CHAPTER II: LITERATURE REVIEW

This chapter provides a review of literature relevant to the research questions investigated in this thesis. The review addresses the following issues:

1. The formation and reauthorization of the IDEA and how it is related to students with disabilities.
2. The effect of deficiencies in written expression on student performance.
3. Assessment and testing: beginning theories and today's practices.

The Formation and Reauthorization of the Individuals with Disabilities Education Act and How it is Related to Students with Disabilities.

Special Education services have benefited students with disabilities in many ways. Today more children are being educated in their regular school-district assigned schools as opposed to being sent to live in institutions. For this reason, families are able to remain together. Special Education, along with support, has increased the rate of high school graduation. Because graduation rates for students with disabilities increased 14% from 1984 to 1997, post-secondary school enrollment also increased. The number of college freshmen reporting disabilities has more than tripled. Through Special Education programs, the employment rate among people with disabilities is at 45.9% (U.S. Department of Education, 2005).

Prior to 1975, many students with disabilities received very little academic instruction. Public Law 94-142 Education for All Handicapped Children's Act (EHA) enacted by Congress made that change. The law was formed to support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for individuals and their families (U.S. Department of Education, 2005). Public

Law 94-142 guaranteed a free, appropriate public education to each child with a disability in every state and locality across the country. This law (Public Law 94-142) responded to concerns of two groups of children. The first group was those with disabilities who were not allowed to participate in the public education system. Before 1975, more than one million children were excluded from the public school system. The main reason for exclusion was that no special classes were available, and these students were not integrated into the regular classroom setting.

The second group was those with disabilities who had limited access to the educational system because of poor funding for special education programs. These students had been provided minimal education materials and resources. They had received little social interaction with regular education students. Only half of all the students with disabilities in the United States received limited educational opportunities prior to the enactment of Public Law 94-142 (U.S. Department of Education, 2005). Because of the new law, students with disabilities were served through the public school system. Resource settings, in which students were pulled to a separate class for a small period of time for instruction and inclusion settings where the special needs teacher came to the student in the regular setting for instruction, were available in almost all schools. Students who were labeled with a Severe/Profound disability were generally transported to one classroom that was set up within a rural county. Classrooms were also provided according to the number of students with other disabilities such as Behavioral Emotional Disabled, Trainable Mentally Disabled, Educable Mentally Disabled, etc. The intent was that all students were provided the least restrictive education based on their needs. Students with disabilities who were unable to participate in a regular curriculum, such as

Trainable Mentally Disabled, followed a life-skills curriculum that would help them be more independent in the future.

Even though the EHA was mandated, many states did not immediately comply with the regulations. This led to lawsuits filed against school districts. The equal protection clause of the Fourteenth Amendment insured the rights of the students, and states were forced to follow federal guidelines. In 1986, EHA was amended to cover ages three to twenty-one.

In 1990, an amendment was made to Public Law 94-142 which then became Public Law 101-476. The name changed from the Education for All Handicapped Children's Act to the Individuals with Disabilities Education Act (IDEA). A transition component was added. The transition component prescribed how students would best make the change from high school to independent living. Job options were discussed, and help was provided in placing students in appropriate employment settings. Students were also helped to locate community resources that are available such as Social Security and Medicaid benefits. Living arrangements were also covered. For example, group homes were considered for students who needed extensive support but who did not remain in their homes. The transition component still applies today.

In 1997, the Individual Education Plan (IEP) became a primary tool for enhancing the child's education. Each state had to make provisions for students to participate in district-wide assessments to include modifications as needed. Graduation was addressed, stating the student's right to a "free and appropriate public education" (FAPE) was terminated upon graduation if the student graduated with a regular high school diploma. If the student received a different certificate or diploma upon completion, then the student

was still eligible for services under FAPE. Clarification was made to Attention Deficit Disorder (ADD) and Attention Deficit with Hyperactivity Disorder (ADHD). These were not separate classifications. They continued to be contained under the Other Health Impaired category and eligibility was determined if an educational impact existed (US Department of Education, 2005).

IDEA has been reauthorized again. In November of 2004, the House and Senate Conference Committee on IDEA met and ruled to accept the reauthorization. Most of the provisions took effect July 1, 2005. The reauthorization addresses requirements for personnel training. Students with disabilities are to be taught by highly qualified teachers. This is in line with the requirements of the "No Child Left Behind" law signed by President George W. Bush. Teachers who are not highly qualified will have limitations as to the level of service they are able to provide (US Department of Education, 2005).

The latest reauthorization also includes changes in the IEP process. An IEP is a legal document that sets the goals for a student based on disability and achievement level. The IEP is reviewed and rewritten at least once a year. An IEP can be reviewed earlier if a student meets his/her goals or if it needs to be revised. The IEP goals are developed and written by a team whose members have a direct impact on the student's education. The team members are: the regular education teacher, a special education teacher, a parent, and a local education area representative, typically the Principal or his/her designee, and someone who will interpret the test results.

If a student is on grade-level, the IEP is written to match the curriculum. For students who have significant weaknesses, goals are set so the student can make a year's

worth of growth from wherever he/she is in the scope of a curriculum. These goals are addressed at least once a year.

A student is re-evaluated at least every three years to determine if he/she still meets the eligibility requirements. Re-evaluation may be conducted earlier if the eligibility area needs to be changed or if a student needs to exit the program. The re-evaluation generally consists of a small battery of tests. These tests are usually the same tests that were given that determined initial placement.

Students are to receive research-based instruction that must be reflected on the IEP. Research-based instruction means programs that have been thoroughly tested and that show academic growth when implemented. A popular program being utilized in Special Needs classrooms is "Reading Mastery." This program is a phonics-based approach that has been shown to be very systematic and beneficial to students with reading deficits.

IEP's must include a statement about the student's present level of academic and functional performance. A possible scenario could be: Johnny is able to add two-digit numbers with regrouping with 90% accuracy. He needs to remain "on task" and finish given assignments within a period of time with no more than one redirection four out of five times. Previously, only educational performance was addressed. In the State of North Carolina, IEP's must provide descriptions of benchmarks or short-term objectives for students who take alternate assessments. The following is an example: Johnny will, on the Academic Inventory, construct an ABBA pattern using pattern blocks four out of five times. Also, annual academic and functional goals must have a statement of measurability. Prior to the 2005 reauthorization, an annual goal would look like the

following example, "_____ will be able to solve multi-step addition problems." When the reauthorization goes into effect, annual goals must be written as follows, "_____ will be able to solve multi-step addition problems with 80% accuracy." Furthermore, related services and supplementary aids will now be based on peer reviewed research. A statement reflecting this change will be written into the IEP.

IDEA has made it possible for more students who have academic challenges to be evaluated to determine if they meet the criteria for Specific Learning Disabilities services. The evaluation process considers weaknesses in these core subjects: math, reading, and written expression. Additional testing can be requested to determine if services are needed in speech-language, occupational therapy, physical therapy, or English as a Second Language (ESL).

The Effect of Deficiencies in Written Expression on Student Performance.

Written expression is the most subjective of the three core subject areas mentioned in the previous paragraph. Evaluating written expression is not an easy process: "Despite the problems associated with the assessment process, the importance of evaluating writing is paramount. From the intermediate grades through college, writing is the primary means for students to demonstrate knowledge in all content areas and for teachers to evaluate student performance" (Poplin, Gray, Larsen, Banikowski, & Mehring, 1980, p. 47). In 1994, approximately 1 to 3% of all primary grade children had disabilities in handwriting, 3 to 7.4% had disabilities in spelling, and 1 to 3% had disabilities in composition (Berninger & Hart, 1994). Today, the number of students with disabilities in written expression is greater than ever. Approximately 5% of primary students exhibit a writing disability (Gansle, Noell,Vanderheyden, Slider, Hoffpauir,

Whitmarsh, & Naquin, 2004). It is imperative that administration of evaluations and interpretation of the collected data are accurate so students may be correctly identified and possibily receive services.

Assessment and Testing: Beginning Theories and Today's Practices.

In 1927, Dr. Charles Spearman introduced the notion of factor analysis in relation to human abilities. Dr. Spearman analyzed data from children's performances on academic tests. He came to the conclusion that there was one general factor which he called "g" for general intelligence. This factor underlied performance in all subtests. There were a number of specific abilities that had a small part to play in determining performance. General intelligence was the most important.

In 1977, Dr. Richard Woodcock developed an educational battery to measure intellectual abilities. The battery consisted of three parts: "Tests of Cognitive Ability," "Tests of Achievement," and "Test of Interest Level." The first battery contained twelve tests, measuring verbal and nonverbal functions. These tests followed a continuum from lower processes to higher order mental operations. These tests were developed following a scientific empirical method that used controlled experiments to measure learning abilities.

In 1989, the test was revised and divided into two separate batteries: "Tests of Cognitive Ability," and "Tests of Achievement." The revision was based on Horn's 1985 paper on the Gf-Gc Theory (Horn, 1991). The Gf-Gc Theory is an expansion of Dr. Spearman's work which included only two abilities: fluid reasoning, and crystallization (comprehension) (McGrew, 2003). The Gf-Gc Theory covers seven broad abilities of

individuals, even though its name suggests two abilities based on the work of its predecessor (Horn, 1991). Those abilities are as follows:

- Long-term retrieval
- Short-term memory
- Processing speed
- Auditory processing
- Visual processing
- Comprehension-knowledge
- Fluid reasoning

Dr. Woodcock stated that the Gf-Gc Theory could be used to describe the structure of other intelligence tests if a group of tests identified all the Gf-Gc factors. This belief established the theory as a standard for evaluating tests of intelligence (McGrew and Flanagan, 1998).

Validity was established through careful item design that resembled academic demands of the classroom. Also, series of studies were conducted at three different age groups: three, nine, and seventeen years. Each of these groups was correlated with a variety of criterion measures, and there was a high correlation among tests within the same cluster. This signified that there was test reliability and therefore the WJR-III became the primary battery of tests to measure the theory.

In 2001, Dr. Woodcock developed the WJR-III. This battery is based on research by Cattell, Horn, and Carroll. This test created broader factors by combining abilities, so the scores could be generalized to other situations. WJR-III was again comprised of the

"Tests of Cognitive Abilities" and the "Tests of Achievement." These tests were co-normed to provide a highly accurate and valid diagnostic assessment. By co-norming tests, evaluators were able to get actual discrepancies and to avoid errors that were usually associated with estimated discrepancies.

Based on the literature, the WJR-III is a valid assessment. It is also a reliable assessment when administered properly. Other factors must now be considered to determine why students are not meeting the criteria to receive Special Education support.

The WJR-III is normally conducted at a student's school. Tests are administered one-on-one with an evaluator who has received training on giving the assessment in a quiet setting. During the "Writing Samples" section, which is Test 11, the students are shown a picture and verbally presented a prompt. On test item number six for example, the student is shown a picture of a bird in a cage and musical notes coming out of its mouth. The verbal prompt is, "This is a picture of a bird. Write a good sentence about the bird and what it is doing" (Woodcock, McGrew, and Mather, 2001, p. 54).

The Writing Samples on the WJR-III are scored differently than other tests within the Protocol: "The samples are scored using a modified holistic procedure that requires the use of judgment when scoring responses" (Woodcock, McGrew, and Mather, 2001, p. 103). Appendix B in the scoring guide provides a rubric. Several example responses are given with the appropriate score the student would receive for each sentence. Students are scored on a rubric from zero-two based on the complexity of the sentence. Using test example six again, a sentence that reads "The bird is singing" receives a score of two. A sentence that reads "It is singing" will receive a score of one because the sentence does not identify the bird.

Punctuation, capitalization, and handwriting are generally not counted as errors. Spelling is counted on a few of the test items. A sentence is considered legible if any adult is able to read the response without knowing what the item content is.

In Onslow County, North Carolina, the Exceptional Needs Department trains its own evaluators on how to administer the WJR- III instrument and how to score responses. People who are trained within the county include Special Needs teachers, program specialists, counselors, and diagnosticians. According to the testing protocol, the training is supposed to last two days, and participants must submit two practice testing protocols to show proficiency in administering the test. During this training, the facilitators use Appendix B from the WJR-III Tests of Achievement Examiner's Manual for scoring the writing samples.

In addition to the Appendix B, Chapter 4, pages 54 to 56 of the training manual provide additional detailed administration procedures for the Writing Samples Test. Including all possible written responses within the test manual is impossible, so Chapter 4 gives a clearer understanding of how to score writing samples. Using these additional criteria, protocols may actually have lower scores, creating a larger discrepancy between the IQ score and the educational achievement score. In Chapter 3 and 4 of the manual, protocols are used to substantiate these findings.