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SPECIFIC LEARNING DISABILITIES: BELIEFS ABOUT THE CONSTRUCT,  
IDENTIFICATION METHODS, AND JOB SATISFACTION AMONG  
PRACTICING SCHOOL PSYCHOLOGISTS

by

Joseph M. Cottrell

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

of

EDUCATION SPECIALIST

in

Psychology

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UTAH STATE UNIVERSITY  
Logan, Utah

2015

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**ABSTRACT**

Specific Learning Disabilities: Beliefs about the Construct, Identification Methods,  
and Job Satisfaction among Practicing School Psychologists

by

Joseph M. Cottrell, Master of Science

Utah State University, 2015

Major Professor: Courtenay A. Barrett, Ph.D.  
Department: Psychology

Students with specific learning disabilities (SLDs) make up approximately 40% of students receiving special education services. The definition of SLD has not changed since the original special education law was implemented in 1975. However, the definition of SLD gives little insight regarding the etiology of the disorder. There are three prominent theories regarding the cause of SLDs: (a) environmental theory, (b) biological theory, and (c) interactional theory. Because these theories are oriented to different perspectives they also align with different methods of identification. The Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) outlines three SLD identification procedures: (a) the IQ-Achievement discrepancy method, (b) the response-to-intervention method, and (c) alternative research based procedures (e.g., evaluation of a student's pattern of strengths and weaknesses; PSW). School psychologists are one member of a multidisciplinary team that identifies children with

disabilities, including SLDs, and provides remediation to them. School psychologists are estimated to spend nearly half their time in special education decision making and thus a large portion of their time is spent identifying students in need of special education services. The current study used survey methodology to evaluate practicing school psychologists' ( $N = 471$ ) perceptions regarding the cause of SLDs, their preferred methods of SLD identification, their school guidelines governing their SLD identification practices, their actual SLD identification practices, and their level of job satisfaction associated with assessment. Results indicated great variability in beliefs about the cause of SLDs, significant correlations between beliefs and preferred practices, and significant correlations between alignment of preferred and actual practices and increased job satisfaction associated with assessment. Implications of these findings and areas of future research are discussed.

(96 pages)

**PUBLIC ABSTRACT**

Specific Learning Disabilities: Beliefs about the Construct, Identification Methods,  
and Job Satisfaction among Practicing School Psychologists

by

Joseph M. Cottrell, Master of Science

Utah State University, 2015

Students with specific learning disabilities (SLDs) account for approximately 40% of all students receiving special education services. Debate among professionals regarding the causes of SLDs and the most appropriate methods used to identify SLDs persists. This debate may be related to the increase in prevalence of SLDs since the implementation of special education law in 1975. There are three prominent theories regarding the cause of SLDs: (a) environmental theory, (b) biological theory, and (c) interactional theory. The Individuals with Disabilities Education Act (IDEA) allows school districts to implement the following SLD identification procedures: (a) the IQ-Achievement discrepancy method, (b) response-to-intervention (RtI), and/or (c) alternative research-based methods, such as personal strengths and weaknesses (PSW).

This study employed survey methodology to evaluate the intersection between school psychologists' beliefs about the cause of SLDs, their preferred practices, their actual practices, and their job satisfaction associated with assessment. School psychologists are one member of a multidisciplinary team aimed toward identifying

children with SLDs and are estimated to spend nearly half their time in special education decision making. This study also evaluated the influence alignment between school psychologists preferred and actual practices have on their job satisfaction associated with assessment.

Findings showed that, similar to other professionals, school psychologists' had varying beliefs about the causes of SLDs. Environmental beliefs were significantly correlated with a preference for RtI for SLD identification, while biological beliefs were significantly correlated with preferences for the IQ-Achievement discrepancy method and alternative research based procedures for SLD identification. Preferred methods of identification impacted all three identification methods, and beliefs about the cause of SLDs impacted actual PSW practices, above and beyond individual and school characteristics. Finally, greater alignment between preferred SLD identification practices and actual SLD identification practices was associated with higher levels of job satisfaction related to assessment. Implications and directions for future research are discussed.

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With the recent passing of my dad, Dale Christiansen Cottrell, I would like to dedicate this work to him. He always told me how proud he was to be my dad and how proud he was of the work I have done. Without him, I would not be the person I am today. Thank you.

Joseph M. Cottrell

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## **CHAPTER I**

### **INTRODUCTION**

Students with specific learning disabilities (SLDs) comprise the fastest and largest growing segment of students receiving special education services. Since the passage of the Education for All Handicapped Children Act (Public Law 94-142) in 1977, the percentage of students with SLDs has increased substantially (Fuchs & Fuchs, 1998). Today, over 6.5 million students (ages 3-21) receive special education services in the U.S., with nearly 2.5 million of these students (roughly 40% of all students in special education) identified as having an SLD (Data Accountability Center, 2012). SLDs are related to short-term consequences, such as a more negative self-concept (Zelege, 2004), lower academic achievement (Judge & Watson, 2011), and delinquent behavior (Keilitz & Dunivant, 1986), and long-term consequences such as difficulty obtaining and retaining a job as an adult (Cortiella, 2009). Therefore, proper evaluation of SLDs is paramount in order to inform prevention and intervention initiatives.

#### **Construct of Specific Learning Disabilities**

The negative effects associated with SLDs have been well documented, but there is still uncertainty regarding the nature of SLD as a psychological construct. A psychological construct is a hypothetical concept that can never be absolutely confirmed, the degree to which any psychological construct characterizes an individual can only be inferred from observations of their behavior (Crocker & Algina, 1986). There are few topics in the field of SLD that evoke as much controversy and conflict as those related to

the definition of the condition (Hammill, 1990). The U.S. Department of Education (1968) defined SLD as “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, write, spell, or do mathematical calculations” (p. 34). Special education law has been reauthorized many times since its passage in 1975. Even with the recent changes to special education law under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), the definition has remained the same. The ambiguity and vagueness of the definition adds to the confusion of how to evaluate SLDs (Sotelo-Dynega, Flanagan, & Alfonso, 2011; see also Kavale & Forness, 2000, 2006).

Other researchers (e.g., Kirk, Bateman, & Wepman and associates) and organizations (e.g., The National Advisory Committee on Handicapped Children, Northwestern University, The Division for Children with Learning Disabilities, 1976 U.S. Office of Education, 1977 U.S. Office of Education, The National Joint Committee on Learning Disabilities, The Learning Disabilities Association of America, and The Interagency Committee on Learning Disabilities) have put forth additional definitions of SLD (Hammill, 1990). Seven of the 11 definitions were found to be in 89% agreement on nine definitional characteristics (i.e., underachievement determination, central nervous system dysfunction etiology, process involvement, being present throughout the life span, specifications of spoken language problems as potential learning disabilities, specification of academic problems as potential learning disabilities, specification of conceptual problems as potential learning disabilities, specification of other conditions as

potential learning disabilities, and allowance for the multihandicapping nature of SLDs; Hammill, 1990). Some professionals believed the consistency shown in these definitions regarding the conceptual base of SLD conveyed a consensus regarding the meaning of SLD (Hammill, 1990). However, other scholars claimed that the consensus did not depict a clear understanding of what the construct is because the primary element for determining SLD eligibility was never mentioned in the formal definitions (Kavale & Forness, 2000). It is difficult to understand how to successfully identify, diagnose, prescribe treatment for, teach, motivate, or help to improve the life of a person with a SLD without having a clear understanding of the nature of SLD (Hammill, 1990).

Additionally, the cause of SLDs is not explicitly addressed in the different definitions of SLD and there is no definitive consensus among professionals regarding the cause of SLDs. Some definitions express the idea that SLDs are the result of a problem in the central nervous system or basic psychological processes (Hammill, 1990), other scholars believe that SLDs are caused by environmental deprivations, specifically the inability to respond to evidence-based instructional practices. Still other scholars claim that SLDs are biological in nature, potentially stemming from innate predispositions. And still other scholars believe SLDs are due to an interaction between environment and biology. These schools of thought will be further discussed in the literature review.

### **IDEIA and Specific Learning Disabilities**

The educational system is the primary context in which SLDs are identified and

treated. IDEIA (2004) is the system that currently governs how states (i.e., state education agencies, SEAs) and public agencies (e.g., schools or local education agencies, LEAs) provide early intervention, special education, and related services to children, adolescents, and adults that are part of America's school system (Küpper & Reborn, 2007).

### **Identification Procedures Within IDEIA**

IDEIA (2004) includes three classification guidelines that states must adhere to for the identification of students with SLDs: (a) the state *may not require* the use of a "severe discrepancy" between intellectual ability and achievement (i.e., the Ability-Achievement discrepancy method or Ab-Ach); (b) the state *must permit* use of a process based on the child's response to scientific, research-based procedures (i.e., the response-to-intervention or, RtI, method); and (c) the state *may permit* the use of other alternative research-based procedures. Alternative research-based procedures may include the evaluation of a pattern of strengths and weaknesses (PSW) via tests of cognitive abilities and neuropsychological processes (Hale et al., 2013; Küpper & Reborn, 2007; Sotleo-Dynega et al., 2011). These identification methods will be further discussed in the literature review.

### **Inconsistencies Between and Within States**

IDEIA (2004) does not outline a definitive measure or tool that school psychologists should use for SLD identification. In fact, SEAs may choose which method(s) LEAs may implement as long as the measures are deemed appropriate by

IDEA guidelines. This leads to a lack of consistent measurement across the U.S. Therefore, a student identified in one state as having a SLD may not meet the SLD identification guidelines in another state (Zirkel & Thomas, 2010). SEAs allow LEAs to adapt state regulations and recommendations based on professional research and norms of the schools. This leads to districts within the same state following different identification processes (Haight, Patriarca, & Burns, 2002).

### **School Psychologists and Specific Learning Disabilities Identification**

In the school context, the school psychologist is one of the main participants in a multidisciplinary school-based team that identifies students as having a disability, including an SLD, and is legally “qualified to conduct individual diagnostic examinations of children” (Authority: 20 U.S.C. 1221e-3; 1414(b)(6); IDEIA, 2004). School psychologists are estimated to spend more than half their time in special education decision making and thus, identification plays an important part of the school psychologist’s role (Castillo, Curtis, & Gelley, 2012). Because there is autonomy given to LEAs to adapt state regulations based on norms within the schools, school psychologists within the same state, district, or even school may choose to identify SLDs differently.

When conducting SLD evaluations within the school setting, school psychologists may be limited by time constraints (e.g., high caseload or working in multiple schools), financial resources, and guidelines of the district or school. It is possible that a school psychologist has a preferred method or procedure for identifying SLDs in an ideal setting, but is prevented from using this preferred procedure because of the non-ideal restrictions

of working in the school setting. The preference of one procedure over another may impact which SLD identification method the school psychologist chooses to use in practice, particularly in schools where several identification methods are permitted.

SEAs and LEAs that require the use of a specific SLD identification procedure through law or encourage the use of one method through cultural norms may lead to a misalignment between school psychologists' preferred SLD identification practice and actual SLD identification practice. The study of school psychologists' job satisfaction on a national level has been well documented (e.g., Anderson, Hohenshil, & Brown, 1984; Brown, Swigart, Bolen, Webster, & Hall, 1998; Reschly & Wilson, 1995; Worrell, Skaggs, & Brown, 2006). Worrell and colleagues found that 90% of school psychologists practicing in the U.S. were either very satisfied or satisfied with their jobs. They also found that school psychologists were most dissatisfied with school system policies and practices and advancement opportunities. Research has suggested when there is a large discrepancy between school psychologists' values and their actual practice; they report lower levels of job satisfaction (Worrell et al., 2006). This job dissatisfaction may lead to attitudes seeking system reform (Reschly & Wilson, 1995) or higher rates of turnover (Anderson et al., 1984). To date, there is little known about the methods of SLD identification school psychologists prefer in an ideal setting, how these practices relate to actual practices in identifying SLDs, and how the interaction between the two relates to job satisfaction regarding SLD assessment practices (subsequently called assessment job satisfaction).

### **Justification for the Present Study**

Given that (a) the number of students identified as having an SLD has increased significantly over the past 46 years, (b) there is ambiguity and inconsistency in the definition of SLD and methods for identification, and (c) the prominent role psychoeducational evaluation has in the role of school psychology, a study investigating the intersection of beliefs about the cause of SLD, SLD identification methods, and assessment job satisfaction among practicing school psychologists is warranted. This study aims to answer the following research questions:

1. What are school psychologists' beliefs about the cause and characteristics of SLDs (subsequently called SLD beliefs)?
2. To what extent are SLD beliefs related with school characteristics (e.g., geographic location) and individual school psychologist characteristics (e.g., years of experience)?
3. To what extent are SLD beliefs associated with school psychologists' preferred method of SLD identification?
4. To what extent do SLD beliefs influence actual SLD identification practices above and beyond school characteristics (e.g., school guidelines) or individual characteristics (e.g., years of experience)?
5. Does misalignment between preferred and actual SLD identification practices decrease school psychologists' assessment job satisfaction above and beyond other school characteristics (e.g., geographic location) or individual characteristics (e.g., years of experience)?

## **CHAPTER II**

### **REVIEW OF LITERATURE**

Two studies have investigated school psychologists' perceptions about SLDs, both using survey methodology. Macheck and Nelson (2010) evaluated the perceptions of school psychologists regarding the utility of IQ scores in reading disability (RD) assessment, as well as school psychologists' perceptions about the treatment validity of the Ab-Ach approach and its association with perceived job security. Macheck and Nelson also asked school psychologists questions regarding perceived advantages, as well as possible hurdles to using an RtI approach for RD identification. A substantial percentage of the respondents perceived IQ tests to have utility for RD assessments (62.2% preferred Factor Index Scores, 59.8% preferred Subtest analysis, and 48.3% preferred Full Scale IQ scores). However, the majority of participants (60.7%) did not perceive Ab-Ach to be a useful criterion for SLD evaluations. It was also shown that most participants (69.3%) did not perceive threatened job security if decreases in the use of intelligence tests occurred.

Unruh and Mckellar (2013) evaluated the perceptions and practices of school psychologists (e.g., how many evaluations are performed per year, level of challenge, and level of job satisfaction) working in schools implementing the RtI model. Respondents reported using each method (i.e., RtI, Ab-Ach, or PSW) alone or in combination: 59.9% of respondents reported using Ab-Ach for identification, 55.8% of respondents reported using RtI, and 48.7% of respondents reported using PSW. Respondents working in schools that implemented RtI were more likely to report completing a lower number of

initial evaluations and were more likely to report higher levels of job challenge and satisfaction in comparison to practitioners working in non-RtI schools.

Both studies evaluated the perceptions of school psychologists regarding actual use of identification procedures (e.g., validity of Ab-Ach, advantages of the RtI model, percentage of school psychologists using each identification method, differences between RtI implementing schools and non-RtI implementing schools) and the interaction with related practices, job security, job challenge, and overall job satisfaction. However, neither study evaluated the perceptions of school psychologists' regarding the cause of SLDs and its interaction with identification practices and assessment job satisfaction. This study aims to fill that gap in the literature.

The remaining literature about SLDs falls into three categories: (a) the evaluation of the definition and foundation of SLDs (e.g. Galaburda, 1989; Hale et al., 2013; Hammill, 1990; Kavale & Forness, 2000, 2006); (b) the technical adequacy of the Ab-Ach method and PSW (e.g. Ford, 2008; Franklin, 2007; Haight et al., 2002; Machek & Nelson, 2010; Sotleo-Dynega et al., 2011; Stuebing, Fletcher, Branum-Martin, & Francis, 2012; Vaughn & Fuchs, 2003); or (c) the technical adequacy of the RtI method (e.g. Kavale & Spaulding, 2008; Reynolds, 2008; Reynolds & Shaywitz, 2009). This literature review describes research about the theories of SLDs and identification practices, as it aligns with the research questions.

### **Theories about Specific Learning Disabilities and Identification Practices**

Due to the ambiguity and vagueness of the definitions of SLD, there is conflict

between professionals regarding the cause of SLDs. There are three prominent theories about the foundation of SLDs: biological basis, environmental basis, or an interactional basis between biology and environment. Because SLD theories have different explanations for the underlying mechanisms of SLDs, they lend themselves to different approaches on how to identify the disability. The Ab-Ach, PSW, RtI, and a combination approach are described below in relation to their theoretical basis.

### **Specific Learning Disabilities as a Biological Basis**

Because the definition of SLD has stated that SLD is a disorder in one or more of the basic *psychological processes* some professionals regard SLD as a biologically based disorder that is associated with specific neurological dysfunctions. While it is still unclear what precedes the neurological disorders that may lead to SLDs, heredity is considered to be a major factor with SLDs occurring at higher rates within members of the same families (Cortiella, 2009). Other possible causes of SLDs include pre-natal and birth problems (Cortiella, 2009). Research has suggested that there are significant differences in the left hemisphere of the brain between individuals with and without dyslexia (one type of SLD; Galaburda, 1989). According to the biologically based theory, school psychologists should use discrepancy methods (e.g., Ab-Ach or PSW) of identification because a large focus of discrepancy methods includes identifying underlying cognitive deficiencies.

The two most prominent discrepancy approaches used for SLD identification are Ab-Ach and PSW. Ab-Ach is a procedure used for discovering a severe discrepancy

between achievement and intellectual ability in one or more of the following areas: oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation, and mathematics reasoning (Vaughn & Fuchs, 2003). If neurological dysfunctions do contribute to the development of an SLD then it can be postulated that Ab-Ach would be a tool used to detect the neurological dysfunction and its correspondence to an academic domain. However, Ab-Ach has been criticized for several reasons: (a) it is considered a “wait-to-fail” method of identification because a discrepancy does not typically appear until students are in third or fourth grade (Sotleo-Dynega et al., 2011), (b) it leads to the overidentification of minority students due to cognitive tests showing cultural bias (Ford, 2008; Franklin, 2007), and (c) it has questionable reliability due to inconsistencies regarding which discrepancy formula is implemented by SEAs and LEAs (Haight et al., 2002).

PSW aims to evaluate broad profiles of strengths and weaknesses in cognitive skills. Therefore, multiple cognitive skills are typically identified with the goal of uncovering a weakness that is related to an achievement domain. However, the weakness must exist within a set of strengths for a discrepancy to be discovered and the diagnosis of SLD to be given (Stuebing et al., 2012). One of the issues associated with PSW methods (e.g., the Concordance-Discordance method, the Discrepancy/Consistency Method, and Cross Battery Assessment) is the over identification of students without SLDs being identified as having a SLD (i.e., Type I error; Stuebing et al., 2012).

### **Specific Learning Disabilities as an Environmental Construct**

Other professionals theorize that SLDs are not due to neurological dysfunctions but are the product of environmental or societal deprivations. The basis of this environmental theory is that children function poorly due to injustices in the school system and in society, not due to deficits within the child (Miller, 1990). Coles (1989) stated the biological theory lacks rigorous empirical evidence and the existence of the “condition” is virtually unproven. After decades of research, it has still not been demonstrated that neurological dysfunctions exist in more than a minuscule number of children with SLDs (Coles, 1989). Coles also stated that the diagnosis of SLD, in a biological sense, may disregard the contribution the schools, families, or other social influences might have had toward the development of an SLD. A school psychologist prescribing to the environmental theory may be more apt to use RtI as their primary diagnostic tool because RtI focuses on the instructional environment of the child and considers how the child responds to evidence-based instruction compared to other students receiving similar instruction.

Prior to IDEIA (2004), Ab-Ach was the main tool used for identification of SLDs. Under IDEIA (2004) it was mandated that states not require the use of a severe discrepancy between intellectual ability and achievement. States were also permitted to implement RtI as a component of the process of identifying SLDs (Reynolds, 2008). RtI is a multi-tier process that includes the following: (a) students are provided with “generally effective” instruction by their classroom teacher; (b) student progress is monitored; (c) those who *do not* respond get something else, or something more, from

their teacher or someone else; (d) again, student progress is monitored; and (e) those who still *do not* respond either qualify for special education or for special education evaluation (Fuchs, Mock, Morgan, & Young, 2003). Curriculum-based measurement (CBM), which consists of a series of brief probes of basic academic skills, is one system incorporated in RtI method(s) to assess and collect data on student progress, which aids in special education decision making and instructional planning (Machek & Nelson, 2010).

Support for RtI implementation has been substantial but there continues to be controversy about whether or not RtI sufficiently provides adequate guidance to practitioners about implementation. Furthermore, many details about RtI remain to be elaborated, and specific aspects of RtI need to be defined—such as, what constitutes a response (Reynolds & Shaywitz, 2009; see also Burns, Jacob, & Wagner, 2008; Vaughn & Fuchs, 2003). Some professionals argue that RtI is inappropriate for SLD identification as it is unknown how to best implement RtI (e.g., the intensity and duration of intervention), that RtI ignores the processing disorder component of the definition of SLDs, that RtI is in greater alignment with No Child Left Behind (Public Law 107-110) regulations rather than IDEIA (2004) regulations, and that RtI assumes the regular classroom instruction provided to date has not been science-based (Kavale & Spaulding, 2008; Reynolds, 2008; Reynolds & Shaywitz, 2009). RtI proponents counter that RtI allows for earlier identification and intervention, compared to Ab-Ach, which identifies a discrepancy between ability and achievement later in the student's education. However, RtI may not effectively remedy this issue, because children may not be referred for intervention until they reach problematic levels of academic attainment in the classroom.

Therefore, RtI has been called a “watch them fail” model of identification by some experts (Reynolds, 2008).

### **Specific Learning Disabilities as an Interaction Between Biology and Environment**

Still other professionals believe there is an interaction between biology and environment, called the “interactivity hypothesis” (Coles, 1989). The “interactivity hypothesis” postulates the academic failure experienced by students with SLDs results from an interaction between the way they process information and the information-processing demands of the instructional methods used in their classrooms (Conner, 1983). Another interaction theory proposes that the reading process consists of an interaction between the reader, the different kinds of information in the material, and the general context in which the material is read (Rumelhart, 1994). With both of these interaction theories there is equal responsibility extended toward the child’s neurological capabilities and the child’s environment.

School psychologists who value both biological and environmental factors may choose to employ discrepancy and RtI methods as tools for the identification of SLDs. This may be accomplished by first eliminating students who respond quickly to evidence-based instruction (through RtI), and then moving toward comprehensive assessment (of neurological or psychological processing) of the nonresponding students (Reynolds, 2008).

Some LEA’s (Box Elder School District, 2013) endorse discrepancy approaches

as a first option for SLD identification to determine gaps in a student's learning. The multidisciplinary team then uses the discrepancy assessment data to inform the team on which intervention approaches may be most appropriate. Once the student has been given appropriate interventions and the student's progress has been monitored, the multidisciplinary team uses data from the achievement tests, cognitive tests, and RtI method to make a decision regarding whether the student has an SLD.

## CHAPTER III

### METHOD

This study used survey methodology to fill the gap in the literature regarding school psychologists' SLD beliefs, preferred practices, school guidelines, actual practices, and assessment job satisfaction.

#### Participants

In order to participate, respondents needed to meet the following criteria: (a) practice as a school psychologist (e.g., not retired or in graduate school practicum) at the time of the survey, (b) work full-time in the school setting (public or private, including parochial and charter schools), (c) have at least a master's degree (as this is commonly the entry-level degree for school psychology), and (d) be formally trained as a school psychologist (e.g., not as a special educator or behavior analyst). Respondents who did not meet the criteria were thanked for their time and exited from the questionnaire.

Five hundred twenty-three individuals accessed the questionnaire with 460 respondents completing the questionnaire in its entirety, yielding a 12.05% attrition rate. Five hundred twenty-one individuals responded to the questionnaire, with 471 of the respondents meeting inclusionary criteria. The majority of respondents in the analysis sample ( $N = 471$ ) were female (76.7%,  $n = 358$ ), White (86.8%,  $n = 409$ ), and held specialist degrees (e.g., Ed.S. or A.G.S.; 63.3%,  $n = 298$ ). Participants holding specialist degrees and those holding masters degrees may not differ in regards to actual academic credits earned or graduate level curriculum. Participants were between the ages of 24 and

79 ( $M = 41.2$ ,  $SD = 11.87$ ) and had been practicing as school psychologists between 1 and 46 years ( $M = 11.88$ ,  $SD = 9.38$ ). Slightly over half (55.5%,  $n = 261$ ) of the respondents were members of the National Association of School Psychology (NASP), with 40.3% of respondents ( $n = 189$ ) being Nationally Certified School Psychologists (NCSP). Please see Table 1 for other sample characteristics.

On average, respondents worked in 2.60 schools ( $range = 1$  to 12;  $SD = 1.56$ ). The majority of the schools in which respondents reported conducting the most psychoeducational assessments were elementary schools (67.2%,  $n = 234$ ), 18.4% ( $n = 64$ ) were middle schools, and 14.4% ( $n = 50$ ) were high schools. These schools were generally evenly distributed between the South (35.8%,  $n = 168$ ), West (36.7%,  $n = 172$ ), and Midwest (25.6%,  $n = 120$ ); with only a few schools located in the Northeast (1.9%,  $n = 9$ ). Northeast schools were excluded from analyses disaggregated by region, due to the small sample size. Regions were defined by the U.S. census (U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau, n.d.). The majority of the schools were characterized by participants as suburban (54.7%,  $n = 188$ ); with 37.2% ( $n = 128$ ) of the schools described as urban, and 8.1% (28) described as rural. Please see Table 1 for other school characteristics.

### **Instrumentation**

The questionnaire was initially drafted based on the literature, best practice regarding SLD identification, and informal interviews with three experts in the field. The questionnaire was then presented to psychology graduate students in cognitive interview

Table 1

*Analysis Sample Characteristics*

Characteristic type	Analysis sample	
	<i>n</i>	%
Individual characteristics		
Ethnicity		
American Indian or Alaska Native	1	.2
Asian	8	1.7
Black or African American	16	3.4
Latino or Hispanic	27	5.7
White or Caucasian	409	86.8
Mixed or biracial	8	1.7
Other	2	.4
Highest degree earned		
Masters (e.g., M.A., M.S., or M.Ed.)	103	21.9
Specialist (e.g., Ed.S or A.G.S)	298	63.3
Doctoral (e.g., Psy.D., Ph.D., or Ed.D.)	70	14.9
Year highest degree earned (28 respondents missing)		
1960-1969	2	.5
1970-1979	15	3.4
1980-1989	33	7.4
1990-1999	90	20.3
2000-2009	183	41.3
2010-2014	120	27.1
School characteristics		
Students on free and reduced price meal program (FARM)		
Few (0-25%)	80	23.2
Almost half (26-50%)	79	22.9
Over half (51-75%)	80	23.2
Most (76-100%)	106	30.7
Missing data	126	
Ethnic minority students		
Few (0-25%)	121	35.8
Almost half (26-50%)	76	22.5
Over half (51-75%)	65	19.2
Most (76-100%)	76	22.5
Missing Data	113	
Geographic region		
Rural	28	8.1
Suburban	168	54.7
Urban	128	37.2
Missing data	147	

*Note.* ( $N = 471$ ). Percentages are valid percentages and may not add up to 100% due to rounding.

format (Desimone & Le Floch, 2004) to examine face and content validity, and subsequently revised. Finally, the questionnaire was reviewed by several experts in the field and revised according to their feedback.

Skip logic was applied to some questionnaire items so respondents were not required to answer irrelevant items regarding preferred practices, school guidelines, and actual practices that did not apply. For example, if a respondent indicated their school *Never Allowed* them to use RtI they were not required to respond to subsequent items about how their school district operationalizes RtI.

First, the questionnaire included informed consent and ensured that answers would not be shared with school officials to reduce bias or answers based on social desirability. Next, the questionnaire assessed inclusionary criteria and demographics of the respondent (12 items) and the characteristics of the school(s) they worked in (60 potential items). Finally, the questionnaire measured respondents' beliefs about the cause of SLDs, preferred practices, school guidelines, actual practices, and level of assessment job satisfaction (described below). Respondents were required (forced response) to respond to the informed consent item and three inclusionary items; the remaining questionnaire items were optional.

It was hypothesized that some respondents would be unsure about their school guidelines in regards to SLD identification methods. Therefore, the questionnaire allowed respondents' to choose *Unclear as to what my guidelines require*. The *Unclear* option was not provided in the preferred and actual SLD identification practices sections of the questionnaire; because it would be unlikely respondents would be unclear about their

preferred or actual practices.

The current study included five measures: theories about SLDs, preferred SLD identification practices, school SLD identification guidelines, actual SLD identification practices, and assessment job satisfaction (for full questionnaire see Appendix E).

### **Theories about SLDs**

Two types of beliefs about the cause of SLDs were assessed through 11 items: the extent to which SLDs are due to biological predispositions (6 items) or the child's environment (5 items). Responses were on a Likert scale (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Agree*, and 4 = *Strongly agree*). Composite scores were calculated for each cause as the average of the respective items, such that higher scores indicated greater belief in the SLD construct being environmental or biological.

It was hypothesized that including specific items about the interactivity hypothesis or interaction theory would result in the majority of participants selecting this option because it incorporates both types of beliefs and the interpretation of such a scale would be unclear. Therefore, this theory about the cause of SLDs was not evaluated in the present study.

### **Preferred SLD Identification Practices**

Three types of preferred SLD identification practices were assessed through nine items: the extent to which school psychologists' would prefer to use RtI in an ideal setting (five items), Ab-Ach in an ideal setting (two items), or PSW in an ideal setting (two items). On the first item, for each separate SLD identification method, respondents

were asked to indicate the frequency with which they would prefer to use the specified SLD identification method in an ideal setting (i.e., 1 = *Never*, 2 = *Rarely*, 3 = *Most of the time*, and 4 = *Always*). Following the initial item, for each separate SLD identification method, they were asked to operationalize the method(s) they would use in an ideal setting. Characteristics of the SLD identification methods were reported separately.

It was hypothesized that including specific items about the combination method for SLD identification would result in the majority of participants selecting this option because it incorporates both methods and the interpretation of such items would be unclear. Therefore, this method of SLD identification was not evaluated in the present study.

### **School SLD Identification Guidelines**

Participants were instructed to answer items about school guidelines based on one school—the school in which they conducted the most psychoeducational assessments. Three types of school SLD identification guidelines were assessed through nine items: the extent to which school psychologists were required by their school guidelines to use RtI (five items), Ab-Ach (two items), or PSW (two items). On the first item, for each separate SLD identification method, respondents were asked to indicate the frequency with which they were required to use the specified SLD identification method (i.e., 1 = *Never Allowed*, 2 = *Allowed me to use but it was discouraged*, 3 = *Allowed me to use and it was supported by school*, 4 = *Required by guidelines*, or *Unclear as to what my guidelines require*,). Following the initial item, for each separate SLD identification method, respondents were asked to operationalize the method(s) they were allowed or

required to use.

Respondents were asked questions about school guidelines (RtI, Ab-Ach, and PSW) prior to being asked about their actual practices. Therefore, questions about what respondents were required to do and what they actually did in practice were separated by a group of items. For example, all RtI school guideline related items were followed by items regarding Ab-Ach and PSW school guideline related items before respondents were asked about their actual use of RtI. This allowed for less biased responses as compared to having each identification method's school guidelines and actual practice items grouped together.

### **Actual SLD Identification Practices**

Participants were instructed to answer items about actual practices based on the school in which they conducted the most psychoeducational assessments. Three types of actual SLD identification practices were assessed through nine items: the extent to which school psychologists actually used RtI (five items), Ab-Ach (two items), or PSW (two items). On the first item, for each separate SLD identification method, respondents indicated the frequency with which they actually used the specified method (i.e., 1 = *Never*, 2 = *Rarely*, 3 = *Most of the time*, and 4 = *Always*). Following the initial item, for each separate SLD identification method, they were asked to operationalize the method(s).

### **Alignment Between Ideal and Actual SLD Identification Practices**

The absolute value of the difference between preferred SLD identification

practices and actual SLD identification practices items was computed. Higher difference scores indicated greater misalignment between preferred SLD identification practices and actual SLD identification practices (e.g., a difference score of 4 indicates low alignment and a difference score of 0 indicates perfect alignment).

### **Assessment Job Satisfaction**

The extent to which school psychologists were satisfied with the SLD assessment portion of their jobs was measured with the adapted Andrew's and Withey Job Satisfaction Questionnaire ( $\alpha = .81$ ; Rentsch & Steel, 1992). The Andrews and Withey Job Satisfaction Questionnaire included five items (e.g., How do you feel about your job?). The original items were adapted to more specifically address SLD assessment job satisfaction. Three additional items specific to assessment job satisfaction were added for a total of eight items. Responses were on a Likert scale (1= *Terrible*, 2= *Unhappy*, 3= *Mostly dissatisfied*, 4= *Mixed*, 5= *Mostly satisfied*, 6= *Pleased*, and 7= *Delighted*). Composite scores were calculated as the average of all items, such that higher scores indicated greater assessment job satisfaction.

### **Procedure**

The current study was approved by the Utah State University Institutional Review Board (IRB) in fall 2013. The questionnaire was distributed to respondents at the beginning of February 2014 and remained available for approximately one month. Two school districts from each state were selected as samples: one school district was the largest school district in the state (by student enrollment; Largest school districts in the

United States by Enrollment, 2014) to increase the likelihood of obtaining a large sample size; the other district was randomly chosen through a random number generator process to reduce bias. The researcher searched the selected district websites and located a school district representative that was likely to oversee school psychologists in the district (e.g., school psychologist supervisor, special education director, or related services director). Each district representative was contacted via email and asked if they would allow their district school psychologist(s) to participate in an online questionnaire regarding SLD identification (see Appendix A).

School district representatives were allowed 7-10 days to respond to the initial recruitment email before being sent a follow-up recruitment email (see Appendix B). If the largest school district did not respond within 7-10 days of receiving the follow-up recruitment email or refused the invitation to distribute the questionnaire, then the next largest school district was contacted and so forth. Similarly, if the randomly chosen school district did not respond to the follow-up recruitment email within 7-10 days or refused to distribute the questionnaire then another randomly chosen school district was contacted. If the district representative (from large or randomly chosen district) complied with the request to have their school psychologist(s) participate they were sent an email asking them to distribute the attached internet link to the online questionnaire to their school psychologist(s) (see Appendix C).

Some school districts required a formal research review process (12 districts), similar to an IRB, in which all research projects were evaluated and approved by a research department. The researcher, for this study, submitted several research proposals

to districts. However, several large districts required a fee to *evaluate* the research proposals; these districts were not included in the study. Eighty-five school district representatives from large school districts were contacted with 25 (29.41%) indicating they would distribute the internet link to the online questionnaire to their school psychologist(s). Seventy-eight district representatives from randomly chosen districts were contacted with 32 (41.03%) indicating they would distribute the internet link to the online questionnaire to their school psychologist(s).

The researcher applied for and received the Utah Multi-Tiered System of Supports Research and IHE Collaboration Grant to provide incentives (\$100 Visa gift card to five Utah and four non-Utah respondents) to participants. Participants were informed they would be provided an opportunity to win one of several \$100 visa gift cards following the closing of the questionnaire. Separate questionnaire links were sent to Utah and non-Utah participants as to separate the two samples. The link sent to Utah participants explained they would be eligible to win one of five incentives; the link sent to non-Utah participants explained they would be eligible to win one of four incentives. The last item on the questionnaire asked if respondents would like to provide their email address on a separate questionnaire, unlinked to the first, for a chance to be entered into the drawing. Following the closing of the questionnaire, nine randomly chosen participants were contacted and mailed the reward for their participation.

### **Data Analysis**

The researcher first performed a preliminary analysis (e.g., internal reliability of

measures, correlations between measures, and sample characteristics) of the data. See Appendix D for correlations between measures. Preliminary analyses of the questionnaire indicated the *Theories about SLDs* (biological  $\alpha = .71$ ; environmental  $\alpha = .73$ ) and *Assessment Job Satisfaction* ( $\alpha = .85$ ) measures had sufficient internal consistency (Tavakol & Dennick, 2011). Following the preliminary analysis, the data were analyzed to answer the research questions.

To answer the first research question, descriptive statistics were used to identify the number of respondents prescribing to each SLD belief. To answer the second research question, Pearson and Spearman correlations were calculated to determine if different SLD theories were associated with school psychologist characteristics and school characteristics. School characteristic variables were dummy coded (e.g., region where school is located; 0 if the school was not located in the Southern region or 1 if the school was located in the Southern region) and correlated with SLD beliefs. To answer the third research questions, Pearson and Spearman correlations were calculated to determine if SLD beliefs were correlated with preferred practices. Multiple regression was used to answer the fourth research question. Predictors were entered into the model using a hierarchical procedure with two blocks: (a) school characteristics (e.g., region, geographic location) and (b) individual characteristics (e.g., years of practice) and SLD beliefs (i.e., biological or environmental). For research question five, a difference score was computed between the composite scores of the preferred SLD identification practice and actual SLD identification practice items. Multiple regression was used to answer the fifth research question. Predictors were entered into the model using a hierarchical

procedure with two blocks: (a) school characteristics and (b) individual characteristics and difference score.

## CHAPTER IV

### RESULTS

#### Research Question One

Research question one evaluated school psychologists' beliefs about the cause of SLDs. Descriptive statistics indicated that school psychologists tended to agree more with statements attributing SLDs to biological predispositions ( $M = 2.64$ ;  $SD = .42$ ) compared to environmental deprivations ( $M = 2.50$ ;  $SD = .47$ ). About 10% (10.40%,  $n = 49$ ) of participants responded with answers one standard deviation (score of 3.06) or more above the mean response on biological predisposition items. This may be interpreted that 10% of the sample held strong beliefs about the biological causes of SLDs. Nearly 15% (14.65%,  $n = 69$ ) of participants responded with answers one standard deviation (score of 2.22) or more below the mean response on biological predisposition items. This may be interpreted that 15% of the sample did not believe in biological causes of SLDs. About 16% (15.92%,  $n = 75$ ) of participants responded with answers one standard deviation (score of 2.97) or more above the mean response on environmental deprivation items. In other words, almost 16% of the sample held strong beliefs in environmental causes of SLDs. Over 19% (19.53%,  $n = 92$ ) of participants responded with answers one standard deviation (score of 2.03) or more below the mean response on environmental deprivation items. Or, 19% of the sample did not believe in environmental causes of SLDs.

Some respondents strongly agreed with one theory while disagreeing or strongly disagreeing with the other theory, representing "pure" environmental or biological

theorists. About 9% ( $n = 41$ ) of respondents scored greater than or equal to three (agreeing or strongly agreeing) with environmental deprivation items while having a mean score less than or equal to two (disagreeing or strongly disagreeing) with biological predisposition items. Similarly, about 9% ( $n = 42$ ) of respondents scored greater than or equal to three (agreeing or strongly agreeing) with biological deprivation items while having a mean score less than or equal to two (disagreeing or strongly disagreeing) with environmental predisposition items.

### **Research Question Two**

Research question two evaluated the relation between SLD beliefs with individual characteristics and school characteristics. Results indicated that SLD beliefs were not significantly correlated with school psychologist characteristics. See Table 2 for correlations between SLD beliefs and school psychologist characteristics.

Biological beliefs were significantly positively correlated with schools being located in the Southern region of the United States and significantly negatively correlated with schools being located in the Midwest region of the United States; meaning school psychologists working in schools located in the Southern region were more likely to endorse biological beliefs and those working in schools located in the Midwest region were more likely to not endorse biological beliefs. All other school characteristics had non-significant relationships with biological beliefs. On the other hand, environmental beliefs were significantly positively correlated with schools being located in the Midwest region of the United States and schools located in urban locations; meaning school

Table 2

*Correlations: SLD Beliefs and Individual Characteristics*

Variables	1	2	3	4	5	6	7	8
1. Biological causes of SLDs	-							
2. Environmental causes of SLDs	-.58**	-						
3. Degree	.002	.06	-					
4. Years of experience	.07	-.05	-.05	-				
5. Number of elementary schools	.08	-.07	-.04	-.01	-			
6. Number of middle schools	-.08	.06	-.09	-.02	-.01	-		
7. Number of high schools	-.01	-.01	-.05	.01	-.11*	.22**	-	
8. Total number of schools	.01	-.03	-.09	-.01	.71**	.57**	.44**	-

\* Significant at the .05 level.

\*\* Significant at the .01 level.

psychologists working in schools located in the Midwest region and urban geographic locations were more likely to endorse environmental beliefs. Environmental beliefs were significantly negatively correlated with schools being located in the Southern region of the United States and schools located in suburban geographic locations; meaning school psychologists working in schools located in the Southern region and suburban geographic locations were more likely to not endorse environmental beliefs. All other school characteristics had non-significant relationships with environmental beliefs. See Table 3 for other correlations between SLD beliefs and school characteristics.

### Research Question Three

Research question three investigated the relation between SLD beliefs and school psychologists' preferred practices in an ideal setting (e.g., no financial restraints).

Table 3

*Correlations: SLD Beliefs and School Characteristics*

Variables	1	2	3	4	5	6	7	8	9	10
1. Biological causes of SLDs	-									
2. Environmental causes of SLDs	-.58**	-								
3. Rural	.05	.05	-							
4. Suburban	.03	-.14*	-.32**	-						
5. Urban	-.05	.11*	-.23**	-.85**	-					
6. South	.17**	-.11*	.07	.01	-.04	-				
7. West	.004	-.06	.04	.10	-.13*	-.57**	-			
8. Midwest	-.20**	.18**	.14*	-.12*	-.20**	-.44**	-.45**	-		
9. Ethnic minority students in school	-.02	.08	.13*	-.42**	-.49**	-.31**	-.37**	.08	-	
10. Free and reduced meals	-.03	.10	-.05	-.46**	.49**	.20**	-.26**	.08	.79**	-

*Note.* Spearman correlations were used to determine the association between region and geographic location with the other variables.

\* Significant at the .05 level.

\*\* Significant at the .01 level.

Slightly over half of respondents indicated they would prefer to use RtI to identify SLDs in an ideal setting most of the time (54.2%,  $n = 238$ ). About 37% of respondents indicated they would rarely use Ab-Ach to identify SLDs in an ideal setting. About 38% of respondents indicated they would never use PSW to identify SLDs in an ideal setting. See Table 4 for other descriptive results regarding preferred practices.

Results indicated that environmental beliefs were significantly positively correlated with a preference for RtI for the identification of SLDs in an ideal setting. Environmental beliefs were significantly negatively correlated with a preference for Ab-Ach and PSW for the identification of SLDs in an ideal setting. Results also indicated biological beliefs were significantly positively correlated with a preference for PSW and Ab-Ach for the identification of SLDs in an ideal setting. Biological beliefs were significantly negatively correlated with a preference for RtI for the identification of SLDs in an ideal setting. See Table 5 for correlations between SLD beliefs and preferred practices.

Table 4

*Preferred Practices*

Response	RtI		Ab-Ach		PSW	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Never	18	4.1	108	25.0	164	38.6
Rarely	80	18.2	161	37.3	133	31.3
Most of the time	238	54.2	127	29.4	102	24.0
Always	103	23.5	36	8.3	26	6.1
Missing data	32		39		46	

*Note.* Percentages represent valid percentages and may not add up to 100% due to rounding.

Table 5

*Correlations: SLD Beliefs and Preferred Practices*

Variables	1	2	3	4	5
1. Biological causes of SLDs	-				
2. Environmental causes of SLDs	-.58**	-			
3. Preferred RtI	-.27**	.25**	-		
4. Preferred Ab-Ach	.11*	-.21**	-.22**	-	
5. Preferred PSW	.15**	-.13**	-.24**	.11*	-

\* Significant at the .05 level.

\*\* Significant at the .01 level.

### Research Question Four

Research question four examined the extent to which SLD beliefs influenced actual SLD identification practices above and beyond school characteristics (e.g., school guidelines) and individual characteristics (e.g., years of practice). About 24% of respondents indicated their school required the use of RtI for SLD identification. About 36% of respondents reported their school required the use of Ab-Ach for SLD identification. About 48% of respondents indicated their school never allowed the use of PSW for SLD identification. About 6% of respondents were *Unclear* about their school guidelines regarding RtI, about 4% were *Unclear* about their school guidelines regarding Ab-Ach, and nearly 11% were *Unclear* about their school guidelines regarding PSW. See Tables 6-11 for other descriptive results regarding school guidelines.

About 31% of respondents indicated they actually used RtI most of the time for SLD identification and 32% always used Ab-Ach for SLD identification. Over half (52%) of respondents never used PSW for SLD identification. See Table 12 for other descriptive results regarding actual practices.

Table 6

*School Guidelines*

Response	RtI		Ab-Ach		PSW	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Never allows	103	24.0	109	25.6	204	48.0
Allows but does not support	59	13.7	25	5.9	37	8.7
Allows and does support	137	31.9	119	27.9	98	23.1
Requires	104	24.2	155	36.4	40	9.4
Unclear as to what my guidelines require	27	6.3	18	4.2	46	10.8
Missing data	41		45		46	

*Note.* Percentages are valid percentage and may not add up to 100% due to rounding.

Table 7

*RtI School Guidelines: Number of Weeks to Respond to One Intervention*

Response	<i>n</i>	%
≤ 1	0	0
2-3	37	12.4
4-5	69	23.1
≥ 6	114	38.1
Unclear	79	26.4
Missing Data	172	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Table 8

*RtI School Guidelines: Collection of Fidelity Data*

Response	<i>n</i>	%
Does not require	49	16.4
Allows but does not support	64	21.5
Allows and does support	85	28.5
Requires	81	27.2
Unclear	19	6.4
Missing Data	173	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Table 9

*RtI School Guidelines: Number of Interventions Required*

Response	<i>n</i>	%
1	24	8.1
2	112	37.7
3	27	9.1
4	4	1.3
≥ 5	4	1.3
Unclear	126	42.4
Missing data	174	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Table 10

*Ab-Ach School Guidelines: Discrepancy Between Cognitive and Achievement Scores*

Response	<i>n</i>	%
≤ .5 SD or 7.5 points	3	1.0
1 SD or 15 points	94	32.1
1.3 SDs or 20 points	70	23.9
≥ 1.5 SDs or 22.5 points	80	27.3
Unclear	46	15.7
Missing data	178	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Table 11

*PSW School Guidelines: Discrepancy Between Factor/Index Scores*

Response	<i>n</i>	%
≤ .5 SD or 7.5 points	4	2.4
1 SD or 15 points	66	39.1
1.3 SDs or 20 points	14	8.3
≥ 1.5 SDs or 22.5 points	20	11.8
Unclear	65	38.5
Missing data	302	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Table 12

*Actual SLD Identification Practices*

Response	RtI		Ab-Ach		PSW	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Never	108	25.2	114	27.5	219	52.4
Rarely	109	25.5	39	9.4	76	18.4
Most of the time	135	31.5	129	31.1	87	20.8
Always	76	17.8	133	32.0	36	8.6
Missing Data	43		56		53	

*Note.* Percentages are valid percentages and may not add up to 100% due to rounding.

Results from the linear regression model indicated that preference to use RtI, but not environmental beliefs, significantly impacted the frequency to which RtI SLD identification practices were actually used above and beyond individual and school characteristics (see Table 13). Similarly, preference to use Ab-Ach methods, but not biological beliefs, significantly impacted the frequency with which Ab-Ach SLD identification practices were actually used above and beyond school and individual characteristics (see Table 14). However, biological beliefs did significantly impact actual PSW SLD identification practices above and beyond school and individual characteristics (see Table 15). The  $R^2$  change between blocks one and two for the RtI, Ab-Ach, and PSW models were .05, .03, and .08, respectively.

### Research Question Five

On average, school psychologists were somewhat satisfied with their jobs in regards to assessment ( $M = 4.56$ ,  $SD = 1.03$ ). A little more than 62% (62.21%,  $n = 293$ )

Table 13

*Individual and School Characteristics That Impact Actual RtI Practices*

Variable	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Sig.
	B	Std. Error	$\beta$		
Block 1					
Constant	.90	.61		1.49	.14
South	.26	.40	.12	.64	.52
West	.002	.40	.001	.01	.10
Midwest	.02	.41	.01	.05	.96
Rural	.08	.18	.02	.45	.65
Urban	.09	.11	.04	.78	.43
Ethnic minority students	-.003	.05	-.004	-.07	.95
Surety of school RtI guidelines	.71	.20	.16	3.47	.001
School never allows RtI	-1.26	.12	-.52	-10.16	.000
School allows RtI without support	-.63	.15	-.21	-4.32	.000
School requires RtI	.54	.12	.22	4.41	.000
$R^2 = .46$					
Block 2					
Total schools	-.003	.03	-.004	-.10	.92
Years of practice	-.001	.01	-.01	-.19	.85
Highest education	.10	.08	.06	1.32	.19
Preferred RtI	.30	.06	.21	4.78	.000
Environmental belief	-.07	.10	-.03	.71	.48
$R^2 = .51$					
Missing data = 169					

*Note.* The school guidelines allowing RtI with support and suburban variables were excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

Table 14

*Individual and School Characteristics That Impact Actual Ab-Ach Practices*

Variable	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Sig.
	B	Std. Error	$\beta$		
Block 1					
Constant	1.56	.52		3.04	.003
South	-.17	.33	-.07	-.51	.61
West	.02	.33	.01	.05	.96
Midwest	-.29	.33	-.11	-.87	.39
Rural	.11	.16	.02	.67	.51
Suburban	.13	.09	.05	1.33	.18
Ethnic minority students	.08	.04	.08	1.96	.05
Surety of school Ab-Ach guidelines	.64	.19	.12	3.41	.001
School never allows Ab-Ach	-1.66	.11	-.60	-15.58	.000
School allows Ab-Ach without support	-1.21	.17	-.25	-7.30	.000
School requires Ab-Ach	.55	.10	.22	5.53	.000
$R^2 = .71$					
Block 2					
Total schools	.000	.03	.000	.01	.99
Years of practice	.01	.004	.04	1.11	.27
Highest education	.03	.07	.02	.49	.62
Preferred Ab-Ach	.22	.05	.17	4.68	.000
Biological belief	.01	.09	.004	.13	.90
$R^2 = .74$					
Missing Data = 176					

*Note.* The school guidelines allowing Ab-Ach with support and urban variables were excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

Table 15

*Individual and School Characteristics That Impact Actual PSW Practices*

Variable	Unstandardized coefficients		Standardized coefficients		Sig.
	B	Std. Error	$\beta$	<i>t</i>	
Block 1					
Constant	.50	.49		1.03	.30
South	-.26	.33	-.13	-.80	.43
West	-.40	.33	-.19	-1.21	.23
Midwest	-.40	.34	-.17	-1.19	.24
Rural	-.09	.16	-.02	-.55	.59
Urban	.13	.10	.06	1.31	.19
Ethnic minority students	-.02	.04	-.02	-.43	.67
Surety of school PSW guidelines	-.55	.13	-.17	-4.31	.000
School allows PSW without support	.54	.15	.14	3.56	.000
School allows PSW with support	1.34	.10	.56	13.11	.000
School requires PSW	1.73	.15	.49	11.96	.000
$R^2 = .55$					
Block 2					
Total schools	.01	.03	.01	.20	.84
Years of practice	-.002	.004	-.02	-.46	.65
Highest education	.05	.07	.03	.73	.46
Preferred PSW	.27	.04	.25	6.28	.000
Biological belief	.37	.10	.15	3.87	.000
$R^2 = .63$					
Missing Data = 181					

*Note.* The school guidelines allowing Ab-Ach with support and urban variables were excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

of respondents scored above the midpoint on the assessment job satisfaction measure Likert scale; indicating that the majority of respondents were more satisfied than dissatisfied with their jobs in regards to assessment. See Table 16 for correlations between assessment job satisfaction and school psychologist and school characteristics.

Respondents who always used Ab-Ach ( $n = 132$ ) for SLD identification had a mean job satisfaction score of 4.73 ( $SD = .98$ ) compared to a mean job satisfaction score of 4.70 ( $SD = 1.04$ ) for respondents who always used RtI ( $n = 76$ ). Finally, respondents who always used PSW ( $n = 34$ ) for SLD identification had a mean job satisfaction score of 4.68 ( $SD = 1.15$ ).

Misalignment between preferred and actual RtI practices significantly impacted the level of assessment job satisfaction above and beyond school and individual characteristics (see Table 17). Misalignment between preferred and actual Ab-Ach practices, however, did not significantly impact the level of assessment job satisfaction above and beyond school and individual characteristics (see Table 18). Misalignment between preferred and actual PSW SLD identification practices significantly impacted the level of assessment job satisfaction above and beyond school and individual characteristics (see Table 19). The  $R^2$  change between blocks one and two for the RtI, Ab-Ach, and PSW models were .06, .04, and .05, respectively.

Table 16

*Correlations: Assessment Job Satisfaction and Individual and School Characteristics*

Variables	1	2	3	4	5	6	7	8	9
1. Job satisfaction	-								
2. Years of experience	.17	-							
3. Degree	-.001	-.05	-						
4. Total schools	-.05	-.01	-.14	-					
5. Ethnic minority students in school	-.10	-.11*	.01	.08	-				
6. Free and reduced meals	-.11	-.03	-.04	.09	.79**	-			
7. Rural	.18**	.07	-.10	.13*	-.13*	-.05	-		
8. Suburban	.09	.02	-.01	-.06	-.42**	-.46**	-.32**	-	
9. Urban	-.19	-.06	.07	-.01	.49**	.49**	-.23**	-.85**	-

*Note.* Spearman correlations were used to determine the association between geographic regions with the other variables.

\* Significant at the .05 level.

\*\* Significant at the .01 level.

Table 17

*RtI: Individual and School Characteristics That Impact Assessment Job Satisfaction*

Variable	Unstandardized coefficients		Standardized coefficients		Sig.
	B	Std. error	$\beta$	<i>t</i>	
Block 1					
Constant	4.43	.68		6.52	.000
South	.08	.51	.04	.16	.87
West	.06	.51	.03	.12	.90
Midwest	-.26	.51	-.11	-.52	.61
Rural	.62	.23	.15	2.70	.01
Urban	-.23	.15	-.11	-1.58	.11
Ethnic minority students	.04	.09	.05	.48	.63
Free and reduced lunch	-.05	.09	-.05	-.57	.57
Surety of school RtI guidelines	.25	.24	.06	1.05	.30
$R^2 = .09$					
Block 2					
Total schools	-.06	.04	-.08	-1.32	.19
Years of experience	.02	.01	.14	2.58	.01
Highest education	.03	.10	.02	.34	.74
RtI difference score	-.23	.07	-.18	-3.30	.001
$R^2 = .15$					
Missing data = 174					

*Note.* The suburban variable was excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

Table 18

*Ab-Ach: Individual and School Characteristics That Impact Assessment Job Satisfaction*

Variable	Unstandardized coefficients		Standardized coefficients		t	Sig.
	B	Std. Error	$\beta$			
Block 1						
Constant	4.49	.70			6.45	.000
South	.12	.51	.06		.24	.81
West	.09	.52	.04		.17	.86
Midwest	-.28	.52	-.12		-.53	.60
Rural	.62	.24	.15		2.64	.01
Urban	-.25	.15	-.12		-1.65	.10
Ethnic minority students	-.001	.09	-.001		-.01	.99
Free and reduced meals	-.01	.09	-.02		-.16	.87
Surety of school Ab-Ach guidelines	.13	.28	.03		.44	.66
$R^2 = .09$						
Block 2						
Total schools	-.07	.04	-.09		-1.52	.13
Years of experience	.02	.01	.15		2.54	.01
Highest education	.03	.10	.01		.24	.81
Ab-Ach difference score	-.13	.07	-.10		-1.77	.08
$R^2 = .13$						
Missing data = 178						

*Note.* The suburban variable was excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

Table 19

*PSW: Individual and School Characteristics That Impact Assessment Job Satisfaction*

Variable	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Sig.
	B	Std. error	$\beta$		
<b>Block 1</b>					
Constant	4.51	.65		6.89	.000
South	.21	.51	.10	.41	.68
West	.20	.52	.09	.38	.71
Midwest	-.21	.52	-.08	-.40	.69
Rural	.70	.25	.17	2.85	.01
Urban	-.23	.15	-.11	-1.51	.13
Ethnic Minority Students	.04	.09	.04	.42	.68
FARM	-.07	.09	-.07	-.76	.45
Surety of School PSW Guidelines	.07	.19	.02	.40	.69
$R^2 = .09$					
<b>Block 2</b>					
Total Schools	-.07	.04	-.09	-1.59	.11
Years of Experience	.02	.01	.16	2.73	.01
Highest Education	.02	.10	.01	.15	.88
PSW Difference Score	-.16	.08	-.12	-2.14	.03
$R^2 = .14$					
Missing Data = 183					

*Note.* The suburban variable was excluded from the model because the variance was accounted for by other independent variables (i.e., tolerance).

## **CHAPTER V**

### **DISCUSSION**

This study evaluated the beliefs of school psychologists regarding the cause of SLDs and determined the impact these beliefs have on SLD identification practices. This study contributed to SLD literature by (a) forming a measure evaluating SLD beliefs, (b) finding a relation between SLD beliefs and preferred SLD practices, (c) finding a relation between SLD beliefs and contextual factors, (d) showing the impact preferred SLD practices has on actual SLD practices, and (e) showing that discrepancies between preferred and actual SLD practices impact assessment job satisfaction.

#### **School Psychologists' Specific Learning Disabilities Beliefs**

First, this study created a measure examining school psychologists' beliefs regarding the cause of SLDs. The measure had sufficient internal consistency and demonstrated convergent and divergent validity through correlations with preferred practices in the appropriate direction and low or nonsignificant correlations with other variables.

Although the mean score for biological causes was slightly higher than the mean score for environmental causes, this difference was unlikely to reflect any meaningful differences in school psychologists' beliefs about biological versus environmental causes of SLDs. Only 9% of respondents perceived SLDs to be caused by one factor while disagreeing or strongly disagreeing with the other. School psychologists' might perceive SLDs to be due to both biological predispositions and environmental deprivations.

However, only one school psychologist, in the current study, reportedly strongly agreeing that SLDs are caused by both environmental deprivations *and* biological predispositions, suggesting there was only one interaction theorist in the sample.

Literature has documented differences in beliefs among professionals regarding the cause of SLDs with some endorsing biological causes (Cortiella, 2009; Galaburda, 1989) and others endorsing environmental causes (Coles, 1989; Miller, 1990). Results from the present study indicated that school psychologists, like other special education professionals and law makers, continue to have differing positions about the cause of SLDs.

This study not only identified SLD beliefs but also determined which individual and school characteristics were related to SLD beliefs (e.g., where do SLD beliefs come from?). There continues to be a lack of understanding about individual characteristics that may contribute to SLD beliefs. However, contextual factors emerged as a correlate of the development of school psychologists' SLD beliefs. Specifically, the region of the country (i.e., South or Midwest) and geographic region (i.e., urbanicity) were correlated with SLD beliefs. The significant findings for geographic location and region may be due to differences in graduate school training across the country (Alfonso, Oakland, LaRocca, & Spanakos, 2000; Sullivan & Long, 2010) and/or differences in state SLD identification guidelines (Zirkel & Thomas, 2010).

The next logical step in this study was to evaluate the extent to which SLD beliefs impact SLD identification practices. Simply put, beliefs about the cause of SLDs matter and directly relate with how school psychologists *prefer* to identify SLDs. Significant

correlations were found between environmental beliefs and greater preference for RtI, and between biological beliefs and greater preference for PSW and Ab-Ach.

Literature on school psychologists preferred practices is scant with the majority of the literature focusing on school psychologists' preferences in general (Reschly & Wilson, 1995) rather than preferences for SLD identification, specifically. However, Reschly and Wilson surveyed school psychologists' and found they reported greater overall preference for direct interventions compared to psychoeducational evaluations. Macheck and Nelson (2010) also found approximately 60% of school psychologists surveyed did not perceive Ab-Ach to be a useful criterion for SLD evaluations. Similarly, participants in the current study preferred RtI over Ab-Ach methods for SLD identification; possibly due to greater use of interventions. Importantly, preferred practices significantly impacted the actual use of each method above and beyond school guidelines. For example, preferred use of RtI significantly predicted actual use of RtI in practice.

### **School Guidelines and Actual Practices**

In a comprehensive evaluation of SEA SLD identification guidelines, Zirkel and Thomas (2010) demonstrated that states' adaptation of RtI has progressed from "whether" states implement RtI to "how" states implement RtI. They found that SEAs were inconsistent in their implementation of RtI including: the length of interventions, the intensity and duration of interventions, and criteria for progress monitoring. The current study was consistent with Zirkel and Thomas in that RtI was reported, by school

psychologists, to be allowed or required by the majority of schools in the sample, and schools were also inconsistent in their implementation of RtI. Specifically, schools differed on their collection of fidelity data, matching interventions to a student's presenting problem, length of interventions before classifying a student as non-responsive, and the number of interventions provided before classifying a student as non-responsive. Although schools have clearly shown "whether" or not they use RtI, it appears that schools, like SEAs, are still in the "how" stage of RtI implementation.

One of the more interesting findings from this study was the amount of respondents that were *Unclear* about their school SLD identification guidelines. Anywhere between 18 and 46 respondents reported not knowing whether their school guidelines allowed different SLD identification methods, and an even larger number reported being *Unclear* about specific aspects of each method. Regarding RtI, school psychologists were most clear about whether or not their school allowed/required them to collect fidelity data to ensure interventions were performed with integrity and least clear about the number of interventions they were supposed to implement before classifying a student as non-responsive. For both Ab-Ach and PSW, the most school psychologists were unclear how their school defined a discrepancy (e.g., 1 *SD* vs. 1.5 *SDs*) between a student's cognitive and achievement scores or factor/index scores within a single assessment. School guidelines were clearer as to whether certain methods of SLD identification were allowed compared to particular aspects that guide implementation.

### **Assessment Job Satisfaction**

Results were consistent with previous research (e.g., Worrell et al., 2006) in that school psychologists were more satisfied than dissatisfied with their assessment practices. However, results indicated that only 62.21% of school psychologists reported an assessment job satisfaction score above the midpoint of the Likert scale; suggesting that nearly 40% of respondents were more dissatisfied than satisfied with their assessment practices. Therefore, school psychologists may be less satisfied with their assessment practices compared to their overall job satisfaction.

In this study, school psychologists who always used Ab-Ach reported slightly higher levels of assessment job satisfaction compared to school psychologists who always used RtI or PSW. This is inconsistent with previous research that found school psychologists working in schools that implemented RtI were more likely to report greater levels of overall job satisfaction compared to school psychologists working in schools not implementing RtI (Unruh & Mckellar, 2013). However, this study differed from the previous study because respondents were not asked whether they belonged to an RtI or non-RtI school, but always using RtI for SLD identification was considered a proxy for practicing in an “RtI school.” Furthermore, Unruh and Mckellar inquired about overall job satisfaction rather than job satisfaction related to assessment practices, specifically.

Misalignment between preferred and actual SLD identification practices also significantly impacted school psychologists’ level of assessment job satisfaction, for both RtI and PSW methods. If a school psychologist preferred to use either method, but used another method in practice, they were less likely to be satisfied with their assessment

practices. Although the results for misalignment between preferred and actual Ab-Ach methods did not reach significance at the .05 level, they approached significance ( $p = .08$ ) and were in the same direction as the results for RtI and PSW.

### **Limitations and Directions for Future Research**

There were several limitations that may have affected the internal and external validity of the study. First, despite the large sample size, a response rate could not be calculated because the researcher was unable to identify the number of school psychologists per district from school district websites. Second, although recruitment was evenly distributed among the South, Midwest, and West regions, the small sample size from the Northeast ( $n = 9$ ) prevents generalizability to this group of school psychologists. Third, this study was cross-sectional and any claims of causality cannot be made. Fourth, respondents were asked about their school SLD identification guidelines *prior* to indicating their actual practices. Respondents may have felt some pressure to respond in a socially desirable manner to be in greater accordance with their school guidelines. Finally, although the biological belief and environmental belief were studied alongside the associated methods of identification, the interactional belief between environmental and biological causes, as well as support for a combination approach were excluded in this study.

Results and limitations from this study lead to areas for future research. Future research may wish to further validate the scale that measured beliefs about the causes of SLD, perhaps using factor analysis. More research is also needed to examine other

theories about SLDs, such as the interactional belief and combination method. This study found no individual characteristics that contributed to SLD beliefs; future studies may wish to explore additional characteristics that might be associated with SLD beliefs such as graduate school training. Additional research is needed to determine why school psychologists were unclear about their school SLD guidelines and ways to effectively train school psychologists to understand and abide by school guidelines. It was unclear whether or not the actual school guidelines were unclear, or whether or not the school psychologists were unclear about what the guidelines stated. Finally, further research is needed to empirically investigate outcomes associated with assessment job dissatisfaction.

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**APPENDICES**

Appendix A  
Recruitment Letter

Dear XXX,

My advisor, Courtenay Barrett Ph.D., and I, Joseph Cottrell, plan on administering a survey to school psychology practitioners that assesses current SLD identification practices. We were wondering if, as the supervisor of your district's school psychologists', you would be willing/able to electronically disseminate the link to our survey to your school psychology staff. Respondents may be eligible for an incentive for their participation.

Please let us know if the guidelines of your district allows you to disseminate information regarding participating in school psychology research.

Thank you in advance for your consideration.

Sincerely,

Joseph Cottrell  
School Psychology Student, EdS  
Utah State University

Courtenay A. Barrett, PhD, NCSP  
Assistant Professor  
Department of Psychology

Appendix B

Follow-Up Recruitment Letter

Dear XXX,

I am emailing you to follow-up on a previous email. My advisor, Courtenay Barrett Ph.D., and I, Joseph Cottrell, plan on administering a survey to school psychology practitioners that assesses current SLD identification practices. We were wondering if, as the supervisor of your district's school psychologists', you would be willing/able to electronically disseminate the link to our survey to your school psychology staff. Respondents may be eligible for an incentive for their participation.

Please let us know if the guidelines of your district allows you to disseminate information regarding participating in school psychology research.

Thank you in advance for your consideration.

Sincerely,

Joseph Cottrell  
School Psychology Student, EdS  
Utah State University

Courtenay A. Barrett, PhD, NCSP  
Assistant Professor  
Department of Psychology  
Utah State University

Appendix C

Questionnaire Link Letter

Dear XXX,

Thank you once again for your willingness to disseminate our survey. This email should be forwarded to the school psychologists in your district.

Dr. Courtenay Barrett and I, Joseph Cottrell, are conducting a study regarding school psychologists' perceptions about specific learning disabilities (SLDs) and practices in identifying SLDs. We have contacted your supervisor/organizations president and received permission to conduct this study with your district. If you choose to participate in this study you will be asked to complete an online survey, which will take approximately 15 minutes. The survey is completely voluntary, anonymous, and will be kept confidential. This study has implications into furthering knowledge about the SLD construct, how the SLD construct is conceptualized, and practices used for the identification of SLDs. Those who participate will be eligible for a \$100 gift card if they provide their email address and state in which they work. Informed consent and the survey can be found at:

[https://usu.co1.qualtrics.com/SE/?SID=SV\\_3jAliWMApwGck4J](https://usu.co1.qualtrics.com/SE/?SID=SV_3jAliWMApwGck4J)

Thank you in advance for your time.

Sincerely,

Joseph Cottrell  
School Psychology Student, EdS  
Utah State University

Courtenay A. Barrett, PhD, NCSP  
Assistant Professor  
Department of Psychology  
Utah State University

Appendix D  
Correlations Between Measures

Table D1

*Correlations: Questionnaire Measures*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
4. Biological causes of SLDs	-											
5. Environmental causes of SLDs	-.58**	-										
6. Preferred RtI	-.27**	.25**	-									
4. Preferred Ab-Ach	.11*	-.21**	-.22**	-								
5. Preferred PSW	.15**	-.13**	-.24**	.11*	-							
6. RtI school guidelines	-.02	-.03	.13	.02	-.07	-						
7. Ab-Ach school guidelines	.02	-.06	.01	.38**	.03	-.29**	-					
8. PSW school guidelines	.07	-.02	-.02	-.04	.31**	.16**	-.02	-				
9. Actual RtI	-.03	-.01	.28**	-.16**	-.16**	.55**	-.41**	.02	-			
10. Actual Ab-Ach	.05	-.11*	-.06	.53**	.07	-.25**	.76**	-.12*	-.38**	-		
11. Actual PSW	.19**	-.10	-.13**	-.04	.53**	.06	-.20**	.55**	.06	-.16**	-	
12. Job satisfaction mean score	.07	-.13**	-.03	.16**	.04	.01	.04	-.06	.11*	.12*	-.004	-

\* Significant at the .05 level.

\*\* Significant at the .01 level.

Appendix E

Informed Consent and Questionnaire

**Specific Learning Disabilities Introduction/ Purpose:** Dr. Courtenay Barrett and Joseph Cottrell in the Department of Psychology at Utah State University are conducting a research study to learn more about school psychologists' beliefs about the Specific Learning Disability (SLD) construct and how SLDs are identified in schools. You have been asked to participate in this study because you are a school psychologist and have knowledge and practice in identifying SLDs.

**Procedures:** If you agree to participate in this research study, you will be asked to answer questions about your beliefs about SLDs, how you prefer to identify SLDs, your schools' SLD identification guidelines, and your current SLD identification practices. Individuals desiring to be entered into a drawing for a \$100 visa gift card may choose to provide their email address and state in which they currently work following the survey. Several participants will be randomly chosen to receive the incentive around mid-April. Prize winners will be sent an email notifying them of their winning and asked where they would like the gift card sent. Winning participants will be given one week to provide the information before another randomly chosen participant will be chosen to receive the prize.

**Risks:** There are minimal associated risks in participating in this survey as no identifying information will be collected during the survey. All responses are anonymous and will not be provided to supervisors or administrators. Responses on the second prize survey will not be linked to the first survey or be used for data collection.

**Benefits:** Participants benefit directly by being eligible to receive several \$100 visa gift cards. Your participation will also benefit the field of school psychology by providing new information about how school psychologists are identifying SLDs, how school psychologists are conceptualizing the construct and different identification methods, and how school guidelines reflect changes in IDEA (2004).

**Explanation & offer to answer questions** If you have questions or research-related problems, you may reach Dr. Courtenay Barrett at [courtenay.barrett@usu.edu](mailto:courtenay.barrett@usu.edu) or Joseph Cottrell at [joseph.cottrell@aggiemail.usu.edu](mailto:joseph.cottrell@aggiemail.usu.edu).

**Voluntary nature of participation and right to withdraw without consequence**  
Participation in research is entirely voluntary. You may refuse to participate or withdraw at any time without consequence.

**Confidentiality:** Research records and files will be kept confidential, consistent with federal and state regulations. Only the investigators will have access to the data which will be kept in a locked file cabinet or on a password protected computer in a locked room. To protect your privacy, no personal, identifiable information will be collected. Your IP address will not be included in the data file that is sent to us from the online survey. To protect privacy and confidentiality responses to the first survey will not be linked to the second prize survey and identifying questions like name, address, and phone number will not be asked. Prize winners will be asked to provide an address to which

they would like the \$100 visa gift card sent to. However, one week following the sending of the prize the researchers will delete the participants' information.

IRB Approval Statement: The Institutional Review Board for the protection of human participants at Utah State University has approved this research study. If you have any questions or concerns about your rights or a research-related injury and would like to contact someone other than the research team, you may contact the IRB Administrator at (435) 797-0567 or email [irb@usu.edu](mailto:irb@usu.edu) to obtain information or to offer input.

School psychologists are a single member of a multidisciplinary team that works together in identifying and providing remediation for individuals with SLDs. Although school psychologists' provide key information into the identification of SLDs, the decision about identification and remediation is made by a committee of school and non-school personnel (e.g., parents). The following survey includes items that aim to understand the school psychologist's perspective regarding SLD identification but does not aim to take away from the fact that SLD identification is a team effort.

By proceeding with this survey you are giving your consent. Do you desire to continue on to the survey?

- Yes
- No

Are you currently practicing as a school psychologist in a school setting (e.g., public or private schools, including parochial and charter schools)?

- Yes
- No

Have you received formal graduate school training in SCHOOL PSYCHOLOGY?

- Yes
- No

What is your highest level of education completed?

- Bachelor's (e.g., B.A. or B.S.)
- Master's (e.g., M.A., M.S., or M.Ed)
- Specialist (e.g., Ed.S or A.G.S)
- Doctoral (e.g., Psy.D, Ph.D, or Ed.D)
- Other \_\_\_\_\_

What year did you obtain your highest degree in school psychology?

What state do you currently work in?

How many years have you practiced as a school psychologist?

Please specify your gender.

- Male
- Female

Please specify your ethnicity/race.

- American Indian or Alaska Native
- Arab or Middle Eastern
- Asian (e.g., Chinese, Korean, Japanese, Vietnamese, Filipino, Indian)
- Black or African American
- Latino or Hispanic
- Native Hawaiian or Other Pacific Islander
- White or Caucasian
- Mixed or Biracial
- Other \_\_\_\_\_

What is your age?

Are you a member of the National Association of School Psychologists (NASP)?

- Yes
- No

Are you a Nationally Certified School Psychologist (NCSP)?

- Yes
- No

How many elementary schools do you currently work in?

- 0
- 1
- 2
- 3
- $\geq 4$

THINK ABOUT ELEMENTARY SCHOOL #1

Which best describes the region of Elementary School #1?

- Rural
- Suburban
- Urban

In Elementary School #1, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about elementary school #1, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

#### THINK ABOUT ELEMENTARY SCHOOL #2

Which best describes the region of Elementary School #2?

- Rural  
 Suburban  
 Urban

In Elementary School #2, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about elementary school #2, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

#### THINK ABOUT ELEMENTARY SCHOOL #3

Which best describes the region of Elementary School #3?

- Rural  
 Suburban  
 Urban

In Elementary School #3, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about elementary school #3, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

#### THINK ABOUT ELEMENTARY SCHOOL #4

Which best describes the region of Elementary School #4?

- Rural  
 Suburban  
 Urban

In Elementary School #4, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about elementary school #4, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

How many middle schools do you currently work in?

- 0  
 1  
 2  
 3  
  $\geq 4$

#### THINK ABOUT MIDDLE SCHOOL #1

Which best describes the region of Middle School #1?

- Rural  
 Suburban  
 Urban

In Middle School #1, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about middle school #1, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

THINK ABOUT MIDDLE SCHOOL #2

Which best describes the region of Middle School #2?

- Rural  
 Suburban  
 Urban

In Middle School #2, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about middle school #2, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

THINK ABOUT MIDDLE SCHOOL #3

Which best describes the region of Middle School #3?

- Rural  
 Suburban  
 Urban

In Middle School #3, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about middle school #3, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

THINK ABOUT MIDDLE SCHOOL #4

Which best describes the region of Middle School #4?

- Rural  
 Suburban  
 Urban

In Middle School #4, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about middle school #4, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes  
 No

How many high schools do you currently work in?

- 0  
 1  
 2  
 3  
  $\geq 4$

**THINK ABOUT HIGH SCHOOL #1**

Which best describes the region of High School #1?

- Rural
- Suburban
- Urban

In High School #1, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about high school #1, of all the schools I currently work in I have conducted more psychoeducational assessments in this school then in my other schools.

- Yes
- No

**THINK ABOUT HIGH SCHOOL #2**

Which best describes the region of High School #2?

- Rural
- Suburban
- Urban

In High School #2, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about high school #2, of all the schools I currently work in I have conducted more psychoeducational assessments in this school then in my other schools.

- Yes
- No

**THINK ABOUT HIGH SCHOOL #3**

Which best describes the region of High School #3?

- Rural
- Suburban
- Urban

In High School #3, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about high school #3, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes
- No

**THINK ABOUT HIGH SCHOOL #4**

Which best describes the region of High School #4?

- Rural
- Suburban
- Urban

In High School #4, approximately what proportion of students...

	Few (0-25%)	Almost half (26-50%)	Over half (51-75%)	Most (76-100%)
Qualify for free/reduced meals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are racial/ethnic minority students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about high school #4, of all the schools I currently work in I have conducted more psychoeducational assessments in this school than in my other schools.

- Yes
- No

THINK ABOUT SPECIFIC LEARNING DISABILITIES (SLDs). TO WHAT EXTENT DO YOU AGREE WITH THE FOLLOWING STATEMENTS?

	Strongly Disagree	Disagree	Agree	Strongly Agree
SLDs are the product of neurological dysfunctions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SLDs are primarily developed because of environmental deprivations (e.g., less than adequate academic instruction, lack of parental involvement, or poor home environment).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to environmental factors, heredity plays a more significant role in the development of an SLD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A teacher's ability to tailor instruction may prevent the development of an SLD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greater emphasis should be placed on evaluating the child's psychological functioning/processing than his/her environment when evaluating the student for an SLD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SLDs are primarily related to deficits or abnormalities in the structure of the brain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For most children, high quality instruction early in a student's life can prevent the development of SLDs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental factors (e.g., less than adequate academic instruction, lack of parental involvement, or poor home environment) have little influence on whether or not a student develops an SLD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If the quality of general education instruction improved, the prevalence of SLDs would decrease.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a student is born with an SLD, he/she will always have an SLD, even if he/she is provided with the highest quality instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most children classified with SLDs, have lacked effective instructional opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

IN THE FOLLOWING ITEMS, AN “IDEAL SETTING” IS DEFINED AS HAVING FEW TIME CONSTRAINTS, FEW FINANCIAL LIMITATIONS, A LIMITED CASE LOAD, SUPPORT FROM SCHOOL FACULTY, AND WORKING IN ONE SCHOOL. IN AN IDEAL SETTING, WHAT ARE YOUR PREFERENCES FOR SLD IDENTIFICATION? Note: SD=Standard Deviation

In an ideal setting, I would identify SLDs through a response to evidence-based intervention approach (RTI).

- Never
- Rarely
- Most of the Time
- Always

In an ideal setting, to what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Agree	Strongly Agree
In an ideal setting, I would ensure the intervention matched the student's presenting problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In an ideal setting, I/the teacher would collect fidelity data to ensure that the intervention was implemented with integrity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In an ideal setting, I would deliver \_\_\_\_\_ different interventions before classifying the student as non-responsive.

- 1
- 2
- 3
- 4
- $\geq 5$

In an ideal setting, I would give a student \_\_\_\_\_ to respond to ONE intervention before classifying the student as non-responsive to that intervention.

- $\leq 1$  week
- 2-3 weeks
- 4-5 weeks
- $\geq 6$  weeks

IN THE FOLLOWING ITEMS, AN “IDEAL SETTING” IS DEFINED AS HAVING FEW TIME CONSTRAINTS, FEW FINANCIAL LIMITATIONS, A LIMITED CASE LOAD, SUPPORT FROM SCHOOL FACULTY, AND WORKING IN ONE SCHOOL. IN AN IDEAL SETTING, WHAT ARE YOUR PREFERENCES IN SLD IDENTIFICATION? Note: SD= Standard Deviation

In an ideal setting, I would use the following types of tests/assessments to identify an SLD.

	Frequency				Types of scores I would use when calculating a discrepancy.		
	Never	Rarely	Most of the Time	Always	Overall/ Total Score	Index/Factor /Cluster Scores	Subtest Scores
Cognitive Assessments (e.g., WISC-IV)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achievement Assessments (e.g., WJ-III: Ach)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processing Assessments (e.g., Comprehensive Test of Phonological Processing, Test of Auditory Processing Skills).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuropsychological Assessments (e.g., NEPSY-2).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In an ideal setting, I would determine if there was a significant discrepancy between a student's cognitive and achievement scores to identify an SLD.

- Never
- Rarely
- Most of the time
- Always

In an ideal setting, I would define a discrepancy between a student's cognitive and achievement scores to be \_\_\_\_\_.

- $\leq .5$  SD or 7.5 points
- 1 SD or 15 points
- 1.33 SDs or 20 points
- $\geq 1.5$  SDs or 22.5 points

In an ideal setting, I would identify an SLD by evaluating a pattern of strengths and weaknesses within ONE type of assessment (e.g., cognitive assessment).

- Never
- Rarely
- Most of the time
- Always

In an ideal setting, I would define a discrepancy between Factor/Index Scores (e.g., Verbal Comprehension Index) to be \_\_\_\_\_.

- $\leq .5$  SD or 7.5 points
- 1 SD or 15 points
- 1.33 SDs or 20 points
- $\geq 1.5$  SDs or 22.5 points

In an ideal setting, if the school team believed that the child needed special education services under the category of SLD, I would choose the method of identification (e.g., RTI, PSW, IQ-Achievement discrepancy) that would allow the child to qualify for services.

- Never
- Rarely
- Most of the Time
- Always

THE FOLLOWING QUESTIONS ASK ABOUT YOUR SCHOOL'S SLD IDENTIFICATION GUIDELINES. IF YOU WORK IN MULTIPLE SCHOOLS, THINK ABOUT THE GUIDELINES OF THE SCHOOL THAT YOU HAVE CONDUCTED THE MOST PSYCHOEDUCATIONAL ASSESSMENTS IN. Note: SD=Standard Deviation

This year my school \_\_\_\_\_ me to identify SLDs through a response to evidence-based intervention approach (RTI).

- Never Allows
- Allows but does not support
- Allows and does support
- Requires
- Unclear as to what my guidelines require

To what extent does your school require the following?

	Does not require	Allows but does not support	Allows and does support	Requires	Unclear as to what my guidelines require
My school _____ that the intervention matched the student's presenting problem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My school _____ me/the teacher to collect fidelity data to ensure that the intervention was implemented with integrity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This year my school requires that I deliver \_\_\_\_\_ different interventions before classifying the student as non-responsive.

- 1
- 2
- 3
- 4
- $\geq 5$
- Unclear as to what my guidelines require

This year my school requires a student \_\_\_\_\_ to respond to ONE intervention before classifying the student as non-responsive to that intervention.

- $\leq 1$  week
- 2-3 weeks
- 4-5 weeks
- $\geq 6$  weeks
- Unclear as to what my guidelines require

THE FOLLOWING QUESTIONS ASK ABOUT YOUR SCHOOL'S SLD IDENTIFICATION GUIDELINES. IF YOU WORK IN MULTIPLE SCHOOLS, THINK ABOUT THE GUIDELINES OF THE SCHOOL THAT YOU HAVE CONDUCTED THE MOST PSYCHOEDUCATIONAL ASSESSMENTS IN. Note: SD=Standard Deviation

This year my school requires me to use the following types of tests/assessments to identify an SLD.

	Frequency					Types of scores you were allowed to use when calculating a discrepancy.			
	Never	Rarely	Most of the Time	Always	Unclear	Overall/Total Score	Index/Factor/Cluster Scores	Subtest Scores	Unclear
Cognitive Assessments	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Achievement Assessments	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Processing Assessments	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Neuropsychological Assessments	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

This year my school \_\_\_\_\_ me to determine if there is a significant discrepancy between a student's cognitive and achievement scores to identify an SLD.

- Never Allows
- Allows but does not support
- Allows and does support
- Requires
- Unclear as to what my guidelines require

This year my school defines a discrepancy between a student's cognitive and achievement scores to be \_\_\_\_\_.

- $\leq .5$  SD or 7.5 points
- 1 SD or 15 points
- 1.33 SDs or 20 points
- $\geq 1.5$  SDs or 22.5 points
- Unclear as to what my guidelines require

This year my school \_\_\_\_\_ me to identify an SLD by evaluating a pattern of strengths and weaknesses within ONE type of assessment (e.g., cognitive assessment).

- Never Allows
- Allows but does not support
- Allows and does support
- Requires
- Unclear as to what my guidelines require

This year my school defines a discrepancy between Factor/Index Scores (e.g., Verbal Comprehension Index) to be \_\_\_\_\_.

- $\leq .5$  SD or 7.5 points
- 1 SD or 15 points
- 1.33 SDs or 20 points
- $\geq 1.5$  SDs or 22.5 points
- Unclear as to what my guidelines require

This year, if the school team believes that the child needed special education services under the category of SLD, I would choose the method of identification (e.g., RTI, PSW, IQ-Achievement discrepancy) that would allow the child to qualify for services.

- Never Allows
- Allows but does not support
- Allows and does support
- Requires
- Unclear as to what my guidelines require

FOR THE FOLLOWING ITEMS THINK ABOUT WHAT YOU ACTUALLY DO IN PRACTICE TO IDENTIFY SLDS. Note: SD=Standard Deviation

I actually use a response to evidence-based intervention approach (RTI).

- Never
- Rarely
- Most of the Time
- Always

To what extent do you actually do the following?

	Never	Rarely	Most of the time	Always
I actually ensure that the intervention matched the student's concern.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I/the teacher actually collected fidelity data to ensure that the intervention was implemented with integrity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I actually deliver \_\_\_\_\_ different interventions before classifying the student as non-responsive.

- 1
- 2
- 3
- 4
- $\geq 5$

I actually give a student \_\_\_\_\_ to respond to ONE intervention before classifying the student as non-responsive to that intervention.

- $\leq 1$  week
- 2-3 weeks
- 4-5 weeks
- $\geq 6$  weeks

FOR THE FOLLOWING ITEMS THINK ABOUT WHAT YOU ACTUALLY DO IN PRACTICE TO IDENTIFY SLDS. Note: SD=Standard Deviation

How often do you actually use the following types of tests/assessments to identify an SLD?

	Frequency				Types of scores you actually used to calculate a discrepancy.		
	Never	Rarely	Most of the Time	Always	Overall/Total Score	Index/Factor/Cluster Scores	Subtest Scores
Cognitive Assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achievement Assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processing Assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuropsychological Assessments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I actually determine if there is a significant discrepancy between a student's cognitive and achievement scores to identify an SLD.

- Never
- Rarely
- Most of the time
- Always

I actually define a discrepancy between a student's cognitive and achievement scores to be \_\_\_\_\_.

- $\leq .5$  SD or 7.5 points
- 1 SD or 15 points
- 1.33 SDs or 20 points
- $\geq 1.5$  SDs or 22.5 points

I actually identify an SLD by evaluating a pattern of strengths and weaknesses within ONE type of assessment (e.g., cognitive assessment).

- Never
- Rarely
- Most of the time
- Always



Do you have any other comments about this survey or about SLDs, including identification?

Would you like to be entered into a drawing for a \$100 visa gift card?

Yes

No

### **Prize Questionnaire**

In order to be eligible for a \$100 gift card please answer the following questions.

What state do you currently work in?

What is your email address?