THE IMPACT OF ALTERNATE ASSESSMENT ON TEACHING AND LEARNING FOR
STUDENTS WITH SIGNIFICANT COGNITIVE DISABILITIES

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DISSERTATION

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Abstract

Federal legislation mandates all students, including those with significant cognitive disabilities, participate in standards based education and in state assessments linked to those standards. To address this issue, this study used a multiple case study design in order to determine the impact alternate assessments based on alternate achievement standards have on teaching and learning for students with significant cognitive disabilities who participate in these assessments. Specifically, this study examined: (a) the link between the IEP and the state standards, (b) teacher and parent perceptions of standards based instruction and alternate assessment, and (c) how teachers deliver academic content to students who participate in alternate assessment.

Data were collected using observations, in-depth interviews, surveys, and a document review. Exemplar cases were selected from schools representing urban, suburban and rural school districts in Georgia. Five middle school special education teachers and five parents of middle school students with moderate and significant levels of intellectual disabilities were participants - creating a teacher/parent/student triad. Each case was involved in standards-based instruction for students with significant cognitive disabilities who participated in the Georgia Alternate Assessment (GAA) during the 2008-09 school-year.

Results from this study indicate that parents and teachers have favorable views of academic instruction for students with moderate intellectual disabilities, but some were less sure of the benefit for students with the most significant disabilities. Additionally, parents know little about the alternate assessment itself. Teachers were providing academic instruction that was linked to the state grade level standards and to the GAA, yet many of the teachers continued to maintain separate academic or GAA time and IEP goal/objective time. The document review

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revealed that little to no linkage was demonstrated between the IEP and the state standards, with most of IEPs containing more *functional* than *academic* goals and objectives. The findings of this study have several implications for policy, research and practice, including (a) the need for on-going professional development to assist teachers in developing the necessary skills to adapt grade level standards for inclusion into the IEP and (b) professional development that helps teachers integrate academic activities with IEP activities into more lessons.

I dedicate this project to my daughter, Kindra, and my husband, Chris, who have supported me throughout this process

Scott, Elizabeth, Diane, Cassandra, and Meghan for allowing me into their classrooms. I enjoyed each visit and loved getting to know them and their students. They are exceptional teachers and I learned much while I was in their classrooms. Additionally, I want to thank the students and parents who agreed to participate in my study. I appreciate their time and willingness to share their insights with me.

Finally, thanks to the many unnamed individuals who helped me complete this project. Many people assisted in the process of transcribing, reading, and reviewing this document. There were also untold numbers of conversations with many different people about how to best meet the needs of students with intellectual disabilities. I want to thank everyone for taking an interest and caring about this research.

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Definition of Terms

Alternate Assessment   There are currently three different types of alternate assessments

that states may use. Alternate assessments judged against grade-

level standards (AA-GLAS), alternate assessments judged against

modified achievement standards (AA-MAS), and alternate

assessments judged against alternate achievement standards (AA-

AAS). Most of the research on alternate assessment conducted

over the last decade focuses on AA-AAS. This paper concentrates

on AA-AAS, using the general term alternate assessment instead of

AA-AAS.

Chapter 1

Introduction

The Accountability Movement

The educational accountability movement in the United States may be traced back to the 1980s when reformers moved to raise academic standards and hold schools accountable for these standards (McLaughlin & Rouse, 2000a). With the publication of *A Nation at Risk* (National Commission on Excellence, 1983), educational accountability was brought to the forefront, gaining attention from various groups, including policy makers, business leaders, educators, and parents. The Commission stated in their report, "…society and its educational institutions seem to have lost sight of the basic purposes of schooling, and of the high expectations and disciplined effort needed to attain them" (National Commission on Excellence, 1983, Nation at Risk, para. 3). The United States concern with global productivity led policy makers to argue for a closer connection between business and education. Additionally, both political and education professionals' concerns about the declining educational standards helped to push educational accountability to the forefront (McLaughlin & Rouse, 2000b).

The Goals 2000: Educate America Act of 1994 poured millions of federal dollars into American schools (Smith, 1997). The intent of Goals 2000 was to define curricula standards and to develop accountability measures. As with *A Nation at Risk*, both business leaders and politicians indicated a belief that American schools were failing. Together, they pushed for higher standards and more assessment in order to motivate students to achieve at higher levels (O'Hanian, 2000). Many educators embraced the challenge of raising student achievement, particularly in math and science (Hawkes, Kimmelman, & Kroeze, 1997). Additionally, according to the 1992 Gallup Pole, 71% of surveyed parents indicated that they favored requiring

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schools to use standardized tests (Elam, Rose, & Gallup, 1992). Accordingly, states began requiring exit exams (Greene & Winters, 2004) along with the administration of standardized tests to larger numbers of students (Linn, 2000). However, policies developed as part of the standards reform and accountability movements concentrated on students without learning difficulties. Many of these policies ignored students with disabilities (McLaughlin & Rouse, 2000a), and as many as 40-50% of students with disabilities were excluded from national assessment programs such as the National Assessment of Education Progress (NAEP) (Vanderwood, McGrew, & Ysseldyke, 1998).

Accountability and the Inclusion of Students With Disabilities

The inclusion of students with disabilities in assessment and accountability systems began with the 1997 Amendments to the Individuals With Disabilities Act (IDEA). Assessment of all students was mandated for the first time (20 U.S.C. § 1412 (a)(17)). Many states did not include a significant number of students with high incidence disabilities in state assessments, and often excluded students with moderate and severe intellectual disabilities entirely (Bowen & Rude, 2006). Even when students with disabilities did participate, it did not mean that results were included in accountability decisions. States and districts were required to develop and implement assessments for all students, even those with the most severe cognitive disabilities. For those students who could not participate in the general assessment, even with accommodations, states were allowed to develop alternate assessments. At that time, only two states, Kentucky and Maryland, had an alternate assessment in place (Ysseldyke et al., 2004) and Kentucky was the only state to include all student scores in the state accountability system (Olsen, 1998).

The No Child Left Behind Act (NCLB) of 2001 and the 2004 Amendments to IDEA further strengthened the testing requirements, ensuring that large-scale assessment of students with and without disabilities was to be an on-going process. Both of these pieces of legislation increased the demand on states for rigorous assessments aligned to standards (20 U.S.C. § 6301; 20 U.S.C. § 1412 (c)(ii)(16); 68 Fed. Reg., p. 68699). As a result, states began redesigning and revising their alternate assessments, with renewed attention to issues of alignment with the general education academic content standards (Flowers, Browder, & Ahlgrim-Delzell, 2006) and content/construct validity (Johnson & Arnold, 2004; Tindal et al., 2003). The accountability provisions of both NCLB and the 2004 Amendments to IDEA have two implications for including all students into the assessment system: (a) improved instruction, and (b) improved outcomes, assuming that by holding schools accountable, students will receive better instruction resulting in better outcomes (Ysseldyke et al., 2004). While the two pieces of legislation are different- NCLB is a law of group accountability and IDEA is a law of student individuality - together they intend to promote academic success for students by implementing systemic changes to ensure the IEP teams are addressing standards, curricular access, and assessment (Bowen & Rude, 2006).

Standards-Based Instruction and Access to the General Curriculum

With the passage of legislation requiring all students to be included in state accountability systems, states began developing academic standards that would apply to students with disabilities. All states now have two types of standards, *academic content standards* and *academic achievement or performance standards*. Academic content standards are statements of the knowledge and skills that students are expected to learn during the school year and are based on specific grade level content, while academic achievement (performance) standards are

statements that indicate exactly how students are to demonstrate their progress toward learning

the academic content standards (Linn, 2000). Standards provide a unified set of expectations and

help with the collaborative process between general and special educators (McLaughlin, Nolet,

Rhim, & Henderson, 1999). However, there is concern that teaching curricula based on a set of

state standards to students with severe intellectual disabilities deprives these students of the

individualized curricula needed to affect positive adult outcomes (Lowrey, Drasgow, Renzaglia,

& Chezan, 2007; McLaughlin et al., 1999).

Individualized instruction may be considered to be the central principle of special

education. In fact, The Purposes section of the Individuals With Disabilities Education

Improvement Act of 2004 states, "to ensure that all children with disabilities have available to

them a free appropriate public education that emphasizes special education and related services

designed to meet their unique needs…" (20 U.S.C. § 1400(d)(1) (A)). IDEA 2004 states:

> (5)(A) having high expectations for such children and ensuring their access to the general
> education curriculum in the regular classroom, to the maximum extent possible, in order
> to-
>> (i) meet developmental goals and, to the maximum extent possible, the
>> challenging expectations that have been established for all children; and
>> (ii) be prepared to lead productive and independent adult lives, to the maximum
>> extent possible (20 U.S.C. § 1400(c)(5)).

Despite the federal requirement that all students receive access to the general curriculum

(20 U.S.C. § 1400(c)) and participate in state assessment (20 U.S.C. § 1412 (A)), research

findings suggest that some teachers do not value academic instruction for students with severe

intellectual disabilities (Agran & Alper, 2000; Agran, Alper, & Wehmeyer, 2002). In two

different studies, Iowa special education teachers who held certification in either multi-

categorical or severe disabilities were randomly selected and asked to complete a questionnaire

asking them to rank the importance of certain skills. In both studies, teachers rated non-academic

skills such as problem solving and social skills as being more important than academic and daily living skills. Teachers may be concentrating on facilitating successful inclusion in the general environment by teaching social skills while providing less instruction in functional life skills and academic core content. These studies highlight the concern that some teachers may be confusing access to the general education environment (or inclusion) with access to the general curriculum. Additionally, what academic instruction the students do receive may not be aligned with assessed standards (Flowers et al., 2006).

The confusion over what to teach and where to teach it may be due to the many ways access to the general curriculum is defined (Browder, Wakeman, Flowers, Rickelman, Pugalee, & Karvonen, 2007; Dymond, Renzaglia, Gilson, & Slagor, 2007). Dymond et al. (2007) discussed seven different definitions of access to the curriculum proposed by researchers. As part of their paper, the authors found that general education teachers and special education teachers defined access to the general curriculum differently. General education teachers were more likely to define access as instruction occurring in the general education classroom using the same curriculum and materials as those used with students without disabilities, while more than half of the special education teachers defined access as adapted curriculum that is individualized and meaningful to the student. In a study of the opinions of state directors of special education, Ahearn (2005) found that the lack of a consistent definition of access to the general curriculum made it difficult to monitor progress toward accessing general content for students with disabilities. Additionally, there is concern that the standards-based general curriculum may result in too narrow a focus on academic content for students with significant cognitive disabilities (Agran et al., 2002; Lowrey et al., 2007). Despite the lack of a clear definition of access to the

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general curriculum, it is clear that the legislative intent was to provide challenging curricula and be held to high standards and expectations (Wehmeyer, Lance, & Bashinski, 2002).

Parent Perceptions of Assessment and Instruction

Parents' views of the importance of general curricular access, instruction, and assessment are important considerations in providing best practices for all students, including students with disabilities. While 71% of nationally sampled parents have supported the use of standardized assessments for students (Elam et al., 1992), the numbers of local parents who approve of the use of standardized tests may be lower. In a study designed as a follow-up to the 1992 Gallup Poles, researchers found that only 46% of locally sampled parents of third graders favored requiring schools to use standardized tests (Shepherd & Bleim, 1995). While the researchers stratified the sample to include parents of students who teachers had rated as high, medium, and low achieving, the sample did not specifically include parents of students with disabilities. Other studies have also demonstrated that not all parents view standardized testing and increasingly demanding standards as desirable. Some parents indicated that there is no need to increase the content or rigor of mathematics or science courses (Davis, 2007), while other parents indicate that the academic content taught at the schools has no relationship to life at home (Woodrum, 2004). The lack of consistency between national poll results and localized study results may indicate that while parents are generally supportive of the concept of school accountability, they are less supportive of it when it concerns their local school and student.

With respect to how parents of students with disabilities view standards-based instruction and assessment for their students, few studies that have targeted parents of students with disabilities found that parents were generally favorable of including students with disabilities in state assessment (Nelson, 2006). Parents whose students with mild disabilities participated in the

Minnesota Basic Skills Test (MBST) indicated that believed that due to the assessment, school personnel made an effort to re-design, revise, or add to the curriculum for students with disabilities resulting in more curricular options for their students. In one of the few studies available, Roach (2006) found that parents whose children participated in the Wisconsin Alternate Assessment (WAA) were generally favorable of having all students participate in assessments that focused on reading, writing, and mathematics skills. Additionally, parents reported that the time teachers spent implementing the WAA was moderately important to teaching their students and that the WAA process and results was moderately useful. The results may indicate that the parents is this study were supportive of assessment and instruction that would help their student progress in the core curriculum. However, research in the area of the perceptions of parents of students with disabilities relating to their participation in assessments and standards-based instruction is limited.

The Instruction-Assessment Link and the Need for Further Research

Assessment may be the tool used to generate access to the general curriculum and standards based instruction, as well as effecting the teaching strategies and processes to deliver the general curricula (Bowen & Rude, 2006). Yet, for many, the instruction-assessment link for students with significant disabilities is weak. For many teachers and students, there is a weak linkage between the IEP and what is actually taught (Fisher & Frey, 2001; Towles-Reeves, Garrett, Burdette & Burdge, 2006) and other researchers have found that teachers have negative attitudes about the value of the instruction-assessment link (Kim, Angell, O'Brian, Strand, Fulk, & Watts, 2006). Others have found that students who have greater academic instruction and access to the general curriculum performed better on the alternate assessment while recognizing

the weak relationship between performance on the assessment and access to the curriculum (Roach & Elliot, 2006).

According to Thurlow (2002), "The greatest promise of standards-based reform for students with disabilities, as with other students, is that it will result in programmatic and instructional improvements" (p. 199). Yet, there is still the debate about the utility of standards based instruction for students with significant disabilities. Unfortunately, current research documenting the relationship between the IEP, standards-based instruction, and assessment for students with disabilities is sparse. When examining the issue within the context of students with significant disabilities, there is even less evidence.

In an ideal world, the use of standards would assist the team in developing the student's IEP, instruction would meet the student's unique needs and be based on the content standards, and reflect the IEP objectives. The alternate assessment would accurately measure the student's progress in the general curriculum, providing useful information to the team for development of the student's next IEP. However, many questions remain regarding the instruction-assessment cycle. How do parents and teachers view the process and effect of alternate assessment? Are students' individual needs being met within the context of standards-based instruction? Are students being provided with the opportunity to participate in standards-based instruction? In order to answer these and other questions, a comprehensive examination of the link between the IEP, standards-based instruction, and alternate assessment is needed in order to inform the debate and to determine whether or not the promise of standards based instruction is being fulfilled or if it is just rhetoric.

Chapter 2

Literature Review

The purpose of this review of literature is to examine several issues relating to Alternate Assessment based on Alternate Achievement Standards (AA-AAS). After a brief review of the history of alternate assessment, issues relating to the validity of these tests with a particular emphasis on the characteristics of the students for whom they are used is examined. Because the assessment-instruction link is a critical issue for this study, the review includes a separate section on instructional issues that examines the available research and literature for: (a) information relating to standards based instruction for students with significant cognitive disabilities, (b) classroom impact of alternate assessment, (c) parent perception of the impact of alternate assessment, and (d) the impact of standards based instruction and alternate assessment on IEP development.

Information was sought from a variety of sources. First, a general search of the *Wilson Education Full-Text* database, *Psych-Lit* database, *ISI Web of Knowledge*, and *ERIC* on-line was conducted using various search terms and keywords. These terms included: *alternate assessment, general curriculum, parent, teacher, perception, opinion, significant cognitive disability, severe disabilities, mental retardation, intellectual disabilities, high-stakes testing, NCLB, IDEA, standards, and instruction*. The text and reference lists of pertinent articles were reviewed for any citations or research that may pertain to the original purpose of this paper. Textbooks were used only when they were referenced by other authors in research articles. Finally, information was gathered from personal communications with individuals respected for their work in the field of alternate assessments.

Information excluded from this review includes literature relating to alternate assessments based on grade-level content standards and alternate assessments based on modified achievement standards. Currently, few of these types of alternate assessments exist and little literature is available about them. Most of the current literature pertains specifically to alternate assessments based on alternate achievement standards. Additionally, information relating to accommodations provided to students during assessments is excluded. Generally, accommodations are used for students other than those with significant cognitive disabilities, taking all or parts of the general state assessment. Although a student from any IDEA service category may receive accommodations, information seldom relates directly to alternate assessments or to the students who take them.

Rose's Law (PL-111-256) changed the term *mentally retarded* to *intellectual disability* in all federal legislation in October 2010. The term *intellectual disability* is used in this review when possible. Additionally, the term *student with significant cognitive disability* is also used because it is the term used by the United States Department of Education to refer to the students intended for participation in Alternate Assessment based on Alternate Achievement Standards (U.S. Department of Education, 2005a).

Many of the studies included in this review were small studies that relied on parent or teacher responses to surveys or interviews, and many authors reported minimal statistical information. Quantitative data is included when available from the authors. Additionally, the authors of several studies did not provide the names of many of the states where the research were conducted. When possible, state names are included in the review as well.

Alternate Assessment

Brief history of alternate assessment. The goal of educational accountability is to improve teaching and learning for all students. In today's society, educational accountability often means the use of standardized testing to gauge school productivity (Ryan, 2008). Prior to the passage of the 1997 Amendments to IDEA, students with disabilities were often exempted from participating in state assessment and accountability systems, often without any provided rationale. McGrew, Thurlow, Shriner, and Spiegel (1992) identified that there was often no state level information on the inclusion or exclusion of students with disabilities in the assessment and accountability systems, leaving it to local districts to collect.

IDEA 1997 directed states and local districts to begin assessing all students with disabilities for the first time. Not only were states required to assess students with disabilities, they were required to develop alternate assessments for students with significant cognitive disabilities. These students previously were often excluded from large-scale assessment and accountability purposes. At that time, only two states, Kentucky and Maryland, had an alternate assessment in place (Ysseldyke, Olsen, & Thurlow, 1997) and Kentucky was the only state to include all student scores into the state accountability system (Olsen, 1998). The 1997 Amendments also indicated that the IEP team is responsible for determining how a student should participate in the state or district assessment; they were no longer allowed to exempt a student from being assessed. Some of the early state participation guidelines relied primarily on whether or not a student was pursuing an educational program leading to a regular diploma (Olsen, 1998; Ysseldyke, et al., 1997).

The mandate to assess all students with disabilities, even those with significant cognitive disabilities, was strengthened with the passage of the No Child Left Behind Act (NCLB) of

2001 and the 2004 Amendments to IDEA. Alternate assessment based on alternate achievement

standards is defined as "an assessment designed for the small number of students with

disabilities who are unable to participate in the regular state assessment, even with appropriate

accommodations" (68 Fed. Reg. p. 68699). These assessments are to determine students'

progress toward academic content and are intended to be rigorous in design. A new addition to

IDEA with the 2004 Amendments (20 U.S.C.§1412) pertains specifically to AA-AAS and state:

> (A) In General. All children with disabilities are included in all general State and
> districtwide assessment programs…with appropriate accommodations and AA-AAS
> where necessary and as indicated in their respective individualized education programs.
> …(C) AA-AAS… (i) shall provide for AA-AAS that (I) are aligned with the
> State's challenging academic content standards and challenging student academic
> achievement standards; and (II) if the State has adopted alternate academic achievement
> standards permitted under the regulations promulgated to carry out section 6311(b)(1) of
> this title, measure the achievement of children with disabilities against those standards
> (20 U.S.C. § 1412 (a)(16)).

For the first time, the *type* of achievement standard (general or alternate) was included.

Additionally, scores for all students must be included as part of the state accountability system

under NCLB and IDEA (20 U.S.C. § 1412 (d)(16); U.S Department of Education, n.d.). States

must report the scores of all students with disabilities in the same level of detail as those students

without disabilities. Unless the number of students with disabilities is too low to yield

statistically reliable information, student scores must be reported as a separate subgroup (20

U.S.C. § 1412). States are allowed to define the exact number of students considered to be a

statistically reliable subgroup using sound statistical methods. (U.S. Department of Education,

2008, November 20).

Many of the early alternate assessments were linked to functional curricula or activities.

As with standardized tests developed for students without disabilities, there was concern among

many in the fields of both special education and educational measurement about the technical

quality of many of the alternate assessments used (Elliot & Roach, 2007; Flowers et al., 2006; Schafer, 2005). Additionally, studies have shown that there was often weak linkage between the alternate assessment and state content standards (Browder, Flowers, Ahlgrim-Delzell, Karvonen, Spooner, & Algozzine, 2004; Browder, Spooner, Ahlgrim-Delzell, Flowers, Algozzine, & Karvonen, 2003; Elliot & Roach, 2007).

Types of alternate assessment. In 1997, when alternate assessments were first mandated by IDEA, there were only three ways in which students were expected to participate in assessments; now, there are five ways in which students with disabilities may participate: (a) general assessment, (b) general assessment with accommodations, (c) alternate assessment based on grade level achievement standards, (d) alternate assessment judged against modified achievement standards, and (e) alternate assessment judged against alternate achievement standards (Yell, Shriner, & Katsiyannis, 2006). Assessments judged against grade level content allow comparable inferences about proficiency, given the accommodations or changes made. Assessments judged against modified and alternate achievement standards infer that extensive accommodations and supports have been used and/or that the grade level content has been changed in complexity (U.S. Department of Education, 2005b).

Because each state may develop its own alternate assessment, use an existing assessment, or purchase/develop one with a testing contractor, the assessments manifest in many different forms. Common forms include checklists, student observations, performance assessments, student work samples, and portfolios. Table A1, Early Types of Alternate Assessments (located in Appendix A), provides brief descriptions of the common types of alternate assessments.

These types of assessments are not mutually exclusive, and there is overlap between the different methods (Quenemoen, Quenomoen, Kearns, & Kennedy, 2010; Quenemoen,

Thompson, & Thurlow, 2003). For example, a portfolio may include student work samples and documentation of checklists or performance tasks. Alternately, a checklist may require the student to perform a certain task in order for the teacher to assess the item. Recently, researchers in the field of alternate assessment have tried to develop common language for assessment types. Quenemoen, et al., (2010) proposed a typology for characterizing states' alternate assessments. They concluded that there are three common types of alternate assessment: (a) portfolios, (b) rating scales, and (c) item based tests. The authors found that most states use either a portfolio (n=21) or an item based test (n=23). Although many alternate assessments do not fit *neatly* into a particular category, each state has the responsibility to design and implement a system that measures student progress and includes them in the state accountability system.

Characteristics of students in alternate assessment. In an attempt to help define the population participating in alternate assessment, the federal government released a white paper in order to assist IEP teams with the decisions regarding who should participate in alternate assessment based on alternate achievement standards. The paper entitled, *A Decision Framework for IEP Teams Related to Methods for Individual Student Participation in State Accountability Assessments* (U.S. Department of Education, 2005b), outlines what IEP teams should and should not consider when making decisions regarding how students with disabilities participate in assessment. The team should base its decision on the educational needs of the student and not on other factors such as expected level of performance on the assessment or categorical label. When determining how students with disabilities should participate in assessments, it is important that the team does not base their decision on (a) student's participation in a separate, specialized curriculum, (b) on current placement, (c) on disability classification, or (d) choose the assessment method in an attempt to improve AYP reports. However, the decision is complex and

in order to choose the most appropriate method of assessment, IEP teams need guidance.

An extensive search of the literature resulted in only a few studies specifically examining the characteristics of students participating in alternate assessment (Almond & Berchard, 2005; Roden, 2007; Towles-Reeves, Kearns, Kleinert, & Kleinert, 2009). This lack of research indicates there is little information available about the students who actually participate in alternate assessment in relation to the intended student participants defined by federal and state policy.

The first in-depth examination of students participating in alternate assessment was conducted before the release of the white paper. Almond and Berchard (2005) collected information about student participants while piloting new alternate assessment in a group of seven states. The seven states worked cooperatively with several national assessment centers and the testing contractor to develop better alternate assessments. Of the participating teachers 60% indicated that their students were learning to read words useful in daily living as well as the names of teachers and classmates. Information obtained regarding the participating students' demographics revealed that most of the students were white males, all used at least one assistive technology device, and the majority used some type of communication system (e.g. communication board, pictures with text, picture or text schedule, or some combination of). The study authors noted that the pilot students represented less than 1% of the special education students in each state and that the students may not have been representative of the students with the most severe intellectual disabilities. Furthermore, this study did not examine any relationships among the different variables, instead providing only frequency counts and percentages.

Because the sample size was relatively small, it is difficult to generalize the information

from this study. Additionally, the authors' concerns that the students selected by the teachers were chosen because they felt that the students "could be successful" (Almond & Berchard, 2005, p. 26) on the alternate assessment indicates that the population in this study may actually possess higher skill levels than the typical student participating in alternate assessment. However, because this study was conducted with seven states, it provides an important view of students participating in alternate assessment across the country.

Roden (2007) analyzed extant data from a small New England state regarding the learning characteristics of students participating in the state's Alternate Assessment System during the 2005-06 school year. As part of the alternate assessment portfolio, teachers completed a Sensory Access Form detailing students' comprehension skills, preferred and used modes of communication, and supports needed for access to instruction and assessment. Results indicated that approximately 95% of the students use at least one type of support to access their educational environment and another 68% used at least one type of communication support. A principal component analysis resulted in the identification of three modes of communication used by students: pre-symbolic, symbolic, and independent symbolic. The students in this study tended to cluster in the pre-symbolic and independent symbolic range. Additionally, a relationship between student scores on the alternate assessment and grade placement was found indicating that middle school students scored lower on the alternate assessment. Therefore, if a student is in elementary or high school, they appear to be more likely to earn a proficient score on the alternate assessment than middle school students. When the author examined all of the students together, there was a relationship between disability and score for reading and math. Yet, when the disability categories were broken out and scores for reading and math were considered separately, membership in certain categorical groups were found to be associated

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with proficient test scores. In reading, a relationship between Autism, Other Health Impaired, Significant Learning Disability, and Speech-Language Impaired was demonstrated. In math, a relationship between Deaf/Hearing Impaired and Emotionally Disabled was demonstrated. Because the numbers of students with a label of ED was very small (N=10), the observed relationship may have little practical application.

As part of their research, National Alternate Assessment Center (NAAC) staff from the University of Kentucky developed and conducted a survey entitled the Learning Characteristics Inventory (LCI) in to obtain descriptive information about the students participating in three of their partner states' alternate assessment (Towles-Reeves et al., 2009). A ten question survey was distributed to teachers in three states in different areas of the country. The teachers were asked to complete a survey for each of their students who were participating in their state's alternate assessment that school year. The survey consisted of questions relating to communication, learning, and health issues of the student.

Results indicated that across the states collectively, most students were reported to use verbal or written words, signs, Braille, or language based augmentative communication systems to express themselves (69% across the three states). Most students (approximately 88% across all three states) also were able to follow 1-2 step directions independently or with cues (e.g. gestures, pictures, objects). The authors calculated correlations between several characteristics to determine if any relationships existed. They found several significant relationships between receptive language and engagement, motor, and health issues. Additionally, there was a significant correlation between the level of a student's expressive language and the student's level of reading in all three states (State 1: $r = .783$, $p > .01$; State 2: $r = .836$, $p > .01$; State 3: $r = .847$, $p > .01$).

While not specifically describing the characteristics of students who participate in alternate assessment, Musson, Thomas, Towels-Reeves, and Kearns (2010) used a pattern matching technique to examine twelve predetermined areas for the eligibility criteria for participation in alternate assessment for all 50 states. The authors found that 86% of the states did not use IQ or specific disability categories when determining eligibility for participation in alternate assessment. The specific terms *significant cognitive disability* and *specific cognitive impairment* were used by 72% of the states. Most of the states included language that specifically referred to the IEP team and the team's role in determining participation in the alternate assessment. The authors determined that the three general characteristics of students participating in alternate assessment were a significant cognitive disability or impairment, adaptive skills, and the inability to generalize skills to the natural setting without out-of-class instruction. The authors concluded that states may need to keep their guidelines "vague and focusing only on general student characteristics" (p. 76) in order to ensure the appropriate students are participating in alternate assessment.

Even though emerging research is beginning to create a description of the students participating in alternate assessments, little information is available on how these students learn and acquire knowledge. The students participating in alternate assessments are a heterogeneous group, therefore, no one specific descriptor of student learning is likely to emerge. However, with more information and research, patterns of learning may develop (Kleinert, Browder, & Towles-Reeves, 2005).

Technical quality issues relating to alternate assessment. At the outset of alternate assessment use, limited research has been conducted in the area of content validation for these tests. Early on, portfolio assessment was the primary alternate assessment mode. Given that

portfolios allow for a greater breadth of entries and format types, some research has shown that special education professionals believe that portfolios do not measure students' progress and instead, measure the teacher's ability to construct a portfolio (Collins et al., 2005; Johnson & Arnold, 2004). Portfolios used in alternate assessment are typically a collection of evidence detailing student work samples that demonstrate progress toward state specified content standards. Establishing rating standards and criteria that are reliable across raters is difficult (Kleinert, Kearns, & Kennedy, 1997). In some states, teachers may score their own portfolios, a team of trained raters may score the entries, or the teacher may score the portfolio first followed by a second rating by another rater.

In one of the first studies attempting to establish score reliability, Kleinert et al., (1997) found that student scores on Kentucky's Alternate Portfolio positively correlated with schools' efforts to implement best practice. The authors concluded that since the Alternate Portfolio was a part of Kentucky's accountability system, it is logical that schools attempting to raise student achievement would offer high quality programs. A later study conducted by Johnson and Arnold (2004) also sought to validate a portfolio assessment. The authors found that approximately 75% of the portfolios demonstrated a clear link to the state's published standards. Additionally, many of the tasks included in the portfolios did not relate to the domains intended to be assessed. Common sources of invalidity included portfolios that did not measure the state content standards and that no unique information was gained by including different content areas in the portfolio. Yet, some evidence exists that alignment with the general curriculum is improving. Johnson and Arnold (2007) again studied the validity of one state's portfolio assessment. In the latest study, they found that more than 90% of the portfolios contained a clear link to the state's published content standards. An important limitation to this study was the fact that the authors

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reviewed the entry sheet for each portfolio, not the portfolio task itself. When the authors reviewed 30 portfolios, they found that the link between the task and the standard was often superficial.

Because of the new emphasis on alignment between state content standards and alternate assessment, more attention is being focused in this area. With NCLB prioritizing academics for all students, classroom instructional practices have started to change to reflect the new concentration on academics for students taking alternate assessment based on alternate achievement standards (Thurlow, 2002). The extent to which content exposure improves student performance on alternate assessment and how teachers determine the best way to teach academic content while still implementing a curriculum with functional and life skills has been the focus of some initial content validity research. In addition, the connection between standards and assessments is key for ensuring valid assessment of students. Browder, Spooner et al. (2003), found that for six states, 54% of the indicators on the alternate assessment were focused on academic tasks (such as dictating answers), followed by functional tasks such as crossing the street or making purchases (18%), and social communication and inclusion (11%), such as participating in an activity with a peer. Browder et al. (2004) reviewed performance indicators and written guidelines for alternate assessment of 42 states. Of those states, only 2 states, North Dakota and Colorado had strong links between their assessments and national standards in mathematics while Arizona was specifically identified as having strong linkage between the written language portion of the assessment and national standards. Only these three states were able to blend both functional and academic curriculum to create performance indicators for the assessment. Another study found that there is no evidence of a unified method or standard for

aligning alternate assessment systems to the general curriculum (Browder, Ahlgrim-Delzell, Flowers, Karvonen, Spooner, & Algozzine, 2005).

States appear to be continually reviewing and revising their alternate assessment in an attempt to develop more meaningful assessments (Kohl, McLaughlin, & Nagle, 2006) and to meet Title I Peer Review. In a study examining the link between the alternate assessment and achievement standards for three different states, Flowers, Browder, and Ahlgrim-Delzell (2006) found that while none of the states met recommended alignment levels, they did find connections between the standards and the assessment. The connections were not as strong as recommended for general assessments. The authors found that the alternate assessment items were aligned with academic content standards, with ranges between 77% and 94% of the test items linking to a standard. The authors concluded that the results indicated that the states' alternate assessments were measuring the general curriculum content. This many indicate that as alternate assessment systems mature, there will be more connection to the general curriculum, providing teachers with guidance on what to teach.

A recent study by Kettler et al. (2010) further contributed to the validity literature. The authors examined the relationship between student scores on alternate assessment and other established measures of student achievement utilizing a multi-trait multimethod analysis. The authors evaluated students eligible for alternate assessment from six different states using concurrent measures for academic competence and adaptive behaviors. The authors found scores on alternate assessment for reading and math reflected a unitary construct but that scores on the alternate assessment only moderately relate to scores on the general achievement test. Additionally, scores on the alternate assessment are highly related to adaptive behavior and to a lesser extent, academic competence. The authors determined that the alternate assessment

measured related constructs of adaptive behavior, academic competence, and academic enablers (access skills), but that the relationship was not so strong enough that the alternate assessment would be considered a non-academic assessment.

Instruction

      Alternate assessment and access to the general curriculum. One of the basic tenets of special education is that all children can learn. However, there is one important question: What and how much can they learn? (Hallahan, 1998). This is a fundamental, yet unanswered question for students with intellectual disabilities and is the primary question that drives the debate about access to the general curriculum for students with significant cognitive disabilities. Students with significant cognitive disabilities are students who generally: (a) require substantial modifications, adaptations, or supports to learn grade level content, (b) require intensive individualized instruction to learn and generalize content knowledge, and (c) are working toward alternate achievement standards for grade-level content (Browder & Spooner, 2006). Traditionally, students with significant cognitive disabilities have been taught using behavioral principles, including direct instruction, systematic prompting and fading, consistent schedules of reinforcement, and instruction to promote generalization of skills (Browder & Cooper-Duffy, 2003). Additionally, an important consideration for educating students with significant cognitive disabilities is instruction that contributes to meaningful life outcomes (Ford, Davern, & Schnorr, 2001; Lowrey et al., 2007).

      IDEA regulations define the term *general curriculum* to mean the same curriculum as that established for students without disabilities (34 C.F.R. § 300.347(a)(1)(i)) and refers to what is taught, not where it is taught. Therefore, students with significant cognitive disabilities can receive instruction linked to grade level content in any type of instructional setting. Confusion

over what the general curriculum is for students with disabilities remains an issue. Many teachers are divided on how they define access to the general curriculum (Dymond et al., 2007; Soukup, Wehmeyer, Bashinski, & Bovaird, 2007). Dymond et al. (2007) found that of 25 general and special education high school teachers interviewed, 80% defined access as centering on curricular content. Almost half of the participants (48%) defined access by the location where the instruction was delivered. Additionally, half of all of the general educators defined access as the same curricular content for all students, with and without disabilities, while most of the special educators (73%) emphasized the need to adapt the curriculum to meet individual student needs. Additionally, other studies have found that both general and special educators place higher value on social skills than on academic content skills for students with severe intellectual disabilities (Agran & Alper, 2000; Agran et al., 2002; Carter & Hughs, 2006). The low ratings for academic content may indicate that students with severe intellectual disabilities may not be provided access to the general curriculum (Carter & Hughes, 2006).

Even though curriculum may be delivered in any setting, some parents believe that when their children are segregated into special education classrooms, they do not receive quality instruction that is related to the general curriculum. Ryndak, Downing, Morrison, and Williams (1996) interviewed 13 parents of students with moderate and severe intellectual disabilities who were included in general education classrooms. The authors found that all of the 13 participating parents believed that their children received a more age-appropriate curriculum and participated in "richer" (p. 114) learning environments as opposed to placement in a self-contained setting. These parents were positive about the fact that their students received instruction in science, math, English, social studies, and other academic content areas when in the general education classroom.

These parent perceptions are consistent with observational data recorded for middle school students identified as having an intellectual disability. Wehmeyer, Lattin, Lapp-Rincker, & Agran (2003) observed 33 middle school students with an intellectual disability in both inclusive and self-contained classrooms. They found that the number of students working on tasks that were linked to standards was significantly higher in inclusive situations than for students in self-contained settings. Additionally, students with more support needs were found to be working on fewer standards-based tasks. This finding may indicate that students with the most significant disabilities are not receiving instruction that is linked to grade level content standards, regardless of the setting. In a similar study, Soukup et al. (2007) categorized 19 elementary students with an intellectual disability into high, medium, and low inclusion groups based on the amount of time spent in the general education setting. Consistent with the previous study, the authors found that students in the high and medium inclusion groups had greater access to the general curriculum (defined as working on tasks related to any general education standard or on grade level standards) than did students in the low inclusion group, but found that the high and medium groups of students had equal amounts of access. Additionally, the authors found that the use of small physical group arrangements or large physical group arrangements did not affect the level of access to the curriculum, but students who were in an individual physical arrangement (i.e. sitting away from peers) had less access.

Access to the general education environment should not be equated with access to the general curriculum. In a survey of Iowa special education teachers certified to work with students with a severe intellectual disability, Agran et al. (2002) found that the majority of the responding teachers did not believe that instruction in the general curriculum was appropriate for students with a severe intellectual disability and indicated that access was more important for

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students with a mild intellectual disability. The authors of another study found that teachers of students with mild to severe intellectual disabilities believed that social interactions, friendships, and self-determination were more important for inclusion than academic skills. These same teachers ranked daily living, augmentative communication, dressing, eating, toileting, and mobility skills as low needs for their students (Agran & Alper, 2000). The authors were concerned that the low rankings of the need for academic skills for students with disabilities may indicate that they are not receiving instruction in these areas, and therefore, are not being prepared for participation in the general curriculum.

Access to the general curriculum, self-determination, and alternate assessment.
Effective instruction for students with intellectual disabilities includes systematic, activity-based instruction using stimulus control procedures and data-based decision making (Browder & Snell, 2000; Snell & Brown, 2000). Instruction often is delivered in 1:1 settings, in small groups, or with peer tutors. Traditionally, instruction for these students included instruction in multiple skill areas, including: (a) communication, (b) self-care, (c) social skills, (d) home living, (e) leisure, (f) health and safety, (g) functional academics, (h) community use, (i) work, and (j) self-direction (Friend, 2008). Self-direction and self-determination are skills that allow students "to make decisions about themselves, attain independence in useful routines, evaluate their own performance, and make needed adjustments to improve themselves" (Snell & Brown, 2000, p. 123). Additionally, the concept of self-determination provides the context for what to teach and how to teach in a way that promotes student control over learning (Browder & Bambara, 2000).

The general curriculum may be in which to effectively teach self-determination to students with significant cognitive disabilities. Wehmeyer, Field, Doren, Jones, and Mason, (2004) identified two ways in which promoting self-determination provides access to and

progress in the general curriculum. First, many state standards include components for problem solving, goal-setting, and decision making; all of which are consistent with self-determination. Secondly, by teaching the previously mentioned skills, students are given the ability to access and make progress in the general curriculum. Palmer, Wehmeyer, Gipson, and Agran (2004) demonstrated that middle school students with intellectual disabilities could be taught problem solving and study planning in the context of core academic content areas (language arts, science, social studies) through games and matching activities. The students were able to achieve educationally relevant goals tied to district standards. The authors concluded that as students continued to practice the self-determination skills, they would be able to apply the skills to other core content areas. Additionally, Flowers, Ahlgrim-Delzell, Browder, and Spooner (2005) found that almost 40% of teachers surveyed (N=983) believed that alternate assessments promoted student self-determination and self-evaluation as part of the assessment process.

Component skills of metacognition include setting personal goals, planning one's own learning, and monitoring one's own learning and are directly related to self-determination (Kleinert et al., 2005). These skills should be taught in the context of daily instruction on grade level standards (Kleinert & Kearns, 2004). Pellegrino, Chudowsky, and Glaser (2001) noted that strong cognitive skills separate experienced learners from beginner learners and that the evaluation of metacognitive skills and strategies are important when assessing specific instructional domains. However, little is known to what extent teachers are directly providing instruction in self-determination or metacognitive skills and further research is needed in this area. Roach, Elliot, and Berndt (2007) stated, "…alternate assessments are intended to facilitate inclusion and motivate special educators to provide standards-based curriculum and instruction to students with significant disabilities" (p. 170). Yet, for many, the instruction-assessment link

for students with significant disabilities is still weak. Further research exploring the instruction-assessment link is needed.

      Classroom impact of alternate assessment. Over the past decade, increasing attention has been given to the impact of alternate assessments on various aspects of instruction and learning for students with disabilities. In a study of how teachers construct a portfolio for the alternate assessment in Kentucky, Kampfer, Horvath, Kleinert, & Kearns (2001) surveyed 206 teachers about the alternate assessment process. Using a hierarchical regression model, the authors determined that instructional variables, such as extent to which the portfolio was embedded into instruction and the level of student involvement in the portfolio process, are the most important factors contributing to scores on alternate assessment, accounting for 24.1% of the variance. The other variables provided no additional predictive power. Specifically, a strong link between exposure to general curriculum content and scores was found. In another study, Kleinert et al. (1997) selected 36 portfolios representing the different levels of proficiency on the Kentucky Alternate Assessment and conducted site visits. Each visit consisted of an analysis of the quality of the IEP objectives, a structured observation, and a structured teacher interview. The correlation between IEP quality and alternate assessment score was moderately high (r=.454) and high for observations of best practice and alternate assessment score (r=.703). Results from the interviews indicated that teachers believed that the alternate assessment provided more opportunities for student choice and decision making. The authors found that student scores on the portfolio had correlations with other indices of best practice, indicating that exposure to content and teaching that embodies best practice has a positive impact on alternate assessment scores.

Other research focusing on students who achieve at the highest levels on their state alternate assessment has found that multiple variables are involved. Karvonen, Flowers, Browder, Wakeman, and Algozzine (2006) conducted a multiple case study with seven teachers whose students consistently have high scoring portfolios. The authors predicted that six variables contributed to the high student scores and used the variables as their conceptual framework for the case study. The variables were: (a) resources, (b) curriculum, (c) instructional effectiveness, (d) quality of student data, (e) student characteristics, and (f) state assessment and accountability system. After the year-long case study, the authors added another variable: teacher characteristics. The authors found that the extent to which the variables had an impact on each student varied across the different settings. The authors concluded that for all cases, the instructional programs were *strong* and that the teachers worked hard to provide positive learning opportunities.

Roach and Elliot (2006) found that access to the general curriculum and academic content on the IEP were only two of several variables accounting for student score on the Wisconsin Alternate Assessment (WAA). The authors asked 113 special education teachers to complete a survey on one student participating in the WAA. The survey asked teachers to identify which WAA items had been part of the student's instruction during the current or past school years. The authors then analyzed the survey data in comparison to the student's score on the WAA. The authors used a regression model to examine the relationships among the different variables. They found a relationship between an IEP that included academic goals and results on the WAA in reading ($r = .54$, $p \leq .01$), math ($r = .54$, $p \leq .01$), and language arts ($r = .52$, $p \leq .01$). Additionally, they found a relationship between time spent in the general education environment and results on the WAA in reading ($r = .43$, $p \leq .01$), math ($r = .42$, $p \leq .01$), and language arts (r

= .42, p ≤ .01). The authors concluded that students who have instruction that focuses on the general curriculum generally perform better on the WAA.

However, other studies demonstrate that teachers believe that alternate assessments have mixed impact on classroom instruction. Flowers, Ahlgrim-Delzell, Browder, and Spooner (2005) surveyed 983 teachers to gain their perceptions of alternate assessments. The survey items were divided into two sections: (a) the impact on students' educational experiences and (b) the impact on teachers' educational practices. Reliability coefficients, estimated using coefficient alpha, for the impact on students' were .81 and .79 for the impact on teachers' practices. Teachers indicated that while alternate assessments have resulted in high expectations for students with disabilities (58%), alternate assessments also compete with individual student learning needs (48%). More than half of the teachers participating indicated that alternate assessments were part of the daily classroom routine (58%) and that there were benefits to having all students included in state accountability systems (53%). The authors concluded while teachers appreciate the high expectations for students with significant cognitive disabilities, they do not necessarily believe that their students can meet the expectations.

These mixed perceptions of the impact of alternate assessments are similar to results from other studies. In a study conducted by Towles-Reeves and Kleinert (2006), 261 teachers were asked to rate the impact alternate assessments had on classroom instruction and IEP development. Approximately 44% of teachers reported that alternate assessments had a positive effect on instruction, 16% indicated it had a negative effect, while almost 39% indicated that alternate assessments had no impact on instruction. When asked by the researchers, why the teachers who indicated that the alternate assessment had no impact on instruction, the most common reason was that teachers believed "they had always been doing what was required by

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the alternate assessment" (p. 37). These results are similar to the results from a study conducted about the Wisconsin Alternate Assessment (WAA) (Roach et al., 2007). In a survey of over 100 special education teachers who had students participating in the WAA, many teachers indicated that they were generally ambivalent to slightly satisfied with the WAA process and its usefulness for identifying instructional priorities. Additionally, the authors found that teachers were less positive about the WAA as students progressed through the grade levels. The authors concluded that it might be more difficult to use the WAA in planning instruction for students with severe intellectual disabilities when they reach high school because teachers must collaborate across multiple classroom contexts.

As part of a larger study, Roden (2007) interviewed 10 teachers by telephone in order to determine the impact of alternate assessments on instruction and IEP development. Nine of the ten teachers indicated that they considered the portfolio content requirements when planning the students' instruction. This consideration for the alternate assessment content ranged from one teacher indicating that she used it to "plan a lesson or two" to several other teachers indicating that they used alternate assessment content requirements for planning the student's program for the year. Teachers reported that they designed instructional activities that met the programmatic needs of the student but also met the content requirements of the portfolio. The results of this study indicate that more teachers consider alternate assessment when planning instruction than has been reported in earlier studies. One possible explanation for the difference may be that they are an artifact of the interview process. Because teachers were interviewed by telephone, they may not have wanted to indicate they did not use alternate assessment when planning instruction. Thus, the results may reflect a methodological effect more so than has been found in other studies using different methods.

Some research on teacher training in instructional practices for students with significant disabilities has suggested that teacher implementation of certain practices can have a positive effect on students' success in alternate assessments. Browder, Karvonen, Davis, Fallin, and Courtade-Little (2005) examined the effect of training teachers on curriculum, data collection, and instructional effectiveness (defined as data based decision making) for students with severe intellectual disabilities participating in the North Carolina Alternate Assessment Portfolio (NCAAP). By using graduate assistants as instructional consultants and providing five in-service development days, the authors found that when teachers received high quality training, scores on alternate assessment increased from 33% of the students reaching proficiency in the year prior to the study to 89% proficient after the study. Performance on IEP instructional objectives also increased by a median average growth rate of 68.7%, with growth rates ranging from 16% to 171%. Additionally, the authors found that there was a statistically significant relationship between the total percent growth across domains on the IEP objectives and scores on the NCAAP ($r = .748$), indicating that students who scored well on the alternate assessment also demonstrated growth on the IEP objectives.

Collins et al. (2005) conducted semi-structured interviews with 14 special education directors from rural settings and found that they had mixed perceptions of alternate assessments. Some directors noted that high scoring alternate assessments helped improve schools' overall performance and helped with district performance. However, others believed that the alternate assessment was a waste of time and that the students should be working on skills, such as "bagging groceries" (p. 51) that prepare them for adult life. The special education directors reported that they believed that alternate assessment took time away from instructional time.

After examining the literature, no clear picture as to the impact of alternate assessment on instruction for students with significant cognitive disabilities emerges. The existing literature provides the field with glimpses of the effects on classroom instruction and IEP development. Until a more comprehensive picture of the impact of alternate assessment is developed, the debate about the importance of individualization and standards based education for students with disabilities will continue.

Parent perceptions of impact. Historically, parents support their local schools and believe that their school is effective. In a recent poll when asked to rate their school, more than 60% of parents awarded their school with an "A" or "B;" however, nationally, only 26% of parents awarded schools with an "A" or "B" (Rose & Gallup, 2004). The same pattern holds true with testing. Generally, parents of public school students have tended to favor high standards and support standardized testing (Elam et al., 1992). The Education Commission of the States (1996) conducted a telephone survey of parents who were registered voters (N=2,700). Results indicated that more than 85% of the parents indicated they would support their local school in using standardized, multiple-choice tests to measure student learning, hold students to high academic standards, and teach students real-life skills through projects. Additionally, approximately 60% of parents indicated that they believed that the schools set the performance standards too low. However, findings from other studies demonstrate that parents believe that NCLB requires too much testing (Public Education Network, 2007) and that there is little value in the tests (Barksdale-Ladd & Thomas, 2000). Additionally, only 46% parents of third graders favored requiring schools to use standardized tests (Shepherd & Bleim, 1995). The difference between national and local responses may indicate that parents are favorable of standards and testing, but that they are concerned about the individual impact on their own child.

Like all parents, parents of students with a disability desire school programs that challenge their children and prepare them for life outside of school. Parents of high school students with different disabilities were interviewed about their perceptions of school programs for their students (Lovitt & Cushing, 1999). The interviews with 43 parents revealed that the parents wanted more academic curricula for their children, indicating that academics were important for future outcomes. Specifically, parents wanted instruction in mathematics, English, and computer skills to ensure that their students would have adequate skills for employment and other post-secondary opportunities. Nelson (2006) used focus groups to talk with parents of students with disabilities. The author conducted 14 focus groups across 6 school sites with a total of 52 parents. She found that parents saw their student's participation in the Minnesota Test of Basic Skills as a way to obtain more curricular access. Parents indicated that they believed there are higher expectations for their students. However, some parents expressed concern that the increased academic demands left little room for elective classes. Additionally, they were concerned that there was less emphasis on other, non-academic but necessary skills, such as social skills. Neither of the reviewed studies involving parents of students with disabilities targeted students with severe intellectual disabilities and the Nelson study only focused on students with high incidence disabilities since these students were participating in the regular state graduation assessment. More information is needed about how parents of students with significant cognitive disabilities who participate in alternate assessments feel about standards and testing for their students.

An extensive search of different data bases resulted in only one study focusing specifically on parent perceptions of alternate assessment. In a study conducted with 77 parents of students participating in alternate assessment in Wisconsin, Roach (2006) found that, in

general, parents held favorable opinions toward the alternate assessment process and results. Importantly, Roach found that as students got older, parents' perceptions about the benefit of alternate assessment became more increasingly negative. The parent perceptions are similar to teacher held perceptions of alternate assessments, as the students get older, teacher perception becomes more negative (Roach et al., 2007). Because the sample of parents in this study was small and the survey itself was short (five questions), any generalization of results to parents across the country should be approached cautiously. Additionally, since parents were not interviewed, no information about why they hold the perceptions they do relating to alternate assessment is available.

As a small part of a larger project including teacher training on instructional practices, Browder, Karvonen et al. (2005) surveyed 28 parents to determine their perception of changes relating to their child's participation in the research project, the authors found that most parents had positive opinions of the process and results. Of the 12 responding parents, 83% believed that their students' IEPs were better and that the students were learning skills for the future. However, the parents were asked about change relating specifically to the project and not to alternate assessment in general. More information is needed from parents in order to provide valuable input for policy makers as to the real-life value of alternate assessment and standards based instruction for students with significant cognitive disabilities.

Impact of standards based instruction and alternate assessment on IEP development. In special education, the IEP serves to document the instructional and assessment plans for students served under IDEA with a significant cognitive disability, yet, the literature is still emerging about whether or not standards based instruction that is individually tailored for the student is reflected on the IEP. Browder, Karvonen et al. (2005) demonstrated that teachers

could improve the content and outcomes on IEPs with additional professional development. Some evidence suggests that IEPs for students with significant cognitive disabilities may not align to the general curriculum even when the student is receiving instruction linked to grade level standards (Fisher & Frey, 2001; Soukup et al., 2007). Additionally, almost half of the special education teachers in one study indicated that the IEP should be aligned to the standards. However, some of the teachers indicated that they did not find the standards useful, indicating that it was more of a technical writing activity than as a way to determine the student's instructional plan (Dymond et al., 2007).

Studies have shown that teachers place different value in linking alternate assessment to instruction and IEP development. Towles-Reeves and Kleinert (2006) surveyed teachers (N=261) about the impact of alternate assessment on instruction and development. The authors found that approximately 35% of teachers indicated that alternate assessments had a positive effect on IEP development, 6% indicated a negative effect, and almost 59% of teachers indicated that alternate assessments had no effect on IEP development. The fact that large numbers of teachers reported that they believed that alternate assessments had no impact on instruction or IEP development may indicate several issues. If teachers are in fact meeting the alternate assessment requirements already during planning and instruction, then their responses demonstrate an integrated system of instruction and assessment. However, teachers may also see the alternate assessment as an isolated event, separate from everyday planning and instruction, potentially indicating a lack of connection between the assessment and instruction.

In a similar study, Towles-Reeves et al. (2006) used a survey to ask 304 teachers about the impact of alternate assessment on IEP development and instruction. They found a statistically significant relationship between the influence of alternate assessment and IEP development and

instruction (t(295) = 6.76, p=.00). The authors also reported that the most common reason given by the majority of teachers who reported little or no influence on instruction or IEP development was that the assessment was "not important to them" (p. 51). In one study of teacher perceptions relating to alternate assessment, 24% of participating special education teachers (N=983) reported that student IEPs were of higher quality as a result of alternate assessments (Flowers, et al., 2005). This finding is similar to those from other studies of the impact of alternate assessments on IEP development (Towles-Reeves et al., 2006; Towles-Reeves & Kleinert, 2006). While the teachers indicated that both instruction and IEP development were influenced, alternate assessment was perceived to have significantly lower impact on IEP development than on instruction.

Some teachers may not understand the instruction-assessment link because they may not know *how* to link academic content standards to a student's individualized needs on the IEP. Lynch and Adams (2008) created a model for linking standards to IEPs based on the student's level of communication. This model recommends that the IEP team first consider the student's current academic performance. Then, the team determines the critical function (the most important part) of the standard while simultaneously considering the student's adaptive skills needs and communication level. The team then determines the long range goals and functional outcomes for the students and translates that to the IEP benchmark or behavioral objective. While this process has only a few steps, without training and support for teachers and teams, the process may seem overwhelming. Additionally, a collaborative approach is needed to ensure that parents and those individuals with content knowledge are involved in the development of the IEP (Browder et al., 2007; Kleinert & Kearns, 2004)

Study Purpose

The purpose of this study was to extend the knowledge about the instruction-assessment link for students with significant cognitive disabilities who take alternate assessments based on alternate achievement standards. Much of the literature focuses on teacher perceptions of the impact of alternate instruction, with only one study (Roach, 2006) specifically focusing on parent perceptions. A few studies have included parent perceptions about the impact of standards based instruction for students with disabilities (Lovitt & Cushing, 1999; Nelson, 2006); however, these studies did not focus specifically on parents of students with severe intellectual disabilities. Much of the literature reviewed for this study involved surveys and questionnaires; a limited number involved interviews and observations. Karvonen, Flowers et al. (2006) conducted a case study with the intent of determining how six previously identified variables contributed to student outcomes on alternate assessments. These variables were: (a) technical quality of the assessment, (b) student characteristics, (c) resources, (d) access to the general curriculum, (e) use of data collection systems, and (f) instructional effectiveness. The case study collected information from IEPs, observations, teacher interviews, and IEP meeting observations. However, parents were not interviewed for this study, ignoring a key group of stakeholders.

This study extended the research in two ways: methodologically and substantively. This study added methodologically by including parent and teacher interviews, while substantive contributions include the use of Pellegrino et al. (2001) cognitive model. Some research has demonstrated that parents and teachers may place different value on standards based instruction and assessment for students (Donegan & Trepanier-Street, 1998). Knowing whether or not parents and teachers of students with severe intellectual disabilities share similar views is important since parents and teachers need to work collaboratively to develop IEPs linked to

standards. Additionally, little is known about the cognitive aspects of learning for students with

significant disabilities; therefore, this study will use the assessment triangle developed by

Pellegrino et al. (2001) as a conceptual framework, framing the results within the context of

student cognition. Previously, only a few researchers have applied the assessment triangle to

their work. Towels-Reeves et al. (2009) utilized the cognition vertex when examining the

characteristics of students participating in alternate assessments. The application of the cognition

vertex of the assessment triangle to this study will serve to extend knowledge about how students

with disabilities think. Finally, using multiple case-study methodology, the study attempted to

answer three initial research questions:

1. To what extent are the annual measurable goals and short term objectives on the IEPs of students with significant cognitive disabilities reflective of the academic content standards and academic achievement standards for students who participate in alternate assessment based on alternate achievement standards?

2. To what extent are there differences, between the views of parents and teachers of students with significant cognitive disabilities on standards-based instruction and alternate assessment based on alternate achievement standards?

3. How, and to what extent, do expert teachers deliver individualized instruction that is standards based and linked to alternate assessment based on alternate achievement standards?

Chapter 3

Methods

Study Overview

Originally, three research questions were identified for this study. However, during the course of the study, a fourth question was added as new information emerged from the qualitative interview data. Qualitative research allows for flexibility during the course of the study. Brantlinger, Jimenez, Klinger, Pugach, and Richardson (2005) states, "questions might be modified or added as preliminary evidence emerges" (p. 198). The study started with one question regarding teacher and parent perceptions of standards based instruction. Later in the study, the question was divided into two separate questions in order to better report the views of both teachers and parents. The resulting research questions are as follows:

1. To what extent are the annual measurable goals and short term objectives on the IEPs of students with significant cognitive disabilities reflective of the academic content standards and academic achievement standards for students who participate in alternate assessment based on alternate achievement standards?

2. What are the general perceptions and opinions of teachers regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?

3. What are the general perceptions and opinions of parents regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?

4. How, and to what extent, do expert teachers deliver individualized instruction that is standards based and linked to alternate assessment based on alternate achievement standards?

This study employed a multiple case study design in order to examine the impact of alternate assessments on teaching and learning for students with significant cognitive disabilities who participate in these assessments. This investigation included the teacher, parent, and the student's IEP. Georgia was chosen as the location for the study because Georgia was a partner

with NAAC and used many of the NAAC products. Additionally, due to relationships between

the researcher and staff at the Georgia department of Education, it was possible to get permission

and assistance for the study.

Cases for this study were selected from four schools representing urban, suburban and

rural school districts in Georgia. Each case represents a teacher/student/parent triad that was

involved in standards-based instruction for students with intellectual disabilities who participate

in the Georgia Alternate Assessment (GAA) during the 2008-09 school-year. Questionnaires,

interviews, student observations, and IEP document reviews were used in this study with

teachers, parents, and students in order to answer the four research questions.

Case study may be thought of as an empirical inquiry that investigates a contemporary

phenomenon within a real-life context where multiple sources of data are used (Yin, 1981a,

1981b, as cited in Yin, 1984). Others refer to a case as a specific, unique, and bounded system

(Stake, 1998). Case study methodology is appropriate when the researcher has no control over

the behavior being observed and is useful for answering questions relating to the *how* and *why* of

a phenomenon. Additionally, case study methodology is useful for exploring and describing a

given phenomenon (Yin, 1984). For this study, five individual cases were chosen, each allowing

for the exploration and description of the instruction-assessment link for students with

intellectual disabilities. There are no set guidelines on how many cases to include in a multiple-

case study; yet, according to Yin (1984), the evidence from a multiple-case study is considered

more robust than a single case. By understanding the group of cases, it is believed that there will

be greater understanding of a larger set of cases (Stake, 1998). Additionally, the use of multiple

cases allows for data triangulation and enhances the trustworthiness of the information

(Brantlinger et al., 2005).

Conceptual Framework

In *Knowing What Students Know* (Pelligrino et al., 2001), the authors present an *assessment triangle* with the corners of the triangle representing three elements of assessment: (a) cognition, (b) observation, and (c) interpretation (see Figure 1, Assessment Triangle, for a detail of the concept). According to the authors, "These three elements…must be explicitly connected and designed as a coordinated whole. If not, the meaningfulness of inferences drawn from the assessment will be compromised." (Pellegrino et al., 2001, p. 54). Therefore, it is important to consider how students best represent knowledge and show competence in a domain when designing assessments (Kleinert et al., 2005). Students within special education are a diverse group and will demonstrate learning in many different ways. Because students demonstrate learning and knowledge in multiple ways, those concerned with alternate assessment must be able to address a wide variety of cognition related variables in order to apply the theory by Pellegrino et al. (2001) in meaningful ways. However, the field of special education has typically ignored "how students with severe cognitive disabilities think" (Kleinert, et al., 2005, p. 8), thus, the cognitive arm of the cognitive model postulated by Pellegrino et al. (2001) has not been fully explained because of the emphasis on measurable and observable behaviors.

Cognition/instruction link. According to Pellegrino et al. (2001) developing a model of learning is crucial since, "…educational assessment does not exist in isolation, but must be aligned with curriculum and instruction if it is to support learning" (p. 3). Classroom instruction should focus on making students' thinking visible to the teacher and to themselves so that appropriate instructional strategies and supports can be selected (Pellegrino et al., 2001). For
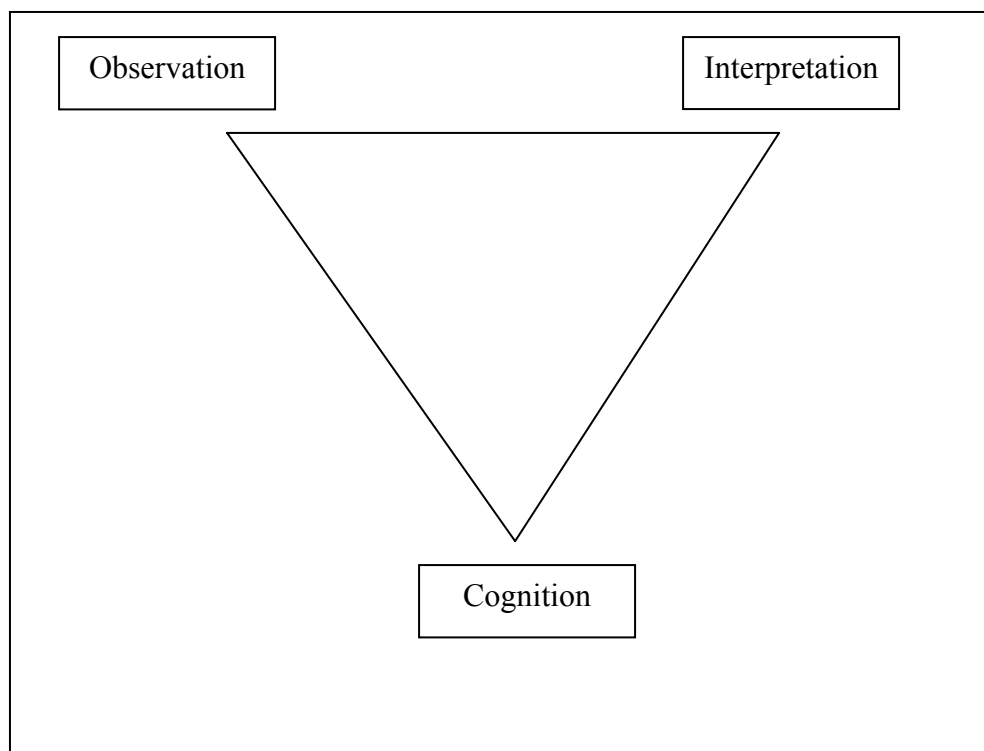
Figure 1. Assessment triangle. The assessment triangle is a model of student cognition reflecting how observation, cognition, and interpretation interact. Adapted from Pellegrino, Chudowsky, & Glaser (2001).

students with a significant cognitive disability, instructional strategies that include direct and

systematic instruction, instruction to promote generalization, modeling, and instruction with

peers should be used to expose the link between cognition, or how the student thinks, and

achievement in content specific domains. One of the biggest challenges to defining the cognitive

element of the assessment triangle is that currently, there is no consensus on how students with a

severe intellectual disability learn. There is consensus that instruction based on behavioral

principles can be effective (Snell & Brown, 2005, as cited in Kleinert et al., 2005); however, the

extent to which the cognitive model currently fits well with this population is not well known.

Over the years, education for students with intellectual disabilities has shifted focus from

the developmental model to the functional model (Browder et al., 2004). Only recently has the

focus shifted to academics due to legislation in NCLB and IDEA, and the field is still trying to develop a theory of learning for this population. According to Pellegrino et al. (2001):

> One of the chief theoretical advances to emerge from cognitive research is the notion of cognitive architecture – the information processing system that determines the flow of information and how it is acquired, stored, represented, revised, and accessed in the mind (p. 65).

Additionally, Pellegrino et al. (2001) defined several critical components for students without disabilities that must be considered when developing a model of student cognition. Kleinert et al. (2005) examined these variables in the context of students with significant cognitive disabilities. Table A2, Components of Cognition (located in Appendix A), provides the name of each of the aspects of cognition and how they might apply to students with significant cognitive disabilities.

By using the concept of the assessment triangle as a guiding framework to examine the nature of the students with significant cognitive disabilities and how they come to develop competent understanding of the knowledge and skills within specific content, information regarding student cognition may be articulated (Marion, 2007). Considering the cognition processes of students may allow for better planning for curriculum access, data collection, and instructional effectiveness, resulting in students achieving at their highest potential (Browder, Fallin, Davis, & Karvonen, 2003). For example, some research has shown that students with significant cognitive disabilities can be taught self-determination and self-directed learning (Palmer et al., 2003; Wehmeyer et al., 2004). These skills are closely aligned with Pellegrino et al. (2001) concept of meta-cognition, an advanced cognitive activity (Kleinert et al., 2005). Accurately describing the cognitive process characteristics and the access to standards based instruction for students with significant cognitive disabilities assists in defining a theory of learning for this population. Once the cognitive piece of the triangle is established, more accurate

measures for observations can be developed and more valid interpretations of the information obtained can be made.

Standards and the IEP. There is the belief that standards based reform will improve instructional programs by better defining what needs to be taught and by knowing what students have learned (Thurlow, 2002). Unquestionably, state standards have significantly shaped classroom instructional practice (Ford et al., 2001; Pellegrino et al., 2001) for both students with and without disabilities. Instruction linked to state standards has also affected the IEP. IEPs must now include statements relating to how the student will be involved in and make progress in, the general curriculum (20 U.S.C. § 1400 (c); Wehmeyer, 2006), which should provide some level of documented link between state standards and the student's IEP. IEP planning should begin with knowledge of the standards and curriculum for grade-level peers as well as the student's unique learning needs (Wehmeyer et al., 2002). Additionally, team members need to: (a) share a common understanding about the importance of focusing on the general curriculum, (b) understand that the IEP content needs to be relevant in the general education context (reflecting actual practice), and (c) understand how IEP objectives link to state standards, since multiple standards may be addressed within a specific objective/benchmark (Flowers, Browder, Ahlgrim-Delzell, & Spooner, 2006).

Student outcomes. There are two ways of thinking of outcomes for students with severe intellectual disabilities within the context of standards based instruction and assessment. First, there are the outcomes related to how the student performed on the alternate assessment; and second, how the student's adult outcomes are affected. Within the context of standards based instruction/assessment, outcomes data provide information about how the student is progressing in the curriculum. The achievement of adult outcomes is a results-oriented process that is

measured by achievement of targets during the school year and by the level of independence or partial independence in daily life after exiting school (Lowrey et al., 2007). The purpose of standards-based instruction and assessment is to improve student learning, yet, much of the evidence supporting the claim that standards based instruction and assessment has improved outcomes for students with disabilities is anecdotal in nature (Thurlow, 2002; Ysseldyke, Dennison, & Nelson, 2004). However, little is known about whether or not standards-based instruction and assessment have provided improved life outcomes for students with significant cognitive disabilities. Since the goals of standards-based instruction and assessment is to improve student learning, more research based information is needed to determine whether or not students are positively impacted, not only in the classroom, but later in life as well.

Within the context of the assessment triangle, direct instruction in skills that leads to generalization and self-directed learning are important. A component of self-determination is promoting active student engagement in educational planning and decision making, assisting students to become life-long learners (Wehmeyer & Sailor, 2004). Skills such as self-monitoring and self-evaluation allow students to take more responsibility for their learning and contribute to a more independent future.

Informed Consent

The University of Illinois at Urbana-Champaign Institutional Review Board (IRB) provided approval for this project. This project was considered to have minimal risk for the participants. Informed consent was obtained for the teachers, parents, and students participating in this study. The parents were asked to explain this study to their student prior to participation. Because the students participating have significant cognitive disabilities, a simplified consent form was provided. All of the participants were provided a copy of the study letters and consents.

Georgia Demographics

Georgia has 180 school systems comprised of 159 county and 21 city districts. There are over 1,800 schools serving students. During the 2006-07 school-year, Georgia educated almost 1,600,000 students. Georgia has four of the largest 50 school districts in the country. All are located in the Atlanta metropolitan area and include Gwinnett County (20th), Cobb County (26th), De Kalb County (29th), and Fulton County (47th) (www.proximityone.com). Approximately, 50% of the students in Georgia were eligible for free and reduced lunch. The graduation rate for students in 2006-07 was 72%. However, only 33% of students with disabilities graduated with a regular diploma (Georgia Department of Education, n.d.).

There were over 113,055 teachers in Georgia during the 2006-07 school-year. Approximately 24% or 21, 933 of the teachers were men while the other 92,921 teachers were women. The student teacher ratio was 14:1 and the average number of years of teaching experience is twelve. Table A3, Level of Education for Georgia Teachers (located in Appendix A), details the level of education of the teachers in the state of Georgia (Georgia Department of Education, nd.).

Georgia provides special education services for more than 187,000 students, or approximately 12% of the total school population from kindergarten through age 21. Georgia recognizes eligibility in 11 disability categories. Table A4, Number of Students by Disability Category, and Table A5, Number of Students with Disabilities by Race (both located in Appendix A), provide specific demographic information about students with disabilities in the state of Georgia (Georgia Department of Education, n.d.).

Most of the students with disabilities in Georgia are served primarily in general education settings. This means that 80% or more of the student's time is spent in the general education

classroom with non-disabled peers. Less than 17% of students with disabilities spend 40% or less

of their time in the general education classroom (Georgia Department of Education, n.d). Table

A6, Amount of Time in General Education Environment (located in Appendix A), details the

specific percentages of time spent by students in general education settings.

Georgia Alternate Assessment

  Portfolio contents. Georgia students participate in state assessments from kindergarten

through grade 8, and grade 11. Students with disabilities are expected to participate in the same

tests at each grade level. For those students who cannot participate in the general assessment

even with accommodations, they may participate in the Georgia Alternate Assessment (GAA).

Approximately 7% of the total special education population participated in the GAA in 2006-07.

This corresponds to less than 1% of the total school population. The GAA is primarily focused

on academic skills for students with significant disabilities. The GAA changed from an IEP

based assessment to a standards-based portfolio assessment. During the 2008-09 school-year, the

assessment was only three years old. The GAA portfolio assessment is comprised of two

collection periods. The first collection period is called the Initial Performance/Baseline period

and is used to establish the current level of student performance. The second collection period

must occur between three weeks (21 calendar days) and five months after the first collection

period and is intended to demonstrate the student's progress in the assessed skill. The data

collection periods begin in early September and end in late March (Georgia Department of

Education, 2007a).

  In both English/Language Arts and in Math, each student at all grades is assessed on two

standards. The state designates the first standard and the teacher chooses the second standard to

assess from a list of designated standards. Beginning in the third grade, students are assessed in

Science and Social Studies. In the Science and Social Studies content areas, the teacher chooses the standard to assess from a list of designated standards. Table A7, Georgia Alternate Assessment Entry Requirements (located in Appendix A), details the number of required entries per collection period for each content area. For each skill, the teacher must submit two pieces of evidence per collection period. The *primary* evidence demonstrates the student's engagement in instructional tasks through the use of video, photos, or work samples. The *secondary* evidence documents, charts, or graphs the student's performance.

The evidence must be related to, but different from the task demonstrated through the primary evidence. Additionally, teachers must submit a minimum of two captioned photos per collection period demonstrating the student actively engaged in one of the assessed activities. Prior to submitting the portfolio, both the teacher compiling the portfolio and the building administrator must sign a statement indicating that the work samples submitted as evidence was completed by the student being assessed (Georgia Department of Education, 2007a).

Teacher training. All teachers who administer the GAA must attend training before the first data collection period (Georgia Department of Education, 2007a). The state provides training to district test coordinators, directors of special education, and teachers of students with significant cognitive disabilities. In turn, each district is then required to provide training for all of its teachers (T. Bowen, personal communication, May 14, 2008). Training topics include information relating to the administration and data collection for the GAA. Additionally, training also covers instructional topics such as aligning assessment tasks to the curriculum and the GAA blueprint.

The Georgia Department of Education provides three levels of teacher training in order to assist teacher learn to link standards and instruction. They offer web-based training, personnel

training for the expert teacher cadre, and website materials and instructional videos (T. Bowen, personal communication, May 14, 2008). The Georgia Department of Education provides multiple resources for teachers on their website relating to the GAA and the Georgia Performance Standards (GPS) for students with significant disabilities. The Stepwise Instructional Task Worksheet provides a format to assist teachers in systematically adapting curriculum to meet the needs of students with significant disabilities. The worksheet prompts teachers to list necessary materials, student outcomes, lesson goals, IEP objectives involved in the task, generalization, as well as other areas. Additionally, an alignment rubric is provided for teachers to use to rate their activities to determine the alignment with the GPS. Sample lessons demonstrating how to adapt curricula and workshop presentations are also available resources for teachers (Georgia Department of Education, 2006).

Portfolio scoring. Each portfolio is scored on four discreet dimensions. A separate score is assigned to each dimension and then a final score is assigned (Georgia Department of Education, 2007b). Table A8, Georgia Alternate Assessment Scoring Dimensions (located in Appendix A), provides definitions of the dimensions used in scoring the GAA and their definition. The portfolios are graded against a rubric (located in Appendix B). Each entry is scored separately and the two scores are added together and averaged. Half points are rounded up to the next point. The dimension scores are not combined together for one score, but are reported separately by dimension (Georgia Department of Education, 2007b).

Each portfolio is assigned one of three proficiency levels. The proficiency levels are different from, but correspond to the proficiency levels assigned to students who participate in the general assessment. A committee of parents, teachers, general and special educators, and administrators from across the state participated in the standard setting process to establish

performance levels that corresponded with each possible combination of scores for a portfolio (Georgia Department of Education, 2007b). Table A9, Georgia Alternate Assessment Levels of Performance (located in Appendix A), describes the GAA proficiency levels and the corresponding levels on the general assessment. During the 2006-07 school-year, approximately 84% of all the students participating in the GAA met or exceeded the standards (Georgia Department of Education, 2007c).

Case Selection

In order to provide credibility for the case study, multiple sources of data were used. Stake (1995) recommends that selected cases should be easy to get to and that are hospitable to the inquiry. The exemplar cases in Georgia were chosen because staff members connected with alternate assessment at the Georgia Department of Education were willing to support the research and because they had interest in the information gathered by the case study. Georgia worked closely with the National Alternate Assessment Center (NAAC) to redesign and implement an alternate assessment for students with significant cognitive disabilities. According to the Georgia Director of Assessment Research and Development, Georgia had recently received federal accolades for having good technical documentation (M. Fincher, personal communication, 2008). Additionally, several different researchers recommended the exploration of the instruction-assessment link in Georgia since staff members at the Georgia Department of Education have made a concerted effort to communicate across departments, involving staff from Curriculum and Instruction, Exceptional Children, and Assessment in redesigning the alternate assessment system. Georgia was identified as an exemplary state and the individual cases chosen for this study were exemplar cases. Exemplar cases were chosen because they can often yield more information than typical cases (Flyvbjerg, 2006). For each of the five individual

cases, information from parents, students, and teachers was collected, allowing for data triangulation. Additionally, including multiple voices and perspectives allowed for greater description of the case, creating a more complete picture of the instruction-assessment link.

Teachers. Teachers often have the primary role of IEP development and are expected to design and implement instruction that meets the alternate assessment related instructional requirements and other needs of the student (Lowrey et al., 2007). The Georgia State Department of Education agreed to support this study by assisting in the recruiting of teacher participants. Staff hoped to involve members of their *Core Access Teacher* (CAT) cadre. These teachers had been designated by the state as exemplary teachers and were directly involved in administering alternate assessments during the 2008-09 school-year. The CAT teachers had participated in three years of training on how to align instruction to the state standards (T. Bowen, personal communication, April 21, 2008). Additionally, these teachers often serve as members of state advisory boards and committees.

Staff at the Department of Education sent an e-mail introducing the study to their cadre of approximately 60 expert teachers introducing the study. After this initial e-mail was sent, the researcher sent an additional e-mail to the teachers requesting volunteers for the study. Several members of CAT cadre responded, however, not all of the teachers responding met the participation criteria (actively teaching in the classroom with middle school students). Two members of the CAT cadre did respond and did meet the participation criteria. Staff at the state department assisted the researcher in contacting special education staff in various districts across the state. The staff was asked to help recruit high quality teachers in their respective districts. Three additional teachers agreed to participate in the study. One of the teachers was a former member of the CAT cadre. She had participated in much of the CAT training over the last two

years. Staff at her district removed her from the program due to district reasons. Therefore, of the five total teachers agreeing to participate in the study, three teachers had CAT training and two did not.

Four school districts were represented in the study. Two of the teachers taught in the same school. Urban, suburban, and rural districts were represented across cases. Selecting multiple cases representing the different sized school districts allowed for replication (Yin, 1984), adding to the credibility of the results (Brantlinger et al., 2005). Additionally, since the participating teachers were considered *expert* teachers by the state of Georgia, they allow for a point of comparison to recommended practice from current literature. The teachers received a $75.00 stipend that was distributed in two payments ($25.00 and $50.00 respectively) at different points in the study.

Teacher Description. All of the participating teachers had advanced degrees: four teachers had a Master's degree, while the fifth teacher had an Education Specialist degree. There were four female teachers and one male teacher. Four of the teachers were White and one teacher was African-American. Two teachers taught in the same school within a large, urban district, two teachers taught in suburban districts, and one teacher taught in a rural district. However, the rural district is one of the fastest growing districts in Georgia, and as a result, has rapidly changing demographics. All five teachers seemed eager to share what they knew about standards based instruction and the GAA. Table A10 Teacher Demographics (located in Appendix A), describes the specific demographic data for each participating teacher.

Parents. Since one of the intents of school accountability is to improve outcomes for students (Ysseldyke et al., 2004), determining whether or not alternate assessments have any impact on student learning and outcomes is important. Parent perspectives have not been

traditionally represented in the literature relating to standards based instruction for students with significant cognitive disabilities. Including parents in the study allows for richer description of the case by providing information about what they believe are the potential contributions of standards based instruction and alternate assessment on their student's progress in school and the potential effects on adult life outcomes.

After the teachers were selected, they were asked to send home a letter to all of their students that were participating in the Georgia Alternate Assessment during the 2008-09 school year. Once the parents returned their consent to participate, the researcher randomly selected one parent for each participating teacher. Selected parents had be the legal guardian of a middle school student who participated in the state GAA during the 2008-09 school-year. The parents received a $25 stipend for participating in a 30-minute interview.

Parent Description. Four parents were interviewed as part of this study. All of the interviews occurred with the mothers; no fathers participated in the interviews. All of the parents chose the location for the interviews. Two parents were interviewed in their homes, one parent was interviewed at the school, and one parent was interviewed in a restaurant over lunch. One of the mothers had a college degree, one had attended college but did not finish, and two had graduated high school. Two of the parents worked full time while the others had no employment outside the home. The parent who did not participate in the interview was from another country and, according to the classroom teacher, did not speak English fluently. Both the researcher and the teacher attempted to contact the parent to schedule an interview on multiple occasions. Table A11, Parent Demographics (located in Appendix A), details the parent demographic information. Information about the parent who did not participate in the interview is not included.

Students. The students participating in this study were in sixth through eighth grade and participated in the GAA during the 2008-09 school-year. Five middle school students were chosen for this study because they had participated in standards-based instruction for three years. Additionally, the students typically were with their special education teacher for multiple years (T. Bowen, personal communication, April 21, 2008).

The parents were asked to explain the study to their student and to obtain consent. Three of the participating students were male, two students were female. The students ranged in age from 13 to 16 years old. Three students had what is considered a moderate level of intellectual disability while two students were considered to have severe intellectual disabilities. This break down of students is consistent with information from other states. Research shows that students with moderate intellectual disabilities are the largest group participating in alternate assessment based on alternate achievement standards (Browder, Flowers, & Wakeman, 2008). Three of the students had a diagnosis of Autism. Two of the students had little or no recognizable speech and had the use of an augmentative communication device. Table A12, Student Demographics (located in Appendix A), describes the specific demographic information for each student.

Three of the four children participating in the study have always participated in Georgia schools in the county where were enrolled during the 2008-09 school-year. The fourth student moved from out of state and had only been enrolled in her Georgia school for one year. Information for about how long the fifth student had been participating in Georgia schools was not available since the parent did not participate in the interview. His teacher did not know his early history. The 2008-09 school-year was the first year with the teacher for two students and the second year for three students.

The students in this study appeared to have better communication, reading, and math skills than the comparison sample from Towels-Reeves et al. (2009) The students had a higher use of intentional communication, with four of the five students using symbolic communication and one using intentional communication through picture cues and gestures. All of the students possessed receptive languages skills with the ability to follow directions either independently or with cues/models. This number is higher than comparison sample. Additionally, a much higher percentage of the students have measurable math and reading skills.

Student D. Carl is 13 years old and is in the 7th grade. Carl has been diagnosed with Autism and a Speech Language Impairment. Cognitively, Carl functions in the mild to moderate intellectual disability category. According to his IEP, he has no issues with hearing or vision. Carl is usually able to express his wants and needs, however, he may need to repeat himself because of the low volume of his speech. He does have expressive language delays and difficulty articulating /r/. Carl has one hour a week of speech therapy. Carl benefits from using assistive technology available school wide, such as a smart board. He also uses the language master and writing software, Writing with Symbols, 2000™.

Student M. Lisa is 12 years old and is in the 7th grade. Lisa has been diagnosed as having Autism and a Severe Intellectual Disability. According to her IEP, Lisa does not have any issues with hearing or vision. However, she has limited verbal skills. Lisa is believed to have a high receptive vocabulary and can communicate using some sign language and the Picture Exchange Communication System (PECS). She can follow simple 2-step directions. Lisa does attend to instruction during academic time, but will be off task due to several obsessive behaviors. Lisa can write her own name. She can also copy other words, but they appear to have no meaning to her. Additionally, Lisa has several behaviors that impact her personal safety, such as self-biting,

lack of awareness to traffic, and wandering away while in stores. Lisa receives 1.5 hours of direct and collaborative speech therapy weekly.

Student B. Cathy is 13 years old and is in the 7th grade. Cathy has been diagnosed with having Autism and a Speech Language Impairment. Cathy has an IQ of less than 25, indicating that she has a severe intellectual disability. Cathy's IEP indicates that she displays no issues with hearing or vision. Cathy is completely non-verbal. Cathy uses a voice output communication device and gestures to request attention from adults. She is able to combine two symbols on her device to request a highly motivating object or activity. She can locate the symbol for "I want" and the symbol for the item/activity, such as "music" independently. Cathy receives one hour of speech weekly. Cathy requires physical and gestural prompts to follow simple directions.

Student C. Leo is 16 years old and is in the 8th grade. He has been diagnosed as having an intellectual disability and a Speech Language Impairment. According to his IEP, he has a mild to moderate fluctuating conductive hearing loss in the right ear and a severe mixed hearing loss in his left ear. He wears hearing aids in both ears and glasses. He has difficulty speaking clearly, and his intelligibility decreases when he uses phrases and sentences. He does not use any type of assistive technology device for communicating. Leo receives one hour a week of speech therapy. He is working on both articulation for /s/ and on answering "wh" questions without prompting. Leo is able to follow two-three step directions.

Student S. Joshua is 12 years old and in the 6th grade. His IEP indicates that he has a moderate intellectual disability and a Speech-Language Impairment. He has a severe expressive and receptive delay. Joshua communicates through short sentences and phrases. He can read at a pre-primer/primer level and can do math computations using a calculator. According to his IEP, most of Joshua's academic skills are at the Kindergarten/1st grade level. Joshua can navigate

around the school independently and can run errands for the teacher. He receives one hour of speech per week and a half hour of occupational therapy per week. In addition to the related services he receives at school, Joshua's mother takes him to a private speech therapist and to a therapeutic horse back riding program.

Procedures

   Data collection. Data for this study was collected in Georgia during the fall and winter of the 2008-09 school-year. During that time, teachers were given three surveys, were observed on four occasions, and participated in interviews. Four of the five parents participated in interviews. A document review of IEPs for the target students was also conducted. Additionally, a focus group was conducted to in order to gain additional insight and to formulate the final interview questions for teachers. Table A13, Data Collection by Research Question (located in Appendix A), provides specific data collection activities organized by research question.

   Classroom Observations. Classroom observations were conducted over a four month period, starting in October 2008 and ending in January 2009. Visits were scheduled with all five teachers each month. Because two of the teachers were in the same building and their students rotated between the teachers, more observations were conducted for those two teachers. The researcher observed the teacher with both classes on one occasion during the same day. Visits were scheduled with the teacher the month before the visit. The teachers were not observed in the same order each time due to the teachers' schedules. Additionally, the teachers and the researcher attempted to schedule visits so different types of activities could be viewed. Generally, classroom observations lasted anywhere from 45 minutes to two hours, depending on the activity. The variance between times was often due to teacher request. Several times, the teacher wanted the students to demonstrate different skills or activities to the researcher.

Observation Instrument. The researcher developed the Observation Instrument based on current and past literature relating to standards based instruction. The Observation Instrument is comprised of two sections. The first section is a checklist that includes information relating to the physical environment, instructional grouping (i.e. 1:1 instruction, small group), the instructor involved, materials used, and other areas that may be easily assessed with a checklist. The second section has space to take running field notes and includes topical areas such as (a) instructional presentation, (b) teacher expectation, (c) cognitive emphasis, (d) motivational strategies, (e) relevant practice, (f) informed feedback and progress monitoring, and (g) student understanding of the task. These sections are based on The Instructional and Environment Scale developed by Ysseldyke and Christianson (1987). Each of the topical areas was operationalized by the authors for clarity. A copy of the tool is located in Appendix C.

Focus group. In order to gather more information on teacher perceptions, a focus group of Core Access Teachers (CAT) was conducted. The researcher attended the CAT training session in mid-January, 2009. This workshop was conducted by the state to update teachers on the GAA and to allow the CAT cadre to share ideas and materials on how to adapt curriculum. Before the workshop, the researcher obtained permission from staff at the Georgia Department of Education to attend. The researcher then sent out an e-mail to all of the teachers in the CAT cadre inviting them to participate in the focus group. Eighteen teachers chose to participate. The focus group lasted approximately one hour. The researcher provided snacks and the teachers participating received a $10 gift card. One of the classroom teachers from the study participated in the focus group. The information obtained from the focus group was used primarily to write the interview questions for the five teacher participants.

Interviews. Interviews were used in this study to gain the in-depth perspective of teachers and parents as it relates to standards based instruction and alternate assessments for students with intellectual disabilities that would not be available if only questionnaires were used. Interviews added the qualitative information missing from the current literature. The interviews helped to establish the *how* and the *why* of the instruction-assessment link. For the interviews, the concept of grounded theory guided the development of the interview questions. In grounded theory, each stage of the data collection and analysis helps to inform the next stage of data collection and analysis (Glaser & Strauss, 1967). Therefore, the questions used to guide the interviews were fluid, and changed interview to interview based on the analyses of the previously collected data. For example information from the teacher focus group was used to guide questions during the summative teacher interviews. One guiding set of interview questions was developed for each group of participants. However, these questions were a guide, and the researcher asked other questions based on a particular response in order to fully explore the topic (Fontana, 2007) since new issues may evolve as the interviews progress (Stake, 1995). With participant permission, the interviews were audio-taped. Additionally, brief, hand-written notes were used to record impressions that might not be captured on the audio-tape. Notes were taken as un-obtrusively as possible in order to allow the researcher to develop a better rapport with the interview participant (Fontana, 2007). After completion of the interviews, primary member checks were conducted. After the initial analysis, the researcher showed interview participants the resulting themes to validate the accuracy and ensure that the themes accurately represented the intent of the interviewee (Brantlinger et al., 2005).

Parent interviews. Parents participated in one interview that lasted anywhere from 30 minutes to one hour. The researcher scheduled the interviews during November and December of

the fall semester in order for the parents to have time to form an opinion about their student's exposure to standards-based instruction during the 2008-09 school-year. The interview was scheduled at the parents' convenience and was held at a neutral location (i.e. restaurant, school, parent's home) of the parents' choice. Parent interviews focused on their perceptions of the impact of standards-based instruction and alternate assessment on their student's school experience, as well as the potential impact on post-school outcomes. Input from those involved in the education of students with severe intellectual disabilities as well as those involved in alternate assessment were asked to review and provide feedback about the questions. The feedback was incorporated into the guiding set of questions. While a guiding set of interview questions was used for consistency, the interviews also varied due to the nature of each parent's comments. If the researcher wanted more information about a comment a parent made, a follow up question was used, resulting in interviews that varied slightly from parent to parent. Some of the sample parent interviews included the following questions:

1. Please describe your level of involvement with your student's alternate assessment.

2. Are you aware of the alternate assessment requirements for your student?

3. Please describe how useful you think alternate assessments are for students with significant cognitive disabilities.

4. Please describe any changes in your child's IEP or instruction because of alternate assessments.

5. Please describe whether or not you believe that your student's individual needs are being met.

6. Do you believe that your student has the right blend of academic and functional instruction?

Teacher interviews. The teachers participated in four brief, post-observation interviews as well as a summative interview completed after all the observations were completed. Since the

intent of the post-observation interviews was to gauge teachers' views about the instructional focus and progress made during the lesson, as well as to establish the typicality of the lesson, a standard set of interview questions was used. This standardization allows for better comparisons to be made within the individual teacher interviews as well as across the different teachers. It also ensured that similar data was obtained for this stage of the study. Using the same post-observation interview questions within each case and across cases is a form of replication, yielding more reliable data (Yin, 1984). In addition to the questions listed in the table, additional questions relating to the specific activity were asked. However, these additional questions were brief due to the time constraints of the post-observation interviews and the need to not take too much of the teachers' time. The post observation questions included:

1. What were your goals for the lesson?

2. How do you think the lesson went?

3. How typical was this lesson?

4. What would you change if you were to teach this lesson again?

The summative interview was scheduled after all of the classroom observations were completed. All of the summative interviews were held in January 2009, following the final observation. The interviews all occurred during the teachers' planning period or after school. All were conducted in the teachers' classrooms. The summative interview questions were developed from information gathered from the classroom observations, past comments from the teachers, and from information gathered during the focus group. Questions about available resources, professional development, student characteristics, and the impact of standards-based instruction and assessment were asked. The initial set of guiding interview questions was reviewed by professionals involved with standards-based instruction and alternate assessment and feedback

was incorporated into the questions. The final set of interview questions was not reviewed

because the questions evolved over time as new information was gained during each interview.

Summative interview questions varied slightly between interviews as the researcher learned

more information and asked the next teacher about something the previous teacher said. The

guiding set of questions included the following:

1. Please describe how useful you think alternate assessments are for students with significant cognitive disabilities?

2. Please describe the type of training you received in order to effectively implement the alternate assessment.

3. Please describe any professional development you have received about how to adapt the general curriculum to your students needs.

4. How important is access to the curriculum for your students?

5. To what extent does the AA guide instruction for your students?

6. To what extent does the AA adequately reflect an individual student's instructional program?

7. Do you believe that you can still meet your students' individual needs while teaching a standards based curriculum?

8. Please describe whether or not you believe that you have adequate resources.

9. Please describe one thing you would change about the GAA process.

Document review. A document review was conducted as part of this study. After receiving parent permission, the teachers provided a copy of the student's current IEP. The researcher reviewed the IEP to determine the number and focus of objectives for each student. The document review did not attempt to establish or define the quality of the IEP. It was intended to be a measure of the link between the established state content standards, the alternate achievement standards, and the planned instruction for the student. In addition to reviewing the annual goals and objectives, the Present Levels of Academic and Functional Performance were reviewed to provide information about the student's strengths and weaknesses, needs for specially designed instruction and supports, and the need for participation in alternate assessments. Additionally, it helped the researcher to establish a descriptive portrait of the student. The researcher trained a former special education teacher to rate the IEPs. The researcher explained the concepts and definitions of each of the components on the document review. Sample IEPs were obtained and the researcher and the teacher practiced co-rating each IEP. Training continued until there was 90% agreement on the IEP ratings. Once the actual student IEPs were obtained, the researcher and the special education teacher double rated each IEP for accuracy.

IEP Document Review Tool. Current legislation mandates alternate assessments judged against standards linked to grade level content; therefore, evidence of standards based instruction should be evident in the students' IEP. The IEP document review form was developed by the researcher based on previous IEP review forms published in previous studies (Hunt, Goetz, & Anderson, 1986). The form was modified in order to include detailed information about academic related objectives found on the IEP. Using the form, the researcher collected information on the number of IEP objectives, whether or not the objectives were academic or

functional in nature, the type of generalization, and whether or not the objectives were age appropriate for the student. The IEP document review form was distributed to all members of the national advisory panel for NAAC for expert review. Feedback was obtained and incorporated into the document review form. A copy of the tool is located in Appendix C.

 Surveys

Learner Characteristic Inventory. The Learner Characteristic Inventory (LCI) was developed by University of Kentucky staff working for the National Alternate Assessment Center (NAAC) as part of their research determining the type of student participating in alternate assessment. It is comprised of 10 questions. The LCI was developed in conjunction with experts in the fields of Occupational and Physical therapy, Speech-Language therapy, Deaf-blindness, Reading, Math, and Special Education. NAAC staff sent the survey to a selected panel of experts for feedback. Changes were incorporated and the survey was piloted with a small sample of teachers. Each teacher was asked to choose a partner and to rate the same student so interrater agreement could be calculated. After another set of revisions, the teachers and their partners piloted the LCI. An interrater agreement of 95% was reached. The LCI has nine questions relating to communication, hearing, motor, health issues/attendance, reading, and math skills of students participating in alternate assessments. The last question asks whether or not the student uses an augmentative device for communication (Towles-Reeves et al., 2009).

The survey has been used with more then 7,000 students (Kleinert, Towles-Reeves, Kearns, & Kleinert, 2007) and more information is emerging about the type of student participating in alternate assessment. NAAC researchers have found that all disability categories are represented within alternate assessments but that the categories of mental retardation, multiple disabilities, and autism are the most prevalent categorical labels for students.

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Additionally, results from the LCI indicate that the students participating in alternate assessment have highly varied levels of expressive and receptive communication, although most students use some type of symbolic language to communicate. This study utilizes the LCI in order to determine whether or not the students selected for participation in the study are typical of students participating in alternate assessments in other states. Information collected from the LCI in this study will allow support the generalization of the information collected. A copy of the survey is located in Appendix C.

Alternate Assessment Impact Survey. The Alternate Assessment Impact Survey (AAIS) was developed by researchers at the NAAC using questions from a previous impact survey conducted longitudinally over three years and also by reviewing the Surveys of Enacted Curriculum. The AAIS survey was then piloted with ten teachers in the state of Kentucky. Teachers were asked to make recommendations on the AAIS concerning topics such as content, user-friendliness, clarity, understandability, etc. The original version of the AAIS was revised based on the teacher recommendations. The AAIS was then conducted in two states with 237 teachers in one state and 79 in another state. The teachers in the second state were a group of expert teachers. Results from the two states were fairly consistent although two different approaches were used to the alternate assessment (portfolio versus performance event) (E. Towles-Reeves, personal communication, April 16, 2008). State 2 used teacher-leaders designated by the state department of education, similar to the teachers in the current study.

The AAIS was completed by the five participating teachers in November 2008. The researcher delivered each survey in-person during the second observation. The researcher reviewed the survey with each teacher and answered any questions. Depending on the teacher's preference, the survey was e-mailed to the researcher, collected by the researcher during the next

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classroom observation, or returned via mail. All five surveys were returned. Descriptive statistics were used to calculate the results. The results from State 1 were not used for comparison. A copy of the complete survey is located in Appendix C.

Curriculum Indicator Survey. School curricula may be thought of in two ways, the *intended* curriculum and the *enacted* curriculum. The intended curriculum is what is *meant* to be taught in the classroom while the enacted curriculum is what actually gets taught (Karvonen, Wakeman, Flowers, & Browder, 2006). Surveys of Enacted Curriculum are measures that attempt to define what is being taught in the general education classroom. The Curriculum Indicator Survey (CIS) (Karvonen et al., 2006) measures the enacted curriculum within the context of special education and specifically examines instruction for students with significant disabilities in the areas of English/Language Arts, Math, and Science. It was developed by NAAC staff at the University of North Carolina Charlotte and research partners at Western Carolina University. The teacher self-reports curricular information based on a single student. Currently, there are two forms of the CIS, a long form that obtains very detailed information and the short form that reduces the response time for teachers but collects less detailed data. This study utilized the short form.

Both forms of the CIS are composed of five sections. Part I collects information on teacher demographics, classroom characteristics, instructional resources, and instructional influences. This part of the survey is answered by the teacher with the all of the students in mind. Part II of survey has questions that assist the teacher in choosing the *target* student, such as the student's level of communication and disability category. Part III addresses English/Language Arts, Part IV addresses Math, and Part V addresses Science. Each of the three sections focusing on academic content ask teachers to complete questions relating to specific content in

English/Language Arts, Math, or Science (i.e. number sense in math), whether or not the teacher plans to teach the content, and to what extent the content will be taught. When completing Parts III-V, the teacher is to think of the target student identified in Part II of the Survey.

The CIS was distributed in November 2008 to each of the teachers. The researcher sat with each teacher and went through the directions and the questions so the teacher would understand how to complete the form. However, when the CIS was returned to the researcher, three of the five surveys had large sections crossed out by the teachers. When asked why, the teachers indicated that they did not address the content. The fourth survey was only partially completed. Only one survey was completed in its entirety. Therefore, information from the CIS is not included in the results. Additionally, due to the user agreement with the survey authors, the survey is not included in Appendix C with the rest of the data collection tools used in this study.

Data Analysis

Quantitative analysis. Because of the small sample used for this study, minimal amounts of statistical analysis were used for analyzing data. Additionally, the questionnaires used in this study have been used in other studies with much larger samples and the small sample obtained from this study does not contribute significantly to the knowledge base. Descriptive statistics was used to present means and frequencies for the different questionnaire data for discussion purposes. Additionally, since different questionnaires are being used for the parent and teacher groups, t-tests were not appropriate because the measures were not correlated with each other.

Qualitative analysis. Constant comparative analysis was used to analyze the interview data. It allows for the analysis of qualitative data into emergent codes and themes (Hewit-Taylor, 2001). Coding was conducted by reading the transcripts and assigning a code to phrases, sentences, paragraphs, or sections. Codes were not predetermined, but were generated from the

interview and the observation data. For the initial stage of coding, line-by- line coding was used. Line-by-line coding helps to break up the data, crystallize the significance of the points, identify gaps in the data, and to compare data with other data (Charmaz, 2006). After the initial line-by-line coding was completed, focused coding was to further categorize the data. After the initial codes and themes were developed, they were reviewed by another researcher for trustworthiness. The final codes and themes were shared with the participating teachers and parents for verification.

Once each section was coded, each section was copied into a new file corresponding to each code, along with the name of the interview participant and the transcript number line. This helps to create an audit trail, giving credibility to qualitative research through the understanding of how codes and themes were derived (Hewit-Taylor, 2001). Comparisons included: (a) comparisons made within a single interview, (b) between interviews within the same group, and (c) across interviews of different groups. These comparisons were not linear, but cyclical, and were reviewed every time a new interview occurred (Boeije, 2002). The themes that arose from the interview data were compared to the survey data to determine consistency among the responders.

Individual case analysis was conducted using a case description (Yin, 1984). The information was organized around the four research questions. The individual case analysis is located in Appendix D. Then a cross case analysis was conducted to determine common themes across cases (Miles & Huberman, 1994). The information from the cross case analysis serves as the bulk of Chapter 4, Results. After the cross-comparison was made, the conceptual framework, the assessment triangle, was applied to the final results. The application of the theoretical

framework resulted in information and recommendations for state level policy makers that will

potentially lead to future practice and research.

Chapter 4

Results

According to Yin (2003), there are six recommended sources of evidence for case study research. The recommended and most common sources include: (a) documentation, (b) archival records, (c) interviews, (d) direct observation, (e) participant-observation, (f) physical artifacts. This study used five of the six sources, only excluding participant-observation since it would not be appropriate to this current study. Additionally, the case study follows Yin's principles of sound data collection for case study research in that this study employed: (a) multiple sources of evidence allowing for data triangulation, (b) a case study data-base that allows the establishment of construct validity, and (c) a chain of evidence linking results to the specific data that helps to establish reliability. Other methods employed help to validate the findings, including: member checking, independent review of themes, and collaboration with people in the field of special education to verify themes and results.

Results for Research Question 1 – IEP Content

The most significant finding from the document review was that few of the goals or objectives on the five IEPs were linked directly to the Georgia Performance Standards (GPS). While all of the IEPs contained goals and benchmarks that were academic in nature, there was little explicit connection to any given standard. The standard most often linked to was English Language Arts-Speaking, Listening, Viewing (ELAxLSV1): *The student participates in teacher, student-to-student, and group verbal interactions.* This standard addresses answering questions, sharing information, and giving presentations, and could be considered linked to student' communication goals and objectives. However, the linkage, in many cases, was tenuous. All five of the students had the goal of "[the student] will increase communication skills," with the goal

written the same way goals in special education have been written for many years. A stronger linkage would have existed if the teachers would have used the GPS as written.

In several cases, the students' communication objectives correspond directly to specific *elements* or skills listed under the GPS. As indicated previously, ELAxLSV1 states: *The student participates in teacher, student-to-student, and group verbal interactions.* This goal has 13 elements or skills that are included under this goal, with the elements labeled *a* through *m*. The elements that closely match to the students' IEP objectives were: (a) initiates new topics in addition to responding to adult-initiated topics, (b) asks relevant questions, (c) responds to questions with appropriate information, (d) displays appropriate turn taking behaviors, and (h) responds appropriately to comments and questions. Table A14, IEP Content by Goals and Objectives for Each Student (located in Appendix A) provides information for each student about the link between the GPS and the individual.

All five IEPs contained goals and objectives related to reading, however, none specifically mentioned the specific reading standard with which the objective could be linked. For example, one of the GPS standards for English-Language Arts and Reading for the 6th grade (ELA6R2) states: *The student understands and acquires new vocabulary and uses it correctly in reading and writing.* Instead of using the GPS for reading, teachers used generic goals. For example, Leo's IEP goal for reading simply states, "Leo will improve cognitive/academics in the are(s) of Language Arts and Reading by 20% a year," while the corresponding objective states, "Leo will develop and expand basic sight word vocabulary from 100 words to 200 words." Joshua's IEP goal was also generic. It stated, "Increase content knowledge as evidenced by completion of independent activities." The IEP contained four objectives for this goal area. The reading objective stated, "Given teacher made books on content, Joshua will read aloud, reading

the complete sentences." This finding is consistent with information presented in the second and fourth research questions in that many of the teachers viewed activities related to the GAA and academic instruction as separate from instruction on IEP objectives.

Another finding from the document review indicates that the objectives on the IEPs often duplicate instructional activities. For example, TD worked on the GPS Reading standards by having the students read an adapted novel. They learned about main idea, character development, and character traits. However, lists of sight words were still included on Carl's IEP. His objective stated, "when presented with the following words and phrases, Carl will state the following words and phrases: this way out, cold, for sale, date, sidewalk closed, ring for service, front desk, do not touch, fasten seat belt, and no pets." Three of the other teachers also had separate "GAA" time and "IEP" time. Only one teacher, TM, specifically mentioned integrating IEP objectives into their academic instruction. During all of the classroom observations for all five teachers, it was noted that there were multiple opportunities in each of the classroom to integrate IEP objectives in communication and other areas into the academic instructional time.

One final interesting note relates to the relationship between mathematics on the IEP and the GPS. None of the IEPs had math goals or objectives that linked to the GPS. During the classroom observations, one teacher was observed teaching his students GPS related math content – specifically how to measure. However, there is nothing on the IEP that reflects this standard. Additionally, none of the IEPs contained any science or social studies goals or objectives even though the teachers were observed to be teaching both content areas.

Results for Research Question 2 – Teacher Perceptions

Several themes arose from the interviews and are supported by results from the survey: (a) access to the general curriculum resulted in change, (b) there is a need for more in-depth professional development relating to adapting and teaching standards, (c) support from the building administrator was important, and (d) the feedback process for the GAA portfolio was unpopular.

Access to the general curriculum. All five teachers indicated that access to the general curriculum was important for students with moderate cognitive disabilities. However, they were more divided as to whether or not students with more significant cognitive disabilities benefited from accessing the curriculum. This finding is consistent across both the interview results and the survey results. During the interviews, three of the teachers indicated that standards-based learning was important for all students with disabilities. Results from the survey indicate that four of the five teachers believe that access to the general curriculum is important for all students. Two of the teachers, while not actively opposing standards based instruction for students with significant cognitive disabilities, were unsure of the benefit. One teacher who actively supported standards based instruction stated:

> At the beginning, I was very skeptical. I thought, "…they are going to be all upset and freaking out because this is not what they're going to want to do." I have found that their behavior levels out more when I teach academically than when I do other ways. That is so weird! I haven't actually taken any data on it. But, when I think back on it, they were really attentive. They were really accepting of the activities that they do.

Several teachers indicated that their students appeared to enjoy learning and that the students were "hungry" for knowledge, with one teacher indicating that as soon as they finish studying a unit, the students said, "What's our next country? What's our next book?" Two of the teachers indicated that they thought their students were bored doing functional work, possibly

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because of the repetition over the years. The third teacher stated that he was not seeing any regression in life skills even though he was increasing the amount of time spent on academic instruction. On the survey, three teachers agreed with the statement "You think the alternate assessment requires you to emphasize skills that are not the most important for your students to learn," while two teachers agreed with the statement "You think the alternate assessment takes time away from instruction on important skills." One interesting finding from the interviews is that the two teachers who were concerned about standards based instruction and access to the general curriculum for students with more significant needs both taught at the same school, possibly indicating that there may be less *buy-in* at this school. However, these same teachers did note that teaching standards based lessons gave them "more credibility" with the general education teachers.

Need for professional development. All five teachers indicated that they believed there was a significant need for more professional development relating to adapting curriculum in order to provide access. All of the teachers indicated that the professional development that they participated in focused primarily on compliance issues on how to complete the GAA portfolio. One teacher stated, "In my first year, I didn't go anywhere without my [GAA] manual." Another teacher stated, "I do not feel the training is necessarily adequate for the general run of the mill teacher who is not invited to be part of the Core Access group." Other teachers indicated that when there was professional development related to providing access or adapting the standards, that the content was too general to be helpful to adapting materials for a particular level of disability. One of the teachers who taught students with significant cognitive disabilities complained that the examples were too complicated for her students, while a teacher of students with more moderate levels of cognitive disabilities complained the examples were too simple for

her students. It is important to note that in Georgia, professional development is conducted primarily by the individual districts because of the level of local control; thus, the content of any given professional development activity can vary widely between districts.

When asked what type of professional development would be helpful, all of the teachers indicated that more information on the GPS was needed. One teacher stated that she was told by a content teacher that she was "doing more than they [GPS] asked" indicating that her ability to interpret what the standard really meant was still developing. Another teacher indicated that he needed more professional development relating to standards, stating, "…mostly the way I was trained was to teach in a secluded environment teaching daily living, life skills, and really elementary academics…I have a very limited knowledge of the standards." This same teacher indicated that his county did provide specific professional development related to the GPS in various content areas, but that he had "not been necessarily encouraged to go." All of the teachers indicated that they relied more on their content teachers to help them interpret a standard than on the professional development they received as a teacher. Staff at the Georgia DOE can not mandate extra training (T. Bowen, personal communication, January 10, 2009). They rely heavily on a train-the-trainer model surrounding the Core Access Teachers. Staff at the Georgia DOE provide a few days of professional development for the CAT teachers and then depend on the teachers to bring the information back to the teachers in the district.

Support from the building administrator. All five teachers indicated that support from their building level administrators was very important. This finding was consistent across both the survey and the interviews, with the survey indicating that teachers had increased administrative support specifically due to the alternate assessment. One teacher stated, "I would have left if one particular person would have gotten the school principal position [instead of the

current administrator]." Interview data revealed that support was perceived as being critical in three specific areas: (a) getting the needed materials, (b) encouraging the general education teachers to work with the special education teachers to understand the standards, and (c) providing time for the teachers to work on the GAA portfolios.

The five teachers indicated that their building level administrators provided them with the necessary materials. Two of the teachers said that they were given plenty of software but that they "didn't have the time to learn it." These two teachers indicated that they would prefer the district and school administrator use the money to purchase substitute time so that they could work on the GAA portfolios. However, they said that they were grateful to have their class cameras, computers, and printers, indicating that teachers in other schools in the districts had more limited resources. Another teacher indicated that while supplies from the district could be scarce, her principal would give her the credit card to a local office supply store to buy materials. She stated, "She helps us as much as she can in terms of the budget crunch."

When asked if the administrators encouraged collaboration with the general education teachers, four of the teachers indicated that their administrators actively encouraged the special education teachers to seek assistance from the content area teachers. One teacher stated, "He [the principal] said, 'You go to the people in this building. If they don't give you what you need, you come back to me and tell me'." One teacher indicated that the administrator was supportive, but that the support did not necessarily translate into the content area teachers being helpful.

Teachers indicated that building administrators were critical when finding time to complete the GAA portfolios. Four of the five teachers indicated that their building level administrators provided release time for them to work on the GAA. Two of the teachers had two

days and two teachers had one release day. The fifth teacher did not have release days to work on the GAA because he indicated that he did not need one.

When asked if there was any administrative pressure for the students to earn passing scores on the GAA, the answers varied widely. One teacher indicated that her district wanted passing scores for all of the students participating in the GAA enough that the district purchased and mandated the use of a particular curriculum with all of the students. However, the teacher indicated that the pressure came at the district level, not at the school level. Three of the other teachers indicated that their principal was concerned with the scores, but that they were more concerned with the GAA being completed and submitted on time. These three teachers indicated that their schools generally met AYP, so that may be why there was less pressure on the teachers. However, two of the teachers indicated that there principal did want "passing" scores. A score of "2" indicates that the student is making progress and is considered passing. The third teacher indicated that while she does not have much pressure at her school, some of her colleagues in the district do have pressure. She stated:

> Some of the schools are trying to bump scores by making sure that special education teachers are working on standards. They are not increasing the quality of the instruction, but it gives the administrator something to stand up and say, "All our teachers are teaching standards."

The fifth teacher indicated that he received no pressure to have any child earn any particular score. His school consistently makes AYP.

Feedback process for the GAA. All five teachers unanimously agreed that one of the most frustrating things about the GAA was the feedback. Teachers only receive scores for the portfolio and do not receive any specific feedback regarding the quality of the activity or entry. They get neither negative nor positive feedback. One teacher stated:

One of my entries made it into the manual this year. So I got to see that I did something well. But, that's the first time I've even been able to see any feedback, and it was positive…Why can't they send these things back to the teacher? What's so secure about them?

Another issue was the lack of consistency in grading. All of the teachers described similar situations relating to the feedback process. They indicated that they had the same or similar activities for students with similar types of disabilities and learning needs, yet the portfolios earned very different scores. One teacher stated that she had submitted the same activity for four of her students. Three of the students received a score of "2" or "3" while the fourth student received an "unscorable." Comments from the graders, such as "did not provide access" and "did not stick to fidelity" appear to be common. Another teacher asked, "What is the ruler that you [the grader] are using?" The teachers indicated that the feedback was "unhelpful" in relation to their improvement as teachers. The teachers indicated a belief that since they had less guidance on what to teach and test than their general education peers, that they should get more in-depth feedback. Another teacher indicated her frustration with the lack of feedback, stating, "I don't get any feedback…I'm expected to produce the same thing next year and I'm supposed to improve. But, I don't know where I'm supposed to improve!" One teacher stated:

That's what is difficult because you obviously learn from your mistakes. So, it's like when you get a paper back from a teacher. They graded it and told you what's right and what's wrong and then you can correct your mistakes. But, when you don't get anything back, you don't know what to improve. You get this general statement of "yeah" or "nay" but there is no guiding, no feedback, no guidance. It's like being returned a term paper with an "F" but no reason behind why you got the grade.

Another teacher said, "…there is no explanation as to why the score is the way it is." Moreover, one teacher indicated that when she tried to speak to Georgia DOE staff about the lack of feedback, but she was told that she was being "negative" and was "just complaining." There is a

general perception among the five teachers participating in this study that the Georgia DOE staff are not responsive to input from teachers and that their concerns are not being heard.

Some of the teachers expressed negative sentiments about the fact that the state does not return the portfolios after they have been graded. One teacher stated, "It's cold that we don't get to see it [the portfolio]. We put so much effort into it." Another teacher stated, "Why can't they send these things back to the teacher? What's so secure about them [the portfolios]?"

Results for Research Question 3 – Parent Perceptions

The interview results revealed several themes. These results are organized by (a) parent communication with the teacher, (b) awareness of the alternate assessment, (c) individual education programs and instruction, and (d) views on academic instruction.

Communication. Two of the parents indicated that they communicated with their child's teacher every week or two. The other two parents indicated that they were in communication with the teacher two to three times a week. Both of these parents indicated that the communication was mostly in the form of notes written either by them or the teacher. All of the parents indicated that they felt comfortable making and receiving telephone calls to and from the teacher. None of the parents visit the classroom on a regular basis. Two of the parents indicated that the reason they did not visit was that they worked full-time and were comfortable with the classroom activities. The other two parents indicated that visiting the classroom caused distractions for their child.

Awareness of alternate assessment. When asked about their awareness of the alternate assessment, the parents indicated varying levels of awareness, from "very little" to "fairly aware." One parent who indicated a low level of awareness said, "I'm not aware of all of the things, but just from what I know, I think it's good that they're [the students] learning some of

the core curriculum." The level of parental involvement in the GAA also varied. Two parents

reported that their only involvement was hearing about the assessment at the IEP meeting.

Another parent indicated that she reviewed academic items with her child that the teacher

suggested might be helpful, while the fourth parent indicated that she updated and changed the

augmentative communication device to reflect the academic content being taught in the

classroom.

When asked whether or not they believed the alternate assessment was useful for their

child and other children with disabilities, all the parents indicated that it could be useful for their

child. However, two of the parents indicated that it also depended on the child and what was

being taught. One parent of a student with a moderate intellectual disability said,

> …depending on the level of the child, it will help them be more independent all their
> lives. If you don't try to see if they can absorb it, then how are you going to know if they
> are going to learn or not.

Another parent indicated that she thought it was useful for her older child, but not as useful for

her younger child with more severe disabilities (who was not a participant in the study). She

stated, "…for Joshua, I think what they're doing is awesome. But, when I look at my youngest

one, then no…I don't think it's very appropriate." Yet, one of the parent's of the children with

the most significant needs stated:

> I think it's great because at some point Cathy will be able to go out into the world and
> actually pay for something…How am I to say that with Cathy there may not be
> something going on in her mind that she can't express? She can't speak. She can't tell
> me. So, I think anything she is exposed to is good.

Individualized educational programs and instruction. All four parents indicated that

they saw little or no change in their student's IEP, but that they believed that the IEP still

reflected the individual needs of their student. Two parents indicated that the classroom teacher

did not spend time discussing the GPS or what standards they would be using for the GAA. One

parent indicated that the teacher "brought them [the GPS] up." Another parent indicated that she was "vague on the topic" but thought that the GPS were "somewhere in her child's IEP." Two parents spoke about the needs of their child being addressed through academics. One parent said, "They incorporate her IEP into what she's working on." Another parent indicated that there was a blend of functional and academic skills when she said, "They're taking his math skills and they're using them and teaching him cooking skills." All of the parents indicated that they were satisfied with the instruction that their child was receiving. Two of the parents noted that they had observed the instructional activities when their child first enrolled in the class. One parent stated, "I saw the way she teaches when Carl first came. It made me glad he was going to be in her room." Another parent expressed the wish for the "perfect fit," meaning that while she was satisfied with the instruction her child received, she still wished for a more one-on-one education.

All four of the parents indicated that there was an appropriate blend of both daily living/functional skills and academic skills being taught. One parent said that her child was more independent at home since entering his current school placement, stating, "He wants to get money so he can go to the store and pick out stuff. He wants to be more independent." When asked if the academic instruction relating to the GPS and GAA made it easier or harder to meet the needs of their child, the parents' answers varied from "I don't know" to "it's harder." Two parents indicated that they were not sure if the academic instruction was making it harder to meet their child's needs. One parent expressed the desire for more time in the school day in general, not specifically related to academic instruction. The fourth parent said that it was harder due to the "extra time demands." One parent stated, "The community based stuff helps along with the

academics. You know they want to go to the store to buy things and count their own money because they're learning it in school."

Views on academic instruction. Three of the four parents indicated that their child had experienced success that could be linked to the academic instruction the child received in school. One parent directly attributed her son's progress to his academic instruction, stating, "He's going into a store and looking at things and remembering how much they cost. Then, he saves up his money to be able to get it." The second parent attributed success to the school program in general, but could not necessarily say that success was due to academics. She said, "I think a lot of it for Cathy is just being in the classroom with other kids and being out in the community. I think those things are important for her." The third parent attributed her son's success in Reading to a blend of the activities the family provided in the home and the academic instruction he received in school.

When asked if academic instruction linked to the GPS and the GAA was a good use of time and resources, all four of the parents indicated that they thought it was an appropriate use of resources. However, they all qualified their answers, indicating that it would depend on the child and how the instruction was delivered. One parent stated that academic instruction was appropriate for "…somebody at Carl's level, yes. If I had a more severe child, I'd say no." Another parent indicated that she shared the same beliefs that academic instruction was appropriate for students with less severe needs, saying, "…for Joshua, I think what they're doing is awesome. I think they shouldn't put all of the kids under the same umbrella, though. I think there is a fine line for certain kids." The comments from these two parents are interesting given the fact that their children have moderate cognitive disabilities and have more advanced academic skills. Their responses may indicate that they may believe that their children are able to

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learn and apply the academic content more easily than other students. However, the parent of a child with very significant needs indicated that she believed that academic instruction was appropriate for her child as long as it was provided in a manner consistent with the way her daughter learns. She stated:

> …if it's being done the right way, yes…I would hate to see a program for Cathy where she would go and sit in an auditorium with a bunch of other kids and just listen to a talk on the whatever in Africa.

Results for Research Question 4 – Classroom Instruction

All five teachers participating in the study provided instruction relating to the GPS in the special education classroom. During *all* of the observations for *all* of the teachers, only the generalization component of the GAA was delivered in the general education classroom. The target students in this study did not spend any part of their academic day in the general education classroom receiving instruction from the content area teacher. In all cases, the target students only participated in the general education classroom for classes that are not considered to be core content, such as chorus, keyboarding, and PE. Instead, instruction was delivered by the special education teacher to the whole group or to small groups within the special education classroom. In one classroom, paraprofessionals and the special education teacher taught small groups simultaneously. In the other four classrooms, paraprofessionals were used to support the special education teachers and students during the instructional activities, but they did not provide direct instruction to small or whole classroom groups. Table A15, Percentage of Observed Events During Classroom Visits (located in Appendix A), details the percent of time each teacher demonstrated the different elements on the Observation Checklist.

All five teachers (a) were highly organized, (b) had the materials prepared for the lesson, and (c) had well developed organizational systems for collecting data on student performance.

All of the teachers appeared to know at what level their students performed academically and tailored instruction to meet the individual needs of the students, i.e. some students need hand over hand while others may be able to complete the task with only verbal cues. One teacher stated that he would like to do more whole group instruction, but that "GPS instruction is very individualized."

Teacher D. TD had a combined classroom of nine students who were considered to have both moderate and severe intellectual disabilities. She had the assistance of a *co-teacher* serving in an intern capacity. The co-teacher was pursuing certification as a special education teacher, but at the time was not certified and could not teach her own class. TD also had two paraprofessionals assigned to her classroom. TD had access to some technology (such as a Smart Board), but in general resources were limited and assistive devices (such as basic switches to turn computers on and off) often had to borrowed from other classes.

TD used hands-on activities to teach concepts in math and science. For example, the students used paper plates to learn about percents and fractions. They were asked to divide the plate into specific fractions. The students then converted the fractions to percents using either paper and a pencil or a calculator based on their individual skills.

TD indicated that she spent an extensive amount of time over the summer adapting books for the school year. She would take a book from the district reading list for each grade level that she taught and adapt it for her students using Writing with Symbols™. During the 2008-09 school-year, TD read *Maniac Magee* and *The Bridge to Tarabithia* with her students. Figure 2 is a sample from one of the adapted books. The GPS Reading standard addressed through the books was related to identifying traits, motivation, and emotion in characters from the stories. Direct instruction on the story was presented in a small group format, to the target student, Carl, and

one other student. Even though she provided high quality reading instruction that taught abstract

thinking and not simple recall, she still maintained separate reading objectives on Carl's IEP.

Carl has multiple objectives relating to sight words. His IEP contains the objectives that he learn

to read words such as *date*, *kiwi*, *cough drops*, *cabbage*, *front desk*, and *do not touch*.

      Teacher M. TM taught in a fast growing, rural district. She had four students and two

paraprofessionals. Of the four students, two were non-verbal while the other two students,

including the target student, Lisa, had limited speech. Of all the teachers in the study, TM taught

the students with the most significant intellectual disabilities.
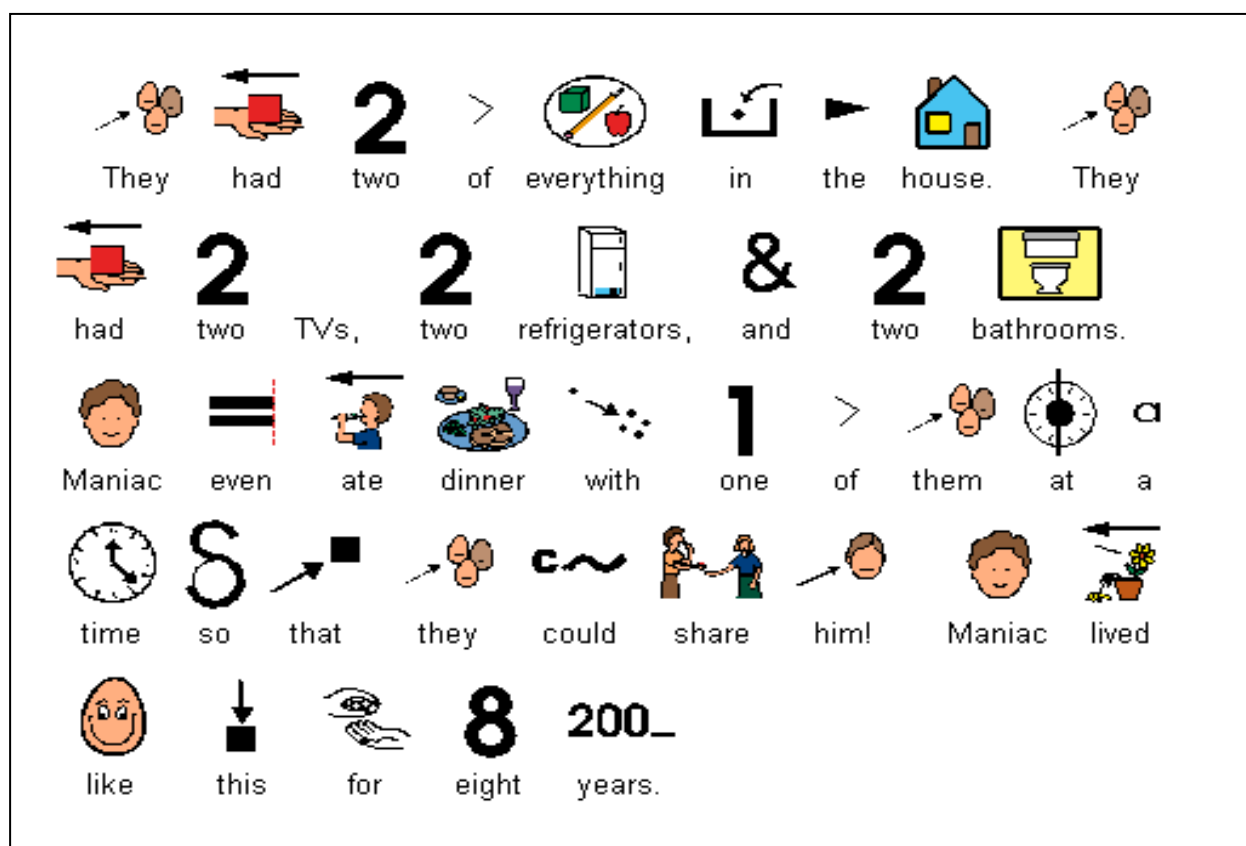
Figure 2. Sample page from adapted version of Maniac Magee by Jerry Spinelli. Each chapter
was adapted using Writing with Symbols™.

      TM used a combination of paper and pencil tasks and hands-on activities to teach lessons

relating to the GAA and the GPS. TM was required by the district to use a specific curriculum,

Unique Learning©, in the hopes that it would lead to better results on the GAA. During one visit, the students were learning about heroes. Each student had his/her own copy of a book with black and white line drawings. The teacher prerecorded, "I can do good things for other people" onto a switch. The switch was passed and each student activated the switch, playing the message. The teacher then talked about different types of people and their jobs, such as firemen and soldiers. The students had to cut out the pictures of the jobs and match them to the "hero." However, some of the jobs and heroes could be duplicated and the teacher noted that it was confusing. TM indicated that she did not like using the required curriculum and believed that she could design more appropriate activities.

On other occasions, TM used more hands-on activities. She taught how to plot points by using Velcro balls and a felt bulletin board. The students took turns throwing the ball at the board. Then, the student removed the balls and placed felt squares on the board to mark the point. Next, the student counts using the number line and determines the coordinate for the ball. The coordinates are then written on the white board. Lisa was able to write the coordinates with verbal prompting while some of the other students require full hand-over-hand prompting to write the numbers.

TM is the only teacher who actively spoke about incorporating IEP goals and objectives into academic instruction. However, when the researcher reviewed the student's IEP, she found very few objectives that could be classified as academic. Lisa had objectives to write her name and address and to count using money. Most of the objectives related to Lisa's need to increase communication and socially appropriate behavior both in the classroom and in the community. The teacher directly addressed these areas through the teaching of academics, i.e. responding to

questions during group instruction. However, only one goal and two of Lisa's objectives were linked to the GPS or GAA.

Teachers B and C. TB and TC taught in the same school in a large, urban district. Their district is one of the largest in the state of Georgia. TB taught students classified as having severe and profound levels of cognitive disabilities while TC taught students classified as having moderate levels of cognitive disabilities. The students in both classes rotated between three of the special education teachers daily (the third teacher did not participate and no observations were made in this class). TB taught Science and TC taught Social Studies.

Teacher B. TB used different teaching methods for the two groups of students. For the students with more severe needs, she broke them into small groups. The students would spend 10 minutes in a group working with the teacher or paraprofessional. Small group instruction focused on one topic, with the information being presented multiple times. For example, in one small group, the teacher may have the students (a) sort pictures of the earth, sun, and moon, (b) use a preprogrammed switch to answer questions identifying the earth, sun, and moon, and (c) use a computer program that reads information about the earth, sun, and moon. Even though there were many opportunities to work on IEP objectives, such as communication, sorting, and switch use, TB never indicated that she used the activities during academic instruction for data collection on IEP objectives. When the students from TC's class came to Science, TB used whole group instruction. Activities such as bingo, sorting, and matching were common. Additionally, she would read from a script and have the students answer questions verbally.

Teacher C. TC generally provided whole group instruction with the assistance of paraprofessionals to both groups of students. The activities she presented were similar, with more assistance provided to the students with more severe academic and behavioral needs. The

students sat at desks and the teacher presented the lesson from the front of the class. The paraprofessionals would walk around and monitor the students' work or sit individually with a particular student. After the lesson was presented, TC would walk around and check on the students, sitting with individuals who needed assistance.

The activities in TC's room varied depending on the topic. When she presented a Geography unit, a review lesson took place in a game format. The students divided into teams and answered questions about the different regions of Georgia. On another occasion, TC presented an Economics lesson. The students practiced choosing healthy menu items from a Wendy's menu, adding up the total, and paying. The paraprofessional acted as the cashier and the students role-played how to order lunch for their community trip later that week. There appeared to be very limited use of technology in TC's class. She used hands-on materials such as menus, maps, and PowerPoint™ slides. But, she did not use a projector to present the material; the students had paper copies of the slides. Additionally, there did not seem to be any effort made to incorporate the target student's IEP objectives into any of the lessons even though Leo did have several objectives that could be classified as academic.

Teacher S. TS had eight students and two paraprofessionals in his classroom. One of the paraprofessionals was a dedicated one-to-one behavioral assistant for one student. TS taught in a wealthy district with easy access to resources such as materials and technology. He used technology extensively. He utilized Microsoft PowerPoint™ to teach about the 2008 presidential election. He also had the students find and identify points on a map on the computer. During Geography, TS used a Wii™ bowling game as a reinforcer for learning. His students practiced geography questions linked to the seventh grade GPS. For the generalization component, a general education seventh grade class came to the special education classroom. They formed two

teams (by class) and the teachers read questions to each person. The first person to raise his/her hand was given the chance to answer the question. If the answer was correct, the person was able to bowl using the Wii. The team with the most points won. TS's students won the game. According to TS, his students were very proud and the general education teacher was impressed with the overall academic ability of the students in the class.

TS displayed the ability to transition from one academic task to another. During a Social Studies lesson on finding and plotting points on a map, the students used laminated maps and dry erase markers to plot the given points. Then they used the computer to locate the same points with less prompting. Finally, they used a blow-up globe. The students threw the globe back and forth. They looked at where there hands were located on the globe when they caught it. Then they made tally marks on the white board to indicate whether or not their hands were on water or land when they caught the ball. TS and the students discussed the fact that the Earth was made up of 75% water and 25% land. The tally marks demonstrated that their hands were on water more often than on land. The first two activities were related to Social Studies Standards, while the third activity was a Science standard. Additionally, the third activity incorporated APE activities of catching and throwing. TS demonstrated the ability to incorporate multiple standards into one lesson. However, he still maintained a separate *IEP* time for the students where the students worked on IEP goals and objectives separate from the academic instruction they received related to the GPS and GAA. The target student, Joshua, had an IEP objective to read complete sentences aloud from teacher made books rather than working toward any of the GPS reading standards.

Chapter 5

Discussion

Issues Related to the Assessment Triangle

By using the concept of the assessment triangle (Pellegrino et al., 2001) as a guiding

framework to examine the nature of the students with significant cognitive disabilities and how

they come to develop competent understanding of the knowledge and skills, information

regarding student cognition may be articulated (Marion, 2007). Considering the cognition

processes of students may allow for better planning for curriculum access, data collection, and

instructional effectiveness, resulting in students achieving at their highest potential (Browder,

Fallin, Davis, & Karvonen, 2003). Accurately describing the cognitive process characteristics

and the access to standards based instruction for students with significant cognitive disabilities

assists in defining a theory of learning for this population. Pellegrino et al. (2001) discuss seven

aspects that they consider part of cognition. These aspects are (a) working or short term memory,

(b) long term memory, (c) metacognition, (d) practice and feedback, (e) transfer of knowledge,

(f) the role of social context, and (g) microgenetic analysis.

The assessment triangle was used as the guiding framework for the early work conducted

by staff at the National Alternate Assessment Center (NAAC). Since this project used many

instruments developed by NAAC, the choice of the assessment triangle as a conceptual model

was logical. In recent years, a few researchers have attempted to apply the framework to their

studies. Marion and Pellegrino (2006) used the observation vertex of the triangle during a study

on the validity of alternate assessments based on alternate achievement standards. Towels-

Reeves et al., (2009) used the triangle when examining the students who participate in alternate

assessments. In this study, the researcher used the cognition vertex of the triangle in an attempt

to gain more insight into how students with intellectual disabilities "think about thinking" (Kleinert et al., 2005). However, applying the framework to the information collected in this study was difficult. Some aspects of cognition provided information, but many others were not particularly useful for studying the cognitive vertex.

In this study, teachers were not observed to consider or address *short term memory* directly. None of the teachers was observed to use systematic strategies for teaching neumonic or self-regulated strategies for breaking down information into chunks for easier recall. Additionally, teachers did not indicate that they had purposeful plans for *long term memory* or retention. However, each teacher in the study was observed providing students the opportunity to reflect upon their work and given the opportunity to adjust their product. This self reflection is evidence of *metacognition* by the students. However, it was never presented formally through direct instruction.

Each participating teacher used the same activity multiple times when teaching any given standard, consistent with the concept of *practice and feedback*. Activities within the lesson built upon the activities of the day before. Since it is important to increase the number of trials within an instructional unit in order for students with significant cognitive disabilities to have adequate practice (Kleinert et al., 2005), this repetition is critical in order for the students to develop fluency and demonstrate knowledge. Students in this study had the opportunity to become familiar with the task and expectations, allowing them to complete the activity without being penalized for unfamiliar expectations. The cognitive aspect, *transfer of knowledge*, was evident only at a basic level. The GAA scoring rubric contains a generalization component on which the portfolio receives one score across all the entries in the portfolio. All five teachers in this study interpreted the generalization requirement as giving the final assessment for a particular standard

in the general education classroom. Additionally, all of the teachers only provided generalization opportunities across materials, contexts, and/or people. None addressed generalization across academic concepts.

The only opportunity to interact with typical peers was during the generalization component of the GAA. Therefore, the opportunity to model typical peers was missing from the learning activities of the students participating in this study, resulting in absence of the cognitive aspect of *the role of social context*. Considering that within the field of special education, researchers have concluded the general education classroom is the preferred location for providing access (Dymond, et al., 2007), the lack of access to the general classroom and the lack of access to typical peers is troubling. One of the special education teachers in this study expressed concern that the typical students in her school were not appropriate role models for various reasons including low achievement, language issues, and behavioral concerns. However, Dymond, Renzaglia, Rosenstein, Chun, Banks, Niswander, and Gilson (2006) found that high school students could learn to display appropriate interactions with students with severe disabilities after participating in an inclusive science class. The authors specifically noted that high school boys displayed considerate behaviors toward the included students and worked harder to ensure the student was participating appropriately in the group. This study did not focus on teaching typical peers how to interact with students with disabilities, instead, the interactions developed over time. Therefore, targeted instruction on how to interact and model appropriate academic learning behaviors may produce appropriate role models for the students with disabilities.

Consistent with the concept of *microgenic analysis*, or making observations on a continuous basis, the teachers all demonstrated well developed data collection systems. All of the

teachers in the study collected data throughout the instructional process, not waiting until the final activity to collect data. These teachers used the information collected to make systematic decisions about the need to adapt or modify the instructional activity.

While the study did not yield extensive information about the cognition vertex of the assessment triangle, it did yield information about who the students were and what they were learning. As students with a significant cognitive disability participate in academic instruction and alternate assessment, more information about the population and how they learn is revealed. This information can be used to develop challenging, yet appropriate learning activities.

Issues Relating to Teachers and Parents

Information collected about teaching and instruction reflect the need for continued professional development in the area of adapting standards and teaching academic content to students with intellectual disabilities. In the following two sections, information is presented regarding the need for professional development for teachers as well as information regarding the results of the parent interviews.

Multiple concerns related to professional development. Information revealed the fact that four of the five teachers maintain separate IEP and academic time. They developed appropriate activities to teach math and reading concepts, but continued with objectives that they believed were more *functional*, such as learning to read sight words and following directions to make a recipe. While these are important life skill activities for students with moderate and severe intellectual disabilities, they could easily be incorporated into the GPS standards so that teachers are not duplicating their activities.

Separate IEP and GPS time. One reason that the teachers may schedule separate academic and IEP time is that they may not feel comfortable with the concept of teaching

academics. Three of the five teachers participating in this study had been teaching for more than 10 years. In casual conversation with the researcher, most of the teachers commented that they had not participated in any coursework in their undergraduate teacher preparation programs that would prepare them to teach academic content. Additionally, during the interviews, the teachers commented on the lack of professional development related to teaching content and adapting standards. Instead, professional development appears to have focused on GAA compliance issues.

Lack of linkage between IEP and the GPS. There was also a demonstrated lack of connection between the IEP and the state standards. Since the IEP is the document that guides instruction and assessment for students with disabilities, it would be logical to see evidence of objectives linked to academic instruction linked to state standards. However, data from this study suggests that IEPs for students with significant cognitive disabilities may not align to the general curriculum even when the student is receiving instruction linked to grade level standards (Fisher & Frey, 2001; Soukup et al., 2007). The IEPs reviewed as part of this study reflected minimal linkage to the GPS even though the participating teachers indicated on the AAIS that they believe the IEP has a positive impact their students' IEPs. IEPs are to include accommodations and curricular modifications in order to ensure not only access to the general curriculum, but to maximize the academic benefit to the student (Agran, Cavin, Wehmeyer, & Palmer, 2006). However, Giangreco, Dennis, Edelman, and Cloninger (1994) found that the development process for writing goals and objectives for IEPs was often vague, indicating that teachers often did not have a well-formulated plan for what should be included in the IEP.

A potential reason for the lack of alignment between the IEP and the GPS may be due to lack of professional development. All of the participating teachers indicated the need for further

professional development specifically relating to adapting standards instead of professional development on compliance issues relating to the GAA. All of the teachers indicated that they relied heavily on their schools' grade-level content teachers to help them to understand and adapt standards. Teachers may therefore lack the knowledge or awareness on how to incorporate standards based objectives on the IEP. Potentially more concerning was the low number of goals that could be considered academic in nature and the seeming randomness of some of the objectives. Additionally, in most cases, only the students' communication goals and objectives could be linked to the GPS. There were no cases in which math, science, or social studies linked to the GPS. Professional development should not only focus on linking academics to state standards, but on appropriate academic activities for students with moderate and severe intellectual disabilities. Additionally, professional development should include information on how to develop appropriate IEPs since the IEP goals and objectives establish the future needs of the student (Giangreco et al., 1994).

Special education professional development has often focused on legal issues with less time devoted to developing the skills of classroom teachers (Billingsley, 2005). With the new emphasis on academic achievement for all students, regardless of their IDEA categorical label, professional development should include information for teachers on how to access the general curriculum and how to develop meaningful activities that link to grade level standards. According to Billingsley (2005), successful teachers are knowledgeable about academic content, pedagogical strategies, and about their students. The teachers in this study know their students and are knowledgeable about their pedagogical strategies typically used with students in special education; however, they need assistance with academic content in order to maximize their students' achievement.

Parent perceptions of academic instruction and alternate assessment. Participating parents generally believed that academic instruction related to state standards was useful for many students with intellectual disabilities. However, some of the parents were unsure of the value of academic instruction for students with the most significant intellectual disabilities. Additionally, the parents were comfortable with the concept of alternate assessment and they indicated that the time teachers spent conducting the assessment was important in the education of the students. The parents indicated that while they were familiar with alternate assessment, they did not know the specifics. The information gained during the parent interviews is consistent with another study in which a parent survey was administered relating to the Wisconsin Alternate Assessment (Roach, 2006), in which parents indicated their support of alternate assessment.

Since students with a severe intellectual disability are now participating in academic instruction, parents have new responsibilities and expectations. Parents will need to be more aware of what is in the IEP and how the goals and objectives link to standards. Parents will need to be an active participant in the decision making team as to whether or not the student will participate in alternate assessment. In some states, participation in the alternate assessment affects the type of diploma that may be earned.

Limitations

While this study was conducted primarily to fulfill doctoral dissertation requirements, a secondary purpose was to inform a larger evaluation of the National Alternate Assessment Center (NAAC). Georgia was chosen because of its unique characteristics and the relationship with NAAC. While their instruction-assessment system has received recent recognition as representing good practice, the GAA is a new assessment, only having been in place for two

years during the 2008-09 school-year. Typically, unless being conducted as a formative assessment, more established programs are used in evaluation research (Campbell, 1984). Conducting a study in a state with a mature system may have yielded different results.

A second limitation to the study is related to the use of the expert case examples. While choosing expert cases is not a limitation to the study itself, it does limit the generalizability of the information to other systems. Additionally, the results from the current study should be treated cautiously. The sample size of teachers, parents, and students (N=5) is too small to make any generalizations to the area of standards based instruction and its impact on alternate assessment as a whole. Instead, the information collected should be used as a starting point for future studies. Another potential limitation to the study is the fact that this study only focused on one type of alternate assessment, portfolios. Alternate assessments for students with significant cognitive disabilities vary widely by state (Quenemoen et al., 2010). The GAA is a portfolio assessment that is based on a specific set of state prescribed standards. Any results from this study should only be used to make comparisons to states that have a similar instruction-assessment context.

Some caution regarding the parent sample is warranted as well. The parents participating in this study self-selected, thereby resulting in a sample of parents that may have strong views of standards-based instruction and alternate assessments for students with significant cognitive disabilities. Therefore, there may be a bias in the sample. Additionally, only four of the five parents participated in the interviews, resulting in a small sample becoming smaller. Even though the views of the parents were informative and helped to generate new information about the parent perspective, they should be interpreted carefully. The parents in this study represented parents of middle school students. Parents of students in elementary and high school may have

very different experiences, and therefore, very different views. Larger numbers of parents need to be interviewed before any generalizations can be made.

A final limitation to the study relates to the assessment triangle used as a guiding framework. The seven aspects of the cognition vertex of the triangle (Kleinert et al., 2005) were used in the analysis of the results. Information was obtained from the interviews, observations, and documents collected as part of the study. However, the assessment triangle was never directly discussed with the parents or teachers participating in the study. For example, more information may have been obtained if the researcher had asked the teachers about if or how they consider short and long term memory or how they teach students to think about learning.

Additionally, since this study was not intended to describe the learning characteristics of students who participate in alternate assessment, other models may be more appropriate for a study examining the link between the IEP, instruction, and the alternate assessment. English and Steffy's *Deep Curriculum Alignment* (2002) is one such model. These authors define curriculum alignment as "one teaches children what one tests them on (English & Steffy, 2002; p. 14). When teachers in this study teach a Georgia Performance Standard (GPS) and then take data to use in the GAA portfolio, they are testing what they teach. But since the teachers in this study provided their students with learning activities beyond the GAA requirements, applying English and Steffy's model may have yielded useful information about how much instruction was related to the GAA, GPS, or IEP. Other models of curricular alignment, such as Links for Academic Learning (LAL) (Flowers, Wakeman, Browder, &Karvonen, 2007) were developed specifically to examine the alignment between state content standards and alternate assessment based on alternate achievement standards. The LAL is intended to be used at the state level. However, by

adapting the criteria and applying it to the IEP goals and objectives as well as lessons related to the GAA, new information may have been gained.

Another potential framework could be a professional development model. Browder, Karvonen et al. (2005) developed a professional development model to assist teachers in curriculum, data collection, and data based decisions. If teachers did not have IEPs that linked to grade level standards and curriculum, they received assistance in writing the IEP. Billingsley (2005) recommends a model for professional development that promotes teacher buy-in in order create systematic and sustainable change.

Directions for Future Research

Information from this study reveals that teachers and parents have positive views about academic instruction for students with intellectual disabilities. However, because the sample in this study was small, any future studies should use a larger sample of both parents and teachers. Additionally, in most cases the parents and teachers came from different districts within the same state. A similar study that used multiple parents and teachers from the same district would yield a more comprehensive picture of academic instruction and alternate assessment for that district. This study was conducted in Georgia with a relatively new assessment at the time of data collection. A similar study conducted in another state with a more mature system may yield different results. A state such as Massachusetts, whose alternate assessment has been in place the longest (J. Kearns, personal communication, December 2, 2010), would provide a point of comparison since there are many common features including a portfolio assessment and an expert teacher cadre.

Teachers in this study had more favorable views about academic instruction and alternate assessment than teachers in than in a previous study by Towels-Reeves and Kearns (2006). The

teachers in this study may have had more time to become comfortable teaching standards and with alternate assessment resulting in the difference in attitude. Also, the five teachers in the current study were nominated as outstanding teachers and self-selected to participate, so they may be more positive about standards based instruction and alternate assessment in general. Further research with much larger numbers of teachers might include the Alternate Assessment Impact Survey as well as in-depth interviews to determine if the positive attitude toward academic instruction and alternate assessment was unique to the teachers in this study or demonstrates a change in the prevailing attitudes of teachers in general.

Currently, few studies in special education directly focus on parent perceptions of academic instruction and alternate assessment (see Browder, Karvonen et al., 2005; Roach, 2006; and Roach et al., 2007). This study revealed that parents held generally positive views toward academic instruction and alternate assessment for students with mild and moderate intellectual disabilities, but a few questioned the value for students with the most significant disabilities. Since little research has been conducted about parent perspectives, future research should focus on why parents view academic instruction for students with moderate intellectual disabilities favorably but question the value for students with more severe intellectual disabilities. Additionally, each of the previously mentioned studies also included small parent sample within individual states. There are no national studies of parent perspectives or even studies that examine parent perspectives across a few states. Future research that includes a large, nationwide sample in order to truly understand why parents feel the way they due about instruction may be the next step.

Information from this study revealed that students with intellectual disabilities are participating meaningfully in the general curriculum; however, instruction relating to the GPS

was delivered in the special education classroom. In all cases, only the generalization component of the GAA was delivered in the general education classroom. Since the passage of P.L. 94-142, students have gained access to more educational environments. Access to the general curriculum should not be the reason students are no longer meaningfully included in general education environments. Considering that results from previous studies have demonstrated that students in inclusive classrooms have greater access to the general curriculum (Wehmeyer et al., 2003; Soukup et al., 2007), the findings from this study are of concern. Future research which focuses on helping special education and general education teachers work collaboratively to provide meaningful access, not only to the curriculum, but to the general education environment as well may be helpful.

During the classroom observations, the researcher noted that there was not a general sense of curriculum. Neither the IEP nor the GPS was viewed as a subset of the curriculum. Instead, standards were presented in isolation from the IEP and from other standards as well. During one observation, the researcher heard a teacher state, "We're done with math. Get out your [IEP] folders" demonstrating that teachers viewed the activities as completely separate. None of the teachers indicated that they chose standards because they could connect them to other standards or use them to build upon the IEP. The lack of a sense of curriculum is not surprising given the fact that the teachers see time spent on academic skills and time spent on IEP skills as distinct. Teachers viewed the GAA as an assessment of isolated skills as opposed to the overarching curriculum. In some instances, teachers indicated that the GAA was an assessment of how skilled they were at compiling a portfolio. If teachers could understand how the GPS and IEP fit within the curriculum, they may find it less of a time burden and more of a value for planning.

The IEPs reviewed as part of this study demonstrated little linkage to either state standards or academic tasks in general. This finding is consistent with information gathered in previous studies by Fisher and Frey (2001) and Soukup et al. (2007). The most common link for the students' IEP and the GPS was between the communication goals and objectives and English-Language Arts. While none of the IEPs used GPS specific language, the relationship was evident on all of the IEPs. Research that focuses on helping teachers adapt their students' specific goals and objectives to match state standards as opposed to using general examples may be the next step in assisting teachers in writing standards based IEPs. Additionally, some of the IEPs duplicated *functional* tasks, such as sight words, with *academic* tasks, such as reading comprehension. While there is extensive research on how to develop high quality and legally compliant IEPs, there remains a large gap between research and practice. More work is needed to help teachers incorporate academic instruction linked to state standards into the IEP. Further investigation of the effectiveness of comprehensive training packages, such as the one developed by Browder, Karvonen et al. (2005), that included information on how to identify and develop IEP objectives that aligned with state standards is important if special education teachers are going to develop appropriate IEPs. Additionally, asking teachers how they choose the academic activities presented to students both from the IEP and from the GPS would yield important information about the planning and development process.

New attention is being focused on the issue of aligning instruction to standards for students with intellectual disabilities. The United States Department of Education recently awarded to grants to "develop a new generation of alternate assessments for students with the most significant cognitive disabilities" (U.S. DOE, 2010). These assessments are to be aligned to the new common set of college and career-ready standards recently adopted by 35 states and the

District of Columbia (U.S. DOE, 2010). The common college and career-ready standards, referred to as the common core standards, are "laden with literacy, numeracy, and cross-disciplinary skills" ("Common Core Standards," September 2010). However, developing the skills to meet the new standards is a challenge for both special and general educators. This concern is noted by the Council for Exception Children in their recent newsletter. The newsletter states:

> If teachers do not approach IEP development, i.e. the present level and the goals/objectives, with a sure knowledge of the grade-level standards for the student and the skill to scaffold instruction low enough to create access and high enough to reach the standard, the potential for mastery is never known or demonstrated ("Common Core Standards, September 2010, para. 20).

The researcher attempted to apply the framework developed by Pellegrino et al. (2001) to information collected as part of this study. Because all students demonstrate learning and knowledge in different ways, those concerned with academic instruction linked to state standards and alternate assessment must be able to address a wide variety of cognitive related activities for students with intellectual disabilities. However, the field of special education has typically ignored "how students with severe cognitive disabilities think" (Kleinert, et al., 2005, p. 8) and little information is available. The researcher used information collected as part of this study to discuss the seven aspects of cognition discussed by Pellegrino et al. (2001). However, teachers were never asked directly about any of the aspects of cognition. Further research in the area of cognition for students with intellectual disabilities is warranted.

The resulting information revealed that the assessment triangle may not have been the most appropriate model to use for this study. Other models that examine the alignment between the curriculum and the assessment may be more appropriate.

Implications for Policy

This study's findings emphasized the need for professional development. Teachers indicated that they need, and more importantly, want to improve their practice. They stated that most of the professional development opportunities focused on compliance issues versus how to provide meaningful access to the general curriculum. However, increasing professional development opportunities for teachers in Georgia may be difficult due to the high level of local control. Since the Georgia Department of Education cannot mandate professional development, it will be difficult to address this issue at the state level. Additionally, given the climate of falling revenues and budget cuts, asking districts to provide more professional development is unrealistic at this time. Policy makers will need to seek alternate means to fund professional development and to encourage districts, administrators, and teachers to participate in on-going professional development without additional compensation.

In addition to providing high quality professional development for teachers, districts and administrators will need to find time for teachers to attend the workshops and to collaborate with other professionals upon return to their school. Additionally, teachers indicated that they need support from the building level administrator. When planning future professional development opportunities, state level staff will have to consider how to engage central office staff and building administrators since they can assist teachers in negotiating the system. An administrator who is able to support the GAA process, not just with materials or time, but with substantive suggestions, would provide teachers another resource for completing the GAA. For teachers, "a supportive principal is the number one incentive for staying in special education" (Billingsly, 2005, p. xxi); therefore, including administrators in professional development may result in positive change. Since one teacher indicated that she would have left the building if a particular

person had become principal, helping principals to build relationships with the special education teachers is important.

One of the findings from this study was the lack of a sense of curriculum. Teachers appeared to teach standards in isolation from one another and in isolation of the IEP. Professional development targeted to helping teachers see how the standards fit within a larger curriculum would provide opportunities for change. One teacher in this study was mandated by district staff to use a purchased curriculum in an attempt to raise scores on the GAA. However, during observations, the purchased curriculum was used in isolation – more as one more material to use as opposed to a guiding framework. If professional development can help teachers develop an overarching curriculum for their students, then the workload for teachers may decrease. They may see the relationship between the GPS and the IEP and how they can be integrated into a larger plan.

Several of the teachers indicated that they were aware of district content specific meetings but did not have the time to attend or that the meetings often conflicted with district special education meetings. Teachers also stated that they needed more time to learn software packages or to spend time on the internet looking for teaching ideas. Again, a significant hurdle to finding time for teachers is the lack of funding and tight budgets.

Conclusion

The purpose of this study was to extend the knowledge about the instruction-assessment link for students with significant cognitive disabilities who participate in alternate assessments based on alternate achievement standards. Currently, many of the available studies rely only on questionnaires or surveys to collect data. The researcher used interviews, observations, and document reviews to collect pertinent information. This study focused on exemplar teachers and

how they provide standards based instruction to students with a significant cognitive disability. By determining how the teachers deliver instruction, adapt materials, and develop IEPs, the field may have the information necessary to develop more effective professional development activities for other teachers.

Much of the literature relating to standards based instruction and alternate assessment has focused on teacher perspectives. This study adds to the existing knowledge base by including parent perspectives. Some research has demonstrated that parents and teachers may place different value on standards based instruction and assessment for students (Donegan & Trepanier-Street, 1998; Woodrum, 2004). Knowing whether or not parents and teachers of students with intellectual disabilities share similar views is critical since parents and teachers need to work collaboratively to develop IEPs linked to standards. Results from this study indicate that parents and teachers have favorable views of academic instruction for students with moderate intellectual disabilities, but that parents know little about the alternate assessment itself. Additionally, the interviews conducted as part of this study allowed for a greater description about "why" parents and teachers feel the way they do, including some concern that academic instruction may not be appropriate for students with the most significant cognitive disabilities.

Information collected as part of this study revealed that teachers use traditional teaching methods, such as hands on learning and paper and pencil tasks, to deliver academic instruction to students participating in alternate assessments. Only one teacher was observed using technology, including Microsoft PowePoint© presentations, computers, and other devices, to deliver instruction on a regular basis. Additionally, academic instruction was almost exclusively delivered by the special education teacher within the special education classroom in large and

small group formats. Results from this study also revealed poor linkage between the IEP and the Georgia state standards and that many of the IEPs had few goals or objectives that were academic in nature.

Finally, little is known about how students with intellectual disabilities "think about thinking" (Kleinert et al., 2005). Using the assessment triangle developed by Pellegrino et al. (2001) as a heuristic to guide the analysis of the data assisted in providing insight into how teachers are applying aspects of cognition in their classrooms. Articulating how students with intellectual disabilities learn and display knowledge provides information for developing high quality assessments, adapting curricula, and designing professional development opportunities for teachers.

Students with cognitive disabilities have moved beyond access to education to access to the general education curriculum. Studies such as this one, demonstrate that students with disabilities are participating in the general curriculum in meaningful ways. More work is still needed to ensure that academic instruction is not provided in isolation but in connection to the students' present and future needs as demonstrated by a coherent link between the IEP, state standards, and the alternate assessment. Special education professionals must continue to research, investigate, and advocate in order for students with disabilities to realize the promise of a standards based *and* meaningful education.

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Appendix A

Tables

Table A1

Early Types of Alternate Assessment

Assessment	Description
Checklist	Method relies on teachers to remember whether students are able to carry out certain activities.
Observation in Structured and Unstructured Settings	Method encourages teachers, after training, to observe whether students are able to perform certain activities.
Performance Assessments	Direct measures of the skill, usually in a one-on-one assessment. The teacher and the student work through an assessment that uses manipulatives while the teacher observes whether students are able to perform the assigned tasks.
Samples of Student Work	Students produce samples of work that demonstrate the skills being assessed. However, not all students will be able to produce samples, and it may be difficult to determine how much of the sample is teacher constructed.
Portfolios	Method uses a collection of student work, performance assessments, observations, and other data about students to judge student achievement.

Note. Adapted from Roeber, E. (2002). *Setting standards on AA-AAS* (Synthesis Report 42). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Table A2

Components of Cognition

Component	Working Definition as It Relates to Students With SCD
Working or short term memory	Key aspect to short term memory is capacity, but it can be expanded through the use of intentional learning. Learning strategies that systematically teach students how to "chunk" information into manageable sections or that include mnemonic strategies are important.
Long term memory	Long term memory contains two distinct components, "how the world is" and how it "works". Teaching students with significant cognitive disabilities across contexts and settings helps to ensure that the knowledge is encoded is a way that is easily recognized and retrieved.
Metacognition	"Thinking about thinking" refers to the ability to select a problem solving strategy, monitor and evaluate the use of the strategy, and to self-correct. For students with SCD, it may be related to self-determination.
Practice and Feedback	The "power of practice" and the "knowledge of results" refers to the provision of sufficient opportunities for active responses so students can acquire and then develop fluency in the skill. Students must receive positive and specific corrective feedback.
Transfer of Knowledge	The ability to extend the knowledge to new contexts. Strategies that teach skill generalization involving multiple exemplars or representations are important for transfer.
The Role of Social Context	When learners adopt the criteria for competence they see in others and then use the information to judge their own performance. Modeling within peer mediated environments is important along with individualized supports for students with SCD.
Microgenetic Analysis	This term refers to observations that include as much as possible of the period of time in which rapid change occurs, density of observations during this period that is relative to the rate of change in the observed behavior, and observations are examined in a trial-by-trial basis. For students with SCD, systematic instruction and continuous assessment are important.

Note. Taken from Kleinert et al., 2005.

Table A3

Level of Education for Georgia Teachers

Level of Education	Number of Teachers	Percent of Total
Bachelor	49,766	43
Masters	49,238	43
Specialist	13,946	12
Doctorate	1,423	1
Other	481	>1
Total	114,854	100

Table A4

Number of Students by Disability Category

Disability Category	Preschool	1st-5th	6th-8th	9th-12th	Total
Autism	821	3,830	1,997	1,894	8,542
Visual Impairment	45	278	152	170	645
Deaf/Hard of Hearing	171	684	409	495	1,759
Emotional/Behavioral Disorders	185	5,665	6,723	7,791	20,364
Intellectual Disabilities	341	6,227	5,686	9,716	21,970
Orthopedic Impairment	52	427	251	289	1,019
Other Health Impaired	383	8,948	8,390	8,722	26,443
Significant Developmental Delay	9,287	3,950	NA	NA	13,237
Specific Learning Disability	130	15,729	17,255	19,588	52,702
Speech/Language Impairment	9,386	27,633	2,912	685	40,616
Traumatic Brain Injury	0	112	97	225	434
Totals	20,081	73,483	43,872	49,575	187,732

Table A5

Number of Students With Disabilities by Race

Number of Students With Disabilities by Race (2007-08)	Pre-K	1st-5th grade	6th-8th grade	9th-12th grade	Total
American Indian/Alaskan	23	114	64	79	280
Asian/Pacific Islander	400	1,204	515	495	2,614
Black	6,823	26,858	18,510	22,016	74,207
Hispanic	1,687	6,128	3,501	2,585	13,901
Multi-Racial	819	2,461	1,144	942	5,366
White	11,317	36,827	20,259	23,562	91,965
Total	21,069	73,592	43,993	49,679	188,333

Table A6

Amount of Time in General Education Environment

Percentage of Time in General Education Setting (2007-08)	Percentage of Students
80% or more	60.3
40-79%	20.8
40% or less	16.8
Other settings (homebound, hospital, etc)	2.1
Total	100

Table A7

Georgia Alternate Assessment Entry Requirements

Grade	ELA	Math	Science	Social Studies	Total Entries
K-2	2 entries	2 entries	NA	NA	8
3-8, 11	2 entries	2 entries	1 entry	1 entry	12

Table A8

Georgia Alternate Assessment Scoring Dimensions

Dimension	Definition
Fidelity to Standard	Assesses the degree to which the student's work addresses the grade level standard to which it is aligned
Context	Assesses the degree to which the student's work exhibits grade appropriate materials in a purposeful real-world application
Achievement/Progress	Assesses the increase in the student's progress over the two collection periods
Generalization	Assess the student's opportunity to apply the skill in other settings with other people than the paraprofessional or teacher

Table A9

Georgia Alternate Assessment Levels of Performance

GAA Proficiency Level	General Assessment Proficiency Level
Emerging Progress	Basic/Does Not Meet Expectations
Establishing Progress	Proficient/Meets Expectations
Extending Progress	Advanced/Exceeds Expectations

Table A10

Teacher Demographics

Teacher	District Type	Gender	Years Teaching SPED	CAT Cadre	Highest Degree
TD	Suburban	Female	31	Yes	Education Specialist
TM	Rural	Female	6	Yes	Master's Degree
TB	Urban	Female	11	No (Former)	Master's Degree
TC	Urban	Female	3	No	Master's Degree
TS	Suburban	Male	12	No	Master's Degree

Table A11

Parent Demographics

Parent	Race	Gender	Level of Education
PD	African American	Female	High School
PM	African American	Female	High School
PB	White	Female	College Degree
PS	White	Female	Some College

Table A12

Student Demographics

Student	Age	Grade	Race	Gender	IDEA category
Carl	13	7th	African American	Male	Autism, Intellectual Disability
Lisa	12	7th	African American	Female	Autism, Intellectual Disability
Cathy	13	7th	White	Female	Autism, Intellectual Disability, Speech-Language Impairment
Leo	16	8th	Asian American	Male	Intellectual Disability, Hearing Impairment, Speech-Language Impairment
Joshua	12	6th	White	Male	Intellectual Disability, Speech Language Impairment

Table A13

Data Collection by Research Question

Research Question	Data Source	Measures Used	Data Analysis
1. To what extent are the annual measurable goals and short term objectives on the IEPs of students with significant cognitive disabilities reflective of the academic content standards and academic achievement standards for students who participate in alternate assessment based on alternate achievement standards?	IEPs	IEP Document Review	Descriptive Statistics
2. What are the general perceptions and opinions of teachers regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?	Teachers	AAIS Teacher Interview	Descriptive Statistics Constant Comparative Analysis
3. What are the general perceptions and opinions of parents regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?	Parents	Parent Interviews	Descriptive Statistics Constant Comparative Analysis
4. How, and to what extent, do expert teachers deliver individualized instruction that is standards based and linked to alternate assessment based on alternate achievement standards?	Teachers	Observation Instrument/Field Notes Teacher Interview	Descriptive Statistics Constant Comparative Analysis

Note. The Learner Characteristic Inventory is not listed in the table. It is not being used to address any of the research questions but to establish whether or not the students participating in the study are similar to those students participating in AA-AAS in other states.

Table A14

IEP Content by Goals and Objectives for Each Student

Student	Total # Obj	Total # Goals	Academic Obj	Goals Linked to GPS	Obj Linked to Standards
Carl	21	6	9	1	2[a]
Lisa	12	4	3	1	2
Cathy	8	4	0	1	2[b]
Leo	11	5	6	3	5[c]
Joshua	18	5	3	2	1[d]

[a] If the language had been changed from "follow picture cues to make muffins" to "give a presentation on how to make muffins using picture cues" a third objective would have been linked to the GPS.
[b] If the language had been changed from "will make a simple snack following a pictorial recipe" to "give a presentation on how to make a simple snack using pictorial recipe" another objective would have been linked to the GPS.
[c] All three of the objectives linked to the GPS were linked to the same standard.
[d] If the language had been changed from "complete new tasks" to "create a simple product" a second objective would have been linked to the GPS.

Table A15

Percentage of Observed Events During Classroom Visits

Teacher	TD	TM	TB[a]	TC	TS[b]
Classroom Environment					
Positive Behavioral Rules	100	100	100	100	100
Instructional Routines	100	100	100	100	100
Cooperative Atmosphere	100	100	100	100	100
In Special Education Classroom	100	100	100	100	100
Materials					
Age/Grade Appropriate	100	100	100	100	100
Prepared in Advance	100	100	100	100	100
Appropriate for Lesson	100	100	100	100	100
Multiple Means of Presentation	100	100	100	100	100
Group Arrangement					
Large Group	80	100	0	100	100
Small Group	20	0	100	0	100
Independent Work	0	0	0	0	0
1:1 Instruction	0	0	0	0	0
Cooperative Group	0	0	0	0	0
1:1 Peer instruction	0	0	0	0	20
Instruction Delivery					
Gen Ed Teacher	0	0	0	0	0
Sped Teacher	100	100	100	100	100
Paraprofessional	0	0	100	0	0
Related Service Provider	0	0	0	0	0
Volunteer	0	0	0	0	0
Peer Tutor	0	0	0	0	0
Other	0	0	0	0	0
Instruction					
Embedded in Natural Routine	100	100	100	100	100
Allows for Mult Means of Response	80	40	100	100	100
Allows for Mult Means of Engagement	100	40	100	20	100
Linked to Standard	100	100	100	100	100
Linked to IEP objective	0	0	0	0	0

[a]TB used paraprofessionals to provide small group instruction.
[b] During every observation, TS used both small group and large group instruction.

Appendix B

GAA Scoring Rubric

GEORGIA ALTERNATE ASSESSMENT SCORING RUBRIC

The Georgia Alternate Assessment was scored using the following Scoring Rubric.

Dimension	1	2	3	
Fidelity to Standard (scored for each entry)	The instructional activity is aligned to and exposes the student to a content standard, but the student work does not address academic content.	The instructional activity is aligned to a content standard; the student work addresses academic content but at an access or entry level.	The instructional activity is aligned to a content standard, all aspects of the element selected are addressed, and the student work addresses academic content at or approaching basic grade-level expectations.	
	1	**2**	**3**	**4**
Context (scored for each entry)	Materials are not grade appropriate.	Materials are grade appropriate, **but** the student work does not reflect a purposeful application.	Materials are grade appropriate, **and** the student work reflects a purposeful simulated application.	Materials are grade appropriate, **and** the student work reflects a purposeful natural application.
Achievement/ Progress (scored for each entry)	Student demonstrates **little** achievement/progress in targeted instructional activity.	Student demonstrates **some** achievement/progress in targeted instructional activity.	Student demonstrates **reasonable** achievement/progress in targeted instructional activity.	Student demonstrates **exceptional** achievement/progress in targeted instructional activity.
Generalization (scored once across all entries in portfolio)	Student performs tasks in one or more settings with no evidence of interaction(s).	Student performs tasks in one or more settings with evidence of interaction(s).	Student performs tasks in two different settings with evidence of interaction(s) with non-disabled peers and/or community members.	Student performs tasks in three or more different settings with evidence of interaction(s) with non-disabled peers and/or community members.

Data Collection Tools

Learner Characteristics Inventory for
Alternate Assessments on Alternate Achievement Standards

Citation: Kearns, J., Kleinert, H., Kleinert, J., & Towles-Reeves, E. (2006). *Learner characteristics inventory.* Lexington, KY: University of Kentucky, National Alternate Assessment Center.

Purpose: This inventory will be used to assist states in describing the population of students who take alternate assessments based on alternate achievement standards. These students represent less than 1% of the total student population and come from a variety of disability categories but represent students with the "most significant cognitive disabilities".

Student ID number: _____

Student's Grade-Level (choose one):
○3rd
○4th
○5th
○6th
○7th
○8th
○9th
○10th
○11th
○12th

Student's IDEA disability label (choose only the student's primary handicapping condition):
○Mental Retardation (includes Mild, Moderate, and Profound)
○Multiple Disabilities
○Autism
○Speech/Language Impairment
○Hearing Impairment
○Visual Impairment
○Traumatic Brain Injury
○Emotional Disability
○Deafblind
○Other Health Impairment
○Orthopedic
○Other

Is your student an English Language Learner (i.e., speaks a language other than English primarily at home-Spanish, French, Russian)?
〇Yes
〇No

Expressive Communication (check one answer that best describes your student)

〇Uses symbolic language to communicate: Student uses verbal or written words, signs, Braille, or language-based augmentative systems to request, initiate, and respond to questions, describe things or events, and express refusal.

〇Uses intentional communication, but not at a symbolic language level: Student uses understandable communication through such modes as gestures, pictures, objects/textures, points, etc., to clearly express a variety of intentions.

〇Student communicates primarily through cries, facial expressions, change in muscle tone, etc., but no clear use of objects/textures, regularized gestures, pictures, signs, etc., to communicate.

Augmentative Communication System (check the best description)

Does your student use an augmentative communication system in addition to or in place of oral speech?
〇Yes
〇No

Receptive Language (check the best description)

〇**Independently follows 1-2 step directions** presented through words (e.g. words may be spoken, signed, printed, or any combination) and **does NOT need additional cues**.

〇**Requires additional cues** (e.g., gestures, pictures, objects, or demonstrations/models) to follow 1-2 step directions.

〇**Alerts** to sensory input from another person (auditory, visual, touch, movement) **BUT requires actual physical assistance** to follow simple directions.

〇Uncertain response to sensory stimuli (e.g., sound/voice; sight/gesture; touch; movement; smell).

Vision (check the best description)

〇Vision within normal limits.

〇Corrected vision within normal limits.

〇Low vision; uses vision for some activities of daily living.

○No functional use of vision for activities of daily living, or unable to determine functional use of vision.

Hearing (check the best description)

○Hearing within normal limits.

○Corrected hearing loss within normal limits.

○Hearing loss aided, but still with a significant loss.

○Profound loss, even with aids.

○Unable to determine functional use of hearing.

Motor (check the best description)

○No significant motor dysfunction that requires adaptations.

○Requires adaptations to support motor functioning (e.g., walker, adapted utensils, and/or keyboard).

○Uses wheelchair, positioning equipment, and/or assistive devices for most activities.

○Needs personal assistance for most/all motor activities.

Engagement (check the best description)

○Initiates and sustains social interactions.

○Responds with social interaction, but does not initiate or sustain social interactions.

○Alerts to others.

○Does not alert to others.

Health Issues/Attendance (check the best description)

○Attends at least 90% of school days.

○Attends approximately 75% of school days; absences primarily due to health issues.

○Attends approximately 50% or less of school days; absences primarily due to health issues.

○Receives Homebound Instruction due to health issues.

○Highly irregular attendance or homebound instruction due to issues *other* than health.

Reading (check the best description)

○Reads fluently with critical understanding in print or Braille (e.g., to differentiate fact/opinion, point of view, emotional response, etc). **(OPTIONAL FOR STATES)**

○Reads fluently with basic (literal) understanding from paragraphs/short passages with narrative/informational texts in print or Braille.

○Reads basic sight words, simple sentences, directions, bullets, and/or lists in print or Braille.

○Aware of text/Braille, follows directionality, makes letter distinctions, or tells a story from the pictures that is not linked to the text.

○No observable awareness of print or Braille.

Mathematics (check the best description)

○Applies computational procedures to solve real-life or routine word problems from a variety of contexts.

○Does computational procedures with or without a calculator.

○Counts with 1:1 correspondence to at least 10, and/or makes numbered sets of items.

○Counts by rote to 5.

○No observable awareness or use of numbers.

Teacher Comments: Please share any additional information you would like for us to know about the learning characteristics of this student. Thank you for your time and honest answers.

_____

_____

_____

_____

Alternate Assessment Impact Survey
Demographic Teacher Characteristics

Directions: Please provide ONE response to each question unless directed otherwise.

1. Please indicate your gender.
○Female   ○Male

2. Please indicate your ethnicity/race.
○American Indian or Alaska Native   ○Hispanic or Latino
○Asian   ○Native Hawaiian or Other Pacific Islander
○Black or African American   ○White

3. How many years have you taught special education prior to this year?
○Less than a year   ○10-12 years
○1-3 years   ○13-15 years
○4-6 years   ○More than 15 years
○7-9 years

4. What is the highest degree you hold?
○Does not apply   ○Multiple MA or MS
○BA or BS   ○Ph.D. or Ed.D.
○MA or MS   ○Other

5. What was your major field of study for the bachelors degree?
○Does not apply
○Special Education
Elementary:
○Elementary Education
○Elementary Education and Special Education
○Elementary Education with language arts, reading, or English concentration
○Elementary Education with a concentration in another area
Middle:
○Middle School Education
○Middle School Education with a language arts, reading, or English concentration
○Middle School Education with a concentration in another area
High:
○Secondary education with a language arts, reading or English concentration
○Secondary education with a concentration in another area
○English
○Mathematics Education
○Mathematics
○Mathematics Education and Mathematics
○Other; please explain _____

6. What was your major field of study for the highest degree you hold beyond a bachelors degree?
○None (bachelors is highest degree)
○Special Education (low incidence)
○Special Education (high incidence)
○Language arts, reading, or English
○Curriculum and Instruction
○Administration
○Elementary Education
○Middle School Education
○Mathematics Education
○Mathematics
○Mathematics Education and Mathematics
○Other academic discipline (e.g., science, history, foreign language)
○Other (e.g., physical education, home economics, coaching)
○Specialist Degree; please explain _____
○Other; please explain _____

7. What certification do you currently possess? **(indicate all that apply)**
○Certification in Elementary Special Education only
○Certification in Secondary Special Education only
○Certification in K-12 Special Education only
○Certification in Special Education and General Education
○Emergency, provisional, or temporary certification
○Elementary certification
○Middle school certification
○Secondary certification in a field other than language arts or mathematics
○Secondary English language arts certification
○Secondary Mathematics certification
○National Board Certification
○Alternate route for teacher certification; please explain _____
○ Other; please explain _____

Instructional Influences

Directions: To what degree does each of the following influence what you teach to students taking the alternate assessment judged against alternate achievement standards? Please provide ONE response.

8. Students' Individual Education Programs.

   Low influence   1   2   3   4   5   6   7   High influence

9. Parental or community preferences.

   Low influence   1   2   3   4   5   6   7   High influence

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10. Your state or district's curriculum framework or content standards.

    Low influence   1   2   3   4   5   6   7   High influence

11. Unit or daily lesson plans from general education.

    Low influence   1   2   3   4   5   6   7   High influence

12. State/district tests or results from those tests (for example: alternate assessment judged against alternate achievement standards).

    Low influence   1   2   3   4   5   6   7   High influence

13. Your experience in pre-service preparation.

    Low influence   1   2   3   4   5   6   7   High influence

Alternate Assessment Influence

14. Has the alternate assessment based on alternate achievement standards influenced the development of your students' IEPs in any of the following areas? (**Select if it has had more influence, less influence, or no change in that area**)

    ○ Increased team effort within the IEP team
    ○ Decreased team effort within the IEP team
    ○ No change

    ○ Increased parental involvement in the development of students' IEPs
    ○ Decreased parental involvement in the development of students' IEPs
    ○ No change

    ○ Increased supports available to and used by students
    ○ Decreased supports available to and used by students
    ○ No change

    ○ Increased transition planning/services available to and used by students
    ○ Decreased transition planning/services available to and used by students
    ○ No change

    ○ Increased service delivery options for your students
    ○ Decreased service delivery options for your students
    ○ No change

○ Increased types and number of goals related to learning academic content
○ Decreased types and number of goals related to learning academic content
○ No change

○ Increased Positive Behavior Support Planning
○ Decreased Positive Behavior Support Planning
○ No change

○ Increased type or amount of assistive technology used by your students
○ Decreased type or amount of assistive technology used by your students
○ No change

○ Increased availability and delivery of related services
○ Decreased availability and delivery of related services
○ No change

○ Increased availability of before and after school services (i.e., Extended School Services)
○ Decreased availability of before and after school services (i.e., Extended School Services)
○ No change

○ Increased availability of extracurricular activities
○ Decreased availability of extracurricular activities
○ No change

○ Increased Extended School Summer services
○ Decreased Extended School Summer services
○ No change

15. Has the alternate assessment based on alternate achievement standards influenced your daily instruction in any of the following areas? (**Select if it has had more influence, less influence, or no change in that area**)

○ Increased instruction on grade-level academic content
○ Decreased instruction on grade-level academic content
○ No change

○ Increased time students spend in the general education classroom
○ Decreased time students spend in the general education classroom
○ No change

○ Increased amount or type of administrative support
○ Decreased amount or type of administrative support
○ No change

○ Increased expectations from other students, parents or teachers
○ Decreased expectations from other students, parents or teachers
○ No change

○ Increased instructional responsibilities shared with other educators or school personnel
○ Decreased instructional responsibilities shared with other educators or school personnel
○ No change

○ Increased your understanding of academic content standards
○ Decreased your understanding of academic content standards
○ No change

○ Increased opportunities to embed functional skills in daily instructional routines
○ Decreased opportunities to embed functional skills in daily instructional routines
○ No change

○ Increased opportunities to teach self-determination skills
○ Decreased opportunities to teach self-determination skills
○ No change

○ Increased opportunities to generalize skills
○ Decreased opportunities to generalize skills
○ No change

16. How has the alternate assessment influenced the development of your students' IEPs?
　　　　_____Positively　　　_____Negatively　　　　　_____Not at all

17. To what degree has the alternate assessment positively influenced your students' IEPs?

　　　Low influence　1　　2　　3　　4　　5　　6　　7　High influence

18. Please indicate why the alternate assessment has positively influenced the development of your students' IEPs? (**Check all that apply**)

   a. All students should be represented in school accountability.
   b. Increased administrative support.
   c. Access to the general curriculum is important for all students.
   d. Students are learning things beyond my expectations.
   e. Students are receiving the appropriate support services (e.g., AT, OT, PT, & SLT).
   f. Increased involvement of parents.
   g. Students are accessing the least restrictive environment.
   h. Other, please explain_____

19. To what degree has the alternate assessment negatively influenced your student's IEPs?

Low influence 1   2   3   4   5   6   7   High influence

20. Please indicate why the alternate assessment has negatively influenced or not influenced the development of your students' IEPs? (**Check all that apply**)

    a) You don't think the alternate assessment is important.
    b) You don't have the support to implement the alternate assessment.
    c) You don't know how to implement the alternate assessment.
    d) You don't see the connection between the alternate assessment and IEPs.
    e) You have always been doing what is required by the alternate assessment.
    f) You think the alternate assessment requires you to emphasize skills that are not the most important for your students to learn.
    g) You think the alternate assessment restricts individualization on the IEP for your students.
    h) Other, please explain_____

21. How has the alternate assessment influenced your daily instruction?
     _____Positively   _____Negatively   _____Not at all

22. To what degree has the alternate assessment positively influenced your daily instruction?

Low influence 1   2   3   4   5   6   7   High influence

23. Please indicate why the alternate assessment has positively influenced your daily instruction? (**Check all that apply**)

    a. All students should be represented in school accountability.
    b. Increased administrative support.
    c. Access to the general curriculum is important for all students.
    d. Students are learning things beyond my expectations.
    e. Students are receiving the appropriate support services (AT, OT, PT, & SLT).
    f. Increased involvement of parents.
    g. Students are accessing the least restrictive environment.
    h. Other, please explain_____

24. To what degree has the alternate assessment negatively influenced your daily instruction?

Low influence 1   2   3   4   5   6   7   High influence

25. Please indicate why the alternate assessment has negatively influenced or not influenced your overall instruction? (**Check all that apply**)

    a. You don't think the alternate assessment is important.
    b. You don't have the support to implement the alternate assessment.

c. You don't know how to implement the alternate assessment.
d. You don't see the connection between the alternate assessment and instruction.
e. You have always been doing what is required by the alternate assessment.
f. You don't have the time to implement the alternate assessment.
g. You think the alternate assessment takes time away from instruction on important skills.
h. You think the alternate assessment restricts individualization in instruction for your students.
i. Other, please explain_____

Curriculum Perceptions

Directions: Please indicate your level of agreement with the following statements.
Please provide ONE response.

26. It is important for students with significant cognitive disabilities to learn academics through the grade-level curriculum.
   ○Strongly disagree   ○Agree
   ○Disagree   ○Strongly agree
   ○Neutral

27. Students effectively learn functional skills when embedded in daily school routines with typical peers, including academic instruction through the grade-level curriculum.
   ○Strongly disagree   ○Agree
   ○Disagree   ○Strongly agree
   ○Neutral

28. It is more important for students to learn functional skills than academic content.
   ○Strongly disagree   ○Agree
   ○Disagree   ○Strongly agree
   ○Neutral

Classroom Observation Instrument
Directions: After observation, circle all that apply

Classroom Environment

Positive behavioral rules/expectation

Instructional routines evident

Cooperative/pleasant atmosphere

Location: _____

Materials

Age/grade appropriate

Prepared in advance

Appropriate for lesson

Multiple means of presentation

Authentic or natural cues

Instruction:

Embedded in Natural Routine

Allows for Multiple Means of Expression

Allows for multiple means of response

Allows for multiple means of engagement

Academic Content Area: _____

Functional Content Area: _____

Linked to standard: Area/Standard:_____

Linked to IEP objective:_____

Group Arrangement

Large Group

Small Group

Independent Work

1:1 Instruction

Cooperative Group

1:1 Peer Instruction

Instruction Delivered by:

Gen ed teacher

Sped teacher

Paraprofessonal

Related Services Provider

Volunteer

Peer tutor

Other: _____

Running Field Notes*

1. Instructional presentation:
   Sequence of events
   Examples, modeling
   Cues and prompts
   Communication of the instructional goal
   Student/teacher interaction
   Clarity of directions
   Monitoring of student understanding/progress
2. Teacher expectation
3. Cognitive emphasis
   How to think
   Asks students to explain answers
4. motivational strategies
   internal motivators
   external motivators
   stresses the rationale for learning the skill
5. Relevant practice
   Practice in a variety of ways
   Related to lesson
6. Informed feedback/progress monitoring
   What makes answer right or wrong
7. Student understanding of the task

*Note: This list of topics will be reformatted to fit horizontally across an 8.5 x 11 inch paper. It will then be laminated and taped into the back of a spiral notebook for use as a prompt when collecting field notes. One notebook per case will be used for on-going data collection.

IEP Document Review Tool

Student Study Code_____

Objective Number	1	2	3	4	5	6	7	8	9	10	11	12
Age Appropriate												
1. Materials												
2. Task												
Functional Skill												
1. Critical Activity												
2. Integration Activity												
3. Linked to Standard												
Academic Skill												
1.Foundational Skill												
2. Integration Activity												
3. Linked to Standard												
Generalization												
1. Taught across settings/material												
2. Taught in natural setting												
3. Taught across concepts												
Total Number of Points/Objective												

Directions:
1. In the Functional or Academic Line, please indicate the domain for each objective 1-12
2. For each item listed, place a 0 (no) or 1 (yes) in the box
3. Tally the number of points for each objective and record in the last row of the worksheet

Functional Skill:		**Academic Skills:**	
CL	Communication and Language	R	Reading
S	Social	M	Math
D	Domestic and Daily Living	LA	Language Arts
V	Vocational	S	Science
C	Community	SS	Social Studies
B	Behavioral	H	Health
		O	Other

Definitions:

Critical Activity – The task is important enough that someone must perform the task if the student is unable to do so, such as assisting the student with eating, drinking, using a switch for communication, or using the restroom
Foundational Skill – Skills that all students are assumed to have for the academic activity. They are commonly embedded in academic instruction, such as orienting a book and turning the page.

Interaction Activity – The task incorporates both functional skills and academic skills
Linked to Standard – There is clear evidence that the objective is linked to state standards, either through the standard being listed or through close connection between the objective and the content of the state standards
Taught Across Setting/Materials – The skill is taught using settings and materials that will facilitate the student's use of the skill in more than one environment
Taught in Natural Setting – The skill is taught in such a way that allows the student to use it where it would normally be demonstrated, such as purchasing skills actually taught in the school cafeteria or store
Taught Across Concepts – The skill may be applied in another context to demonstrate applied understanding

Adapted from:

Flowers, C., Wakeman, S., Browder, D., & Karvonen, M. (2007). Links for academic learning: An alignment protocol for alternate assessment based on alternate achievement standards. Charlotte, NC: University of North Carolina at Charlotte.

Hunt, P., Goetz, L., & Anderson, J. (1986). The quality of IEP objectives associated with placement on integrated versus segregated school sites. *Journal of the Association for Persons With Severe Handicaps, 11*, 125-130.

Westling, D.L. & Fox, L. (2000). Teaching students with severe disabilities. Upper Saddle River, NJ: Merrill.

Appendix D

Within-Case Analysis

According to Yin (2003), there are four important types of written formats that case studies may take. The question and answer format uses a set of questions and answers that allows for consistent analyses for the individual cases and for the cross-case comparisons. The guiding questions for the individual and cross cases analyses were the four research questions used to frame this study.

1. What are the general perceptions and opinions of teachers regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?

2. What are the general perceptions and opinions of parents regarding access to the general curriculum and alternate assessment based on alternate achievement standards in relation to their own individual student?

3. How, and to what extent, do expert teachers deliver individualized instruction that is standards based and linked to alternate assessment based on alternate achievement standards?

4. To what extent are the annual measurable goals and short term objectives on the IEPs of students with significant cognitive disabilities reflective of the academic content standards and academic achievement standards for students who participate in alternate assessment based on alternate achievement standards*?*

In the section entitled Individual Case Analysis, each question is answered sequentially for the individual case analysis. Then, a brief summary is provided for each research question and is used as the cross case analysis (See Chapter 4, Results, for a comprehensive presentation of the results).

Individual Case Analysis

TD – Both TD and PD were in favor of academic instruction for students with moderate levels of intellectual disabilities. The parent commented, "If you don't try to see if they can

absorb it then how do you know if they are going to learn not." However, both the parent and

teacher were more hesitant about the value of standards based instruction for students with the

most significant disabilities. The parent indicated that the value of academic instruction

"depended on the level of the child" while the teacher indicated that some skills were harder to

combine with academic instruction. The teacher stated, "For example, ambulating independently

is tough to integrate. For them [the students], it's a top priority because of the health

implications. It's easier to meet the needs of the kids who have higher academic skills." Most

importantly, both the parent and the teacher indicated that Carl's individual needs were being

met and that he was progressing.

TD used hands-on activities to teach concepts in math and science. For example,

the students used paper plates to learn about percents and fractions. They were asked to divide

the plate into specific fractions. The students then converted the fractions to percents using either

paper and a pencil or a calculator based on their individual skills. Even though TD provided high

quality reading instruction that taught abstract thinking and not simple recall, she still maintained

separate reading objectives on Carl's IEP, including multiple objectives relating to sight words.

Additionally, of Carl's 21 total objectives, only 2 were related to the GPS/GAA.

TM- Of those teachers participating in this study, TM teaches students with the lowest

levels of intellectual disabilities. Both the teacher and parent are in favor of academic instruction

for students with intellectual disabilities. This connection is important to examine since the target

student, Lisa, is non-verbal and has very limited academic skills. TM stated,

> In the beginning, it was 'Oh my, we have to access the curriculum. They [the students]
>
> can't even write their names and we're supposed to have them identify where Africa is!'
>
> But, as my attitude has changed, their [parents and other staff] attitude has changed and

we see so much more from our kids. I thought I had high expectations before, but I was really putting them [the students] in a box.

Both the parent and the teacher believe that the student's individual needs are being met. The parent indicated that she rarely visited the classroom, but stated that the teacher told her that Lisa liked to "learn." The teacher indicated that she was able to balance the need for academics and life skills by being flexible and scheduling academics around behavioral issues/incidents.

TM used a combination of paper and pencil tasks and hands on activities to teach lessons relating to the GAA and the GPS. She taught how to plot points by using Velcro balls and a felt bulletin board. The students took turns throwing the ball at the board and then counting using the number line. TM is the only teacher who actively spoke about incorporating IEP goals and objectives into academic instruction. However, when the researcher reviewed Lisa's IEP, she found very few objectives that could be classified as academic. Lisa had objectives to write her name and address and to count using money. Of the 12 objectives listed on Lisa's IEP, none were linked to the GPS/GAA.

TB – Among the parent/teacher pairs, TB and PB hold the most differing views among those participating in the study. TB, while not actively opposing standards based instruction for students with severe intellectual disabilities, indicated that she was unsure of the benefit. She stated, "It [standards based instruction] does them sort of a disservice because you're not able to focus on the functional things that those students [students with severe intellectual disabilities] need to help them become more independent successful adults." However, the parent indicated that she was in favor of academic instruction for her daughter, Cathy, stating, "…anything she is exposed to is good." The teacher and parent also held differing views about whether or not the students' individual needs were being met. TB indicated that it was difficult to meet the students'

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individual needs through academics but the parent indicated that the teacher was using instructional strategies that had been successful in the past to teach Cathy academics. She stated,

> If she [Cathy] had a money skill, they would be teaching it within a math standard. Even if she had a matching skill, they may throw that in so she might use coins with the matching thing at her level.

The dichotomy of views may be more a result of the teacher being self-critical about her instructional delivery methods than what is actually occurring in the classroom. During the classroom observations, it was noted that TB used multiple means of presenting information including hand over hand guidance, repetition, and direct instruction presented in small groups. Small group instruction focused on one topic, with the information being presented multiple times. Of the eight objectives listed on Cathy's IEP, none were linked to the GPS/GAA. However, if TB had used slightly different language when writing one of Cathy's objectives, then there would have been a link between the standards and that one objective.

TC – A within case analysis examining the views of both the teacher and parent are not possible for this case since the parent did not participate in an interview. The teacher indicated that she believed that standards based instruction was important for students with mild and moderate levels of intellectual disabilities, stating that she believed it [standards based instruction] "upped the ante" for them. However, she was less sure of the value for students with severe intellectual disabilities. TC also worried about meeting the individual needs of her students, stating "…it [meeting the students' needs] can be done a little bit, but it all depends on the student."

TC generally provided whole group instruction with the assistance of paraprofessionals to both groups of students. The activities she presented were similar, with more assistance provided

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to the students with more severe academic and behavioral needs. The students sat at desks and the teacher presented the lesson from the front of the class. There appeared to be very limited use of technology in TC's class. She used hands-on materials such as menus, maps, and PowerPoint™ slides. But, she did not use a projector to present the material; the students had paper copies of the slides. Additionally, there did not seem to be any effort made to incorporate the target student's IEP objectives into any of the lessons even though Leo did have several objectives that could be classified as academic. Of the 11 objectives on Leo's IEP, 3 were linked to the GPS/GAA. However, it should be noted that the 3 objectives were linked to the same standard.

TS – Both TS and the parent indicated that they were in favor of teaching academic skills to students with cognitive disabilities. The teacher stated, "…it's a crucial part to their learning environment." However, the parent was less confident of the value of academic instruction and access to the general curriculum for students with more intensive needs. She stated, "For Joshua, what they are doing is awesome. I think they shouldn't put all of the kids under the same umbrella…When I look at my youngest one, then no. I don't think it's very appropriate." Both the parent and teacher indicated that the student's individual needs could still be met.

TS used technology extensively. He utilized Microsoft PowerPoint™ to teach about the 2008 presidential election. He also had the students find and identify points on a map on the computer. During Geography, TS used a Wii™ bowling game. TS maintained a separate "IEP" time for the students where the students worked on IEP goals and objectives separate from the academic instruction they received related to the GPS and GAA. The target student, Joshua, had an IEP objective to read complete sentences aloud from teacher made books. TS could have used his GPS/GAA materials to have Joshua read aloud and use the data for the IEP. Of the 18

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objectives on Joshua's IEP, only one was linked to the GPS/GAA. However, a second objective

could have been linked to the standard if the language of the objective was changed slightly.