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The Relationship Between English Language Learners and Reading Disabilities Profiles: Language Acquisition vs. Reading Disabilities

Emily S. Hartz
Philadelphia College of Osteopathic Medicine, emilyha@pcom.edu

Philadelphia College of Osteopathic Medicine

Department of Psychology

THE RELATIONSHIP BETWEEN ENGLISH LANGUAGE LEARNERS AND READING DISABILITIES PROFILES: LANGUAGE ACQUISITION VS. READING DISABILITIES

By Emily S. Hartz

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Dissertation Approval

This is to certify that the thesis presented to us by Emily S. Hartz on the 1st day of July, 2014, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

Committee Members' Signatures:

Virginia Burks Salzer, PhD, Chairperson

George McCloskey, PhD

Elvira Zuazo-Legido, PsyD

Robert A DiTomasso, PhD, ABPP, Chair, Department of Psychology

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Abstract

School psychologists are asked to determine whether or not a student's limited English proficiency affects his or her eligibly for special education services. Scores from language proficiency tests, such as the WIDA ACCESS for ELLs English Language Proficiency Test, are often the only data available that speak to a student's language proficiency. There is little research that speaks to how scores on these tests relate to performance on diagnostic testing for special education, specifically achievement testing. In this sample of data drawn from a population of English language learners, who also qualify for special education services under the disability of specific learning disability (n =37) standardized achievement test scores and WIDA ACCESS for ELLs English Language Proficiency Test were correlated to determine if significant relationships were present. A Pearson correlation revealed that the higher reading and writing achievement subtest had the strongest relationship with reading and writing subtests on WIDA ACCESS for ELLs English Language Proficiency Test. Cross-tabulations and chi-square tests of significance were performed to identify how individuals performed on both assessments. Results suggest that an individual's low score on an achievement measure is not related to a low score on a language proficiency measure.

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Chapter 1: Introduction

The process for evaluating children in a public school system varies from state to state. This is due to the fact that each state can develop its own special education laws. Additionally, individual schools have their own referral processes. Some schools have a child partake in his or her response to the intervention process during which he or she receives intervention before an evaluation occurs. Other schools refer for a psycho-educational evaluation when the students meet any of the following criteria: risking retention, failing to master skills comparably with other students, or receiving lower test scores. The process for finding and identifying children who may have a learning disability is specific to each school but all schools are deemed responsible for doing so.

English Language Learners highlight the flaws in the education system because they need more accommodations and considerations as they grow older and move through the school system. Children who enter school speaking a language other than English, but who have never attended school in a country where their native language is spoken, have difficulty getting special education services. These individuals may have learning disabilities that are being masked by their slower progress in learning a second language. Specific interventions geared at learning to read and write may be delayed within the school system because the school's main focus is having the child learn English. These students often get referred for an evaluation later than children with initial English proficiency.

Students who learn English as a second language meet different requirements to meet the criteria to get special education services than do students with a Specific Learning Disability. The process is simple if the student is new to this country and has been exposed only to his or her native language. A school psychologist would evaluate the student in the child's native language

for both cognitive measures and academic measures to determine the discrepancy. If students have been in the American school system, it is more difficult for them to be referred for an evaluation. When an evaluation occurs early in the child's academic career it is usually because the parent or guardian (not the teacher) referred the child for an evaluation. Many teachers do not refer students for an evaluation if they are in English for Speakers of Other Languages (ESOL) because it is recommended that they wait at least two years in an English Language Learner curriculum before referral. Those two years often turn into five or more, because their lack of progress is often associated with problems learning English because they are exposed to English only in school and not at home. It is not uncommon for a student in ESOL to be the only person in his or her family that is learning English. Although insufficient exposure to English may be delaying progress for some of these children, they may also have a learning disability that makes the acquisition of language and academic skills more difficult. There is difficulty identifying whether or not an individual needs more time learning the English language or if he or she should be referred for a psychoeducational evaluation. This difficulty often results in children missing valuable years of special education support.

When these students do get referred for Special Education Supports many remain in ESOL because it is difficult to determine their levels of English proficiency because they score poorly on reading and writing measures. In order to be exited from ESOL services, a student has to score as being "proficient" in reading, writing, speaking, and understanding English (Pennsylvania Department of Education, 2007). Many students are proficient in listening and speaking but are unable to read or write proficiently; consequently, they never pass the test to exit ESOL. The attempt to learn a new language and at the same time to attempt to learn to read is too great a challenge for some children.

The recommended two year waiting period for receiving an evaluation can also make the situation more dynamic. Additional factors develop because of maturation that can distort the data that will be collected for the evaluation. One distortion occurs when the evaluation is conducted in the child's native language. The reason is that these individuals have to wait two years to be evaluated for special education. In those two years, these students have received education only to expand their English lexicon. They are then assessed in their native languages in which none of their newly taught skills can be assessed. School psychologists are asked to attempt to fill in the gaps, determining where they think learning would be if the language of instruction and communication were consistent. This is even more difficult because it is not uncommon to have a student who speaks some English and some Spanish get tested only in one language. School psychologists will often choose the native language unless the student scores at or close to proficiency on the exit test for English Language Learner. It can be difficult to tell whether or not a child is having a difficulty with learning to read in English, when he or she has a Specific Learning Disability (SLD) when he or she has been instructed to read only in English and he or she speaks only Spanish. This can lead to students being put in special education classes when they simply need to spend more time learning to read in English or it can lead to students being kept in ESOL when they need special education classes. By the time an evaluation occurs both groups of students in ESOL (students who have a true SLD or students who need more time to develop English) are often identified as students with a Specific Learning Disability. Collapsing students with various levels of English proficiency into one SLD group confounds service delivery to this population of ESOL students with SLDs.

Statement of the Problem

Students who are labeled as students with a Specific Learning Disability will remain in an ESOL curriculum because they cannot pass the exit exam. Additionally, students often have to wait to be identified for special education services due to their language acquisition. The Individuals with Disabilities Education Act (IDEA) criterion for Specific Learning Disability typically looks at individual skill deficits in regards to cognitive function. Children who have had non-typical language development and have skill deficits often get grouped into categories or curricula that do not meet their needs. These categories and labels are sensitive enough to determine those students who would benefit from different types of learning interventions; however, the procedures for identifying the categories or disability labels are not sensitive enough to differentiate the categories and labels. Not enough research has been done to examine the testing done in ESOL, compared with the testing done in special education.

Purpose of the Study

The purpose of the current study is two fold. First, this study was designed to address the question of whether or not there is a relationship between ELL students' English language proficiency skills and standardized achievement tests used to assess students' eligibility for special educational services. Demonstration of such a relationship would indicate that there is a relationship between standardized achievement tests and language proficiency tests. This will also allow for one to understand how the two tests scores relate to each other. The second aim of this study was to determine if ELL students who have been classified as having a Specific Learning Disability (based on their low scores on standardized achievement tests in the area of reading comprehension, word-identification, and written expression) will perform in the entering or beginning Level on English language proficiency test in reading and writing. Such a finding

would indicate that students with a learning disability who have low scores on standardized achievement tests will also score very low on language proficiency tests. This will also allow for greater understanding of the academic skills levels for the lower language proficiency groupings.

Research Questions

1. Are higher writing and reading achievement scores related to higher reading and writing scores on English language proficiency tests?
2. Do ELL students who have been classified as having a Specific Learning Disability score low on standardized achievement tests in the areas of reading comprehension, word-identification, and written expression also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading and writing test?
    a. Do learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading test?
    b. Do learning disabled ELL students who score low on standardized achievement tests in the area of word reading also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading test?
    c. Do learning disabled ELL students who score low on standardized achievement tests in the area of written expression also perform in the

entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test?

d. Do learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test?

e. Do learning disabled ELL students who score low on standardized achievement tests in the area of word reading also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test?

Chapter 2: Review of the Literature

Review of Literature

School psychologists are asked to evaluate children who have difficulties making educational progress, specifically children who are not developing academic skills in reading. Those children who are referred due to reading difficulties may have other confounding factors that influence their reading progress. Because of those contributing factors, school psychologists conduct comprehensive evaluations even when the reason for referral is strictly academic. Behavioral and attendance problems are often listed as contributing factors, yet little history about the student's language development is listed in their reports. School psychologists ask when a child took his or her first step or said his or her first word but many developmental history forms end there. Evaluation reports often fail to address all of the language milestones. Parents or guardians face difficulty in recalling specific language milestones that children attain/accomplish at young ages. However, in looking at students who are still learning to read in sixth, seventh, or eighth grades, it seems apparent that language development is very important in understanding the delay in reading progress.

School systems try to teach students who are learning English how to speak, read, and write in English. Most schools are successful at making students proficient in English, which proficiency is determined by the standards set by the department of education; however, some students need more time than others to develop the linguistic skills and become proficient in English. Those students continue to get in ESOL instruction to improve their skills. After additional time, some students meet the requirement to achieve English proficiency, yet other students do not make progress in their speaking or reading skills; this is in addition to the inability to pass the language proficiency test, and thus remain receiving instruction in linguistic

skills. Some of those students, for example, the students who speak only one language, have other conditions such as a learning disability that makes learning more arduous. When students are referred for a psychoeducational evaluation to determine if they have a learning disability, it is difficult to determine the influences that language acquisition has on standardized testing. It is necessary to have the ability to rule out poor language acquisition in order to determine if the student qualifies for a learning disability. Additionally, it is difficult to find testing materials for individuals who are not proficient in English. Evaluators need to have an understanding of language development to understand how other factors can influence academic development.

Language Development

How infants or people of any age learn language is a question that has always been very difficult to answer. Children can learn languages rapidly and easily; however, it can be an almost painful experience to learn a second language as an adult or a high school student. Yet, some individuals learn another language much faster than others. The qualities that make someone good at learning language can differ from person to person, but what makes children learn language more efficiently is that they utilize different strategies and are dependent on concepts such as statistical learning (Kuhl, 2004). Statistical learning is the way in which infants learn language by combining computational abilities with pattern detection (Kuhl, 2004). The acquisition of language involves neural commitment, which has a critical period of development (Kuhl, 2004). The critical period suggests that early learning promotes the learning that is to develop later or that learning is easier during a certain period in one's development (Kuhl, 2004). Having a critical period for learning language suggests that there is a pattern to language development. This pattern of language development is not fully understood at this time but how one develops language and reaches language milestones has been researched through

observation. Because of the way in which the brain develops, including the language skills attributed to that development, there are observational language milestones that occur. These milestones have been studied to provide more information about typical development and language delays.

Language Milestones

How infants go from crying to babbling has been researched through observation. From birth to three months of age, infants start to produce non-speech sounds and discriminate the phonetic contrasts of all languages (Kuhl, 2004). Babies are born without bias to understand one language over another (Kuhl, 2004). Around three months of age, the infant may start to produce vowel sounds (Kuhl, 2004). When an infant is around six or seven months old, he or she starts to have language specific perception of vowels and he or she starts babbling (Kuhl, 2004). Infants begin to differentiate the language they hear more often than other languages. Between month nine and month ten, infants will start to detect the typical stress patterns in the words they hear and they will be able to start to recognize language-specific sound combinations (Kuhl, 2004). Also in month ten, infants may start to have language-specific speech production and they will start to produce their first words around one year of age (Kuhl, 2004). Within each of the developmental benchmarks the infant is tasked with learning specific concepts relative to the milestone that is to be learned.

Infants are tasked to learn how to sort out sounds. This task is very difficult because each language has its own set of 40 phonemes (Kuhl, 2004). Not only do infants have to learn to sort sounds but they also have to understand the composition of those phonemes so that they can differentiate the sounds in words (Kuhl, 2004). This is not a taught skill but one that is innately learned. Infants are especially sensitive to noticing the differences between different phonemes

(Kuhl, 2004). Infants, unlike adults, can notice differences in phonetic contrasts in any language (Kuhl, 2004). As infants get older they lose the ability to differentiate different phonemes and start to listen to their language-specific phonetic patterns (Kuhl, 2004). Infants are less open to phonetic patterns of other languages around twelve months of age (Kuhl, 2004). There are several theories that aim to explain this phenomenon. Many of the theories are based upon the sensitivity of infants to the distributional frequencies of languages. As infants get better at categorizing the sounds, they are more closely attuned to sounds they hear more frequently (Kuhl, 2004). Neural commitment also explains how well an infant can learn early language skills (Kuhl, 2004). Neural commitment suggests that there is a critical period in neurodevelopment that is dependent on enrichment for good phonetic development to be encrypted neurologically (Kuhl, 2004). For individuals who are bilingual, this process of learning or mapping different phonetic patterns is said to take longer (Kuhl, 2004).

Language and the Brain

The environment plays a major role in the way in which language and brain development occurs. An individual's experiences early on in life affect how his or her brain develops. Language abilities and skills are found in the left side of the brain in the majority of the population (Carlson, 2010). The left lobe is found to be more active during both receptive and expressive language (Miller, 2013 p. 424). However, if one has a damaged or poorly developed left hemisphere, the right lobe will take on the language functions (Knecht et. al., 2000). The inferior prefrontal cortex is also known as Broca's area. Damage to this area typically results in slow, laborious, and nonfluent speech (Miller, 2013 p. 425). Surrounding Wernicke's area is the cortical associational areas; damage or poor development of the cortical associational areas results in trouble understanding word meanings and in difficulty expressing thoughts through

speech (Miller, 2013 p.426). Prosody of speech is a right hemisphere task and is involved in how well one succeeds in reading fluency (Miller, 2013 p. 427). Problems with expressive and with receptive language have been attributed to reading disabilities and neurological findings show that language processing is related to the process of reading (Feifer, 2010).

Reading Development

Several skills must develop before a person becomes a fluent reader. Understanding oral language and how oral language is represented in text is vital to being a fluent reader. Listening comprehension is how one understands oral language, including the semantic and syntactic components of language (Durgunoglu & Oney, 2000). Components of understanding oral language include vocabulary and background knowledge (Durgunoglu & Oney, 2000). Vocabulary and background knowledge progress depends on how much one is exposed to information. Understanding how to read depends initially on letter sound relationships and evolves to sound blends; however, before an individual can start to understand and use phonics, he or she needs initially to understand how and why written language is used (Durgunoglu & Oney, 2000). After a person understands how and why language is used, he or she must become familiar with how letters look, including the characteristics of oral language (Durgunoglu & Oney, 2000). Finally, an individual must understand the relationship between spoken language and written language (Durgunoglu & Oney, 2000).

Within those steps to understanding the relationship between spoken and written language there are more specific components such as phonological awareness, syntactic awareness, and functional awareness. Decoding is a process in which phonetic information is recognized from a printed representation of the sound or letter (Durgunoglu & Oney, 2000). One must be able to understand the units of oral language before he or she is able to apply

decoding skills to decipher what a word is when reading (Durgunoglu & Oney, 2000). The basic components of decoding and/or word reading include processing phonemes, graphemes, phoneme and grapheme interaction, and morphemes (Hale & Fiorello, 2004). Phonemes are sounds, whereas graphemes are the symbols. Morphemes are the smallest meaningful units of words (Hale & Fiorello, 2004). Individuals need to have syntactic awareness by understanding the grammatical structure within written and spoken sentences (Durgunoglu & Oney, 2000). Functional awareness is the ability to understand the reasons why there is a written language, including the uses of printed language (Durgunoglu & Oney, 2000).

To determine if one has a problem with reading, it is important to have direct observations of the reading process. Hale and Fiorello (2004) recommend that school psychologists have a responsibility to determine the error pattern when one reads. Hale and Fiorello (2004) recommend analyzing whether or not an individual pauses when reading, omits words, adds words, substitutes words or letter sounds, reverses word parts, has syntax errors, or automatically corrects these mistakes. When a reader performs any one of the errors listed, it can suggest a reading problem or a reading disorder. Understanding the various components of reading disorders or difficulties will aid in correctly identifying those individuals who have reading disorders from those who have reading differences or just need more time to acquire reading skills.

Specific Learning Disabilities

Debates occur over the different methods that school psychologists utilize in order to identify students with specific learning disabilities (Hale et al. 2010). There is a great deal of literature and there are mandates about testing students in their native languages and/or in a dominant language. There are also differing perspectives on appropriate eligibility criteria. Education law

and school psychologists want to ensure that every student is being evaluated without confounding factors that skew the data towards or away from eligibility for a Specific Learning Disability (Flanagan &Alfonso, 2011). School psychologists typically look at reading success or failure as the diagnostic criteria for eligibility.

Reading success verses reading failure. Many school psychologists were trained to look at those students who have the greatest need for intervention services because they feel that everyone should be a fluent reader. Teachers often refer students for an evaluation when the student is not responding to the reading curriculum and shows minimal or no progress. Sometimes students might even be found eligible for special education if they do not respond to the curriculum. When students are identified but their learning patterns and their specific strengths and weakness are not identified, they are grouped into a generic category of Specific Learning Disability and specific interventions cannot be utilized. To avoid this, school psychologists, as a field, need to shift to a more specific means of evaluation and conduct more process-level evaluations. There is a need to aim at increasing everyone's reading, but there is also a need stay focused on the process that is dysfunctional in the students who are not making academic growth in reading. Having the knowledge to provide more specific interventions requires understanding in the underlying neurological causes of reading disorders and the varying types of dyslexia (poor reading skills) a student may have.

Neuro-anatomy of reading disorders. The neuro-anatomy of reading disorders is dependent on many circuits and cortical and subcortical locations; however, there are some locations that play a key part in reading success and reading dysfunction. Many children have a hard time with visual tracking or visual recognition; those problems are processed in the occipital lobe within the primary visual cortex (Miller, 2013 p. 441). The actual processing of reading

occurs within two streams, the dorsal stream or the ventral stream (Miller, 2013 p. 441). These streams are places where visualizations turn into meaningful pieces of information. The dorsal stream or pathway transports letters into sounds, based on their phonemes (Miller, 2013 p. 441). The dorsal stream decodes letter sounds and allows one to sound out words. The structures associated with this pathway are found in the parieo-temporal region and include the angular gyrus and the supermarginal gyrus (Miller, 2013 p. 442). Children who are learning to read by letter sounds rely heavily on this pathway (Miller, 2013 p. 442). The ventral stream or pathway allows for recognizing words visually without sounding out the word. The ventral pathway is an automatic pathway that utilizes whole-word or sight word reading (Miller, 2013 p. 442). The structures associated with the ventral pathway are found in the occipito-temporal pathway and include the fusiform gyrus (Miller, 2013 p. 443). The insular cortex has also been associated with the ventral stream and whole-word reading (Miller, 2013 p. 443). The inferior frontal is also involved in the decoding process in some individuals (Miller, 2013 p. 442). The pathway used by the most fluent readers is the ventral pathway that uses whole-word reading (Miller, 2013 p. 442). Individuals who have a difficult time with reading use all three pathways when they try to read or they use the inferior frontal region to help subvocalize as they attempt to decode the words (Miller, 2013 p. 442).

Poor readers vs. dyslexia. There are various subgroups of reading disorders that an individual can have, as well as many different severities of each reading disorder subtype. Dyslexia, which means poor reading skills, is a term that is widely misused by parents, teachers, and evaluators. The specific type of reading disorder is not typically found in school evaluation report for special education. Parents are often only told that their child does not show progress in word reading, reading comprehension, or decoding. The spectrum of reading disorders range

from pure alexia, which is a disorder that prevents visual information from being processed, to direct dyslexia, which is a disorder in which a person can decode and identify many words but is unable to understand the actual meaning of the words, leading to little or no comprehension of text (Miller, 2013, p. 446). Educational professionals do not as commonly identify these low incidence reading disorder subtypes in the school system as they do other reading disorders, such as phonological dyslexia or surface dyslexia. Having a working understanding of the various types of reading disorders is important not only for diagnostics but also for developing student-centered interventions.

Deep dyslexia. Deep dyslexia occurs when an individual makes many semantic errors when he or she reads. These individuals, who rely on visual cues, will be able to deduce meaning by identifying known words or by looking at pictures linked to the text. They do not utilize phonics as a reading strategy, and they also might struggle to identify words by sight.

Developmental dyslexia. Developmental dyslexia is the terminology used to identify students who have had difficulty with reading since birth; the difficulties with reading were not aquired (Miller, 2013). These students have had problems learning the skills needed to be a fluent reader.

Dysphonetic dyslexia. Dysphonetic dyslexia or phonological dyslexia is displayed when an individual has difficulty decoding unknown words and putting together letter sounds. People with this disorder rely heavily on the sight-word recognition pathway for reading (the occipitotemporal pathway) because they bypass the left parietotempoaral/left frontal region for processing, which is used for decoding. These children struggle significantly in school when students are learning basic letter sound blends and have few letters in their sight-word bank (lexicon).

Additional to phonological dyslexia, individuals who sound out the word as they read stress their working memory. Verbal working memory relies on the phonological loop for processing (Gazzaniga, 2004).

Mixed dyslexia. Mixed dyslexia or word-form dyslexia occurs when an individual is not able to identify words from decoding or by adding the visual appearance of the word to their lexicon bank for whole word recognition (Miller, 2013 p.445). Individuals with mixed dyslexia can identify the letters in a word and can learn to read from memorizing letter order.

Surface dyslexia. Surface dyslexia, also referred to as dyseidetic dyslexia, is present when an individual struggles with reading irregularly spelled words using the occipitotemporal pathway (sight-word reading pathway) (Miller, 2013 p. 445). Miller indicates that there is evidence that individuals with surface dyslexia may have a lesion on their left temporal lobe, which causes the dysfunction of the occipitotemporal pathway. Individuals have to utilize the left parietotempoaral/left frontal region for processing, as they can decode words but have trouble reading fluently (Miller, 2013 p. 445). Based on this information, it is appropriate to deduce that children with this disability type will have a difficult time with reading fluency and will sound out the word rather than using the visual configuration of the sight-word vocabulary. They will also struggle to identify words from other languages that follow different phonetic patterns they are unfamiliar with or words that are spelled non-phonetically or have silent letters.

Working memory. Verbal working memory relies on the phonological loop for processing (Gazzaniga, 2004). The phonological loop plays a large role in storing verbal information and learning new vocabulary (Baddeley, 1986; Baddeley, 2000). The phonological loop has two separate components that it works on: the phonological store and the articulatory control process (Gazzaniga, 2004). The phonological store is the area that holds phonological

information; the articulatory control process reactivates the phonological information that is stored in long-term memory and rehearses the information that is in the phonological store (Gazzaniga, 2004).

School psychologists, in assessing the strength of one's phonological loop by looking at the capacity to remember a series of verbal information, use recall tests (Alloway, Gathercole, Willis, & Adams, 2004). Working memory is a very import construct when learning how to read, because an individual has to put sounds together and manipulate information (visual and verbal) to determine what word they are sounding out. If the student has trouble with working memory and struggles with decoding words, the interventions should be specific to those needs.

Poor readers vs. poor comprehension. Many individuals have trouble learning to identify words, whether it is through phonetics or by sight word identification. Other individuals can identify the words on the page; although they do not have direct dyslexia, they do have trouble understanding what they read. This difficulty with reading comprehension can be related to attention level when reading, understanding the content, understanding the author's point of view, or having difficulties with memory. Just as there are many reasons why one cannot decipher the word that is written, there are also many reasons why one can struggle with reading comprehension.

Testing for reading failure verse testing for a Specific Learning Disability. There are three different classification systems that can be used to determine if one has a learning disability; these include, The Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition, The International Classifications of Disabilities, and The Individuals with Disabilities Education Improvement Act (Flanagan & Alfonso pg. 8-9 2011). School-age children who require services within the school system typically adhere to the Individuals with Disabilities

Education Improvement Act (IDEA). IDEA states that an individual can have a Specific Learning Disability in oral expression, listening comprehension, written expression, basic reading skills, reading fluency, reading comprehension, mathematics calculation, or mathematical problem solving (Flanagan & Alfonso pg. 9 2011). The exact terminology used for the identification of a Specific Learning Disability, as found in Title 20 United States Code Section 1401(30) [cited as 20 USC1401(30)], follows:

> (30) Specific Learning Disability.
>
> (A) In General. The term 'specific learning disability' means a disorder *in one or more of the basic psychological processes* involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.
>
> (B) Disorders Included. Such term includes conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia (34 C.F.R. 300.8).

An evaluator determines if the student he or she is working with has a Specific Learning Disability in any of academic skill areas by referencing the criteria that the state publishes. Each state has to determine those regulations and the policies that they consider as part of the diagnostic criteria (Flanagan &Alfonso- Sotelo-Dynega, Flanagan, Alfonso pg. 8 2011). Although states do have some freedom, the 2006 Federal Regulations determine the general principles that each state has to follow: a discrepancy between cognitive abilities and academic skills is not required, and a process level approach using response to interventions, or other researched based methods are permitted for the use of learning disabilities (Flanagan &Alfonso pg. 8. 2011).

Discrepancy. The discrepancy method requires one to find a significant difference between a student's academic skills score and his or her intellectual abilities score. Much of the current research highlights the risks and faults of using this method for identification. Arguments have been made stating that this method fails to differentiate the students who are low achievers from students who have a Specific Learning Disability (Flanagan & Alfonso p. 12 2011). This method also fails to provide the process deficit that is leading to their problems in acquiring skills (Flanagan & Flanagan, Alfonso pg. 12 2011). The discrepancy method typically finds reading failure and does not provide any information that leads to identification of the processing deficit or interventions that will work to improve their functioning.

Response to intervention. The No Child Left Behind Act and also research suggesting that the discrepancy method leads to the over representation of minority students in special education, has encouraged local education agency representatives to a push for a new way to qualify students; this is known as Response To Intervention (Flanagan & Alfonso, 2011). The proposed response to intervention method uses a student's responses to research-based interventions for identification. The Response To Intervention method is a tiered system that is based on quality instruction and intervention at each tier with screenings and progress monitoring throughout, to ensure that students are responding at each tier. When a student does not respond to a tier, he or she is moved to the next tier where a higher level of intervention takes place. There are a total of three tiers. The first tier is the level at which all students receive quality instruction and students are screened for academic failure (Flanagan & Alfonso, 2011). Students enter tier two when they are struggling in tier one and are not responding to the universal interventions. At tier two, students receive small group interventions that are research-based. If a student does not respond to level two interventions, he or she is moved to tier three

where each receives individualized interventions that are scientifically based. If interventions fail to be effective in having a student learn the skills necessary to achieve academically, this method suggest he or she become eligible for special education services.

Problems with RTI and the discrepancy method. Many school psychologists use the discrepancy rule or the Response To Intervention in their rationale for qualifying a student for special education under the disability label of Specific Learning Disability. It is not uncommon to find a report in which a student's cognitive reasoning skills are discrepant from all of the achievement scores and the explanation for their underachievement is a Specific Learning Disability. This is less than optimal because the evaluator is not identifying a specific learning process the school can utilize to improve the student's achievement. Many school psychologists also feel that it is almost impossible to standardize the process for identifying students with a Specific Learning Disability (Hale, Kaufman, Naglieri, & Kavale, 2006**).** In a White Paper discussion about the best way to identify students with a Specific Learning Disability several conclusions were reached. The first conclusion was that the current IDEA definition needs to be strengthened (Hale, Alfonso, Berninger, Bracken, Christo, Clark, & ... Goldstein, (2010). The second conclusion was that the ability achievement discrepancy model and the Response to Intervention Model are not equipped to identify students with a Specific Learning Disability (Hale, Alfonso, Berninger, Bracken, Christo, Clark, & ... Goldstein, 2010). The suggestions for moving forward with Specific Learning Disability identification was that a comprehensive evaluation should occur in which a pattern of strengths and weaknesses is established though a process approach to determine appropriate interventions (Hale, Alfonso, Berninger, Bracken, Christo, Clark, & ... Goldstein, 2010). This White Paper also suggested that there needs to be more research in order to monitor how successful interventions are when they are based on a

process-level assessment (Hale, Alfonsoutilize , Berninger, Bracken, Christo, Clark, & ... Goldstein, 2010). A process level assessment is a relatively new concept that has been developing over the past fifteen years. This approach aims to link a cognitive process to an academic skill or performance deficit, while maintaining the fact that there is a weakness. A model that uses this principle is the Cogntiive Hypothesis Testing Model.

Cognitive Hypothesis Testing Model. James Hale and Catherine Fiorello first released the Cognitive Hypothesis Testing Model in 2004. This model is based on four principles. The first principle is that there are processes that are linked to academic skill development. Those processes are both cognitive and neuropsychological (Fiorello, Hale, & Snyder, 2006). The second principle is that individuals typically have both strengths and weaknesses that make up their learning profiles (Fiorello, Hale, & Snyder, 2006). The third principal is that those profiles need to be established through direct assessment that is fair and valid (Fiorello, Hale, & Snyder, 2006). The last principle is that the academic deficits need to be improved by emphasizing their cognitive strengths and improving or compensating for their cognitive weaknesses (Fiorello, Hale, & Snyder, 2006). The model accomplishes this by finding a cognitive strength that is significantly higher than an academic skills deficit that is related to a cognitive process deficit at its cause (Hale & Fiorello, 2004). This method then aims to improve the academic skills by examining the root of the problem. This often leads to understanding what type of dyslexia a student might have and often answers the question of the reason why a student is not making progress and not simply pointing out that he or she is not reading well.

The processes used to classify students for special education can be very difficult because there is much debate on which method to use; however, there has been a lot of support for the process level assessment. Lisa Hain has also studied the link between cognitive process and

academic achievement. Hain found several learning patterns when she conducted statistical analysis of testing scores (Hain, 2008). Hain points out that those school psychologists often have a large amount of data about how a student learns but students are usually assigned a generic label of Specific Learning Disability without developing specific interventions for each learning type. Hain (2008) discovered statistical links that make identifying learning patterns easy, using test scores that most school psychologists already use. She was able to identify different cognitive subtypes and through hierarchical cluster analysis examine how those subtypes perform on standardized achievement measures (Hain, 2008). By using these methods, much can be learned about how children with different learning profiles perform on standardized testing.

ELL Identification

Having a working understanding of how language develops and how it plays a large role in reading development is integral when it is essential to understand how individuals who are learning a second language learn to read. Language and reading development for individuals who are monolingual can be quite difficult to evaluate in order to determine if they have a Specific Learning Disability. Individuals who are bilingual have several extra factors additional to language development that make the identification of a Specific Learning Disability more complicated. Researches have not yet agreed-upon a definition or criteria for individuals who are bilingual (Butler & Hakuta, 2004). Some define bilingualism as individuals who use more than one language (Butler & Hakuta, 2004). It is difficult to determine if a person has learned enough of another language to be considered a bilingual. Some researchers state that individuals have to be fluent in both languages, yet other researchers stated that bilingual speakers include individuals that have different degrees of language proficiency (Butler & Hakuta, 2004).

Researchers Butler and Hakuta use the following definition, “individuals or groups of people who obtain communicative skills, with various degrees of proficiency, in oral and/or written forms, in order to interact with speakers of one or more languages in a given society” (Butler & Hakuta, 2004 pg. 115).

Butler and Hakuta further expand the definition of bilinguals, separating them into classifications by establishing that there are different degrees of balancing between two languages (Butler & Hakuta, 2004). Balanced and unbalanced is the degree to which a person knows his or her second language (Butler & Hakuta, 2004). A balanced bilingual speaker is a person who knows almost equal amounts of both languages, whereas an unbalanced bilingual speaker is a person who knows more of one language than the other language (Butler & Hakuta, 2004). Often when a student is learning a second language he or she is expected to remain unbalanced for a certain number of years in order to become equally proficient in his or her native language as well as in the second language, within the school system.

There are several ways that American school systems test students’ language proficiencies when their first language is not English. When schools find out that a student’s native language is something other than English, they evaluate the student’s English proficiency by testing him or her on different assessments. The assessments that are used help to determine how much English as a Second Language instruction he or she needs. The assessments also determine if a student has learned and acquired enough language to signify that he or she can be exited from English as a Second Language Instruction.

ELL Identification Through Testing

There are several measures that can be used to determine language proficiency. Once a student is identified as one who might have limited English proficiency the school has to follow

standards and evaluate the student to establish his or her level of English proficiency. There are different levels of English proficiency defined by the Pennsylvania Department of Education.

The Pennsylvania Department of Education publishes the *Pennsylvania English Language Proficiency Standards.* The standards are based on *Classroom/ Formative Framework* and the *WIDA Summative/ Large Scale Framework* (Pennsylvania Department of Education, 2007). The *Pennsylvania English Language Proficiency Standards* aims to provide standards for the manner of instructing and assessing students who speak languages other than English. Those standards include five English language proficiency standards, four language domains, five grade level clusters, and five language proficiency levels (Pennsylvania Department of Education, 2007). The five English language proficiency standards include those that are social and instructional, language arts, mathematics, science, and social studies (Pennsylvania Department of Education, 2007). The four language domains are listening, speaking, reading, and writing (Pennsylvania Department of Education, 2007). The five grade level clusters mean that there are different grade level tests for five different grade level clusters. The five grade clusters are prekindergarten through kindergarten, first grade through third grade, fourth grade through fifth grade, sixth grade through eighth grade, and ninth-grade through twelfth grade (Pennsylvania Department of Education, 2007).

The five language proficiency levels are entering, beginning, developing, expanding, and bridging (Pennsylvania Department of Education, 2007). The entering level means that an individual can process and understand pictorial or graphic representations, can express single words or phrases, and may be able to copy words or phrases in English (Pennsylvania Department of Education, 2007). The beginning level is reached when an individual can process and understand general language related to content areas and can express common phrases or

short sentences in English (Pennsylvania Department of Education, 2007). The developing level means that an individual can understand and process general and some specific language in content areas, can express familiar oral and written language, and can write short paragraphs in English (Pennsylvania Department of Education, 2007). The expanding level is determined when an individual can understand and process specific and some technical language in content areas and can express oral and written academic and technical language (Pennsylvania Department of Education, 2007). The bridging level is achieved when an individual can understand technical language in content areas and can express him or herself through oral or written technical language (Pennsylvania Department of Education, 2007). Following level five the person is considered close to being a native English speaker (Pennsylvania Department of Education, 2007). In order to reach the bridging level, an individual must earn high scores on the four language domains.

There are four language domains (listening, speaking, reading, and writing) that need to be assessed according to the Pennsylvania Department of Education. Listening is defined as how one understands, interprets, and evaluates oral language (Pennsylvania Department of Education, 2007). Speaking is defined as how well one can communicate orally with people in different situations (Pennsylvania Department of Education, 2007). Reading according to the Pennsylvania Department of Education (2007) is how well one processes, interprets, and evaluates written language or text with good comprehension and fluency. Writing is determined by how well one can engage in written communication and how well he or she can express himself or herself in different situations (Pennsylvania Department of Education, 2007). Students being instructed through English as a Second Language class are evaluated on these four domains periodically to monitor their progress and test for English proficiency.

The Pennsylvania Department of Education (2007) uses “can do” descriptors at each proficiency level to evaluate the four language domains. At the entering level the individual’s listening skills are evaluated by determining if an individual is able point to words, follow one-step directions, and match statements to his or her visual representations (Pennsylvania Department of Education, 2007). At this level, reading skills are evaluated by determining if the individual can match or identify visual or physical representations with his or her print representation (Pennsylvania Department of Education, 2007). The written and speaking domain are evaluated at the entering level by looking to see if an individual can name or write and label objects (Pennsylvania Department of Education, 2007). Additionally, speaking is evaluated by determining if an individual can answer WH- questions (Pennsylvania Department of Education, 2007). At the beginning level, an individual’s listening skills are evaluated by observing whether or not an individual can sort objects by oral directions, follow two-step directions, and match more complex information with his or her visual representations (Pennsylvania Department of Education, 2007). Reading skills are evaluated in the beginning level by determining if individuals can identify facts in texts (Pennsylvania Department of Education, 2007). The written domain is evaluated at the beginning level by observing how well an individual can make lists and write short sentences (Pennsylvania Department of Education, 2007). Speaking is evaluated by determining if an individual can ask WH- questions and describe pictures (Pennsylvania Department of Education, 2007). At the third level, the developing level, reading is assessed by determining how well one can use context clues and how well he or she can identify main ideas in text (Pennsylvania Department of Education, 2007). At this level, listening skills are evaluated by determining if the individual can follow multistep directions and categorize oral information through visual representations (Pennsylvania Department of

Education, 2007). The written domain is evaluated at the developing level by looking to see if an individual can produce narrative texts, compare and contrast information, and describe situations (Pennsylvania Department of Education, 2007). Speaking is evaluated by determining if an individual can retell stories, explain procedures, and make predictions (Pennsylvania Department of Education, 2007).

The two higher levels, expanding and bridgeing have more complex requirements for mastery. The reading requirements for the expanding level are that one must be able to find details that support the main idea in a text and understand figures of speech (Pennsylvania Department of Education, 2007). The listening requirements for the expanding level are that an individual must be able to analyze and apply oral information (Pennsylvania Department of Education, 2007). The written domain is evaluated at the expanding level by looking to see if an individual can summarize information, edit and revise writing, and create detailed responses (Pennsylvania Department of Education, 2007). Speaking is evaluated by determining if an individual can discuss stories, give speeches, and offer solutions (Pennsylvania Department of Education, 2007). The final level, before an individual is considered to be proficient in English, is called the bridging level. At the bridging level, a person must be able to do more complex applications of reading, writing, speaking, and listening. Reading is evaluated by determining if an individual can conduct research from multiple sources and draw conclusions from explicit and implicit text (Pennsylvania Department of Education, 2007). Listening is evaluated at this level by determining if an individual can draw conclusions from oral information and make connections from oral discourse (Pennsylvania Department of Education, 2007). The speaking requirements at the bridging level are that a person must be able to engage in debates, give examples, and defend points of view (Pennsylvania Department of Education, 2007). The

written requirements are that an individual must be able to apply information to new contexts and author multiple forms of writing (Pennsylvania Department of Education, 2007).

The WIDA ACCESS for ELLs English Language Proficiency Test has the goal of aiding in the process of correctly identifying students into each of the English proficiency levels (Yanosky, Amos, Cameron, Louguit, MacGregor, Yen, & Kenyon, 2013). The WIDA ACCESS for ELLs English Language Proficiency Test is also used for monitoring the progress for English Language Learners (ELL), providing evidence that a student is ready for exiting students from language support services, and as a measure for accountability (Yanosky et al., 2013). The WIDA ACCESS for ELLs English Language Proficiency Test, which is currently on its eighth edition, includes five versions that are being used, one for each of the five grade clusters mentioned previously (kindergarten, first and second, third through fifth, sixth through eighth, and ninth through twelfth) (Yanosky et al., 2013). The WIDA ACCESS for ELLs English Language Proficiency Test overall score, also known as the composite, is typically the basis for all decision making regarding ELL students (Yanosky et al., 2013). Something that is unique to the WIDA ACCESS for ELLs English Language Proficiency Test is that it uses tiered tests. There are three tiers to each grade level cluster. The tiers aim to increase the motivational level on the test by not having items that are too hard or too boring for their audiences (Yanosky et al., 2013). The tiers are meant to test individuals at their difficulty levels. For example Tier A is meant for individuals who are expected to find the entering level difficulty to developing level test difficulty (Yanosky et al., 2013). ??????

Field-testing was done to determine the reliability of the WIDA ACCESS for ELLs English Language Proficiency Test. Most of those who took the field test were living in Illinois and Wisconsin and over half of the students reported their native language to be Spanish

(Yanosky et al., 2013). The test also calculates composite scores in four areas and then combines weighted scores into a composite score. The overall composite is compiled using the following formula: thirty-five percent reading, thirty-five percent writing, fifteen percent listening, and fifteen percent speaking (Yanosky et al., 2013). The majority of the overall score is composed of the students' reading and writing scores. The other composites are comprehension, literacy, and oral language. The comprehension composite is composed of seventy percent of their reading scores and thirty percent of their listening scores (Yanosky et al., 2013). The literacy composite is composed of equal parts of reading and writing; the oral language composite is composed of equal parts of speaking and writing (Yanosky et al., 2013).

A number of monolingual students, many of whom would qualify as having a Specific Learning Disability, would have difficulty reaching the bridging level of English proficiency. It is to be expected that many bilingual students would have the same problem. Individuals having trouble reaching the bridging level of language development might have limited English proficiency and/or a Specific Learning Disability. To determine if a student with limited English proficiency also fits the criteria for a Specific Learning Disability, one has to follow the documented standards and abide by legal precedents.

ELL and SLD Identification and the Law

Many legal precautions have been developed to make sure that the testing procedures are not discriminating. There are many precautions put in place to make sure the testing process is not biased against individuals who are not native English speakers or individuals who have different levels of English proficiency. There have been many legal cases that have set precedents for the way in which psycho-educational evaluation should occur. There were many lawsuits because large numbers of students were being classified under the disability category of

Mental Retardation (now called intellectual disability), but the evaluation procedures were biased. Larry P. v. Riles was a case in1972 in which an African American student was labeled as Mentally Retarded but the testing methods were found to be racially and culturally discriminatory (Jacob, Decker, & Hartshorne, 2011). From that case it was concluded that African Americans should be identified as Mentally Retarded by cognitive measures that are not biased (Jacob, Decker, & Hartshorne, 2011).

In the case of P.A.S.E. v. Hannon in 1980, it was determined that cognitive assessments that are part of a multifaceted assessment can be used because the results will not likely be racially or culturally discriminatory (Jacob, Decker, & Hartshorne, 2011). In the case of Diana v. California Board of Education in 1970, Mexican American students were placed in learning support/life-skills classes based on the results of cognitive testing that was done in English (Jacob, Decker, & Hartshorne, 2011). Students were then tested in their native languages and the results showed that they were not students with an intellectual disability (Jacob, Decker, & Hartshorne, 2011). Because of Diana v. State Board of Education, school psychologist are required to test students in the primary language or with measures that do not rely upon English background knowledge or linguistics (Jacob, Decker, & Hartshorne, 2011). Guadalupe Organization, Inc. v. Tempe Elementary School District NO.3 in 1979 expanded upon Diana v. State Board of Education by requiring that school psychologist do comprehensive evaluations that include a parent interview and an adaptive behavioral assessments (Jacob, Decker, & Hartshorne, 2011). Even though there are many legal precedents that explain the requirements that school psychologists need to complete during a bilingual evaluation, many school psychologists do not comply and fail to complete an evaluation that is unbiased.

Due to the legal precedents, bilingual or linguistically unbiased standards have been written to ensure that the testing results are valid and reliable. In the Standards for Educational and Psychological Testing, written by the American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education, there are many standards that apply when testing students who are bilingual. There are ten standards that are specific to bilingual assessment; these can be applied to test development and administration for cognitive or achievement testing. Standard 9.1 states that "Testing practice should be done to reduce threats to the reliability and validity of test score inferences that may arise from language differences" (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999, p. 97). This standard means that if a person does not have enough knowledge of the language an evaluator has to use his or her professional judgment to determine if the language difference is significant in yielding invalid and unreliable test scores. Standard 9.2 states that if there is research showing that if a test is biased towards a "subgroup of linguistically diverse test takers", then the test researchers and developers need to provide statistical information on how different populations perform on the test (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999 p. 7). Standard 9.3 states that when an evaluator is testing, if a person speaks two or more languages, his or her language proficiency should be obtained (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999 p. 98). Additionally, Standard 9.3 states that testing should occur in the language in which he or she is proficient (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999 p.98). Standards 9.4 and 9.5 speak to the

modifications done during testing. Standard 9.4 states that test manuals need to have a section that explains the linguistic modifications and the rationale for using those modifications (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999). Standard 9.5 states that if a linguistic modification was used that might affect the score comparability to the norms used, it should be flagged, but if the modification would not change the score comparability it does not need to be flagged (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999).

Standards 9.6 and 9.7 are standards for test developers to share information. The test developers need to share information to ensure that they took the steps necessary to develop a test that can be used with individuals with linguistically diverse backgrounds. Standard 9.6 states that test developers and publishers also need to include information and instruction on how to use and interpret testing done with individuals who are linguistically diverse (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999). Standard 9.7 states that when a test is translated, the test publishers should provide information about how reliable and valid the test will be to the linguistic group they are testing (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999). The test developers also need to explain their methods of translating the assessment into another language (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999). Similarly, Standard 9.9 states that when multiple versions of a test are made in different languages there has to be evidence of test comparability (American Educational Research Association, American Psychological Association, National

Council on Measurement in Education, 1999). Standard 9.10 states that the language proficiency determination should be based on a "range of linguistic skills, and not on a single linguistic skill" (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999. P. 99). Standard 9.11 provides guidelines for the use of an interpreter by stating that the interpreter should be fluent in the language of the test taker and the language of the assessment (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999).

School psychologists have an ethical and professional responsibility to the students that are being evaluated to perform an evaluation that is free from cultural and linguistic bias. "Bias" can be defined as not identifying the process of language acquisition and cultural acquisition (Flanagan, Ortiz, & Alfonso, 2007). Laws surrounding identification of individuals with disabilities are quite specific to mention that the evaluation process is to be fair to those from diverse cultural and linguistic backgrounds (Jacob, Decker, & Hartshorne, 2011). Even if one is tested in his or her native language, other factors can influence the assessment, potentially making the evaluation biased (Flanagan, Ortiz, & Alfonso, 2007). Individuals with diverse backgrounds need to have evaluations in which instrument selection and instrument administration has been carefully thought-out (Flanagan, Ortiz, & Alfonso, 2007). The Essentials of Cross-Battery Assessment, 2nd edition states that there are no clear or simple answers to identify students with diverse backgrounds (Flanagan, Ortiz, & Alfonso, 2007).

There are several guidelines evaluators need to follow for evaluating students who have limited English proficiency. The exact terminology and guidelines for evaluating students with limited English Proficiency as found in Title 20 United States Code Section 1401(30) [cited as 20 USC 1401(30)] as follows:

(a) Native language, when used with respect to an individual who is limited English proficient, means the following:

(1) The language normally used by that individual, or, in the case of a child, the language normally used by the parents of the child, except as provided in paragraph (a)(2) of this section (300.29)

(2) In all direct contact with a child (including evaluation of the child), the language normally used by the child in the home or learning environment.

Additionally, native language is further defined as follows: The term `native language', when used with respect to an individual who is limited in English proficiency, means the language normally used by the individual or, in the case of a child, the language normally used by the parents of the child (34 C.F.R. 600.20).

Figueroa and Newsome (2006) reviewed several school psychologist evaluation reports to determine how they addressed evaluating a student with limited English proficiency. Figueroa and Newsome (2006) found that school psychologists rarely adhere to the guidelines that are in place to ensure students with limited English proficiency are not being discriminated against. School psychologists are also failing to investigate how bilingualism affects children's learning development and their testing scores (Figueroa & Newsome, 2006). It was also deduced that school psychologists relied upon several factors that are not research-based to determine if a student is proficient in English. The school psychologists determined whether or not students or their parents stated that they speak English more proficiently than they speak their native language; if the students speak to their siblings in English, and if the school psychologist was able to establish rapport with the student (Figueroa & Newsome, 2006). Additionally, the school

psychologist made little or no reference of the possible effects of their language acquisition being related to their poor academic achievement (Figueroa & Newsome, 2006).

Testing children for special education when they do not speak fluent English or when English is not their first language. It is also a school psychologist's responsibility to a bilingual student to evaluate his or her level of cultural and linguistic background and also his or her family's degree of acculturation (Jacob, Decker, & Hartshorne, 2011). Determining the level of acculturation means to determine how much of the native culture he or she has held on to, and how much of the acquired culture he or she is living in the adopted country (Gopaul-McNicol & Armour-Thomas, 2002). There are psychometric instruments made to measure one's level of acculturation (Gopaul-McNicol & Armour-Thomas, 2002; Suzuki & Ponterotto, 2008). An instrument that does this is the System of Multicultural Pluralistic Assessment (Gopaul-McNicol & Armour-Thomas, 2002). Lisa A. Suzuki and Joseph G. Ponterotto's (2008) handbook also recommends the System of Multicultural Pluralistic Assessment as a model for making sure tests are not biased against one cultural or linguist group.

The System of Multicultural Pluralistic Assessment was developed in 1978 after many students with limited English proficiency were misclassified (Gopaul-McNicol & Armour-Thomas, 2002). This assessment has three assessment models; medical, social system, and pluralistic (Gopaul-McNicol & Armour-Thomas, 2002). The medical component looks at aspects such as health history and how well one hears and sees (Gopaul-McNicol & Armour-Thomas, 2002). The social component of the System of Multicultural Pluralistic Assessment looks at how well the student does with social situations at school, at home, and in the community in which he or she lives, by using the Adaptive Behavior Inventory for Children and the SocioCultural Scales (Gopaul-McNicol & Armour-Thomas, 2002). The pluralistic

component uses the parent interview to determine the Estimated Learning Potential of the student by comparing him or her to other students of similar backgrounds (Gopaul-McNicol & Armour-Thomas, 2002). If one does not want to give the System of Multicultural Pluralistic Assessment, one must analyze how different test items are answered across different cultural groups to determine if an item has content or language that may be biased toward one group (Suzuki & Ponterotto, 2008).

It is important for examiners to become knowledgeable and comfortable with other communication styles, traditions, and mannerisms (Suzuki & Ponterotto, 2008). It is also a requirement for the school psychologist to assess his or her language proficiency, so that the psychologist can determine which assessment tools to use and if he or she is qualified to administer those assessments to the student (Jacob, Decker, & Hartshorne, 2011). If a school psychologist feels that he or she is unsuited to perform the evaluation, there are options and procedures. The National Association of School Psychologist also has a directory that lists bilingual school psychologists in the area (Jacob, Decker, & Hartshorne, 2011). However, when a bilingual psychologist is not available to perform the assessment, one can use an interpreter but only after consent is given by the parent (Jacob, Decker, & Hartshorne, 2011). This interpreter also has to be an individual that is trained to maintain confidentiality and standardization, and be able to explain if the assessment is invalid because of its being biased (Jacob, Decker, & Hartshorne, 2011).

When a school psychologist cannot get another school psychologist who speaks the language of the student and there is no interpreter available, a situation may arise in which the psychologist, himself or herself, has to evaluate the student. When school psychologists test individuals who are not proficient in English, they often use nonverbal cognitive measures such

as the Universal Nonverbal Intelligence Test. It is often believed that nonverbal measures of cognitive ability are assessments that are free from cultural influence, but any test that has norms and expectations from the culture in which the developers reside is not culturally free (Gopaul-McNicol & Armour-Thomas, 2002). Another problem with nonverbal cognitive assessments is that when verbal constructs and language are not assessed, the evaluators are unable to assess for verbal-based disabilities.

Testing a student who does not speak English in a school that teaches only in English is very difficult. The challenges go well beyond finding a school psychologist that is trained to do bilingual assessments. Determining one's dominant language and how having knowledge of multiple languages affects a child's learning is very difficult. It is not uncommon to have students who attend American school systems and have been instructed only in English. These individuals may have all of their social conversations outside of the classroom in their native languages. Their levels of English proficiency are complicated. There has been a lot of research that suggests how one should test an individual if his or her native language is not English; however, if his or her language development is not typical and/or he or she does not have a dominant language, procedures and standards become more complicated. It is recommended that one assess the student's functional language and his or her oral and written language in the primary language and second language (Jacob, Decker, Hartshorne, 2011).

Second Language Acquisition

ELL reading development. According to Gonzales and Yawkey (2004), few studies have examined how students that are bilingual learn to read; however, the research that does exist suggests that cognitive, linguistic, and sociocultural factors are integral in reading comprehension. Gonzales and Yawkey also state that the reason there is not more research in

this area is that academia does not yet agree on a definition of cognitive-linguistic knowledge process. Schools often try to teach students who are learning a second language by using a first language-learning model (Gonzales & Yawkey, 2004). Gonzalez and Yawkey state that the reasoning behind why many students who are bilingual have problems with reading is that schools focus on teaching decoding and other basic components to reading. Schools rarely focus on the entire reading process (Gonzales & Yawkey, 2004). Specifically, Gonzalez and Yawkey suggest that bilingual instruction should include learning activities that the students find interesting, relative to their sociocultural perspectives, and allow them to expressive themselves verbally. Durgunoglu and Oney (2000) add greater knowledge about the difficulties in teaching students two languages by stating that most programs are based on the assumption that individuals will maintain and transfer skills across languages. This idea of cross-language transfer is not well researched and there is not a lot of research suggesting that there are transfers of reading skills (Durgunoglu & Oney, 2000).

There is some research studying the effects of learning a second language and how one's second language processing is different from their native language processing. Most individuals process information slower in the second language and their auditory memory might also be slower in the second language (Figueroa & Newsome, 2006). This means that the bilingual student's processing and reading rates might be slower than those of a monolingual student. Because of this, bilingual students should not be qualified under the disability category of Specific Learning Disability if they have academic weaknesses only in processing speed and reading fluency (if measured by accuracy and time, because the time component may be biased).

Problems of how these students are identified in the school systems currently. There have been increases in the number academic studies that look at the proportions of English Language Learners in special education services. Sullivan (2011) conducted a study to examine the portions of English Language learners in special education services and if there existed trends related to their disability criteria for school-based services. It was concluded that English Language Learners were increasingly overrepresented in special education and also were overrepresented in the disability categories of specific learning disabilities, speech and language impairment, and intellectual disability (Sullivan, 2011). Overrepresentation of English Language Learners was found to be the highest in the Specific Learning Disability category and Intellectual Disability category (Sullivan, 2011). This overrepresentation occurred despite the legal precedents that were established to reduce the biased testing procedures. Sullivan (2011) also found that school districts that have larger proportions of students who are identified as English Language Learners were less likely to have a disproportionate number of English Language Learners identified in special education. This can be due to the way in which those districts respond to the high level of English Language Learners; they hire more bilingual staff, provide more universal interventions to accommodate English language acquisition delays, or they have more experience in identifying bilingual students in special education. Sullivan (2011) also found that English Language Learners are underrepresented in the emotional disturbance disability category. This can occur because these students are not able to articulate their emotional needs or because they are typically in smaller class size for at least four hours a day. There are many possible reasons why English Language Learners are overrepresented and underrepresented in various classifications within special education, but the most important fact is that they are misrepresented in special education.

Why it is so difficult to identify these children correctly. Research has supported the fact that school psychologists often fail to perform culturally sensitive evaluations when testing individuals who are learning English as a second language. Additionally, research has supported the fact that English Language Learners are overrepresented and underrepresented in different areas of special education. The cause for misidentification can be that determining whether or not a student needs more time to learn English or whether or not he or she has a learning disability is very difficult. There are three approved and documented ways to identify monolingual students with a Specific Learning Disability. School psychologists rely too much on the data provided from the language department within the school to help determine the language proficiency of an individual student. Students who have learning disabilities often do poorly on those tests and have a difficult time showing overall language proficiency. Waiting several years in a response to intervention methods leaves those children missing critical intervention windows and this fact can potentially make those students more isolated. Finding ways to better identify the strengths and weakness in students who are being evaluated for special education services is a necessity. This is also true for the students who already have special education services. It is critical to providing a free and appropriate education to students who are not native English language speakers.

Current Study

Research question. Therefore the current study is designed to address the question if higher tests scores on the WIDA ACCESS for ELLs English Language Proficiency Test are related to higher scores on standardized achievement tests. The author also sought to determine whether or not learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension, word-identification, and written expression will perform in the

entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the areas of reading and writing.

Hypotheses 1. Higher writing and reading achievement scores are related to higher reading and writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Null hypothesis 1. There is no statistic relationship between learning disabled English Language Learner and WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 1. Lower writing and reading achievement scores are related to higher reading and writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Hypotheses 2a Learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test reading test.

Null hypothesis 2a There is no statistical significance between learning disabled ELL students' reading comprehension scores and their reading scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 2a Learning disabled ELL students who score low on standardized reading comprehension measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of reading.

Hypotheses 2b Learning disabled ELL students who score low on standardized achievement tests in the area of word reading will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test reading test.

Null hypothesis 2b There is no statistical significance between Learning Disabled ELL students' word reading scores and their reading scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 2b Learning disabled ELL students who score low on standardized word reading measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of reading.

Hypotheses 2c Learning disabled ELL students who score low on standardized achievement tests in the area of written expression will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

Null hypothesis 2c There is no statistical significance between learning disabled ELL students' written expression scores and their writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 2c Learning disabled ELL students who score low on standardized written expression measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Hypotheses 2d Learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

Null hypothesis 2d There is no statistical significance between learning disabled ELL students reading comprehension scores and their writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 2d Learning disabled ELL students who score low on standardized reading comprehension measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Hypotheses 2e Learning disabled ELL students who score low on standardized achievement tests in the area of word reading will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

Null hypothesis 2e There is no statistical significance between learning disabled ELL students' word reading scores and their writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Alternative hypothesis 2e Learning disabled ELL students who score low on standardized word reading measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Chapter 3: Method

Overview

This study used historical data to analyze the relationship between the WIDA ACCESS for ELLs English Language Proficiency Test, the Woodcock-Johnson III Test of Achievement, the Wechsler Individual Achievement Test-III, or the Kaufman Tests of Educational Achievement, Second Edition.

Participants

The participant data were drawn from a sample of forty-two school age children who had been diagnosed with a Specific Learning Disability and were also in English as a Second Language classes because they were English Language Learners. The archival data used in the current study were collected from a middle school in eastern Pennsylvania. The data were reviewed and were provided by a Pennsylvania certified school psychologist and a special education coordinator. They reviewed historical psycho-educational evaluations, historical achievement test protocols, school records, and the WIDA ACCESS for ELLs English Language Proficiency Test. Permission was sought from the school psychologist, special education coordinator, and the building principal. Information about the socioeconomic status of the school that the students attended was found through PowerSchool, which is the school record-keeping system. A summary of that data can be found in Table 1 and Table 2. A summary of the sample demographics can be found in Table 3.

Table 1

Language Learner Demographic of Population (N=179)

	n	%
Grade		
Fifth	25	13.97
Sixth	44	24.58
Seventh	55	30.73
Eighth	55	30.73
Long-Term ELL (6+ years)	64	35.75
ELL in Special Education	59	33.52
Long-Term ELL in Special Education	34	18.99
ELL with a Specific Learning Disability	42	23.46

Table 2

Basic Demographic Characteristics of Population (766)

	n	%
Gender		
Males	394	51.44
Females	372	48.56
Grade		
Fifth	121	15.80
Sixth	194	25.33
Seventh	225	29.37
Eighth	226	29.50
Ethnicity		
Black/African American	135	17.62
Hispanic	615	80.29
White/Caucasian	8	1.04
Asian	7	0.91
Unclassified	1	0.13

Table 3

Basic Demographic Characteristics of Sample (37)

	n	%
Gender		
Males	29	78.4
Females	8	21.6
Grade		
Fifth	4	10.8
Sixth	8	21.6
Seventh	9	24.3
Eighth	16	43.2
Age		
Ten	2	5.4
Eleven	4	10.8
Twelve	8	21.6
Thirteen	17	45.9
Fourteen	6	16.2

Inclusion/Exclusion Criteria

The data were collected from a convenience sample of students who received special education services. The de-identified data were archival. The collected was limited to students who were between the ages of 10-14. Exclusion criteria included student files that did not contain information about the languages spoken in the home, language proficiency scores, and

achievement testing scores. All students used in this study were found eligible for special education services under the disability label of Specific Learning Disability and were considered to be English Language Learners.

Measures and Materials

Achievement scores were also examined in the areas of reading, math, and written language of the archival data sample. Achievement scores analyzed from the standardized assessments were from the Wechsler Individual Achievement Test, Second Edition (Wechsler, 2001), the Woodcock Johnson Tests of Achievement, Third Edition (WIAT-III; Wechsler, 2009); Woodcock, McGrew, & Mather, 2001), or the Kaufman Tests of Educational Achievement, Second Edition (KTEA; Kaufman & Kaufman, 2004).

WIDA ACCESS for ELLs English Language Proficiency Test. The first measure utilized was the WIDA ACCESS for ELLs English Language Proficiency Test scores, which are considered to be reliable and valid measure of individual language proficiency (Yanosky, Amos, Cameron, Louguit, MacGregor, Yen, & Kenyon et al., 2013). Five scores will be analyzed: Overall Composite Score, Listening, Speaking, Reading, and Writing. The WIDA ACCESS for ELLs English Language Proficiency Test has good reliability and validity; the Overall composite score for Series 203 has a reliability coefficient of .80 or higher for all grade clusters (kindergarten, 1-2 grades, 3-5 grades, and 6-8 grades) (Yanosky et al., 2013)

Woodcock-Johnson III Test of Achievement. Achievement scores in the areas of reading, writing, and mathematics were also utilized for the study. The achievement scores were taken from a nationally standardized and individually administered assessment known as the Woodcock Johnson Test of Achievement, Third Edition (WJ-III; Woodcock, McGrew, & Mather, 2001). The Woodcock Johnson Test of Achievement, Third Edition has good reliability

and validity because most of its subtests have a reliability coefficient of .80 or higher (WJ-III; Woodcock, McGrew, & Mather, 2001). The achievement scores used are Letter-Word Identification, Reading Fluency, Calculation, Math Fluency, Spelling, Passage Comprehension, Applied Problems, Writing Samples, Listening Comprehension, and Word Attack.

Wechsler Individual Achievement Test-III. Achievement scores in the areas of reading, writing and mathematics were also utilized for the study. The achievement scores were taken from a nationally standardized and individually administered assessment known as the Wechsler Individual Achievement Test-III (WIAT-III; Wechsler, 2009). The Wechsler Individual Achievement Test-III has good reliability and validity because most of its subtests have a reliability coefficient of .80 or higher (WIAT-III; Wechsler, 2009). The achievement scores used are from Word Reading, Reading Comprehension, Pseudoword Decoding, Numerical Operations, Math Reasoning, Spelling, Written Expression, Listening Comprehension, and Oral Expression.

Kaufman Tests of Educational Achievement, Second Edition. Achievement scores in the areas of reading, writing and mathematics were also utilized for the study. The achievement scores were taken from a nationally standardized and individually administered assessment known as the Kaufman Tests of Educational Achievement, Second Edition (KTEA; Kaufman & Kaufman, 2004). The Kaufman Tests of Educational Achievement, Second Edition has good reliability and validity because most of its subtests have a reliability coefficient of .80 or higher (KTEA; Kaufman & Kaufman, 2004).). The achievement scores used are from Letter and Word Recognition, Reading Comprehension, Nonsense Word Decoding, Math Computation, Math Concepts & Applications, Written Expression, and Spelling.

Research design

This study is a quantitative study. The data samples are from a sample of convenience; it is historical data.

Procedure

This study underwent review by the PCOM's Institutional Review Board. Archival records of students identified with a Specific Learning Disability in the school setting were selected for this study. State certified school psychologist, special education coordinators, and building principals were asked to volunteer data for this study. Language proficiency scores from the WIDA ACCESS for ELLs English Language Proficiency Test and achievement standard scores from the Woodcock-Johnson III Test of Achievement, the Wechsler Individual Achievement Test-III, or the Kaufman Tests of Educational Achievement, Second Edition were used for analysis for this study. This data were entered into a document entitled *Student Data Worksheet* (see Appendix A) by the participating school psychologist. Subtests labels were not used; rather the scores were put into categories that looked at that process for each achievement measures. The categories used were Word Reading (Letter and Word Recognition), Reading Comprehension (Passage Comprehension), Decoding (Nonsense Word Decoding, Pseudoword Decoding, and Word Attack), Math Calculation (Math Computation and Numerical Operations), Applied Problems (Math Concepts & Applications and Math Reasoning), Written Expression (Writing Samples), Spelling, Listening Comprehension, and Story Recall. Each student was given a participant identification code number so that his or her identities could be kept anonymous. Confidential information (student's name) was not included on the *Student Data Worksheet.*

The workbook databases of participant data were transferred to the SPSS Version 20.0 statistics computer package for statistical analysis. Means, standard deviations, and ranges were identified for the data set for each variable reviewed. A Pearson bivariate correlation was computed to determine if any significant relationships existed between measures of academic achievement and WIDA ACCESS for ELLs English Language Proficiency Test scores. Students' scores in the extremely low to low range (standard score of 79 and below) on the reading comprehension, word reading, and written expression achievement measures will be identified. Students who earned a reading and writing WIDA score within the entering and beginning range (2.99 and below) will be identified. Cross-tabulations and chi-square tests of significance were performed to determine if students performed similarly on the two assessments.

Chapter 4: Results

Descriptive Statistics

Reported in Table 4 are descriptive statistics for the sample for the Woodcock-Johnson III Test of Achievement, the Wechsler Individual Achievement Test-III, and the Kaufman Tests of Educational Achievement variables. Subtest scores that tested similar constructs were combined into one group (i.e. Calculation from the Woodcock-Johnson III Test of Achievement was put into the same group as Numerical Operations from the Wechsler Individual Achievement Test-III). Reading Comprehension had the lowest mean and Listening Comprehension had the highest mean. It should be noted that were only six scores for Story Recall and any significant finding from this subtest are unreliable due to the limited sample. The high standard deviations of the Mathematic Calculation subtest suggested higher variability, whereas the Story Recall and Listening Comprehension subtest tended to have a lower standard deviation, thus lower variability. All other standard deviations tended to be comparable across the subtests and within the 15-point range for standard scores.

Reading Scales. The Word Reading and Reading Fluency Score means were both within the low range and had similar ranges and standard deviations. The Reading Comprehension Score mean was the lowest of all reading achievement means and was in the extremely low range. The Decoding Scale had the highest mean of all the reading achievement scales and its mean was measured to be within the low average range.

Math Scales. The Math Fluency and Applied problems means were both within the low range and had similar ranges and standard deviations. The Mathematic Calculation had the lowest Score mean of all the mathematic achievement means and was in the extremely low

range. Mathematic Calculation also had the lowest range, extending twenty-eight points lower than Math Fluency and Applied problems means.

Writing Scales. The Spelling and Writing Samples Score means were both within the low range and had similar ranges and standard deviations.

Listening Comprehension Scales. The Story Recall Score mean was lower than the Listening Comprehension Score mean. The Story Recall mean was within the low range and the Listening Comprehension mean was within the low average range. All of the reading achievement means were in the extremely low range. The Story Recall and the Listening Comprehension had similar standard deviations; however, the Listening Comprehension had a range that extended fifteen points higher than Story Recall.

Table 4

Means and Standard Deviations for Entire Sample Across Achievement Scores

Variable	N	*M*	*SD*	*Range*
Word Reading	37	72	14	41-100
Reading Fluency	32	70	12	39-93
Reading Comprehension	37	64	13	28-92
Decoding	20	83	14	64-112
Math Calculation	37	67	17	23-98
Applied Problem	36	75	12	53-97
Math Fluency	31	71	11	51-99
Writing Samples	32	73	12	50-91
Spelling	33	71	13	42-96
Story Recall	6	70	8	61-85
Listening Comprehension	10	85	9	66-100

Note. Variables are standard scores from several achievement measures including the Woodcock Johnson Tests of Achievement, Third Edition (WJ-ill ACH; Woodcock, McGrew, & Mather, 2001), the Wechsler Individual Achievement Test, Second Edition (WIAT-III; Wechsler, 2009), and the Kaufman Test of Educational Achievement, Second Edition (KTEA-2; Kaufman & Kaufman, 2004).

Reported in Table 5 are descriptive statistics for the sample for the WIDA ACCESS for ELLs English Language Proficiency Test. All tests except for the Reading test had means within the developing range. The Reading test was the only test to have a mean in the beginning range. The Speaking test had the highest mean and also had high variability represented in its high standard deviation. The Listening test had the largest range and standard deviation suggesting a higher amount of variability. The Reading test had the lowest mean but had an expected range and standard deviation. The standard deviations of the Reading, Writing, and the Overall Score (Composite) were comparable. The Overall score had the lowest standard deviation and had the smallest range showing that all the scores were clustered together around 3.26.

Table 5

Means and Standard Deviations for Entire Sample across WIDA ACCESS for ELLs English Language Proficiency Test Variables

Variable	*M*	*SD*	*Range*
Listening	*3.74*	*1.24*	*1-6*
Speaking	*3.92*	*1.10*	*1.90-6*
Reading	*2.76*	*0.75*	*1-5.50*
Writing	*3.31*	*0.73*	*1-4.6*
Composite	*3.26*	*0.65*	*1.3-4.6*

Hypothesis Number 1

Hypothesis 1. Higher writing and reading achievement scores are related to higher reading and writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test.

Pearson bivariate correlations were computed to determine if there were any significant relationships that existed between measures of academic achievement and WIDA ACCESS for ELLs English Language Proficiency Test scores in English Language Learners. The results shown in the following tables indicate that significant relationships were found between many of the language and academic variables. All significant relationships found were positively correlated, indicating that the higher the level of academic skills, the higher the level of linguistic ability. Because of the number of strong correlations, hypothesis 1 can be supported and thus the null hypothesis can be rejected. Examination of these relationships as depicted in Tables 6, 7, 8, 9, and 10 revealed several interesting findings.

The achievement variables were correlated with each other to see if there was a relationship between the achievement subtests. Passage comprehension had a strong relationship with reading fluency, word reading, decoding, mathematical calculation, mathematical fluency, applied problem solving, spelling, and writing samples. Word reading had no effect on the math subtests, and reading fluency only had a minimal effect on math fluency and applied math problem solving. Decoding had the strongest relationship with word reading, which was expected. The writing subtests (spelling and writing expression) had strong relationship with all of the reading subtests. Each math subtest was found to have strong relationships with the other math subtests. The oral comprehension subtest was found to be highly correlated with story recall. However, very few subtests had both scores in their files, making this correlation unreliable.

Table 7 shows the relationship between the language proficiency variables. The composite score, as expected, had a strong relationship with all of the subtest scores on the WIDA ACCESS for ELLs English Language Proficiency Test because this composite was made up of each of the subtest scores. Only the listening subtest on the WIDA ACCESS for ELLs English Language Proficiency Test had relationships with the other subtests. It was found to have a strong relationship with the writing subtest and a mild relationship with the reading subtest.

Table 8 shows the relationship between reading subtests and the WIDA ACCESS for ELLs English Language Proficiency Test. Reading fluency was only mildly related to the speaking and listening subtests on the WIDA ACCESS for ELLs English Language Proficiency Test. Reading comprehension also had mild relationship with the listening subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. The word reading and reading fluency achievement subtests had strong relationships with the reading, writing, and composite scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Passage comprehension had a strong relationship with the composite score but was only mildly related to the reading and writing subtests on the WIDA ACCESS for ELLs English Language Proficiency Test. Decoding had only a mild relationship with the writing subtest on the WIDA ACCESS for ELLs English Language Proficiency Test.

Table 9 shows that there was no relationship found between the math fluency subtest and the WIDA ACCESS for ELLs English Language Proficiency Test. The math calculation subtest was found to have a mild relationship with the spelling subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. The applied problems subtest was strongly correlated with the composite but only mildly correlated with the listening and speaking tests on the WIDA

ACCESS for ELLs English Language Proficiency Test.

Table 10 shows that the spelling achievement tests was strongly correlated with the writing and composite score on the WIDA ACCESS for ELLs English Language Proficiency Test. The Writing Samples achievement test was found to have a strong correlation with the composite score but only a mild correlation with the writing test on the WIDA ACCESS for ELLs English Language Proficiency Test.

Table 6

Correlation Among Standardized Achievement Scores

	WR	RF	PC	DC	MC	MF	AP	S	WS	OC	SR
WR	----	.71**	.55**	.88**	.21	.19	.18	.86**	.60**	-.35	.35
RF		----	.73**	.61**	.29	.46*	.43*	.76**	.62**	-.09	.84*
PC			----	.67**	.57**	.58**	.49**	.55**	.70**	.47	.73
DC				----	.19	.30	.12	.71**	.54*	-.12	.91
MC					----	.61**	.72*	.27	.36*	.56	-.16
MF						----	.52**	.12	.31	.24	.52
AP							----	.23	.38*	.52	.26
S								----	.57**	-.27	-.38
WS									----	.13	.72
OC										----	1.00**
SR											----

Note. WR= Word Reading; RF= Reading Fluency; PC=Passage Comprehension; DC= Decoding; MC= Mathematic Calculation; MF= Mathematic Fluency; AP=Applied Problems; SP= Spelling; WS= Writing Samples OC= Oral Comprehension; SR= Story Recall.

*$p < .05$ **$p < .01$

Table 7

Correlation of English Language Proficiency Scores

	Listening	Speaking	Reading	Writing	Composite
Listening	----	.24	.35*	.47**	.76**
Speaking		----	.26	.14	.52**
Reading			----	.23	.62**
Writing				----	.76**
Composite					----

Note. $*p < .05$ $**p < .01$

Table 8

Correlation of English Language Proficiency Scores and Standardized Reading Achievement Measures

	English Language Proficiency Scores				
Reading Achievement Scores	Listening	Speaking	Reading	Writing	Composite
Word Reading	.28	.28	.43**	.55**	.58**
Reading Fluency	.44*	.44*	.45**	.62**	.70**
Passage Comprehension	.38*	.29	.35*	.38*	.48**
Decoding	.18	.39	.10	.48*	.42

Note. $*p < .05$ $**p < .01$

Table 9

Correlation of English Language Proficiency Scores and Standardized Mathematic Achievement Measures

	English Language Proficiency Scores				
Mathematic Achievement Scores	Listening	Speaking	Reading	Writing	Composite
Math Calculation	.15	.36*	.40	.19	.24
Math Fluency	.14	.29	.08	.10	.17
Applied Problems	.37*	.36*	.24	.24	.43**

Note. $*p < .05$ $**p < .01$

Table 10

Correlation of English Language Proficiency Scores and Standardized Written Expression Achievement Measures

	English Language Proficiency Scores				
Written Expression Achievement Scores	Listening	Speaking	Reading	Writing	Composite
Spelling	.25	.25	.32	.59**	.56**
Writing Samples	.32	.34	.23	.43*	.46**

Note. $*p < .05$ $**p < .01$

Hypothesis Number 2

Hypotheses 2a. Learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension will perform in the entering to beginning level on the WIDA ACCESS for ELLs English Language Proficiency Test reading subtest.

All of the students' files reviewed for this study had reading comprehension scores from standardized achievement tests and reading scores on the WIDA test. Cross-tabulations and chi-square tests of significance were performed. There were thirty-five students who performed within the low range on standardized reading comprehension measures but only twenty-three of them performed within the entering to beginning Level on the WIDA reading test. The results from this statistical analysis indicated that this result was not significant, $\chi^2(1, N=37) = 0.205$, $p=.651$. A summary of the cross-tabulations results is displayed in table 11. A summary of the chi-square results is displayed in table 12.

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Table 11

Cross-Tabulation: Standardized Reading Comprehension Achievement Scores and English Reading Proficiency Scores

	Reading Proficiency Scores		
Reading Comprehension Achievement Scores	Within the Entering to Beginning Level	Above the Beginning Level	Total
Low Range	23	12	35
Above the Low Range	1	1	2
Total	24	13	37

Table 12

Chi-Square Tests: Reading Comprehension Scores and WIDA Reading Scores

	Value	*df*	*Asym. Sig. (2-sided)*
Pearson chi-square	.205[a]	1	.651
Likelihood ration	.196	1	.658
Linear-by-linear association	.199	1	.655
N of valid cases	37		

Hypotheses 2b. Learning disabled ELL students who score low on standardized achievement tests in the area of word reading will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test reading test.

All of the students' files reviewed for this study had scores for word reading on the achievement test and reading scores on the WIDA test. Cross-tabulations and chi-square tests of

significance were performed. There were twenty-five students who performed within the low range on standardized word reading measures, but only seventeen of them performed within the entering to beginning Level on the WIDA reading test. The results from this statistical analysis indicated that this result was not significant, $\chi^2(1, N=37) = 0.332, p=.564$. A summary of the cross-tabulations results is displayed in table 13. A summary of the chi-square results is displayed in table 14.

Table 13

Cross-Tabulation: Standardized Word Reading Achievement Scores and English Reading Proficiency Scores

	Reading Proficiency Scores		
Word Reading Achievement Scores	Within the Entering to Beginning Level	Above the Beginning Level	Total
Low Range	17	8	25
Above the Low Range	7	5	12
Total	24	13	37

Table 14

Chi-Square Tests: Word Reading Scores and WIDA Reading Scores

	Value	*df*	*Asym. Sig. (2-sided)*
Pearson chi-square	.332[a]	1	.564
Likelihood ration	.329	1	.567
Linear-by-linear association	.323	1	.570
N of valid cases	37		

Hypotheses 2c. Learning disabled ELL students who score low on standardized achievement tests in the area of written expression will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

Thirty-two of the 37 students' files reviewed for this study had written expression scores from a standardized achievement test and writing scores from the WIDA test. Cross-tabulations and chi-square tests of significance were performed. There were twenty students who performed within the low range on standardized writing measures, but only six of them performed within the entering to beginning Level on the WIDA writing test. The results from this statistical analysis indicated that this result was not significant, $\chi^2(1, N=32) = 0.039, p=.844$. A summary of the cross-tabulations results is displayed in table 15. A summary of the chi-square results is displayed in table 16.

Table 15

Cross-Tabulation: Standardized Written Expression Achievement Scores and English Reading Proficiency Scores

	Reading Proficiency Scores		
Written Expression Achievement Scores	Within the Entering to Beginning Level	Above the Beginning Level	Total
Low Range	6	14	20
Above the Low Range	4	8	12
Total	10	22	32

Table 16

Chi-Square Tests: Written Expression Scores and WIDA Writing Scores

	Value	*df*	*Asym. Sig. (2-sided)*
Pearson chi-square	.039[a]	1	.844
Likelihood ration	.039	1	.844
Linear-by-linear association	.038	1	.846
N of valid cases	32		

Hypotheses 2d. Learning disabled ELL students who score low on standardized achievement tests in the area of reading comprehension will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

All of the students' files reviewed for this study had reading comprehension scores from a standardized achievement test and writing scores from the WIDA test. Cross-tabulations and chi-square tests of significance were performed. There were thirty-five students who performed within the low range on standardized reading comprehension measures but only ten of them performed within the entering to beginning Level on the WIDA writing test. The results from this statistical analysis indicated that this result was not significant, $\chi^2(1, N=37) = 0.\ 416, p=.519$. A summary of the cross-tabulations results is displayed in table 17. A summary of the chi-square results is displayed in table 18.

Table 17

Cross-Tabulation: Standardized Reading Comprehension Achievement Scores and English Reading Proficiency Scores

	Reading Proficiency Scores		
Reading Comprehension Achievement Scores	Within the Entering to Beginning Level	Above the Beginning Level	Total
Low Range	10	25	35
Above the Low Range	1	1	2
Total	11	26	37

Table 18

Chi-Square Tests: Reading Comprehension Scores and WIDA Writing Scores

	Value	*df*	*Asym. Sig. (2-sided)*
Pearson chi-square	.416[a]	1	.519
Likelihood ration	.382	1	.537
Linear-by-linear association	.405	1	.525
N of valid cases	37		

Hypotheses 2e. Learning disabled ELL students who score low on standardized achievement tests in the area of word-reading will perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test writing test.

All of the students' files reviewed for this study had word reading scores from a standardized achievement test and writing scores from the WIDA test. Cross-tabulations and chi-square tests of significance were performed. There were twenty-five students who performed within the low range on standardized reading comprehension measures and ten of them performed within the entering to beginning Level on the WIDA writing test. The results from this statistical analysis indicated that this result was significant, $\chi^2(1, N=37) = 3.892$, $p=.049$. Even though a significant difference was found, these findings support the null hypothesis, because fifteen students performed in the low range on the word reading achievement test but performed above the beginning level on the WIDA writing test. A summary of the cross-tabulations results is displayed in table 19. A summary of the chi-square results is displayed in table 20.

Table 19

Cross-Tabulation: Standardized Word Reading Achievement Scores and English Reading Proficiency Scores

	Reading Proficiency Scores		
Word Reading Achievement Scores	Within the Entering to Beginning Level	Above the Beginning Level	Total
Low Range	10	15	25
Above the Low Range	1	11	12
Total	11	26	37

Table 20

Chi-Square Tests: Word Reading Scores and WIDA Writing Scores

	Value	*df*	*Asym. Sig. (2-sided)*
Pearson chi-square	3.892[a]	1	.049
Likelihood ration	4.499	1	.034
Linear-by-linear association	3.787	1	.052
N of valid cases	37		

Chapter 5: Discussion

Summary of the Findings

The purpose of the current study was to examine the relationships between standardized achievement test scores and the WIDA ACCESS for ELLs English Language Proficiency Test for students who are English Language Learners, and who also classify for special education services under the disability category of Specific Learning Disability. It was hypothesized that higher writing and reading achievement test scores would be related to higher reading and writing test scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Furthermore, the study sought to determine if learning disabled ELL students who scored low on standardized achievement tests in the area of reading comprehension, word-identification, and written expression would perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading and writing tests.

Relationship Between Achievement Scores and Language Proficiency Scores.

Achievement variables. Are higher reading and writing achievement scores related to higher reading and writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test? Significant relationships were found between many of the language and academic variables. All significant relationships found were positively correlated, indicating that the higher the level of academic skills, the higher the level of linguistic ability. Scores from achievement tests scores were analyzed to determine if they had a significant relationship with other achievement variables in this population. Passage comprehension had a strong relationship with reading fluency, word reading, decoding, mathmatical calculation, mathematical fluency, applied problem solving, spelling, and writing samples. Word reading had no effect on math subtests, and reading fluency had only a minimal effect on math fluency and applied math

problem solving. Decoding had the strongest relationship with word reading, which was to be expected, because decoding is a skill that is used to read unknown words. The writing subtest (spelling and writing expression) had strong relationships with all of the reading subtests. Each math subtests was found to have strong relationships with the other math subtests. The oral comprehension subtest was found to be highly correlated with story recall; however, there were very few subtests that had both scores in their files, which makes this correlation unreliable.

Language proficiency scores. Language tests scores were analyzed to determine if they had a significant relationship with other language scores in this population. The composite, as expected, had a strong relationship with all of the subtest scores on the WIDA ACCESS for ELLs English Language Proficiency Test, because the score comprises the subtest scores. Only the listening subtest on the WIDA ACCESS for ELLs English Language Proficiency Test had relationships with the other subtests. It was found to be strongly related to the writing subtest and mildly related to the reading subtest.

Reading scores. Word reading and reading fluency achievement subtests had strong relationships with the reading, writing, and composite score on the WIDA ACCESS for ELLs English Language Proficiency Test. Passage comprehension had a strong relationship with the composite score but was only mildly related to the reading and writing subtests on the WIDA ACCESS for ELLs English Language Proficiency Test. Reading fluency was only mildly related to the speaking and listening subtests on the WIDA ACCESS for ELLs English Language Proficiency Test. Reading comprehension also had a mild relationship with the listening subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. Decoding had only a mild relationship with the writing subtest on the WIDA ACCESS for ELLs English Language Proficiency Test.

Mathematics scores. The math calculation subtest was found to have a mild relationship with the speaking subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. The applied problems subtest was strongly correlated with the composite but only mildly correlated with the listening and speaking tests on the WIDA ACCESS for ELLs English Language Proficiency Test.

Writing scores. The Writing samples achievement test was found to have a strong correlation with the composite score but only a mild correlation with the writing test on the WIDA ACCESS for ELLs English Language Proficiency Test.

ELL Students Performance on Achievement and Language Proficiency Measures.

Reading comprehension and WIDA reading proficiency. Do learning disabled ELL students who score in the low range on standardized achievement tests in the area of reading comprehension also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading test? This study determined that this was not true. Of the thirty-five students who performed within the low range on standardized reading comprehension measures, only twenty-three of them performed within the entering to beginning Level on the WIDA reading test. Hypothesis 2a cannot be supported, because the null hypothesis was unable to be rejected. There is no statistical significance between learning disabled ELL students' reading comprehension scores and their reading scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Additionally, the alternative hypothesis was supported. Learning disabled ELL students who score in the low range on standardized reading comprehension measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of reading.

Word reading and WIDA reading proficiency. Do learning disabled ELL students who score in the low range on standardized achievement tests in the area of word reading also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the reading test? This study determined that this was not true. Of the twenty-five students who performed within the low range on standardized word reading measures, only seventeen of them performed within the entering to beginning level on the WIDA reading test. Hypothesis 2b cannot be supported, because the null hypothesis was unable to be rejected. There is no statistical significance between learning disabled ELL students' word reading scores and their reading scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Additionally the alternative hypothesis was supported. Learning disabled ELL students who score in the low range on standardized word reading measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of reading.

Written expression and WIDA writing proficiency. Do learning disabled ELL students who score in the low range on standardized achievement tests in the area of written expression also perform in the entering to beginning level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test? This study determined that this was not true. Of the twenty students who performed within the low range on standardized writing measure, only six of them performed within the entering to beginning Level on the WIDA writing test. Hypothesis 2c cannot be supported because the null hypothesis was unable to be rejected. There is no statistical significance between learning disabled ELL students' written expression scores and their writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Additionally the alternative hypothesis was supported. Learning disabled ELL

students who score in the low range on standardized written expression measures will not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Reading comprehension and WIDA writing proficiency. Do learning disabled ELL students who score in the low range on standardized achievement tests in the area of reading comprehension also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test? This study determined that this was not true. Of the thirty-five students who performed within the low range on standardized reading comprehension measures, only ten of them performed within the entering to beginning Level on the WIDA writing test. Hypothesis 2d cannot be supported because the null hypothesis was unable to be rejected. There is no statistical significance between learning disabled ELL students' reading comprehension scores and their writing scores on the WIDA ACCESS for ELLs English Language Proficiency Test. Additionally, the alternative hypothesis was supported. Learning disabled ELL students who score in the low range on standardized reading comprehension measures are less likely to score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Word reading and WIDA writing proficiency. Do learning disabled ELL students who score low on standardized achievement tests in the area of word reading also perform in the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test on the writing test? This study determined that this was not true. Of the twenty-five students who performed within the low range on standardized reading comprehension measures only ten of them performed within the entering to beginning Level on the WIDA writing test. However, there was a significant effect found; the same number of student (eleven) who did not

perform within the low range on the word reading test also performed above the entering and beginning range on the WIDA ACCESS for ELLs English Language Proficiency writing test. Hypothesis 2e cannot be supported because the alternative hypothesis could not be rejected. Learning disabled ELL students who scored in the low range on standardized word reading measures did not score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of writing.

Significance of the Findings

These relationships found between and within the academic variables and the language proficiency variables were to be expected; however, all of the significant relationships found were positive, meaning that as one score went up so did the other.

The significance of the achievement variable relationships. As expected, all of the reading variables were positively correlated with each other; the math variables were positively correlated with each other, and the written expression variables were positively correlated with each other. Also, the reading variables were positively correlated with the written expression variables. Additionally, the reading fluency variable was strongly, positively correlated with the math fluency variable. This was to be expected because both subtests utilize quick processing speeds. Similarly, decoding had a strong positive correlation with spelling, because both subtests require good phonics. The written expression variables were slightly correlated with the math variables. Most interesting was that the reading comprehension score was significantly and positively correlated with all of the math variables. This subtest requires a great deal of reasoning and knowledge which could be the reason why it loaded with the entire math, reading, and writing variables.

The significance of the language proficiency variable relationships. As expected, all of the language variables were strongly correlated with the composite score because every score is a part of the composite. However, only listening was correlated with other language proficiency variables. Listening was mildly correlated with reading and strongly correlation with writing. These relationships, although not predicted, are important to note.

The significance between the reading achievement variables and the language proficiency variables. All of the reading variables except coding were positively correlated with the composite score on the WIDA ACCESS for ELLs English Language Proficiency Test. Reading comprehension, reading fluency, and word reading were correlated with the reading and writing tests on the WIDA ACCESS for ELLs English Language Proficiency Test. Reading comprehension was only mildly correlated with the reading and writing subtests on the WIDA ACCESS for ELLs English Language Proficiency Test. Decoding was not correlated with the reading subtests and it was only mildly correlated with the writing subtests on WIDA ACCESS for ELLs English Language Proficiency Test. There were other mild relationships that were interesting. Reading fluency was found to be mildly correlated with speaking and listening and reading comprehension was only mildly correlated with listening. This could be due to the fact that listening is evaluated by how well one understands oral language and reading comprehension is evaluated by how well one understands writing language.

The significance between the writing achievement variables and the language proficiency variables. As expected, both spelling and writing samples were correlated with the composite score and the writing score on the WIDA ACCESS for ELLs English Language Proficiency Test; however, the spelling achievement subtest had a much stronger correlation with the writing subtest on the WIDA ACCESS for ELLs English Language Proficiency Test

than with the writing samples achievement subtest.

The significance between the math achievement variables and the language proficiency variables. None of the math variables was correlated with the composite score on the WIDA ACCESS for ELLs English Language Proficiency Test. Applied problems and math calculation subtests were only mildly correlated with the speaking subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. Applied problems were correlated with the listening subtest on the WIDA ACCESS for ELLs English Language Proficiency Test. This can be expected because on most tests the evaluator reads the math problem to the student.

Significance of how ELL students are grouped into descriptive categories. It is important to note that one's achievement score on the descriptive category in reading and written expression cannot predict an ELL student's descriptive category on the WIDA ACCESS for ELLs English Language Proficiency Test. Even though many variables are positively correlated, they are not causally linked. A student who performed within the extremely low range on reading comprehension measures may perform in a higher reading category on the WIDA ACCESS for ELLs English Language Proficiency Test.

Impact of the Findings

Consistent with Figueroa and Newsome's (2006) research, these results suggest that even if WIDA scores are listed and reviewed, little information can be deduced about how bilingualism affects children's learning development and testing scores. Figueroa and Newsome (2006) also stated that school psychologists made little or no reference to the possible effects of students' language acquisition being related to their poor academic achievements. When school psychologists evaluate a student for special education, they are required to determine if one's academic struggles are due to a learning disability or to their language acquisition. In several

places in Pennsylvania, evaluation report template school psychologists are asked to provide statements that one's language acquisition is not the reason that they qualify for a specific learning disability. The results from this study show that for many students who performed within the low range on standardized achievement tests in the areas of reading comprehension, word reading, and written expression, it did not mean that they would score within the low classifications of the WIDA ACCESS for ELLs English Language Proficiency Test. Does this mean that the student who scores within low range on both standardized achievement tests and the WIDA ACCESS for ELLs English Language Proficiency Test should not qualify for special education services under the disability category of Specific Learning Disability? One thing is certain, more information is needed about this population, including more benchmark testing in specific academic areas to determine learning profiles. This data show that it is very difficult to determine whether one is making academic or language progress.

Figueroa and Newsome (2006) found that some individuals will processes information slower and their auditory memory might also be slower in their second language. This means that these students may have lower reading fluency scores than monolingual students. The samples for this study looked only at individuals who had learning difficulties and were considered able to speak enough English to be tested in English for the standardized achievement test. Thus, looking at their reading fluency scores would not determine if Figueroa and Newsome's findings were true for this sample. The mean score for this sample for reading fluency was higher than the mean score for reading comprehension; however, the difference between the two means was small. This does suggest that low reading fluency score is not a characteristic of this sample of learning-disabled English language learners.

If schools can identify the academic and language development needs of students, they can provide more targeted interventions. Schools have not yet developed a flawless way to gauge one's language acquisitions versus one's academic learning needs from standardized testing. Progress monitoring of specific skill development will allow for more analysis to be done. There should be statistical analyses of the progress monitoring language acquisition data and academic learning acquisition data from different populations. This would allow more insight to the learning profiles and learning needs of individuals who are learning English as a second language in school. If more progress monitoring were mandated for ESOL programs, more data and research would be available for review. This would lead to more student-targeted interventions and students could be more appropriately assigned to interventions. For example, a student would not be in special education classes when he or she needs more language development support and vise versa.

Limitations

This study utilized a small sample size of archival data that were collected only on those students who had both achievement scores and language scores in their academic files. The small sample size and the fact that it was a sample of convenience could have had implications for this study. The generalization of the results is limited to other education settings with similar demographics as the school used in this study. Additionally, there were a significantly higher number of males, compared with females, in the overall sample. The higher percentage of males within the study may have factored into the results, limiting the generalization of these results.

This study did not look at the length of time in ELL or the amount of time subjects were living in the United States. Some students could have started school in the United States in first grade, yet others could have started school in the same year in which the data were collected.

These factors could have dramatically influenced the subjects' learning profiles. Multiple psychologists conducted the evaluations and multiple teachers conducted the language assessments. This may have affected the inter-rater reliability for both sets of data utilized for this study.

Future Directions

This current study has shown that there is a relationship between standardized achievement tests and scores on the WIDA ACCESS for ELLs English Language Proficiency Test; however, this study has also shown that low scores on standardized achievement measures do not mean that learning disabled ELL students will score within the entering to beginning Level on the WIDA ACCESS for ELLs English Language Proficiency Test in the area of reading and writing. For this to be significant for this population of ELL students who receive special education under the criteria of Specific Learning Disability, other populations have to be assessed with the same measures and the results need to be analyzed. Populations that need to be assessed would include non-learning disabled ELL students, non-ELL learning disabled students, and ELL students who are evaluated in their first languages. Also, other factors have to be analyzed for significance. Those factors include: the number of years that the individual has received English instruction; the number of years that the individual has spoken both his or her first and second language; the amount of time the individual has lived in the United States of America, and how often the student travels and lives in a country where English is not the dominant language in the education system.

Another area that this study did not address is analyzing the disability subtypes with language proficiency scores. A study of that kind would be similar to Hain's study completed in 2008 in which she used the concordance-discordance model to identify different learning

disability subtypes and observed how the subtypes performed on behavioral measures. That study would do the same work, but it would look at the performance of ELL students who have been separated by their learning disability subtypes, and look at language proficiency measures such as the WIDA ACCESS for ELLs English Language Proficiency Test. That study would also have to account for the number of years that the individual has received English instruction, the number of years the individual has spoken both his or her first and second languages and the amount of time the individual has lived in the United States of America.

An area of research this study omitted was comparing the WIDA ACCESS for ELLs English Language Proficiency Test to other standardized and non-standardized measures of achievement such as school grades, Pennsylvania System of School Assessment, or the Keystone assessment. Also, the study did not look at the students' complete historical WIDA ACCESS for ELLs English Language Proficiency Test scores. ELL students are tested on the WIDA ACCESS for ELLs English Language Proficiency Test every year. This data are difficult to find because a student changes schools several times during his or her academic career. Looking at the learning curve for each student on academic and language acquisition measures would be ideal to provide more information about this population. Both the special education and ELL departments need to monitor literacy closely.

References

Alloway, T. P., Gathercole, S. E., Willis, C., & Adams, A. (2004). A structural analysis of working memory and related cognitive skills in young children, *Journal of Experimental Child Psychology*, 87(2), 85-106. dio:10.1016/j.jecp.2003.10.002.

American Educational Research Association, American Psychological Association, National Council on Measurement in Education, Joint Committee on Standards for Educational, & Psychological Testing (US). (1999). *Standards for educational and psychological testing*.

Baddeley, A. D. (1986). Working memory. Oxford: Oxford Univ. Press. Baddeley, A. D. (1996). Exploring the central executive. Quarterly Journal of Experimental Psychology A, 49, 5–28.

Baddeley, A. D. (2000). The episodic buffer: A new component of working memory? Trends in Cognitive Sciences, 4, 417–422.

Butler, Y. G., & Hakuta, K. (2004). Bilingualism and second language acquisition. *The handbook of bilingualism*, 114-144.

Carlson, N. R. (2010). *Physiology of behavior* (10th ed.). New York, NY: Allyn & Bacon.

Durgunoglu, A. Y., & Oney, B. (2000). Literacy development in two languages: Cognitive and sociocultural dimensions of cross-language transfer. In *Research symposium on high standards in reading for students from diverse language groups: Research, practice, and policy*.

Feifer, S. G. (2010). Assessment and intervention with children with reading disorders. In D. C. Miller (Ed.), *Best practices in school neuropsychology: Guidelines for effective practice, assessment, and evidence-based interventions* (pp. 483-506). Hobooken, NJ: Wiley.

Figueroa, R. A., & Newsome, P. (2006). The Diagnosis of LD in English Learners Is It Nondiscriminatory?. *Journal of Learning Disabilities*, *39*(3), 206-214.

Fiorello, C. A., Hale, J. B., & Snyder, L. E. (2006). Cognitive hypothesis testing and response to intervention for children with reading problems. Psychology In The Schools, 43(8), 835-853. doi:10.1002/pits.20192

Flanagan, D. P., & Alfonso, V. C. (2011). *Essentials of specific learning disability identification.* Hoboken, NJ: John Wiley & Sons, Inc.

Flanagan, D.P., Ortiz, S. O., & Alfonso, V. C. (2007). *Essentials of cross-battery Assessment.* (2nd ed.), Hoboken, NJ: John Wiley & Sons, Inc.

Gazzaniga, M. S. (2004). *The cognitive neurosciences*. (3rd ed.). Cambridge, MA: MIT Press.

Gonzalez, V., & Yawkey, T. D. (1994). Influence of cognitive, linguistic, and sociocultural factors on literacy and biliteracy in young bilingual children. *EDUCATION-INDIANAPOLIS-*, *115*, 230-230.

Gopaul-McNicol, S., & Armour-Thomas, E. (2002). *Assessment and culture: psychological tests with minority populations / Sharon-Ann Gopaul-McNicol, Eleanor Armour-Thomas*. San Diego: London: Academic Press, c2002.

Hain, L. A. (2008). *Exploration of specific learning disability subtypes differentiated across cognitive, achievement, and emotional/behavioral variables / by Lisa A. Hain*. 2008

Hale, J. J., Alfonso, V. V., Berninger, V. V., Bracken, B. B., Christo, C. C., Clark, E. E., & ... Goldstein, S. S. (2010). Critical issues in response-to-intervention, comprehensive evaluation, and specific learning disabilities identification and intervention: an expert white paper consensus. *Learning Disability Quarterly*, *33*(3), 223-236.

Hale, J. B. & Fiorello, C. A. (2004). *School neuropsychology: A practitioner's handbook.* New York: The Guilford Press.

Hale, J. B., Kaufman, A., Naglieri, J. A., & Kavale, K. A. (2006). Implementation of IDEA:Integrating response to intervention and cognitive assessment methods. Psychology In The Schools, 43(7), 753-770. doi:10.1002/pits.20186

Individuals With Disabilities Education Improvement Act of 2004 (IDEA), Pub. L. No. 108-446, 118 Stat. 2647 (2004). [Amending 20 U.S.c. §§ 1400 et seq,].

Jacob, S., Decker, D. M., & Hartshorne, T. S. (2011). *Ethics and law for school psychologists.* (6th ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Kaufman, A. S., & Kaufman, N. L. (2004). *Kaufman Test of Educational Achievement, Second Edition Manual.* Circle Pines, MN: AGS

Knecht, S., Dräger, B., Deppe, M., Bobe, L., Lohmann, H., Flöel, A., ... & Henningsen, H. (2000). Handedness and hemispheric language dominance in healthy humans. *Brain*, *123*(12), 2512-2518.

Kuhl, P. K. (2004). Early language acquisition: cracking the speech code. *Nature Reviews Neuroscience*, *5*(11), 831-843.

Miller D. C. (2013). *Essentials of school neuropsychological assessment*. (2nd ed.). Hoboken, NJ: John Wiley & Sons.

Pennsylvania Department of Education (2007) Pennsylvania *English language proficiency standards.*

Sullivan, A. L. (2011). Disproportionality in Special Education Identification and Placement of English Language Learners. Exceptional Children, 77(3), 317-334.

Suzuki, Lisa A., and Joseph G. Ponterotto, eds. *Handbook of multicultural assessment: Clinical,*

psychological, and educational applications. Jossey-Bass, 2008.

Wechsler, D. (2001). *Wechsler Individual Achievement Test-Second Edition.* San Antonio, TX: Psychological Corporation.

Wechsler, D. (2009). *Wechsler Individual Achievement Test-Third Edition*. San Antonio, TX: Psychological Corporation.

Woodcock, R W., McGrew, K S., & Mather, N. (2001). *Woodcock-Johnson III.* Itasca, IL: Riverside.

Yanosky, T., Amos, M., Cameron, C., Louguit, M., MacGregor, D., Yen, S. J., Kenyon, D.M. (2013). *Annual Technical Report for ACCESS for ELLs® English Language Proficiency Test, Series 203, 2011-2012 Administration* (WIDA Consortium Annual Technical Report No. 8).

Appendix A

Dissertation: Student Data

Identification Code #:_____

Date data was removed from student file:_____

Age:_____Gender:_____Grade:_____

Achievement Measure:

Scale	Score
Reading Scale	
Math Scale	

Written Language	
Oral Language	
Listening Comprehension	
Other:	

Language Measures:

Listening	
Speaking	
Reading	
Writing	
Composite	