half, 57% of school psychologists had training in the appropriate use of interpreters (O'Bryon & Rogers, 2010). In 2004, 26% of school psychologists reported using an interpreter for assessment without having received prior training (Ochoa, Riccio, Jiminez, Garcia de Alba & Sines, 2004). NASP argues that school psychologists should receive proper training in the use of interpreters and should be aware of the complexity of issues associated with the use of interpreters (NASP, 2015).

O'Bryon and Rogers (2010) found that bilingual practitioners are not selecting measures based on recommended best practices that are used for traditional, monolingual assessment; 80% consider standardization samples, 76% considered psychometric properties, and only 67% reviewed relevant research when selecting a measure. Interestingly, when the practitioner shared a second language with their student, they were more likely to use a broad range of instruments and gather more information about the student's strengths and weaknesses than when they did not share a second language (O'Bryon & Rogers, 2010).

Fairness Standards

There are a set of Fairness Standards related to areas of test design and development, administration, interpretation, and accommodations offered in the Standards for Educational and Psychological Testing, Version 2. Many of these standards are related to bilingual assessment practices. Of these include standard 3.12 which states that when a test is translated or adapted from one language to another, it is the test user/developer who is responsible for describing the methods for adaptation and providing empirical evidence for the validity of the adapted measure. Standard 3.13 states that a test should be administered in the language that is most appropriate and relevant to the referral purpose. Standard 3.14 states that when using an interpreter, the interpreter must follow standardized procedures and be sufficiently fluent in the language being tested and the content of the test and testing materials. Standard 3.16 states that if research indicates that an assessment be used for a specific subgroup, that the test should only be used for an assessment of that subgroup. Standard 3.17 states that in the case of assessment with specific subgroups including CLD students, test users are responsible for including cautionary statements that the test scores may not be comparable across different subgroups. Finally, standard 3.18 states that when testing individuals for special program placement, practitioners should use multiple sources of data to make a determination, not just assessment scores.

However, it can be argued that there are problems with these standards. Compliance with these standards does not necessarily indicate a perfectly viable assessment. For example, standard 3.17 states that cautionary statements are required in order to indicate the assessment was completed with some invalidity. The inclusion of a

cautionary statement does not outline how to interpret results with caution, thus leaving the statement open to interpretation and inconsistencies in evaluation results and recommendations made for the student. This raises the question of, are these standards enough? Simple compliance with these standards creates an illusion that the assessments are being conducted are reliable and valid.

Practice Recommendations

One of the first steps offered as a recommendation for bilingual assessment are proposed by Flanagan, Ortiz, and Alfonso (2013). They recommend that the student be administered the English version of any test that has an alternative language component. This strategy allows for the evaluation of the extent to which cultural and language factors may have impacted the validity of the test administered via the C-LIM (Flanagan, Ortiz & Alfonso, 2013). The C-LIM or Culture-Language Interpretive Matrix is a tool designed to examine the validity of the test administered. Without a way to determine if the students' scores are due to differences in language acquisition or a specific learning disability, practitioners can only speculate about the students' abilities.

Valid and accurate interpretation is necessary when conducting any type of assessment. When conducting bilingual assessment, the concept of "true peer comparison" aims to eliminate the problems associated between age-norms and ELL students. For example, true peer comparison is based on the idea that an eight-year-old native English speaker is unlikely to have similar achievement abilities as an eight-year-old English learner. It is ideal to use a "true peer" group for non-discriminatory comparison of an individual's profile to another with similar language acquisition or cultural history.

The proposed Best Practice Framework (Flanagan, Ortiz & Alfonso, 2013) for evaluation of Els states that practitioners should be doing the following:

1. Assess and evaluate factors that affect opportunity to learn and age/grade-expected development (baseline functioning). This should include assessment of first and second language acquisition, type and length of formal schooling, opportunity for learning, exposure to language experiences, parental level of education, literacy, and socio-economic status.
2. Monitor and evaluate academic skills growth relative to true peers including native language (pre-referral evaluation). This includes directly examining the effectiveness of interventions and academic growth. In order to do this effectively, the practitioner should use authentic, informal data (i.e., work samples, portfolios) and formal data (i.e., MTSS/RTI progress monitoring, standardized test data).
3. Assess and evaluate construct validity in all areas in English first (exclusion of cultural/linguistic factors). If the data indicate average performance, a disability is unlikely. The C-LIM would be used here to determine if low scores are due to language abilities. Comparison to true-peers and expected performance should also be considered.
4. Re-Assess and re-evaluate construct validity in areas of poor performance in the native language (cross-linguistic evidence).
5. Cross-validate all data with contextual factors and pre-referral information. Use all the data and information available to ensure ecological validity.

Additionally, according to Sanchez, Rodriquez, Soto-Huerta, Villarreal, Guerra, and Flores (2013), recommend that bilingual students be assessed in both of their languages to accurately identify the presence or absence of a learning disability. The researchers also suggest a multi-dimensional approach to lessen the impact of measurement error and bias (Sanchez, et al., 2013).

Chapter III

Research Objectives

Currently, there are no real “best practice standards” or set of guidelines that offer structured procedures for conducting bilingual assessment that practitioners can follow in a reliable and valid way. Having a set of guidelines will hopefully create consistency for bilingual assessment across the nation. Currently, there are Fairness Standards, a NASP Position Statement, and a proposed Best Practice Framework to consider when conducting bilingual assessment or working with bilingual students. The present study seeks to evaluate what school psychologists are currently doing with regard to bilingual assessment and if school psychologists are following any of the proposed standards. Additionally, results will be analyzed to identify differences in practices of school psychologists from different regions of the United States, who speak different languages, have varying levels of education, and varying number of years working in the field. Specifically, the present study will seek to examine the following questions:

1. To what extent do school psychologists consider any or all of the following when completing a comprehensive psychoeducational evaluation with an English speaker or an English learner suspected of a specific learning disability;
2. How likely are school psychologists likely to recommend various types of general and special education services and instructional programs for a particular student in the form of a vignette.

Chapter IV

Methods

Participants and Procedures

Data were collected using the online Qualtrics survey platform. Participants were recruited via state professional organizations and social media (Facebook groups for School Psychologists). The survey (See Appendix A) was sent to the participants as a hyperlink to Qualtrics with a recruitment statement (See Appendix B). In order to consent to participation, participants were asked to agree to the consent statement (See Appendix A) by clicking yes or no at the beginning of the survey. Respondents for this study are certified school psychologists that work in a setting that requires them to conduct assessments as part of their responsibilities and currently practice in the United States. 265 school psychologists participated in completing the survey.

Measures

The 5-section survey begins with demographics questions followed by one of four versions of a randomized question regarding program recommendations. The first section collects information via multiple choice and open-ended responses. Demographic data were collected on the school psychologist's cultural and language background, their training history, work history, region where they work, and their gender. The first version contains a vignette with a Caucasian student, the second with an African American student, the third with a Spanish speaking student, and the fourth with an Asian American student, to determine if culture plays a role in school psychologist's service recommendations. 74 participants completed the first survey, 61 participants completed the second survey, 64 participants completed the third survey, and 66 participants

completed the fourth survey. The randomized vignette question is designed to mimic typical performance of an English learner in terms of general test performance and behavioral characteristics based on the Cultural Language Interpretive Matrix (C-LIM) and other researchers. Participants were asked to choose how likely they are (on a scale of 1-7, 1 representing the least likely and 7 representing the most likely) to recommend one or any of the following services:

- a. reinstitute ESL services
- b. remedial reading program in general education
- c. native language instruction – general education
- d. modifications to state exams
- e. additional ESL support in an inclusive model
- f. additional ESL support in a pull-out model
- g. small group instruction- Tier 2 general education
- h. intensive 1:1 instruction – Tier 3 general education
- i. resource room/small group instruction – special education
- j. intensive self-contained classroom - special education (12:1:2)
- k. intensive self-contained classroom - special education (7:1:2)
- l. Native language instruction support -special education
- m. Regional out-of-district placement in special education

The following questions asked practitioners to rate to what extent they rely on which pieces of information collected during their assessment in the form of a 1-10 choice Likert scale questionnaire (1 represents an item the practitioner would not at all rely on and 10 represents an item that a practitioner would heavily rely on). These questions are the same for each of the four different versions of the survey mentioned above. The above-mentioned survey question is the first part of the survey, and the following question is the second part of the survey. They were asked to rate the extent they rely on the following when completing an evaluation for a Vietnamese student, a Spanish student, an Arabic student, and a Somali student with similar cognitive profiles suspected of a specific learning disability:

- a. Native language evaluation Cognitive
- b. Native language evaluation Academic
- c. Non-verbal
- d. Use of interpreter
- e. Modified cognitive testing
- f. Evaluation in English-Cognitive
- g. Evaluation in English-Academic
- h. Informal measurement (CBA, progress monitoring, probes, etc.)
- i. Developmental history
- j. Language proficiency/dominance
- k. Classroom observation
- l. Student interview
- m. Teacher/parent interview
- n. Review of records
- o. Dynamic/Developmental Assessment
- p. Adaptive/Behavior assessment
- q. Social-emotional assessment

This method of surveying school psychologists is different than what research has done before in that the purpose of the randomized question is a way of controlling for favorable response bias.

Chapter V

Results**Demographics**

Table 1 represents the demographic data collected on the school psychologist's cultural and language background, if they conduct bilingual assessments, their training history, work history, and their gender. Compared to the demographics of school psychologists who are members of the National Association of School Psychologists, the demographic sample collected in this study is similar (Goforth et al., 2021). Results of the NASP 2020 demographics survey revealed that of 1,308 respondents, 1037 reported that they are not of an AMENA (Arab, Middle Eastern, North African) or Latinx origin. 100 respondents reported they are Hispanic or Latinx, 12 participants identified as AMENA, and 89 participants preferred not to self-describe. With regard to gender, 1,142 respondents were female, and 158 respondents were male. 286 participants reported that their highest degree earned in school psychologist is at the Doctoral level, 111 respondents have a master's degree only, and 867 respondents report they are at the specialist level (Goforth et al., 2021). Participants who completed the first part of the survey featuring a randomized vignette question also responded to the second part of the survey in the same order.

Table 1.

Demographic Characteristics of Participants

Demographics	English Only		Multilingual		Full sample	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Gender						
Male	19	9.3	8	13.6	27	10.2
Female	185	90.2	51	86.4	236	89.1
Bilingual Evaluator						
Yes	21	0.5	38	64.4	59	22.3

No	183	99.5	15	25.4	204	77
Missing					1	.4
Race						
Middle Eastern	0	0	1	1.7	1	.4
Black	4	2	0	0	4	1.5
Spanish	7	3.4	32	54.2	39	14.7
Asian	2	1	3	5.1	5	1.9
White	189	92.2	21	35.6	210	79.2
Mixed	2	1	2	3.4	4	1.5
Lebanese	1	0.5	0	0	1	.4
Degree						
Doctoral	75	36.6	18	30.5	93	35.1
Other Degrees	129	62.9	41	69.5	170	64.2
Missing					2	.8
Languages Spoken						
English Only	205	100	-	-	205	77.4
Spanish	-	-	41	69.5	41	15.5
Portuguese	-	-	1	1.7	1	.4
French and Italian	-	-	1	1.7	1	.4
Spanish+1	-	-	6	2.3	6	2.3
Hebrew	-	-	1	1.7	1	.4
Chinese Dialect	-	-	1	1.7	1	.4
French	-	-	2	3.4	2	.8
Hindi and Farsi	-	-	2	3.4	2	.8
German	-	-	1	1.7	1	.4
Other	-	-	2	3.4	2	.8
Years worked						
Early/Mid (1-15)	150	73.2	53	89.8	203	76.6
Late (16-25+)	55	26.8	6	10.2	61	23
Missing					1	.4

Analysis of Variance for Recommendations by Student Race/Ethnicity

Survey data were quantitatively analyzed through the use of an analysis of variance tests to compare responses of the school psychologists on the randomized vignette question (the first question on the survey). An ANOVA was used to reduce the spurious findings possible from the use of multiple T-Tests to analyze these results. Findings in this section assess practitioners' use of multiple sources of data to make program placement determinations as stated in the Standards for Educational and Psychological Testing, Version 2. ANOVA results indicate between groups significance

for reinstating ESL services ($F(3) = 11.01, p = <.001, \eta^2 = .03$), inclusive ESL support ($F(3) = 12.08, p = <.001, \eta^2 = .03$), and small group special education support ($F(3) = 6.26, p = <.001, \eta^2 = .03$). Dunnett T3 post hoc tests indicate that practitioners report differences in their responding when recommending reinstating ESL services for the Spanish student than the Black student with a mean difference (MD) of 1.31, the Caucasian student (MD= 1.87), and the Asian student (MD= 1.39). Dunnett T3 post hoc tests were used over others, like Bonferroni, because homogeneity of variances is violated. Additionally, practitioners report differences in their recommendations when endorsing inclusive ESL support for the Spanish student when compared to the Caucasian (MD= 1.80) student. Significant differences also exist between the Spanish and Black (MD= -1.12) and Caucasian (MD= -1.27) students when recommending small group special education support. Significant differences in program placement outcomes are presented in Table 2, no other results were significant. In the tables below, the n indicates the number of participants who endorsed the intervention/service, and the mean indicates the average response of the participants for that intervention/service. For example, in the table below, participants are saying that they would recommend reinstating ESL services at an average of 5.19 on a scale from 1-7 for the Spanish student.

Table 2.

Average Ratings of Recommendations by Participants for Significant Mean Differences

Recommended Interventions and Services	Spanish		Caucasian		Sig
	N	Mean	N	Mean	
a. Reinstitute ESL services	74	5.19	60	3.32	<.001
b. ESL support-inclusive model	73	5.78	60	3.98	<.001
c. Small group Special Ed instruction	73	2.71	58	3.98	<.001

	Caucasian		Asian		Sig
	N	Mean	N	Mean	

b. ESL support-inclusive model	73	3.98	63	5.27	<.001
	Spanish		Asian		
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>Sig</i>
a. Reinstitute ESL services	74	5.19	66	3.80	<.001
	Spanish		Black		
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>Sig</i>
a. Reinstitute ESL services	74	5.19	64	3.88	<.001
b. ESL support-inclusive model	73	5.78	64	4.69	<.001
c. Small group Special Education instruction	73	2.71	59	3.83	<.001

Note. The means are based on a likert scale where a rating of 1 indicates they would not recommend the intervention/service and 10 indicates they would absolutely recommend that intervention/service.

Comparison of Recommended Methods By Monolingual vs. Multilingual Ability

Results of the survey were analyzed through the use of a mixed factorial analysis of variance to identify differences between responses of multilingual school psychologists and English only speaking school psychologists. Multilingual school psychologists who responded to the survey report that they speak second languages such as Italian, Portuguese, French, Hebrew, Farsi, Hindi, Spanish, a Chinese dialect, Arabic, Vietnamese, and German.

Native Language Cognitive Evaluation

The between-subject effect for differences in responses between Monolingual (N=80) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of a cognitive assessment in the student's native language when conducting an assessment. However, pairwise comparisons indicate the hypothesis is not supported in that there are differences in responses among practitioners

who have varying language abilities. With regard to completing a cognitive evaluation in a student's native language, pairwise comparisons between practitioner responses for the Somali vignette and the other student races revealed the reliance on the cognitive evaluation in the student's native language is significant at the .05 level with a mean difference of -1.25 when compared to the responses for the Vietnamese vignette, -1.91 when compared with the Arabic vignette, and -1.97 when compared to the Spanish vignette when completing an evaluation.

Native Language Academic Evaluation

The between-subject effect for differences in responses between Monolingual (N=85) and Multilingual (N=21) school psychologists did not reach significance when reporting their reliance on the use of an academic assessment in the student's native language when conducting an evaluation. However, with regard to completing an academic evaluation in a student's native language, pairwise comparisons between practitioner responses revealed the reliance on the academic evaluation in the student's native language to be significant at the .05 level when comparing the responses for the Vietnamese vignette with the Arabic vignette (MD= -1.37), the Vietnamese vignette with the Spanish vignette responses (MD= -1.28), the Somali vignette with the Arabic vignette responses (MD= -1.70), and the Somali vignette responses with the Spanish vignette (MD= -1.61).

Nonverbal Assessment

The between-subject effect for differences in responses between Monolingual (N=86) and Multilingual (N=21) school psychologists did not reach significance when reporting their reliance on the use of a nonverbal assessment when conducting an

evaluation. However, when conducting a nonverbal evaluation, practitioner responses that reached significance at the .05 level through the use of pairwise comparisons for the reliance on nonverbal assessments include the Vietnamese vignette responses with the Somali student (MD= .97), the Vietnamese vignette responses with the Spanish vignette (MD= .95), the Somali student responses with the Arabic vignette (MD= -.74), and the Arabic vignette practitioner responses compared with the Spanish vignette (MD= .72).

Use of an Interpreter

The between-subject effect for differences in responses between Monolingual (N=79) and Multilingual (N=19) school psychologists did not reach significance when reporting their reliance on the use of an interpreter when conducting an evaluation. However, with regard to a practitioner's reliance on the use of an interpreter when completing an evaluation, pairwise comparisons that reached significance at the .05 level include the comparison between the Vietnamese vignette practitioner responses, and the Somali student (MD= 1.08), the Vietnamese vignette and the Spanish vignette (MD= .83), the Somali vignette and the Arabic vignette (MD= -1.78), and the Arabic vignette responses and the Spanish vignette (MD= 1.53).

Modified Cognitive Assessment

The between-subject effect for differences in responses between Monolingual (N=79) and Multilingual (N=19) school psychologists did not reach significance when reporting their reliance on the use of a modified cognitive assessment when conducting an evaluation. However, regarding the practitioner's reliance on the use of a modified cognitive assessment when completing an evaluation, the pairwise comparisons for the Arabic vignette when compared with the Vietnamese vignette reached significance at the

.05 level with a mean difference of .68 and with the Spanish vignette with a mean difference of .37.

Cognitive Evaluation in English

The between-subject effect for differences in responses between Monolingual (N=81) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of cognitive assessment in English when conducting an evaluation, determining eligibility and making service recommendations. However, considering the practitioner's reliance on the use of a cognitive evaluation in English when conducting an evaluation, the pairwise comparisons that reached significance at the .05 level include the Somali vignette with the Vietnamese vignette (MD= 1.08), the Arabic vignette (MD= 2.17), and the Spanish vignette (MD= 1.65). Additional significant comparisons include the Vietnamese vignette with the Arabic vignette (MD= 1.09), and the Spanish vignette with the Arabic vignette (MD= .53).

Academic Evaluation in English

The between-subject effect for differences in responses between Monolingual (N=81) and Multilingual (N=19) school psychologists did not reach significance when reporting their reliance on the use of an academic evaluation in English when conducting an evaluation. However, considering the practitioner's reliance on the academic evaluation in English when conducting an evaluation, the pairwise comparisons that reached significance at the .05 level include the Vietnamese vignette with the Somali student (MD= -.68), the Vietnamese vignette with the Arabic student (MD= 1.00), the Vietnamese vignette with the Spanish vignette (MD= .73), the Somali vignette and the

Arabic vignette (MD= 1.68), and the Somali vignette and the Spanish vignette (MD= 1.40).

Informal Measurement

The between-subject effect for differences in responses between Monolingual (N=80) and Multilingual (N=19) school psychologists did not reach significance when reporting their reliance on the use of informal assessment measures when conducting an evaluation. However, considering practitioners' reported reliance on the use of informal measurement when conducting an evaluation, pairwise comparisons that reached significance include the Arabic student practitioner responses compared with the Vietnamese vignette (MD= -.60) and compared with the Somali vignette practitioner responses (MD= -.75).

Developmental History

The between-subject effect for differences in responses between Monolingual (N=80) and Multilingual (N=19) school psychologists did not reach significance when reporting their reliance on the use of the developmental history when conducting an evaluation. However, regarding practitioners' reported reliance on the use of the developmental history when completing an evaluation, significant pairwise comparisons include the practitioner responses between the Vietnamese vignette and the Arabic vignette (MD= .59), the Somali vignette (MD= .58), and the Spanish vignette (MD= .78).

Student Interview

The between-subject effect for differences in responses between Monolingual (N=78) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of the information gathered from a student interview

when conducting an evaluation. However, when comparing responses for practitioners' reported reliance on the use of the information gathered from a student interview when conducting an evaluation, the significant pairwise comparisons include the Somali vignette compared with the Arabic vignette (MD = .51) and the Spanish vignette (MD = .33).

Teacher/Parent Interview

The between-subject effect for differences in responses between Monolingual (N=80) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of the information obtained from teacher and parent interviews when conducting an evaluation. However, when comparing responses of practitioners' reported reliance on the use of the information gathered from teacher and parent interviews when completing an evaluation, the significant pairwise comparisons include the Spanish vignette compared with the Vietnamese vignette (MD = -.57) and the Somali vignette (MD = -.45).

Dynamic Assessment

The between-subject effect for differences in responses between Monolingual (N=78) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of a dynamic assessment when conducting an evaluation. However, when comparing responses of practitioners' reported reliance on the use of dynamic assessment measures when conducting an evaluation, pairwise comparisons revealed a significant difference in responses when comparing the Arabic vignette and the Spanish vignette (MD = .49).

Adaptive Assessment

The between-subject effect for differences in responses between Monolingual (N=79) and Multilingual (N=18) school psychologists did not reach significance when reporting their reliance on the use of an adaptive assessment when conducting an evaluation. However, considering practitioners' reported reliance on the use of adaptive assessment measures when completing an evaluation, significant pairwise comparisons include the Arabic vignette with the Vietnamese vignette (MD= .63) and the Somali vignette (MD = .58).

In the tables below, the mean difference indicates the difference between the average response by the participants when rating how much they would rely on a particular method on a scale from 1-10. For example, in Table 3, mean difference of -1.25 suggests that participants are more likely to rely on the use of the native language cognitive evaluation for a Vietnamese student than they would for a Somali student.

Table 3.

Comparison of Recommended Methods by Monolingual vs. Multilingual Ability

	Pairwise comparison (i-j)	MD (i-j)
a. Native language cognitive evaluation	Somali – Vietnamese	-1.25
	Somali – Arabic	-1.91
	Somali – Spanish	-1.97
b. Native language academic evaluation	Vietnamese – Arabic	-1.37
	Vietnamese – Spanish	-1.28
	Somali – Arabic	-1.70
	Somali – Spanish	-1.61
c. Nonverbal assessment	Vietnamese – Somali	0.97
	Vietnamese – Spanish	0.95
	Somali – Arabic	-0.74
	Arabic – Spanish	0.72
d. Use of interpreter	Vietnamese – Somali	1.08
	Vietnamese – Spanish	0.83
	Somali – Arabic	-1.78
	Arabic – Spanish	1.53
e. Modified cognitive assessment	Arabic – Vietnamese	0.68
	Arabic – Spanish	0.37

	Somali – Vietnamese	1.08
	Somali – Arabic	2.17
f. Cognitive evaluation in English	Somali – Spanish	1.65
	Vietnamese – Arabic	1.09
	Spanish – Arabic	0.53
	Vietnamese – Somali	-0.68
	Vietnamese – Arabic	1.00
g. Academic evaluation in English	Vietnamese – Spanish	0.73
	Somali – Arabic	1.68
	Somali – Spanish	1.40
h. Informal measurement	Arabic – Vietnamese	-0.60
	Arabic – Somali	-0.75
i. Developmental history	Vietnamese – Arabic	0.59
	Vietnamese – Somali	0.78
j. Student interview	Somali – Arabic	0.51
	Somali – Spanish	0.33
k. Teacher/parent interview	Spanish – Vietnamese	-0.57
	Spanish – Somali	-0.45
l. Dynamic assessment	Arabic – Spanish	0.49
m. Adaptive behavior assessment	Arabic – Vietnamese	0.63
	Arabic – Somali	0.58

Note. The mean difference (MD) is based on the difference between the average responses on a likert scale where a 1 indicates the participants would not at all rely on the method and a 7 indicates they would very much rely on the method.

Comparison of Recommended Methods By Career Length

To determine if psychologist's level of experience has an influence on assessment decisions and recommendations, respondents were asked to report how many years they have been working as a school psychologist. Participants were organized into two groups, early career psychologists (1-15 years), and late career psychologists (16-25+ years). Results of the survey were analyzed through the use of a mixed factorial analysis of variance to identify significances as shown below.

Native Language Cognitive Evaluation

The between-subject effect for differences in responses between Early Career psychologists (N= 81, mean= 5.01) and Late Career psychologists (N= 27, mean= 6.62) is significant for practitioners' reliance on a cognitive evaluation in the student's native language when conducting an evaluation ($F(1) = 7.16, p = .009, \eta^2 = .06$).

Native Language Academic Evaluation

The between-subject effect for differences in responses between Early Career psychologists (N= 81, mean= 4.25) and Late Career psychologists (N= 27, mean= 6.14) is significant for practitioners' reliance on an academic evaluation in the student's native language when conducting an evaluation ($F(1) = 9.10, p = .003, \eta^2 = .08$).

In the tables below, the n indicates the number of participants who endorsed the method, and the mean indicates the average response of the participants for that method. For example, in the table below, Late Career psychologists are saying they would rely on the use of a native language cognitive evaluation more than the Early Career psychologists when they rated their reliance on the method on a scale from 1-10.

Table 4.
Comparison of Recommended Methods by Career Length

Method	Early Career		Late Career		
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>Sig</i>
a. Native language cognitive evaluation	81	5.01	27	6.62	.009
b. Native language academic evaluation	81	4.25	27	6.14	.003

Note. The means are based on a likert scale where a rating of 1 indicates they would not at all rely on the method and a 7 indicates they would very much rely on the method.

Comparison of Methods Recommended By Practitioner Education Level

To determine if psychologist's level of experience has an influence on assessment decisions and recommendations, respondents were asked to report their highest degree earned. Participants were organized into two groups, psychologists at the doctoral level and psychologists not at the doctoral level (i.e., masters, specialist degrees). Results of the survey were analyzed through the use of a mixed factorial analysis of variance to identify differences between responses of doctoral level school psychologists and psychologists with other degrees. The between-subject effect for differences in responses between psychologists with different degrees earned is not significant across all dependent variables.

Native Language Cognitive Evaluation

With regard to completing a cognitive evaluation in a student's native language, pairwise comparisons between practitioner responses for the Arabic student and the other student races revealed the reliance on the cognitive evaluation in the student's native language is significant at the .05 level with a mean difference of 1.32 when compared to the Vietnamese vignette, 2.26 when compared to the Somali vignette, and .85 when compared to the Spanish vignette. Additionally, practitioner responses are significantly different when comparing the means of the Somali vignette and the Vietnamese vignette (MD= -.94), and the Spanish vignette and the Somali vignette (MD= 1.41).

Native Language Academic Evaluation

With regard to completing an academic evaluation in a student's native language, pairwise comparisons between practitioner responses are statistically different at the .05 level when comparing the results of the Vietnamese student vignette with the Somali

vignette (MD= .50), the Arabic student with the Vietnamese student vignette (MD= 1.37), the Arabic vignette and the Somali vignette (MD= 1.86), the Spanish vignette with the Vietnamese vignette (MD= 1.19), and the Spanish vignette with the Somali student vignette (MD= 1.69).

Nonverbal Assessment

With regard to completing an evaluation with the use of a nonverbal assessment, pairwise comparisons between practitioner responses are statistically significant at the .05 level when comparing the results of the Vietnamese vignette and the Somali vignette (MD= 1.01), the Vietnamese and the Spanish vignettes (MD= .69), the Arabic vignette and the Somali vignette (MD= .88), and the Arabic vignette and the Spanish vignette (MD= .56).

Use of an Interpreter

With regard to a practitioner's reliance on the use of an interpreter when completing an evaluation, pairwise comparisons that reached significance at the .05 level include the comparison between the Vietnamese vignette practitioner responses and the Somali vignette (MD= 1.01), the Vietnamese vignette and the Arabic vignette (MD= 1.86), the Somali and the Arabic vignettes (MD= -1.87), the Somali and the Spanish vignettes (MD= -1.21), and the Arabic and Spanish vignettes (MD .66). With regard to determining eligibility, practitioners reported differences between the Vietnamese vignette and Somali vignettes (MD= .81), the Arabic and Somali vignettes (MD= 1.33), the Arabic and Spanish vignettes (MD= .63), and the Spanish and Somali vignettes (MD= .71).

Modified Cognitive Assessment

With regard to the reliance on the use of modified or altered cognitive assessments when completing an evaluation, practitioners report differences in their responses at the .05 level. These pairwise comparison differences exist between the Arabic vignette and the Vietnamese vignette (MD= .65), the Somali vignette (MD= .52), and the Spanish vignette (MD= .31).

Cognitive Evaluation in English

Considering the reliance of the use of cognitive assessments in English when completing an evaluation, practitioners report differences in their responses at the .05 level. Pairwise comparisons indicate differences between the Vietnamese vignette and the Arabic (MD= 1.14), Somali (MD= -.95), and the Spanish (MD= .65) vignettes. Additionally, there are differences between the Somali and Arabic (MD= 2.10) and Spanish (MD= 1.60) vignettes and the Spanish vignette when compared to the Arabic vignette (MD= .50).

Academic Evaluation in English

Practitioners report significant differences between their responses given the vignette with a Vietnamese student when compared to a vignette with an Arabic student with a mean difference of .96 when conducting an evaluation. Additional differences include the Spanish vignette compared to the Arabic vignette (MD= .66), and the Somali vignette compared to the Vietnamese vignette (MD=.97), the Arabic vignette (MD= 1.93), and the Spanish vignette (MD= 1.28).

Informal Measurement

Practitioners report differences between their reliance of the use of informal measurement on their responses of the Somali vignette when compared to the responses of the Arabic vignette (MD= .50) at the .05 level when conducting an evaluation.

Developmental History

When conducting an evaluation, practitioners report differences between their reliance on the use of the developmental history on their responses of the Vietnamese vignette when it is compared to the Somali (MD= .58), Arabic (MD= .57), and Spanish (MD=.83) vignettes according to pairwise comparisons at the .05 level.

Language Proficiency Determination

When conducting an evaluation, practitioners report differences between their reliance on the use of the language proficiency determination on their responses of the Vietnamese vignette when compared to the Somali vignette (MD= .32).

Classroom Observation

When conducting an evaluation, practitioners report differences between their reliance on the use of the classroom observation on their responses of the Vietnamese vignette when compared to the Somali (MD= .41), Arabic (MD= .36), and Spanish (MD= .55) vignettes.

Student Interview

Practitioners report significant differences between their responses regarding their reliance on the use of the student interview given the vignette with a Somali student when compared to the Arabic vignette (MD= .45) and the Spanish vignette (MD= .35) when conducting an evaluation.

Teacher/Parent Interview

Pairwise comparisons reveal significant differences between practitioners' reliance on the use of the parent/teacher interviews when conducting an evaluation when comparing the Vietnamese vignette with the Somali (MD= .23), Arabic (MD= .36), and Spanish (MD= .64) vignettes, and when comparing the Somali vignette with the Spanish vignette (MD= .41).

Adaptive Assessment

Pairwise comparisons reveal significant differences between practitioners' reliance on the use of an adaptive assessment when conducting an evaluation when comparing the results of the Somali vignette with the Arabic (MD= -.65) and Spanish (MD= -.50) vignettes.

In the tables below, the mean difference indicates the difference between the average response by the participants when rating how much they would rely on a particular method on a scale from 1-10. For example, in Table 5, mean difference of 1.32 suggests that participants are more likely to rely on the use of the native language cognitive evaluation for an Arabic student than they would for a Vietnamese student.

Table 5.

Comparison of Methods Recommended by Practitioner Education Level

	Pairwise comparison (i-j)	MD (i-j)
a. Native language cognitive evaluation	Arabic – Vietnamese	1.32
	Arabic – Somali	2.26
	Arabic – Spanish	0.85
	Somali – Vietnamese	-0.94
	Spanish – Somali	1.41
b. Native language academic evaluation	Vietnamese – Somali	0.50
	Arabic – Vietnamese	1.37
	Arabic – Somali	1.86
	Spanish – Vietnamese	1.19
	Spanish – Somali	1.69
	Vietnamese – Somali	1.01

c. Nonverbal assessment	Vietnamese – Spanish	0.69
	Arabic – Somali	0.88
	Arabic – Spanish	0.56
d. Modified cognitive assessment	Arabic – Vietnamese	0.65
	Arabic – Somali	0.51
	Arabic – Spanish	0.31
e. Cognitive evaluation in English	Vietnamese – Arabic	1.14
	Vietnamese – Somali	-0.95
	Vietnamese – Spanish	0.65
	Somali – Arabic	2.10
	Somali – Spanish	1.60
	Spanish – Arabic	0.50
f. Academic evaluation in English	Vietnamese – Arabic	0.96
	Spanish – Arabic	0.66
	Somali – Vietnamese	0.97
	Somali – Arabic	1.93
g. Informal measurement	Somali – Spanish	1.28
	Somali – Arabic	0.50
	Vietnamese – Somali	0.58
h. Developmental history	Vietnamese – Arabic	0.57
	Vietnamese – Spanish	0.83
i. Language proficiency determination	Vietnamese – Somali	0.32
	Vietnamese – Somali	0.41
j. Classroom observation	Vietnamese – Arabic	0.36
	Vietnamese – Spanish	0.55
	Somali – Arabic	0.45
k. Student interview	Somali – Spanish	0.35
	Vietnamese – Somali	0.23
l. Teacher/parent interview	Vietnamese – Arabic	0.36
	Vietnamese – Spanish	0.64
	Somali – Spanish	0.41
	Somali – Arabic	-0.65
m. Adaptive behavior assessment	Somali – Spanish	-0.50

Note. The mean difference (MD) is based on the difference between the average responses on a likert scale where a 1 indicates the participants would not at all rely on the method and a 7 indicates they would very much rely on the method.

Comparison of Recommended Methods by Geographic Region

Participants were asked to provide the zip code representing the city where they are conducting their assessments to determine if where the psychologist practices have an

influence on assessment decisions and recommendations. The zip codes were organized into four regions to represent the entire United States including the Northeast, South, West, and Midwest. The Northeast states include respondents from New York, Massachusetts, Pennsylvania, Connecticut, and New Jersey. The Southern states include school psychologists from Florida, Tennessee, Texas, Arkansas, West Virginia, Delaware, North Carolina, Kentucky, South Carolina, Louisiana, Georgia, and Alabama. The Western states include psychologists from Montana, Washington, Nevada, California, Arizona, and Oregon. The Midwestern states include respondents from Minnesota, Nebraska, Illinois, Indiana, Kansas, Ohio, Michigan, South Dakota, Wisconsin, Missouri, Minnesota, and Iowa. 111 participants are from the Northeast states, 48 participants are from the Midwest, 46 participants are from the West, and 53 participants are from the Southern states. Results of the survey were analyzed through the use of a mixed factorial analysis of variance to identify significances.

Cognitive Evaluation in English

Dunnett T3 post-hoc tests indicate differences in practitioner responses when relying on the use of the cognitive assessment in English when conducting an evaluation when comparing the responses from the Northeast psychologists and the psychologists from the Midwest (MD= 1.78).

Adaptive Assessment

Dunnett T3 post-hoc tests indicate significant differences in practitioner responses when relying on the use of an adaptive measure when the responses from the Western psychologists are compared to the Northeast (MD= -3.11) and the Southern (MD= -3.88) psychologists when conducting an evaluation.

In the tables below, the n indicates the number of participants who endorsed the method, and the mean indicates the average response of the participants for that method. For example, in the table below, psychologists from the Northeast are stating that they would rely more on the use of the Cognitive evaluation in English than the psychologists from the Midwest when they rated their reliance on the method on a scale from 1-10.

Table 6.
Comparison of Recommended Methods by Geographic Region

Methods	Northeast		Midwest		Sig
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
a. Cognitive evaluation in English	45	6.62	23	4.84	.020
b. Adaptive behavior assessment	West		Northeast		Sig
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
	7	2.36	45	5.47	.005
b. Adaptive behavior assessment	West		South		Sig
	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	
	7	2.36	17	6.42	.002

Note. The means are based on a likert scale where a rating of 1 indicates they would not at all rely on the method and a 7 indicates they would very much rely on the method.

Chapter VI

Discussion

Overall, survey data suggests that school psychologists, in general, do follow the proposed Best Practice Framework (Flanagan, Ortiz & Alfonso, 2013) and Fairness Standards from the Standards for Educational and Psychological Testing, Version 2. However, there are significant differences in assessment practices, learning disability determinations, and program recommendations among practitioners of varying work experiences, levels of education, regions in which they work, services they provide, and languages they speak.

Comparison of Recommendations Based on Randomized Student Race/Ethnicity

Practitioners report differences in their recommendations when endorsing a number of items and these differences are based solely on the student's race/ethnicity. Dunnett T3 post hoc tests reveal that practitioners are more likely to recommend ESL services for the Spanish student than any of the other races presented. There is more hesitancy to recommend small-group special education instruction for Spanish speakers. This is a clear example of bias in recommendations as there should not be any difference in how these students are provided services. And while the Spanish students are being recommended for ESL services, Caucasian and Black students with similar cognitive profiles are being recommended for small group special education support. It is possible that due to the differences in recommendations, the students will have different educational outcomes, challenging the principals of school psychologists' practice consistent with current research.

Comparison of Recommended Methods by Monolingual vs. Multilingual Ability

Responses between Monolingual school psychologists and Multilingual school psychologists did not significantly differ. However, their overall responses showed significant pairwise comparisons indicating that the practitioners are responding with differences based solely on the student's race. Spanish students are more likely to have their cognitive evaluation completed in their native language than the Vietnamese student, the Somali student, or the Arabic student. This could be due to many respondents' familiarity with the cognitive assessments available for use in Spanish and that there are fewer assessments in Arabic, Vietnamese, and Somali languages. Regardless, this is an example of bias in practice in that the Spanish students are possibly receiving a more accurate evaluation. Additionally, practitioners' responses indicate variability in which students have their native language cognitive evaluation considered more than others, posing another example of bias. The same is true with practitioner responses for their reliance on the use of an academic evaluation in the student's native language, nonverbal evaluations, use of an interpreter, cognitive and academic evaluations in English, and adaptive measures. Given that the cognitive profiles of all the students presented in the vignettes were similar, responses in how school psychologists approach and complete each case is not the same across all practices.

Comparison of Recommended Methods by Career Length

Early/Mid-Career practitioners represent the portion of participants who have reported that they have been working in this field anywhere from 1-15 years. Late-Career practitioners are those who reported they have been working for 16 or more years. Between subject effect differences between these groups are significant for their

responses when relying on the use of cognitive and academic evaluations in the student's native language and their reliance on the information gathered from social/emotional assessments. Results of the mixed factorial analysis of variance indicates that the late career psychologists are more likely to rely on the use of cognitive and academic assessments in the student's native language than the early career psychologists when conducting an evaluation. This could be because late career psychologists have possibly had more experience working with native language assessments and are therefore more comfortable to use them in practice. These results suggest that evaluation outcomes will be different depending on the psychologists that conducts the assessment. This is not consistent with best practice standards and will affect the student's educational outcomes.

Comparison of Methods Recommended by Practitioner Education Level

Participants were organized into two groups, psychologists at the doctoral level and psychologists not at the doctoral level (i.e., masters, specialist degrees) to determine if education level has an effect on assessment decisions and recommendations. Repeated measures ANOVA results indicated a number of significant pairwise comparisons indicating that there were no differences between level of education on responding but that the psychologists did respond differently based on the given student race at different points of the assessment process. The variation between which assessments practitioners rely on most is present for mostly all the dependent variables. The presence of any significant differences in these results indicate that there is bias in practice. As a student, it should be expected that your assessment results would be the same no matter who completes your assessment. However, the results indicate that this is not the case. For example, the data shows that practitioners are more likely to rely on the use of an

interpreter more for conducting an evaluation on a Vietnamese student than they would for a Somali student. Practitioners are possibly reporting that they are more confident to use an interpreter who speaks Vietnamese than they would a Somali interpreter, but this would have practice effects on the results of the assessment. Additionally, practitioners are reporting that they are more likely to rely on the use of the information gathered from a developmental history report for a Vietnamese student than they would for the Somali, Spanish, or Arabic student. There should be no reason why this is the case. The information gathered in a student's developmental history should hold the same significance for every student, but school psychologists are not reporting with consistency.

Comparison of Recommended Methods by Geographic Region

Practitioners reported the zip code in which they work in, and the respondents were organized into four different regions of the United States, the Northeast, the Midwest, the South, and the West. Differences exist between practitioner responses when relying on the use of a nonverbal assessment when conducting an evaluation. Practitioners from the Northeast are more likely to consider the use of a cognitive evaluation in English than practitioners from the Midwest. Practitioners from the Western states report more reliance on the use of an academic evaluation in English than the practitioners from the Midwestern states.

Additionally, practitioner responses when determining their reliance on the use of the adaptive assessment shows significant between-subject effects. This suggests that practitioners in the South tend to rely more heavily on the use of the adaptive assessment for all three stages of the evaluation process. Additionally, post-hoc tests indicate that

practitioners in the West are less likely to rely on the use of the adaptive assessment than the practitioners in the Northeast or the South when conducting an evaluation and making eligibility. Adaptive assessments are an important tool used to look at a student's adaptive capabilities in different domains (i.e., social, practical, conceptual). If a student has low scores on an adaptive measure and low scores on a cognitive measure, this could be evidence of an intellectual disability. Differences in the reliance on this measure can have detrimental impacts on a student's educational plan if not done correctly. It should not be the case that the location where the student lives has any effect on the results of their evaluation.

When examining more clearly the issue of practice and what practitioners are doing when they encounter different variables in the equation of the evaluation, the results show that practitioner methods vary as a function of the demographic variables of the participants. When evaluating a student who speaks a language the practitioner is unfamiliar with, they are more likely to use modified assessment procedures including using nonverbal assessments, interpreters, interviews, records reviews, and observations rather than the native language or English cognitive and academic evaluations.

Overall, results of the survey suggest the possibility that there is a lack of cohesive framework or common procedures that exist in school psychology when applied to individuals from diverse linguistic backgrounds. The notion of "bilingual assessment" does not seem to have any coherent definition that is being applied in a systematic and equivalent way across evaluations on linguistically diverse students. Most of the "bilingual assessment" in practice seems to apply only with Spanish speakers when the use of tools is indicated as being important only for Spanish, but not for any speakers of

the other languages. This could be partially because other language tools do not exist, but it may well point to the fact that there simply is no consensus as to what “bilingual assessment” means. Therefore, it is not clear as to what steps should be taken once Spanish is not the language of the student being evaluated. For both Spanish and other languages, this lack of coherence represents a severe indictment of practice.

Limitations

Limitations to this study include that there is an increased likelihood of finding statistically significant results given the large number of mean comparisons made. This research also only includes school psychologists, however, in some school districts, special education teachers are responsible for conducting the academic or achievement assessments, the school social worker conducts developmental histories, and so on. It is possible that the results may vary among different types of disciplines.

An additional limitation would include the format in which the survey was designed. The device the participant used to complete the questionnaire may have impacted the responses. For example, if a participant was using a computer, the survey is presented in a matrix format which may result in a participant streamlining their answers and selecting the same response choice through the matrix chart. Another reason is that the matrix chart may be overwhelming for participants which increased participant fatigue and dropout. This was evidenced by the decreasing number of participants who completed the entire survey. The matrix questions in the later part of the survey were less likely to have responses than the earlier ones. This also effects the results in that there is a different sample of participants responding to each of the questions.

Furthermore, the order in which the participants received the vignettes was the same across all surveys. However, it may have been beneficial to randomize the order the participants saw each vignette to reduce practice effects. Their results would likely be different if the participants were given the vignettes in a randomized order.

Important to note is the participant's understanding of Vignette 4, containing the Spanish student, then the others. Since most bilingual participants were Spanish speaking, it is Vignette 4 that likely has the most validity due to having the most practitioners with experience in conducting such evaluations.

Another limitation is that participants may have responded favorably to the survey because they wanted to be perceived as "doing the right thing" and not an actual reflection of their practices.

Suggestions for Future Research

It would be interesting to continue this research into smaller details, for example, comparing means of practitioners who work in public or private schools, size of the practitioners' case load, or specifics on how the practitioners were trained to see how these differences impact the nature of the results. Additionally, are the practitioners who work in schools with a district focus on diversity, equity, and inclusion, following the practice recommendations more or less than others. Also, how do these standards compare to the rest of the world? Are school psychologists in other countries practicing with similar ethics than the practitioners in this study?

Chapter VII

Implications for School Psychology

Important findings from this research reflect clear differences in practices between different types of psychologists which could be having a negative impact on English Language Learners. Theoretically, when a psychologist conducts a standardized cognitive assessment on a student and another psychologist would be expected to yield similar results. However, if the practices are inherently different, then the results and following recommendations practitioners make may be inaccurate or misleading. For example, the English only speaking school psychologists have been found to be more likely to rely on the use of an interpreter. If the interpreter is not trained in the types of assessments being conducted, as research suggests they are not (O'Bryon & Rogers, 2010), it is likely that the assessment will yield different results than if a psychologist of the same language as the student was conducting the assessment. Moreover, results of the survey suggest that multilingual school psychologists are likely to rely more heavily on the results of a student interview during assessment than the English only speaking psychologists. Differences between whether or not the school psychologist conducts bilingual assessments revealed that practitioners who only conduct assessments in English are more likely to rely on cognitive evaluations in English in some cases. For students who are learning to speak English, a heavy reliance on English only cognitive assessment results may lead to inappropriate placement decisions. Years of experience also shows some bias with responding. Late career school psychologists generally rely more heavily on results of adaptive and behavior assessments than early/mid-career

psychologists. More research on the development of school psychology graduate programs would be needed to determine why these differences may exist.

The results of the randomized vignette questions confirmed the biases discussed in research regarding the presence of disproportionality in special education (Kincaid & Sullivan, 2017). These results are concerning given the harm biases in placement decisions, special education determination, and recommendations can cause. Examples include that school psychologists reported that they are more likely to recommend ESL support for Black students than Caucasian students when no information regarding the language background of the Black student was provided. Additionally, ESL support is more likely to be recommended for Spanish students and Black students than Asian students with the same cognitive and academic profile.

According to the National Association of School Psychologists (NASP):

NASP recognizes the critical importance of establishing best practices in the provision of school psychology services when working with English language learners. This includes supporting students with diverse backgrounds by using culturally and linguistically Schools are expected to provide effective and comprehensive supports and services to emotionally. School psychologists should ensure that prevention, assessment, students are implemented effectively. (NASP, 2015, pp. 1)

School psychologists are responsible for providing fair, reliable, accurate, un-biased assessment for all students. Standards exist for most other constructs that fall under the responsibilities of a school psychologist. It is just as important for a set of standards for bilingual assessment to exist to create consistency in practice.

Additionally, from a survey of 480 practitioners, 12% identified as bilingual, while 86% reported that they regularly evaluate students who are culturally and linguistically diverse (Sotelo, Cuskley, Geddes, McSwiggan & Soldano, 2011). It is imperative that school psychologists are better prepared to conduct assessments with this population as literature shows the number of ELL and CLD students across the nation are increasing. An identified set of standards that are utilized by school psychologists across the nation may help to standardize assessment practices for English Learners in the same way that school psychologists know how to conduct assessments for native English speakers.

Appendix A

It is common, but undocumented knowledge that bilingual assessment practices vary considerably between practitioners. This survey will explore the practices of current school psychologists with regard to assessment of bilingual or culturally and linguistically diverse students. This study is being conducted by Noelle Ferrara as part of her dissertation research within the department of Psychology at St. John's University under the supervision of Dr. Samuel Ortiz.

By choosing to participate in this study, you will be asked to complete an online survey regarding your current bilingual assessment practices that should take approximately 10-20 minutes of your time. There are no known risks associated with your participation in this research beyond those of everyday life. This research will help us understand the cognitive assessment practices and procedures of current school psychologists across the country. Furthermore, the results of this survey will provide clarity into school psychologists' bilingual assessment practices and provide insight to best practices that may qualify for standards in the future. Additionally, if you choose to enter your email address at the end of the survey, you will be entered into a drawing for one of 4 Amazon \$100 gift cards.

Considering that no identifying information will be requested, your responses to the survey will be completely anonymous. Please be advised that your participation in this study is voluntary, and you may refuse to participate or withdraw at any time without penalty. You also have the right to skip or not answer any question that you prefer not to answer.

If there is anything about the study, or your participation that is unclear, or that you do not understand, or if you have questions or wish to report a research related problem you may contact Noelle Ferrara (Noelle.ferrara12@stjohns.edu) or Dr. Samuel Ortiz.

By clicking yes, you are agreeing to participate in this survey. We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study.

Section 1: Personal/Background Information

1. Please identify your gender
 - a. Male
 - b. Female
 - c. Other: _____

2. Which racial/ethnic group do you identify?
 - a. American Indian or Alaska Native
 - b. Black or African American
 - c. Spanish or Latino
 - d. Native Hawaiian or Other Pacific Islander

- e. Asian American
 - f. White/Caucasian
 - g. Other: _____
3. Please indicate your highest degree earned:
- a. Masters
 - b. Doctoral
 - c. Specialist Degree – 45+ credit/hours
 - d. Specialist Degree- 60+ credit/hours
 - e. Specialist Degree- 70+ credit/hours
 - f. other
4. Languages other than English that you speak fluently (check all that apply)
- a. I only speak English
 - b. Spanish
 - c. Mandarin
 - d. French
 - e. German
 - f. Vietnamese
 - g. Other: _____
5. Zip code
- a. (Insert state)
6. Do you consider yourself to be a bilingual school psychologist?
7. If yes, what languages other than English do you evaluate?
8. Do you provide bilingual assessment services?
- a. Yes
 - b. No
9. How many years have you worked as a school psychologist?
- a. 1-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. 21-25
 - f. 25+

Section 2

Randomized question 1:

A comprehensive evaluation on a 9-year-old *Spanish English learner* student produced the following results:

1. General Ability level = 81
2. Non-verbal test results = 94
3. Test scores for English language acquisition = 69
4. Reading and writing test scores in English = 79, 72
5. Passed state exam for English proficiency in third grade
6. Well below grade level expectations on state exams
7. Socially slow to warm up
8. Previous diagnoses of social anxiety and generalized anxiety

Based on the information above, how likely would you be to recommend any or all of the following instructional intervention services for this student?

1. Remedial reading program in general education
2. reinstitute ESL services
3. native language instruction – general education
4. modifications to state exams
5. additional ESL support in an inclusive model
6. additional ESL support in a pull-out model
7. small group instruction- Tier 2 general education
8. intensive 1:1 instruction – Tier 3 general education
9. resource room/small group instruction – special education
10. intensive self-contained classroom (12:1:2) - special education
11. intensive self-contained classroom (7:1:2) - special education
12. Native language instruction support -special education
13. Regional out-of-district placement in special education

Randomized question 2:

A comprehensive evaluation on a 9-year-old *Caucasian English speaker* produced the following results:

9. General Ability level = 81
10. Non-verbal test results = 94
11. Test scores for English language acquisition = 69
12. Reading and writing test scores in English = 79, 72
13. Passed state exam for English proficiency in third grade
14. Well below grade level expectations on state exams
15. Socially slow to warm up
16. Previous diagnoses of social anxiety and generalized anxiety

Based on the information above, how likely would you be to recommend any or all of the following instructional intervention services for this student?

14. Remedial reading program in general education
15. reinstitute ESL services
16. native language instruction – general education
17. modifications to state exams
18. additional ESL support in an inclusive model

19. additional ESL support in a pull-out model
20. small group instruction- Tier 2 general education
21. intensive 1:1 instruction – Tier 3 general education
22. resource room/small group instruction – special education
23. intensive self-contained classroom (12:1:2) - special education
24. intensive self-contained classroom (7:1:2) - special education
25. Native language instruction support -special education
26. Regional out-of-district placement in special education

Randomized question 3:

A comprehensive evaluation on a 9-year-old *African American student* produced the following results:

17. General Ability level = 81
18. Non-verbal test results = 94
19. Test scores for English language acquisition = 69
20. Reading and writing test scores in English = 79, 72
21. Passed state exam for English proficiency in third grade
22. Well below grade level expectations on state exams
23. Socially slow to warm up
24. Previous diagnoses of social anxiety and generalized anxiety

Based on the information above, how likely would you be to recommend any or all of the following instructional intervention services for this student?

27. Remedial reading program in general education
28. reinstitute ESL services
29. native language instruction – general education
30. modifications to state exams
31. additional ESL support in an inclusive model
32. additional ESL support in a pull-out model
33. small group instruction- Tier 2 general education
34. intensive 1:1 instruction – Tier 3 general education
35. resource room/small group instruction – special education
36. intensive self-contained classroom (12:1:2) - special education
37. intensive self-contained classroom (7:1:2) - special education
38. Native language instruction support -special education
39. Regional out-of-district placement in special education

Randomized question 4:

A comprehensive evaluation on a 9-year-old *Asian American student* produced the following results:

25. General Ability level = 81
26. Non-verbal test results = 94
27. Test scores for English language acquisition = 69
28. Reading and writing test scores in English = 79, 72

29. Passed state exam for English proficiency in third grade
30. Well below grade level expectations on state exams
31. Socially slow to warm up
32. Previous diagnoses of social anxiety and generalized anxiety

Based on the information above, how likely would you be to recommend any or all of the following instructional intervention services for this student?

40. Remedial reading program in general education
41. reinstitute ESL services
42. native language instruction – general education
43. modifications to state exams
44. additional ESL support in an inclusive model
45. additional ESL support in a pull-out model
46. small group instruction- Tier 2 general education
47. intensive 1:1 instruction – Tier 3 general education
48. resource room/small group instruction – special education
49. intensive self-contained classroom (12:1:2) - special education
50. intensive self-contained classroom (7:1:2) - special education
51. Native language instruction support -special education
52. Regional out-of-district placement in special education

Section 3

- A. 8-year-old third grader with reading and writing difficulties, suspected of SLD. The student is an English learner who started in kindergarten as a non-English speaker. The student is now moderately high proficiency in English and all instruction has been in English, including ESL, since kindergarten. Parents are of low SES background and are native Vietnamese speakers.
1. In conducting a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to complete your evaluation regarding a specific learning disability? (Indicate any/all that apply):
 - i. Native language evaluation- Cognitive
 - ii. Native language evaluation- Academic
 - iii. Non-verbal evaluation
 - iv. Use of interpreter
 - v. Modified/altered testing- Cognitive
 - vi. Evaluation in English -Cognitive
 - vii. Evaluation in English -Academic
 - viii. Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 - ix. Developmental history
 - x. Language proficiency/dominance
 - xi. Classroom observation

- xii. Student interview
 - xiii. Teacher/parent interview
 - xiv. Review of records
 - xv. Dynamic/Developmental Assessment
 - xvi. Adaptive/Behavior assessment
 - xvii. Social-emotional assessment
2. After completing a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to make your determination regarding the presence of a learning disability? (Indicate any/all that apply):
- i. Native language evaluation- Cognitive
 - ii. Native language evaluation- Academic
 - iii. Non-verbal evaluation
 - iv. Use of interpreter
 - v. Modified/altered testing- Cognitive
 - vi. Evaluation in English -Cognitive
 - vii. Evaluation in English -Academic
 - viii. Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 - ix. Developmental history
 - x. Language proficiency/dominance
 - xi. Classroom observation
 - xii. Student interview
 - xiii. Teacher/parent interview
 - xiv. Review of records
 - xv. Dynamic/Developmental Assessment
 - xvi. Adaptive/Behavior assessment
 - xvii. Social-emotional assessment
3. After making a determination if the student does or does not have a specific learning disability, to what extent would you rely on any or all of the following to provide appropriate intervention/service recommendations? (Indicate any/all that apply)
- i. Native language evaluation- Cognitive
 - ii. Native language evaluation- Academic
 - iii. Non-verbal evaluation
 - iv. Use of interpreter
 - v. Modified/altered testing- Cognitive
 - vi. Evaluation in English -Cognitive
 - vii. Evaluation in English -Academic
 - viii. Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 - ix. Developmental history
 - x. Language proficiency/dominance

- xi. Classroom observation
- xii. Student interview
- xiii. Teacher/parent interview
- xiv. Review of records
- xv. Dynamic/Developmental Assessment
- xvi. Adaptive/Behavior assessment
- xvii. Social-emotional assessment

B. 9-year-old fourth grader with math difficulties, suspected of SLD. The student is an English learner who started in kindergarten as a non-English speaker. The student is now moderately low proficiency in English and all instruction has been in **English**, including ESL, since kindergarten. Parents are of low SES background and are native Spanish speakers.

1. In conducting a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to complete your evaluation regarding a specific learning disability? (Indicate any/all that apply):

- i. Native language evaluation- Cognitive
- ii. Native language evaluation- Academic
- iii. Non-verbal evaluation
- iv. Use of interpreter
- v. Modified/altered testing- Cognitive
- vi. Evaluation in English -Cognitive
- vii. Evaluation in English -Academic
- viii. Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
- ix. Developmental history
- x. Language proficiency/dominance
- xi. Classroom observation
- xii. Student interview
- xiii. Teacher/parent interview
- xiv. Review of records
- xv. Dynamic/Developmental Assessment
- xvi. Adaptive/Behavior assessment
- xvii. Social-emotional assessment

2. After completing a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to make your determination regarding the presence of a learning disability? (Indicate any/all that apply):

- Native language evaluation- Cognitive
- Native language evaluation- Academic
- Non-verbal evaluation
- Use of interpreter

Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

3) After making a determination if the student does or does not have a specific learning disability, to what extent would you rely on any or all of the following to provide appropriate intervention/service recommendations? (Indicate any/all that apply)

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

- C. 8-year-old third grader with reading and writing difficulties, suspected of SLD. The student is an English learner who started in kindergarten as a non-English speaker. The student is now moderately low proficiency in English and all instruction is in English, including ESL, since kindergarten. Parents are of low SES background and are native Arabic speakers.

1. In conducting a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to complete your evaluation regarding a specific learning disability? (Indicate any/all that apply):

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

- 2) After completing a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to make your determination regarding the presence of a learning disability? (Indicate any/all that apply):

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

3)After making a determination if the student does or does not have a specific learning disability, to what extent would you rely on any or all of the following to provide appropriate intervention/service recommendations? (Indicate any/all that apply)

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

D. 11-year-old fifth grader with reading and writing difficulties, suspected of SLD. English learner, started in kindergarten as a non-English speaker but the student is now moderately high proficiency in English. The student received all instruction in English, including ESL, since kindergarten. Parents are of high SES background and are native Somali speakers.

1)In conducting a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to complete your evaluation regarding a specific learning disability? (Indicate any/all that apply):

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview

Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

2) After completing a comprehensive evaluation on this student, to what extent would you rely on any or all of the following to make your determination regarding the presence of a learning disability? (Indicate any/all that apply):

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview
 Teacher/parent interview
 Review of records
 Dynamic/Developmental Assessment
 Adaptive/Behavior assessment
 Social-emotional assessment

3) After making a determination if the student does or does not have a specific learning disability, to what extent would you rely on any or all of the following to provide appropriate intervention/service recommendations? (Indicate any/all that apply)

Native language evaluation- Cognitive
 Native language evaluation- Academic
 Non-verbal evaluation
 Use of interpreter
 Modified/altered testing- Cognitive
 Evaluation in English -Cognitive
 Evaluation in English -Academic
 Informal measurement (i.e., CBA, progress monitoring, probes, etc.)
 Developmental history
 Language proficiency/dominance
 Classroom observation
 Student interview

Teacher/parent interview
Review of records
Dynamic/Developmental Assessment
Adaptive/Behavior assessment
Social-emotional assessment

Appendix B

Recruitment Letter: Social Media 1

Hi! My name is Noelle Ferrara, and I am presently a doctoral candidate in the school psychology program at St. John's University in New York. I am writing to request your assistance with my dissertation study investigating school psychologist's cognitive and academic assessment practices.

If you are a practicing School Psychologist, please help me collect data for my dissertation by completing the survey in the link below. If you choose to enter your email at the end of the survey, you will be entered to win one of four available \$100 Amazon gift cards:

https://stjohns.az1.qualtrics.com/jfe/form/SV_2toFJAPWzbPL6fj

Please note: this link works best when accessed on a desktop device, rather than mobile.

The survey should take less than 15 minutes to complete. By completing the electronic survey, you will have voluntarily agreed to participate in this study, which will be carried out by Noelle Ferrara, M.S., under the supervision of Samuel Ortiz, Ph.D., Professor of Psychology, at St. John's University. There are no known risks or consequences anticipated for participants of this study. You may refuse to participate or withdraw from the study at any time; there are no penalties for not participating. All survey data will be stored in a secure website database available only to us.

We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study. If you have any questions, please do not hesitate to contact me at Noelle.ferrara12@stjohns.edu or Dr. Samuel Ortiz.

Please allow me to thank you in advance for your cooperation.

Respectfully,

Noelle Ferrara

Doctoral Candidate, Graduate Program in School Psychology

Recruitment Letter: Social Media 2

Hi! My name is Noelle Ferrara, and I am presently a doctoral candidate in the school psychology program at St. John's University in New York. I am writing to request your assistance with my dissertation study investigating school psychologist's cognitive and academic assessment practices.

If you are a practicing School Psychologist, please help me collect data for my dissertation by completing the survey in the link below. If you choose to enter your

email at the end of the survey, you will be entered to win one of four available \$100 Amazon gift cards:

https://stjohns.az1.qualtrics.com/jfe/form/SV_06dyUXtEXMlemEZ

Please note: this link works best when accessed on a desktop device, rather than mobile.

The survey should take less than 15 minutes to complete. By completing the electronic survey, you will have voluntarily agreed to participate in this study, which will be carried out by Noelle Ferrara, M.S., under the supervision of Samuel Ortiz, Ph.D., Professor of Psychology, at St. John's University. There are no known risks or consequences anticipated for participants of this study. You may refuse to participate or withdraw from the study at any time; there are no penalties for not participating. All survey data will be stored in a secure website database available only to us.

We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study. If you have any questions, please do not hesitate to contact me at Noelle.ferrara12@stjohns.edu or Dr. Samuel Ortiz.

Please allow me to thank you in advance for your cooperation.

Respectfully,
Noelle Ferrara
Doctoral Candidate, Graduate Program in School Psychology

Recruitment Letter: Social Media 3

Hi! My name is Noelle Ferrara and I am presently a doctoral candidate in the school psychology program at St. John's University in New York. I am writing to request your assistance with my dissertation study investigating school psychologist's cognitive and academic assessment practices.

If you are a practicing School Psychologist, please help me collect data for my dissertation by completing the survey in the link below. If you choose to enter your email at the end of the survey, you will be entered to win one of four available \$100 Amazon gift cards:

https://stjohns.az1.qualtrics.com/jfe/form/SV_6saXofvvCME8amF

Please note: this link works best when accessed on a desktop device, rather than mobile.

The survey should take less than 15 minutes to complete. By completing the electronic survey, you will have voluntarily agreed to participate in this study, which will be carried out by Noelle Ferrara, M.S., under the supervision of Samuel Ortiz, Ph.D., Professor of Psychology, at St. John's University. There are no known risks or consequences anticipated for participants of this study. You may refuse to participate or withdraw from

the study at any time; there are no penalties for not participating. All survey data will be stored in a secure website database available only to us.

We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study. If you have any questions, please do not hesitate to contact me at Noelle.ferrara12@stjohns.edu or Dr. Samuel Ortiz.

Please allow me to thank you in advance for your cooperation.

Respectfully,
Noelle Ferrara
Doctoral Candidate, Graduate Program in School Psychology

Recruitment Letter: Social Media 4

Hi! My name is Noelle Ferrara, and I am presently a doctoral candidate in the school psychology program at St. John's University in New York. I am writing to request your assistance with my dissertation study investigating school psychologist's cognitive and academic assessment practices.

If you are a practicing School Psychologist, please help me collect data for my dissertation by completing the survey in the link below. If you choose to enter your email at the end of the survey, you will be entered to win one of four available \$100 Amazon gift cards:

https://stjohns.az1.qualtrics.com/jfe/form/SV_73cUEFKWTNGtFwF

Please note: this link works best when accessed on a desktop device, rather than mobile.

The survey should take less than 15 minutes to complete. By completing the electronic survey, you will have voluntarily agreed to participate in this study, which will be carried out by Noelle Ferrara, M.S., under the supervision of Samuel Ortiz, Ph.D., Professor of Psychology, at St. John's University. There are no known risks or consequences anticipated for participants of this study. You may refuse to participate or withdraw from the study at any time; there are no penalties for not participating. All survey data will be stored in a secure website database available only to us.

We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study. If you have any questions, please do not hesitate to contact me at Noelle.ferrara12@stjohns.edu or Dr. Samuel Ortiz.

Please allow me to thank you in advance for your cooperation.

Respectfully,
Noelle Ferrara
Doctoral Candidate, Graduate Program in School Psychology

Recruitment Letter: Professional Organizations 1

Greetings! My name is Noelle Ferrara, and I am presently a doctoral candidate in the school psychology program at St. John's University in New York. I am writing to request your assistance with my dissertation study investigating school psychologist's cognitive and academic assessment practices. More specifically, I have begun researching patterns at which school psychologists make decisions for individual students given their profile. This research study aims to collect more concrete information about how school psychologists conduct assessments for their students.

Please help me collect data for my study by posting the following message on your list-serve and/or website:

Dear School Psychologists,

If you are a practicing School Psychologist, please help me collect data for my dissertation by completing the survey in the link below. If you choose to enter your email at the end of the survey, you will be entered to win one of four available \$100 Amazon gift cards:

https://stjohns.az1.qualtrics.com/jfe/form/SV_2toFJAPWzbPL6fj

Please note: this link works best when accessed on a desktop device, rather than mobile.

The survey should take less than 15 minutes to complete. By completing the electronic survey, you will have voluntarily agreed to participate in this study, which will be carried out by Noelle Ferrara, M.S., under the supervision of Samuel Ortiz, Ph.D., Professor of Psychology, at St. John's University. There are no known risks or consequences anticipated for participants of this study. You may refuse to participate or withdraw from the study at any time; there are no penalties for not participating. All survey data will be stored in a secure website database available only to us.

We know your time is valuable and limited; therefore, we sincerely appreciate your participation in this research study. If you have any questions, please do not hesitate to contact me at Noelle.ferrara12@stjohns.edu or Dr. Samuel Ortiz.

Please allow me to thank you in advance for your cooperation.

Respectfully,

Noelle Ferrara

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Recruitment Letter: Professional Organizations 2

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Recruitment Letter: Professional Organizations 3

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References

- AERA, APA, & NCME. (2014). Standards for educational and psychological testing. Washington, DC: AERA.
- Constantine, M., & Yeh, C. (2001). Multicultural training, self-construals, and multicultural competence of school counselors. *Professional School Counseling, 4*(3), 202-207.
- Dever, B., Raines, T., Dowdy, E., & Hostutler, C. (2016). Addressing disproportionality in special education using a universal screening approach. *The Journal of Negro Education, 85*(1), 59-71.
- Ding, Y., Cho, S., Wang, J., & Yu, Q. (2019). Training of bilingual school psychologists in the united states: A culturally and linguistically responsive approach. *School Psychology International, 40*(3), 235-250.
- Flanagan, D.P., Ortiz, S.O. & Alfonso, V.C. (2013). Essentials of Cross-Battery Assessment, 3rd Edition with CD-ROM. New York: John Wiley & Sons, Inc.
- Goforth, A. N., Farmer, R. L., Kim, S. Y., Naser, S. C., Lockwood, A. B., & Affrunti, N. W. (2021). Status of School Psychology in 2020, Part 1: Demographics of the NASP Membership Survey. *National Association of School Psychologists, 5*(2), 1–17.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Kincaid, A., & Sullivan, A. (2017). Parsing the relations of race and socioeconomic status in special education disproportionality. *Remedial and Special Education, 38*(3), 159-170. doi:10.1177/0741932516671199
- McCloskey, D., & Athanasiou, M. (2000). Assessment and intervention practices with

second-language learners among school psychologists. *Psychology in the Schools*, 37(3), 209-25.

National Association of School Psychologists. (2015). The provision of school psychological services to bilingual students.

O'Bryon, E., & Rogers, M. (2010). Bilingual school psychologists' assessment practices with English language learners. *Psychology in the Schools*, 47(10), 1018-1034.

Ochoa, S., Powell, M., & Robles-Pina, R. (1996). School psychologists' assessment practices with bilingual and limited-English-proficient students. *Journal of Psychoeducational Assessment*, 14(3), 250-275.

doi:10.1177/073428299601400306

Ochoa, S., Riccio, C., Jimenez, S., De Alba, R., & Sines, M. (2004). Psychological assessment of English language learners and/or bilingual students: An investigation of school psychologists' current practices. *Journal of Psychoeducational Assessment*, 22(3), 185-208.

Rhodes, R. L., Ochoa, S. H., & Ortiz, S. O. (2005). Assessing culturally and linguistically diverse students: A practical guide. New York: Guilford Press.

Sanchez, S. V., Rodriguez, B. J., Soto-Huerta, M. E., Villarreal, F. C., Guerra, N. S., & Flores, B. B. (2013). A case for multidimensional bilingual assessment. *Language Assessment Quarterly*, 10(2), 160-177.

Sotelo-Dynega, M., & Dixon, S. (2014). Cognitive assessment practices: A survey of school psychologists. *Psychology in the Schools*, 51(10), 1031-1045.

doi:10.1002/pits.21802

Sotelo-Dynega, M., Cuskley, T., Geddes, L. McSwiggan, K. & Soldano, A. (2011).

Cognitive assessment A survey of current school psychologists' practices.

Research poster presentation at the annual conference of the National Association of School Psychologists, San Francisco, CA.

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

Strand, S., & Lindsay, G. (2009). Evidence of ethnic disproportionality in special education in an English population. *The Journal of Special Education*, 43(3), 174-190. doi:10.1177/0022466908320461

White, B. F. (2013). Multicultural training of clinical and counseling psychology doctoral students: Ideals vs. practice.

Wright, P.W. & Wright, P.D. (2007). *Wrights law: Special education law* (2nd edition). VA: Harbor House Law Press, Inc.

Vita

Name	<i>Noelle Ferrara</i>
Baccalaureate Degree	<i>Bachelor of Arts, University of New Haven, West Haven, Major: Psychology</i>
	<i>Bachelor of Science, University of New Haven, West Haven Major: Criminal Justice, Forensic Psychology</i>
Date Graduated	<i>May, 2016</i>
Other Degrees and Certificates	<i>Master of Science, St. John's University, Queens, Major: School Psychology</i>
Date Graduated	<i>May, 2019</i>