

Exploring Consequential Validity of Alternate Assessments Based on Alternate Achievement Standards

*Results of an Online Teacher Survey in a Three State Consortium
Report to the States*

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INTRODUCTION

Background

Research and innovation with respect to providing children with the most significant cognitive disabilities access to a challenging curriculum aligned with rigorous state academic standards has been ongoing since the early 1990's (Quenemoen, 2008). Since the passage of the Individuals with Disabilities Education Act (IDEA) of 1997, federal statute has supported access to the general curriculum by students with disabilities and required that states have an alternate assessment in place by July of 2000. A series of regulations and statutes refined and elaborated on the content requirements for these alternate assessments. The 2001 reauthorization of the Elementary and Secondary Education Act (No Child Left Behind) required that alternate assessments be aligned with a state's content and student achievement standards. In December 2003, federal regulations provided a definition of alternate achievement standards facilitating the development of State assessments designed to address these standards. This same regulation also imposed the 1% cap on the number of students whose proficient scores on an AA-AAS could be included in a school's adequate yearly progress (Rigney, 2009).

In December 2005, the U.S. Department of Education issued Supplementary Peer Review Guidance specifically for AA-AAS. This document was issued to help states prepare for peer review of the alternate assessments they had adopted and specified that evidence needed to be provided of the assessment's technical quality including its validity. Evidence of validity can be derived from a number of sources. One of those sources is evidence based on the consequences of testing. As outlined in *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999),

Claims are sometimes made for benefits of testing that go beyond direct uses of test scores themselves. Educational tests, for example, may be advocated on the grounds that their use will improve student motivation or encourage changes in classroom instructional practices by holding educators accountable for valued learning outcomes. Where such claims are central to the rationale advanced for testing, the direct examination of testing consequences necessarily assumes even greater importance. The validation process in such case would be informed by evidence that the anticipated benefits of testing are being realized (p.17).

Evidence based on consequences of testing is integrated into the USDOE peer review guidance (2006) as follows:

In validating an assessment, the State must also consider the consequences of its interpretation and use. Messick (1989) points out that these are different functions, and that the impact of an assessment can be traced either to an interpretation or to how it is used. Furthermore, as in all evaluative endeavors, States must attend not only to the intended effects, but also to unintended effects (p.40).

One of the intentions of AA-AAS is that it will encourage changes in classroom instructional practices from approaches that focused exclusively on teaching traditional functional skills to teaching academic content aligned with the academic content standards adopted by states. To this end, evidence that intended benefits are being realized in the classroom informs the validation process for assessments.

Exploring Consequential Validity

The term “consequential validity” cannot be found in the Standards for Educational and Psychological Testing (AERA, APA, NCME 1999). Since initially described by (1989) it has been a topic of considerable debate by tests and measurement experts (Popham, 1997; Shepard, 1997; Linn, 1997) with no clear consensus of its standing as a form of “validity.” Nevertheless, the concept of consequential validity has been incorporated into a number studies (Sambell, Brown, & McDowell, 1997; Roach, Elliot, & Berndt, 2007; Stevenson & Waltman, 2007) and

has also found its way into peer review requirements of the U. S. Department of Education (USDOE, 2006). Irrespective of how one looks at this issue, Kane (2001) suggests, “the evaluation of consequences is likely to be a contentious issue for a long time, and no easy solutions are available.” Even with acknowledging the continuing debates surrounding this issue, the term “consequential validity” will be used in this report to refer to the intended and unintended consequences of the AA-AAS program.

As a frame of reference for studying consequences, Lane and Stone’s (2002) model was adopted for studies with respect to the intended and unintended consequences associated with assessment and accountability programs. In this model, the intended outcomes of a large scale assessment are organized into a series of Interpretive Arguments, from which a set of propositions are generated that can be either supported or refuted by evidence. A series of studies on the general education population in the 1990’s that employed the methodology suggested by the Lane and Stone framework were used to examine the consequences associated with the Maryland School Performance Program. These studies found evidence that suggested a positive impact of the assessment and the learning objectives on classroom instruction (Lane, Parke, & Stone 1998; Lane, Ventrice, Cerrillo, Parke, & Stone, 1999; Parke, Cerrillo, Levenson, O’Mara, Hansen, and Lane, 1999; Stone & Lane, 1999). The general model proposed by Lane and Stone (2002) will also be useful in studying consequences in relation to alternate assessments as well.

With regulations in place for States to provide evidence of consequential validity of their AA-AAS, the Lane and Stone strategies provide a framework around which to organize such evidence. This study was undertaken by a consortium of three States working in collaboration with the University of Minnesota’s North Central Region

Resource Center. The consortium undertook the task of implementing a study of the consequential validity of AA-AAS within their respective states while also working to establish a methodology useful to any state interested in studying consequential validity in a longitudinal manner. Representatives from the Departments of Education from collaborating states formed the core team of experts charged with forming stakeholder groups, providing data, recruiting personnel, and a variety of other tasks requiring coordination, dissemination, and working through their departments to ensure access to classrooms and teachers within the constraints of their specific State regulations protecting student and teacher privacy.

Throughout this report, the term “validity argument” is used to refer to the accumulated body of evidence with respect to the uses of the AA-AAS. “Interpretive arguments” are propositions which state the intended outcomes of the assessment program. Within interpretive arguments, questions were written to elicit information that could either support or refute the interpretive argument. The interplay of evidence, interpretive arguments, and validity argument are illustrated in Table 1.

Table 1. Validity Argument

The AA-AAS is resulting in improved instruction in academic content and student achievement for students with significant cognitive disabilities

Interpretive Argument (1)	Interpretive Argument (2)	Interpretive Argument (3)	Interpretive Argument (4)	Interpretive Argument (5)	Interpretive Argument (6)	Interpretive Argument (7)
Teachers are motivated to improve instruction	Professional development support is being provided	Curricula are being developed to teach the new material	Students are putting forth effort to learn the material and perform well on the assessments	Student performance is improving due to these changes	Access to AAC is increasing	Parental involvement and interest is increasing
<i>Teachers are familiar with the assessment</i>	<i>Teachers rate the existing PD as useful</i>	<i>Classroom instruction reflects content</i>	<i>Students put forth effort on the assessment and on learning the material</i>	<i>Student Scores are improving</i>	<i>Students who are in need of AAC have access to it</i>	<i>Parents/guardians are more involved in the academic careers of their children</i>
<i>Teachers are familiar with who should take the assessment</i>	<i>Teachers can indicate where they need further PD</i>	<i>Supervisors and administrators encourage teachers to include academic content</i>				
		<i>Quality Curricula are developed</i>				

Organization and Content of this Report

This report provides detailed information on the results of an online survey of teachers in a three state consortium to measure the impact of the Alternate Assessments Based on Alternate Achievement Standards (AA-AAS). The report is organized into three major sections and two appendices. Section one includes the introduction and information related to the development and piloting of the surveys. It provides the reader with information about why the survey was conducted, what the consortium hoped to accomplish, why certain content was chosen, and how the survey was organized. Section two contains a summary of the results from the survey. Section three is a summary of the major findings of the survey and a discussion of possible implications of those findings. Appendix A contains summary tables and graphs for each question in the survey. Appendix B contains tables illustrating statistically significant differences among states and subject areas.

Graphs throughout the document are provided on mean data. All questions represent an unweighted the mean for each state. In this way, each state is represented equally. Where the questions are asked across subject areas, when there is little variation, the graph will present mean data across subject areas. When subjects differ a great deal, the graphs are broken out by subject. The tables provided in Appendix A contain detailed response data by state and subject area.

Responses are reported most often as percentages. When percentages do not equal 100%, this is attributable to two conditions: (1) rounding has produced total percentages slightly above or below 100% or (2) the question allows multiple responses by one user, and the percentages represent the number of teachers who selected each of the

response options. (For an example of this type of question, please see Figure 17).

The Surveys

In their 2002 framework, Lane and Stone synthesized a number of works which contributed to the final list of both and unintended (and potentially negative) consequences of large scale assessment (Frederiksen & Collins, 1989; Koretz et al., 1996; Linn, 1993; Linn, Baker & Dunbar, 1991; Messick, 1992) and suggested five propositions that would likely be necessary to provide consequential evidence around assessment and accountability programs. These propositions were accepted by Consortium State representatives and stakeholders and are listed as propositions one through five in Table 2. Although this study retained the original propositions put forth by Lane and Stone, it is not insignificant that those propositions were written for general as opposed to alternate assessments. Most notably, the proposition that teachers and administrators would be motivated to adapt curriculum and instruction to the standards takes on greater significance when one considers that providing academic instruction on grade level content is a dramatic paradigm shift for many teachers of students with significant cognitive disabilities. It is helpful when interpreting the results of the surveys to keep this paradigm shift in mind.

Accepting the nuances associated with interpreting responses to the propositions with respect to students with the most significant disabilities, these propositions were deemed appropriate, but not sufficient to fully support an evaluation of the intended consequences of AA-AAS programs. As a result, two additional propositions were added to the framework to address intended outcomes unique to students with the most significant cognitive disabilities: (1) access to augmentative and alternative communication (AAC) and (2) parental involvement and interest in student academic achievement.

Table 2

Propositions for Consequential Validity of AA-AAS

Proposition

1. *School administrators and teachers are motivated to adapt the instruction and curriculum to the standards.*
 2. *Professional development support is being provided*
 3. *Instruction and curriculum will be adapted*
 4. *Students are motivated to learn as well as to put forth their best effort on the assessment.*
 5. *Improved performance is related to changes in instruction.*
 6. *Access to augmentative and alternative communication has increased.*
 7. *Parent involvement, expectations and knowledge about their student's performance has increased.*
-

The 1% Population

Students who take the AA-AAS are a diverse group of learners. They do, however, share the characteristic that they have a significant cognitive disability and their IEP teams have determined that the AA-AAS is the appropriate assessment to measure their learning. Federal regulation imposes a 1% cap on the number of students who take this assessment and can be counted toward adequate yearly progress (AYP). We, therefore, refer to the students who take the AA-AAS as the "1% population." However, we caution readers that the members of this group have *very different needs* in terms of support, communication, and education.

Access to AAC

Augmentative and alternative communication (AAC) is a term used to describe all forms of communication to express thoughts, needs, wants, and ideas (American Speech Language Hearing Association, 2010). In the context of individuals with significant cognitive disabilities, AAC often takes the form of technology or devices that supplement individuals with limited speech or replace speech for those who cannot speak at all. Students who use AAC comprise a significant number of children who take the AA-AAS (Almond & Bechard, 2005; Towles-Reeves et al., 2009). In previous works on AA-AAS, it has been suggested that increased access to AAC would be a significant positive consequence of the assessment program (Kleinert, Kennedy, & Kearns, 1999).

AAC increases opportunities for individuals with severe and complex disabilities to communicate and participate in educational settings. One of five principles offered by Williams and colleagues (2008) is that AAC must support “full participation in all aspects of 21st century life,” (p 194). Large scale assessment certainly falls within this domain. In addition, access to the general education curriculum by students who need AAC will be facilitated by access to this technology. Lack of availability of AAC and the lack of teacher knowledge of how to effectively use it were two characteristics noted by Lund and Light (2007) associated with negative outcomes for this group of individuals. It was hypothesized that AA-AAS could have a positive impact on access to AAC for students who require it in order to take part in the assessment.

Increased Parental/Guardian Interest and Involvement in Students' Academic Achievement.

Parental aspirations have been demonstrated to be important factors associated with student academic growth. Fan (2001), for example, analyzed the effects of parental involvement in student achievement and found that the positive effect of parental aspiration was greater than the effect of socioeconomic status and held consistent across academic content and ethnic groups. With regard to students with disabilities, Hunt and Goetz (1997) reviewed 19 studies of inclusive educational environments. One of the themes throughout their review was that that parental participation was important in obtaining inclusive education. Given the positive effects of parental aspirations and involvement for students with and without disabilities, if a new emphasis on academic content increases parental involvement and expectations, this would be a powerful positive outcome of the assessment program.

These two additional propositions (access to AAC will increase and parental involvement in the student's academic career will increase) combine with the original propositions put forth by Lane and Stone (2002) to form seven propositions for this study (see Table 2).

Survey Development

In order to reach a large number of educational staff and better understand the extent to which AA-AAS as used in the consortium states had an impact on a variety of aspects of the educational experience of students with significant cognitive disabilities, survey methodology was employed. One set of surveys was directed to teachers and a second to administrators.

Initially, a large pool of questions was written that could be used for the surveys. Although the majority of survey items were identical across states, state-specific terminology and unique AA-AAS structures required a separate teacher survey for each state. For the same reasons, a separate survey was developed for administrators in each state. The items on the administrator survey were identical to the teacher survey, but did not include questions related to classroom practices which are not usually the responsibility of administrators. The final teacher survey consisted of 74 questions. The final administrator survey consisted of 43 questions.

Surveys were developed through a three-step process. Relevant propositions were first reviewed by consortium partners and survey items written to specifically reflect the interpretive arguments of the Lane & Stone (2002) framework. Questions that addressed specific propositions about AAC and parental involvement were then written to supplement the item pool. In addition, questions that elicited pertinent demographic data about respondents were added to the surveys.

Ryan (2002) suggests that stakeholders and leaders define a theory of action in building a set of interpretive arguments that can be used in establishing validity evidence based on consequences. In this study, propositions were drawn from the literature focused on

validating large scale assessments in terms of consequences. In addition, each state convened a stakeholder group to review items and establish the priorities for the study. The groups convened in the spring of 2008. Draft surveys were reviewed for clarity, comprehensiveness, and technical accuracy when addressing questions about this population of students. Composition of stakeholder groups varied across the three states, with all states including special education teachers, parents, and representatives from the state's departments of education. Other stakeholders included in some of the groups were building administrators, educational consultants, regional administrators, school superintendents, university professors, and general education teachers. While each state group varied in composition, diverse and knowledgeable groups were created to provide necessary feedback. Using this feedback, project staff made adjustments to existing survey items and added items which were relevant to the validation process in specific states, but not directly related to the interpretive arguments of Lane and Stone (2002).

A pilot version of the surveys was administered in September of 2008 to 108 teachers and administrators. At this point in the instrumentation development process, a number of items were written in an open ended format such that respondents had the opportunity to write in their answers. Upon completion of the data collection phase of the pilot, these responses were analyzed and closed-ended items were developed that captured common themes. For all of these questions, the option of an open-ended text response was retained.

Using the pilot results, item-total correlations were calculated to evaluate the extent to which items contributed to the Interpretive Arguments. By convention, item-total correlations of .3 and above indicate adequate item functioning. Those items that did not meet this criterion were examined and modified to improve item functioning.

Two of the three states participating in the consortium have developed multi-level AA-AAS. It was hypothesized that teacher responses to survey items could vary (a) across level of assessment and/or subject area; and (b) based on whether an item addressed the alternate academic achievement *standards* or the alternate achievement *assessment* itself. Therefore, all questions that addressed teacher responses concerning AA-AAS required participants to stipulate their responses in terms of the assessment and the standards, and where appropriate, to specify responses according to subject area (language arts¹, mathematics, and science).

In order to ensure that survey participants were interpreting and responding to questions as intended, forty-three “Think Aloud” telephone interviews (Dillman, Smyth, & Christian, 2009) were conducted across the three states. During this process, respondents were asked to specify how they interpreted each item. These data were used to validate the content of the questions and identify areas that needed revision. Due to the length of the survey, these interviews were divided into three sections and each respondent was asked to explain his/her response process to one-third of the survey items. The purpose of the think aloud process was also to ascertain the extent to which closed-ended responses on some items provided sufficient representation of the wide range of response possibilities. In general, the questions themselves were understood, with few teachers responding in ways that were unanticipated.

Final versions of teacher surveys employed three response formats. Rating scale responses were used for most survey items; however, there were also responses which required open-ended input and those where teachers could select from a menu of items those that

¹ Throughout this document, “Language Arts” is used to refer to English, Language Arts or Reading.

applied to them and leave blank those that did not (for example, see Figure 18).

Surveys were administered via a web-based platform that allowed access to a large number of representative educators from all three states. Utilizing a web-based format also permitted project staff to monitor results real-time as they were submitted. A third advantage to this approach was that participants could complete the survey in multiple sittings via an easy “save” format. Respondents were asked to provide their names and contact information if they were interested in receiving an incentive for participation; however, results of the survey were confidential.

Table 3 shows the distribution of sample respondents by state

Table 3

Responses by State

State	Responses	Percent of the Sample
State 1	94	23%
State 2	102	26%
State 3	205	51%

Sampling

In all states, the number of students taking the AA-AAS is small. In many, there are specialized schools or intermediate centers that provide highly specialized services for some students, making the distribution of eligible students uneven across schools, districts, and regions within a state. To secure a more representative sample within states, a stratified sampling approach was designed. Collaborating Department of Education staff from consortium states worked with the grant staff to establish a stratification plan based on the proportional representation of students taking the AA-AAS throughout each state. All three states had systems of regional intermediate entities that provide services to participating school districts. These intermediate units formed the basis for stratification. In the more densely populated states, intermediate units were combined on the basis of similarity to form strata. Stratification resulted in each state having 12 to 13 stratified units largely determined by geographic and demographic similarities.

An analysis of the AA-AAS population within each stratum yielded a proportion of the students who took the assessment by strata. Using those proportions, a random sample of students was drawn. The students' schools were then identified as cluster units and every teacher in that school (who instructed students who take the AA-AAS) was invited to participate in the survey. Five random samples were drawn and examined for their similarity to the population in terms of relevant demographics. In each case, the first sample drawn most closely resembled the population and was used for the study. Building administrators and district administrators were also invited to participate in the administrator's survey. Due to the small number of students who take the AA-AAS, the school with the highest number of

students taking the AA-AAS in each stratum was included in the sample a-priori.

The sampling procedure drew a proportional number of students from the strata. The selection of students drove the selection of schools, and within those schools, the teachers. In each state, 25% of the students were selected into the sample. These students were associated with 1221 schools. Sampled responses were received from 402 teachers in 305 of the selected schools. Thus the overall response rate across the three states was 25%.

Similarities and Differences

For many of the survey items, it was hypothesized that there could be differences between states, subject areas and Alternate Academic standards and Alternate Academic assessments. Where it was hypothesized that answers could vary across subject areas, teachers were asked to respond to each subject area in which they taught. In most cases there was little variability between mathematics and language arts. However, there were significant differences in the responses to many questions regarding the science assessment. There were 401 total responses in this round of surveys from three states, each with their own unique systems of AA-AAS. To assess the degree to which survey answers differed by state, chi square statistics were calculated. To assess the differences among the three content areas, one sample t-tests were conducted. Appendix B contains the results of the one sample t-tests. Chi squares are integrated into the tables in Appendix A and noted in the text. No one state fared better in regard to teacher perceptions of its quality. Survey data suggest that each state has strengths and challenges that are particular to that state's assessment and standards.

TEACHER CHARACTERISTICS

Section Summary – Teachers

Figure 1.
School Type

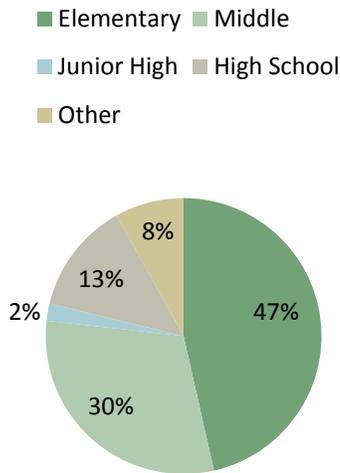
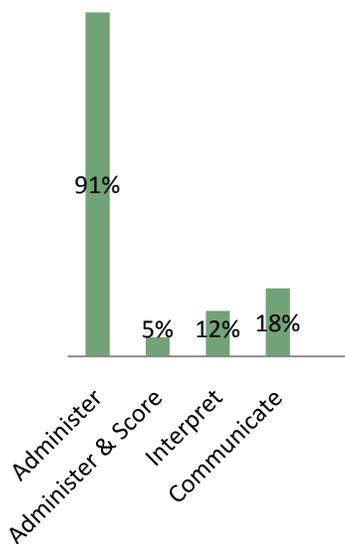


Figure 2.
Teacher Roles



The charts and graphs on the following pages provide a picture of the teacher respondents across the three consortium states.

Although there was considerable variation on some items, (e.g., years of teaching experience), for the most part, there were many more similarities than differences with respect to the characteristics of the teachers participating.

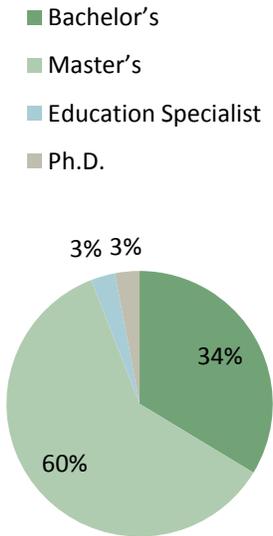
The majority of teachers across all states responded that they were involved with administering the AA-AAS in their states (91%). In one of the states, none of the teachers indicated that they were involved with scoring the assessment. In another state, teachers reported that they did not “interpret the results” of the AA-AAS².

Teachers who responded to the survey represented the complete array of school levels. The majority of teachers were from elementary schools (47%), followed by middle schools (30%) and high schools (13%). These distributions were expected with the AA-AAS being administered in grades 3 – 8 and then in grades 10 or 11 in participating states. Elementary schools generally feed into middle and junior highs, thus the number of students taking the AA-AAS are more dispersed at the elementary level. Further, as children with significant cognitive disabilities get older, they may be more likely to be educated in center-based programs. The first year of data included in this report does not include the responses of teachers from high schools in one of the states. The testing window for the state was in the spring for this

² Percentages do not equal 100 due to allowance for responses in multiple categories; percentages represent the number of teachers indicating that they performed this duty with regard to the AA-AAS in the current year.

group of students and data were not collected in the first year on those teachers.

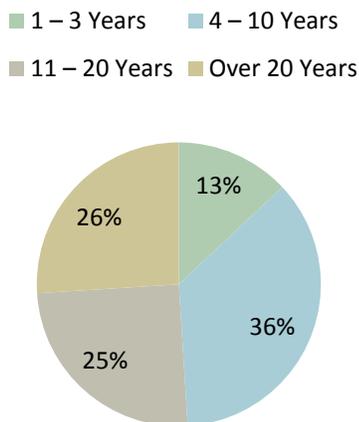
Figure 3.
Highest Degree Held



The average case load for teachers responding to the survey was 13 students, with a range from 11 to 16 students. All teachers were credentialed in special education and had at least a bachelor's degree, with the majority of teachers holding master's degrees (60%) indicating that most teachers who responded to the survey were educated at the graduate level. Not only were respondents well educated and licensed, more than 50% of the sample respondents had over 10 years of teaching experience.

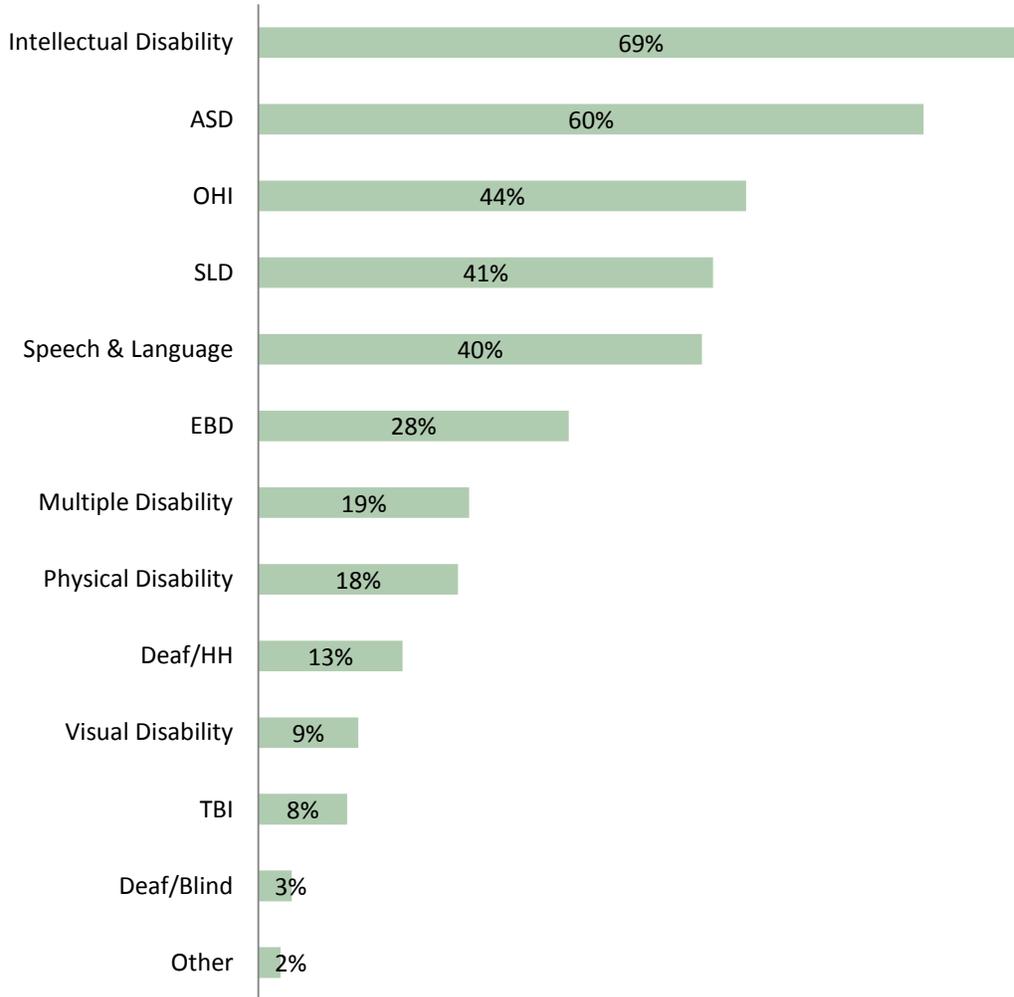
Teachers reported teaching students across all 13 recognized disability categories under the Individuals with Disabilities Education Act (IDEA). The majority of teachers reported teaching students with cognitive disabilities (69%) followed closely by those who taught children on the autism spectrum (60%). Respondents reported experience across all disability categories. It is important to note that these data show the range of teacher experiences and not the actual number of students within a disability category who take the AA-AAS in the consortium states.

Figure 4.
Years of Teaching Experience



Based on these data survey respondents were well educated, licensed special education teachers who represent the grade spans eligible for the AA-AAS, have taught students from all disability categories, and have administered the AA-AAS. There were very few novice teachers in the sample with most respondents having considerable experience with AA-AAS in their states.

Figure 5.
Disability Categories



3

³ Percentages do not equal 100 due to allowance for responses in multiple categories; percentages represent the number of teachers indicating that they taught at least one student with this disability who took the AA-AAS in the current year.

INTERPRETIVE ARGUMENT 1

TEACHERS ARE MOTIVATED TO IMPROVE INSTRUCTION

Motivation to improve instruction was operationalized into three separate propositions that support the overall argument. The first proposition was the degree to which teachers were familiar with those students who were the best candidates for the AA-AAS. Teachers should be aware of the target students for the assessment. The next proposition was that they should also be familiar with the purpose, administration, and scoring procedures. Finally, teachers who have a positive attitude toward the assessment are hypothesized to be more likely to be motivated to instruct students in the areas assessed. These three propositions were explored separately through a group of questions in the survey. The results are reported for each of these interpretive arguments.

Interpretive Argument 1.a – Teachers are familiar with who should take the AA-AAS.

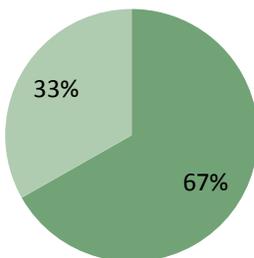
State assessment systems have become increasingly complex. Currently, a student may take the general assessment, the general assessment with accommodations, an alternate assessment based on modified achievement standards or an alternate assessment based on alternate achievement standards. Additionally, within the AA-AAS, some states have tiered assessments which vary in complexity for the 1% population. Therefore, it is important for teachers to be aware of how to match students to the appropriate assessment.

-
- *Teachers are familiar with which students should take the AA-AAS*
 - *Teachers are familiar with various aspects of the AA-AAS.*
 - *Teachers have a positive attitude toward the assessment and the standards.*
-

Figure 6.
It is Clear to Educational Staff Who Should Take the AA-AAS

■ Strongly Agree/Agree

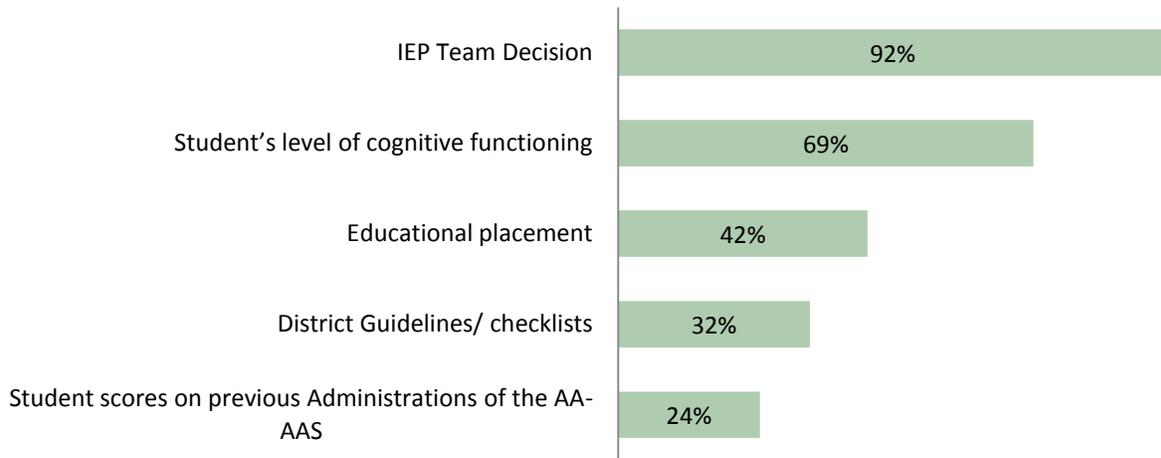
■ Disagree/Strongly Disagree



Section Summary:

Survey results indicate that 67% of teachers report that it is clear to educational staff which students should take the AA-AAS. Differences across states were not significant [$\chi^2(6, N = 401) = 2.717, p = .257$]. When asked how decisions were made about whether a student would take the regular assessment or an alternate assessment, the clear majority of teachers (92%) responded that the IEP team made the decision. The second most frequently selected response was that this decision was made based on the student's level of cognitive functioning (69%).

Figure 7.
Decision Basis for Taking the AA-AAS



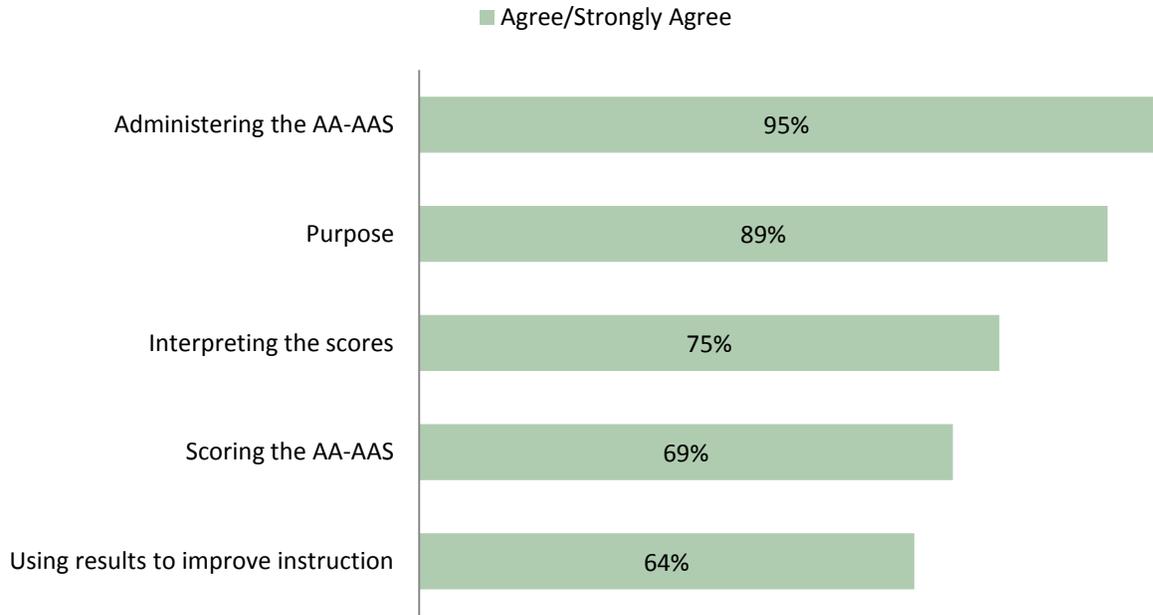
Interpretive Argument 1.b – Teachers are familiar with various aspects of the AA-AAS.

The degree to which teachers state that they are familiar with the purpose of the assessment, its administration, how it is scored, and what scores mean is intended to measure their understanding of the assessment. In addition, the survey also asked teachers to rate how well they could use the results of the assessment to improve instruction. While large scale assessments are meant to be an accountability measure to ensure student progress, assessments should also provide meaningful data with respect to where students need more, different, or better instruction.

Section Summary

The survey contained the item, “I believe I have a sufficient level of understanding of” The teachers were then given the choice to rate five topics which included: purpose, administration, scoring, interpretation of scores, and use of the scores to improve instruction. Teacher responses were generally positive with over half of the teachers indicating that they were familiar with all of these aspects of the assessment. It is notable that, across the states, teachers were more familiar with the administration (95%) and purpose (89%) of the assessment than they were with the score interpretation (75%), scoring procedures (69%), and use of the scores to improve instruction (64%). The teachers in State 3 were significantly more likely to “Disagree/Strongly Disagree” that they had a sufficient level of understanding of scoring the AA-AAS ($\chi^2(2, N = 401) = 1.04, p < 0.01$). However, teachers surveyed were generally not responsible for scoring the assessment.

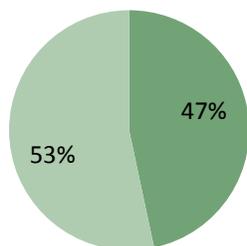
Figure 8.
Teacher Report of Understanding



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**Figure 9.
Importance of
Including Students
with Significant
Cognitive
Disabilities in
Assessment &
Accountability**

- Strongly Agree/Agree
- Disagree/Strongly Disagree



Interpretive Argument 1.c– Teachers have a positive attitude toward the assessment and the standards

Accountability for student achievement should be a positive measure to ensure student performance. Assessments that provide accountability data should be perceived as meaningful and a worthwhile investment of time and effort for students and teachers.

Section Summary

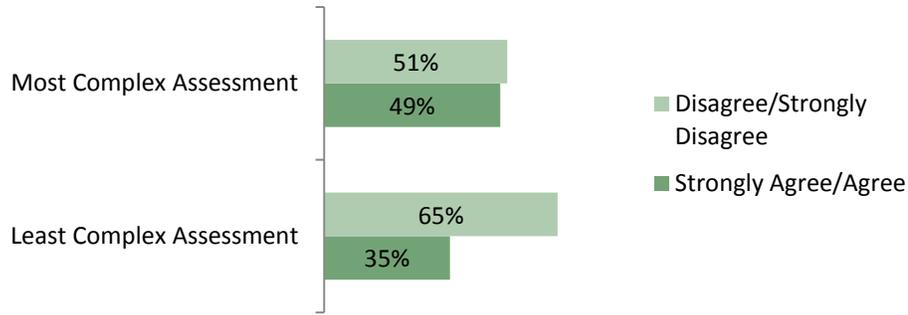
In order to measure teacher’s attitudes and beliefs towards the AA-AAS, a number of survey items were posed to assess the extent of agreement or disagreement to a given set of statements. As previously noted, two of the three states in the survey have “tiered” systems of AA-AAS. That is, within these two states there are 3 separate AA-AAS which vary in complexity.

When asked if they believed that it is important to include students with the most significant cognitive disabilities in statewide assessment and accountability programs, respondents were somewhat more likely to “Disagree” (53%) than “Agree” (47%). Although states with tiered assessment systems had somewhat higher rates of agreement (48% - 49%) when compared to the state without (43%), these percentages were not significant ($\chi^2(6, N = 401) = 1.039, p = .595$).

However, within the States with tiered systems, it was hypothesized that teachers’ opinions could vary depending on the level of the AA-AAS that they administered. When these data were analyzed using only the two states with tiered systems and grouping teachers by the level of the assessment that they administered, the data suggest that teachers who teach students with the most significant cognitive disabilities (and thereby administer the least complex form of the AA-AAS) are more likely to “Disagree” that their students should be included in assessment and accountability programs (see Figure 11).

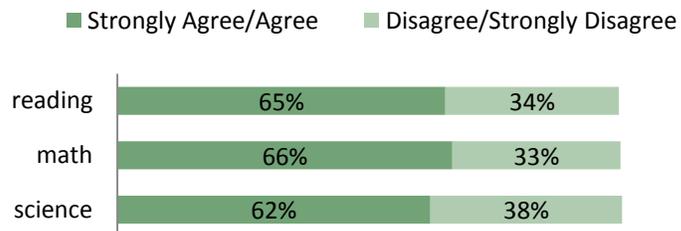
Figure 10.

**Importance of Including Students
with Significant Cognitive Disabilities
in Assessment & Accountability by
Level of Assessment**



The content of survey items measuring teachers' attitudes toward the assessment covers three perceived characteristics of the assessments and the standards: the quality, the value, and the benefits.

Figure 11.
The Current AA-AAS is Effective



In terms of the responses to questions about the quality of the assessments, the responses to the survey were somewhat mixed. For example, a majority of teachers responded that the current assessments were effective measures of student performance. However, there were significant differences between states and between subject areas. Teachers in State 3 were significantly more likely to “Agree/Strongly Agree” that their AA-AAS were effective than teachers in States 1 and 2 ($\chi^2(2, N = 395) = 9.11, p = .01$)⁴. Across all states, teachers were significantly more likely to “Agree” or “Strongly Agree” that the mathematics and language arts assessments were effective than the science assessment ($t(400) = 4.56, p < .01; t(395) = -2.74, p < .01$).

Three survey items asked teachers to rate the extent to which (a) the items on the assessment reflect the alternate academic content standards; (b) the assessment results reflect the degree to which students have met the alternate academic standards; and (c) the degree

⁴ Chi square results for reading assessment.

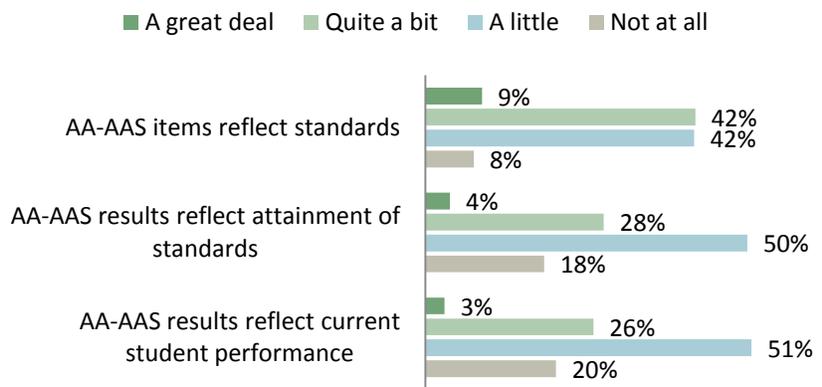
to which the AA-AAS results accurately reflect the current performance of the students.

Teachers were evenly split in their judgments about the extent to which the items on the assessment reflected the alternate academic standards. Across states, teachers were significantly more likely to rate items on the mathematics assessment ($t(260) = 3.66, p < .01$) and language arts assessment ($t(260) = 2.68, p = .01$) as reflecting the standards “A great deal,” or “Quite a bit,” than on the science assessment. Although the overall ratings of the science assessment were low, State 2 teachers were significantly more likely to rate the science items as reflecting the standards “A Great Deal” or “Quite a Bit” than teachers from the other two states ($\chi^2(6, N = 265) = 15.00, p = .02$).

In contrast, when asked to rate the extent to which assessment results reflect the degree to which students had met the alternate academic standards, 50% of teachers indicated “A Little” and 18% responded “Not at All.” States varied with regard to the science assessment with State 3 having significantly more teachers rate the science assessment as “Not at all” or “A little” than the other two states ($\chi^2(6, N = 262) = 14.45, p = .03$). In addition, across states, teachers were significantly more likely to rate mathematics results as more indicative of students having met state alternate academic standards “Quite a Bit” or “A Great Deal” than language arts ($t(361) = -2.77, p = .01$).

In terms of the degree to which assessment results accurately reflected the student’s classroom performance, 21% of teachers answered “Not at All.” Teachers were more likely to rate the mathematics results as reflecting student performance “A Great Deal” or “Quite a Bit” significantly more often than the science results ($t(261) = 3.36, p < .01$).

Figure 12.
**Relationships between
Standards, Scores, and Student
Performance**



It is interesting to note that teachers were more favorable when asked to rate the overall effectiveness of the AA-AAS (see figure 11) than when they answered specific questions about the AA-AAS and alternate academic standards.

Figure 13.
Current Length

■ Too Short ■ Just Right
■ Too Long

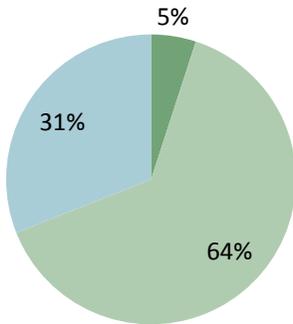


Figure 14.
Difficulty of AA Standards

■ Too Difficult
■ Too Easy
■ Just Right

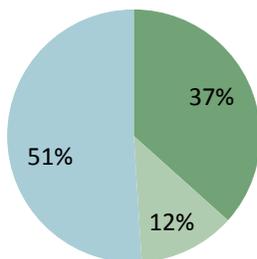
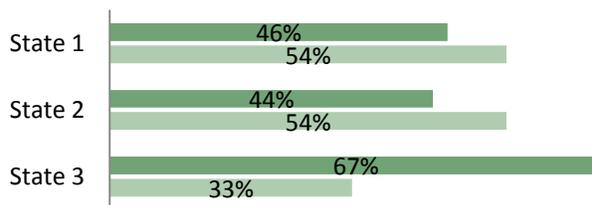


Figure 15.
Results Useful to Communicate with Other Educators

■ Strongly Agree/ Agree ■ Disagree/ Strongly Disagree



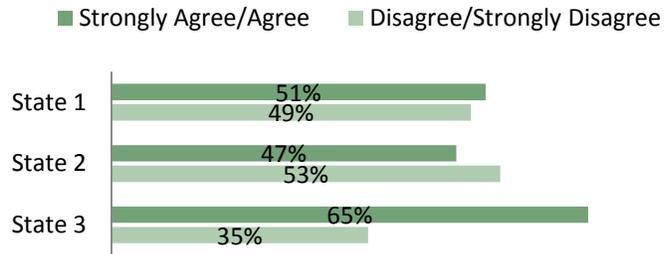
A majority of teachers (64%) rated the length of the assessment as “Just Right.” Teachers in State 3 were significantly more likely to rate the length of the assessment as “Just Right” than teachers in States 1 and 2 ($\chi^2(4, N = 401) = 12.60, p = .01$). Very few teachers (5%) indicated that they thought the assessment was “Too Short.”

Teachers were asked if they thought that the alternate academic **content standards** were appropriate for their students in terms of difficulty. Across all of the content areas assessed, the states with the tiered assessment systems (States 1 and 3) had higher percentages of teachers rating the difficulty of the standards as “Just Right.” The state with the lowest proportion of teachers rating the standards as “Just Right” also had the highest proportion of teachers rating the standards as “Too Easy.” These differences were significant at the .05 level.

Teachers were asked if they felt that the assessment results were useful in communicating student performance to other educators and to parents. Teachers in two of the three states were almost evenly split, between “Agree/Strongly Agree,” and “Disagree/Strongly Disagree” across subject areas, with teachers in State 3 having over 60%

indicate that the assessments were a useful means of communication to other educators and parents.

Figure 16.
Results Useful to Communicate with Parent/Guardians



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Teachers were provided with a list of 12 potential benefits of the alternate academic **content standards**. The list of potential benefits was derived from the pilot surveys where teachers responded to an open-ended question about the benefits that they saw from the development and use of the alternate academic content standards. The answers provided by the teachers participating in the pilots were analyzed for common themes and there were thirteen benefits that multiple teachers noted. For the sake of clarity, this question is provided here. If teachers agreed that the benefit was present, they selected that item. If they did not agree, they left the item blank.

Figure 17.

Question 8. Benefits of the Standards

What, if any, **benefits** have you observed as a result of the development and use of Alternate Content Standards (for districts, schools, teachers, students, etc.)? Check all that apply.

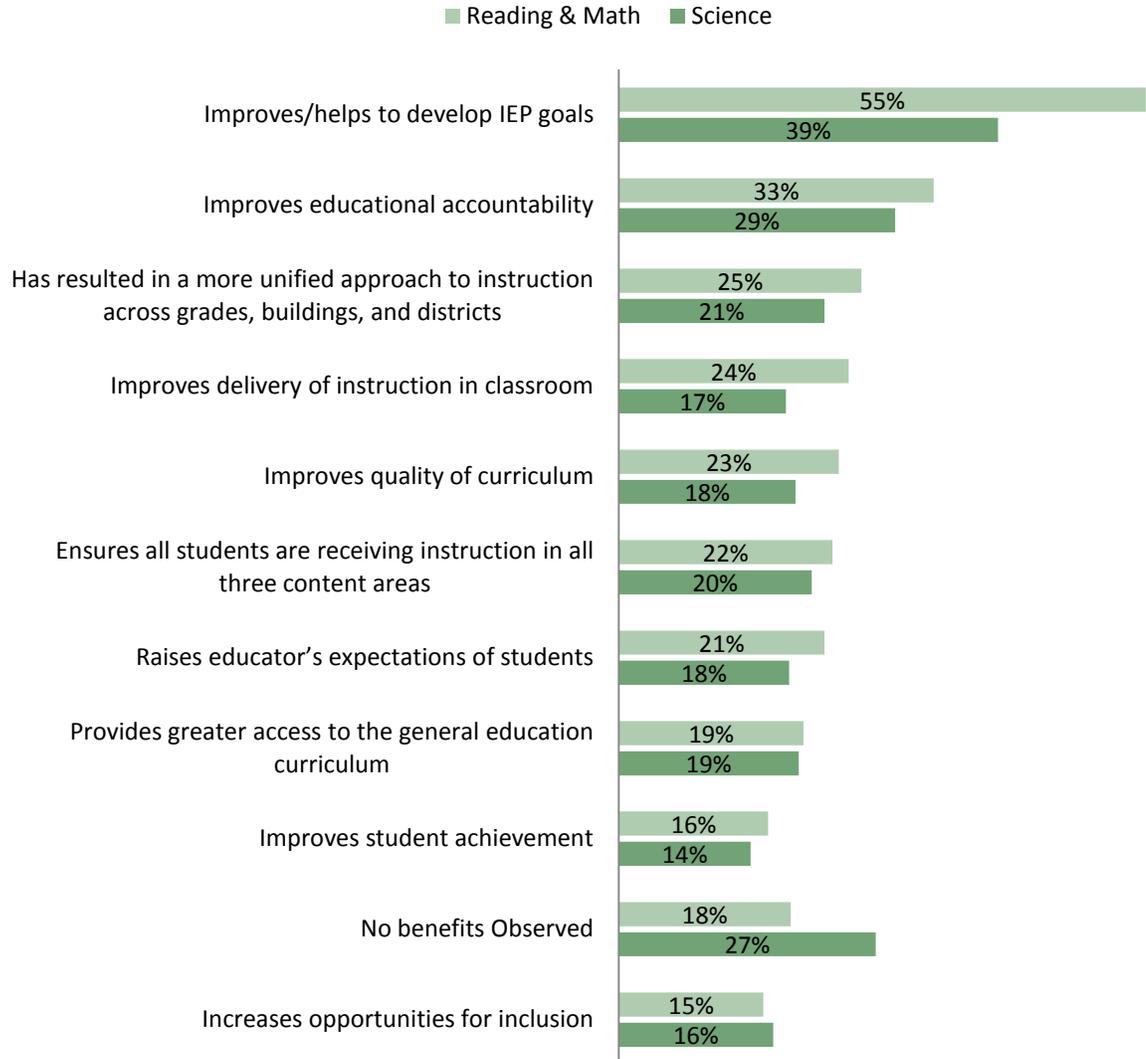
- Better aligns special education instruction with State standards
- Has resulted in a more unified approach to instruction across grades, buildings and districts
- Provides greater access to the general education curriculum
- Improves educational accountability
- Improves/helps to develop IEP goals
- Improves quality of curriculum
- Improves delivery of instruction in classroom
- Improves student achievement
- Improves access to materials and resources
- Increases opportunities for inclusion
- Ensures all students are receiving instruction in all three content areas
- Raises educator's expectations of students
- Other (Please specify): _____
- No benefits observed

As can be seen by Figure 18, the two responses most frequently selected were that alternate academic content standards helped align special education with the state standards (51%) and improve the development of IEP goals (50%). The benefits selected least frequently included increasing opportunities for inclusion (15%), improving student achievement (15%) and improving access to materials and resources (11%).

As previously noted, it was hypothesized that how teachers judged the quality and usefulness of the content standards could potentially be different than how they judged the assessments. Therefore, another survey item which addressed the benefits of the assessment was included. Benefits most frequently endorsed for the alternate **assessment** were improving IEP goals/objectives for students (40%) and increasing the awareness of the special education population in a positive manner (29%). The least endorsed benefits included increasing opportunities for inclusion (11%), expanding the curriculum (10%), and increasing classroom materials (7%).

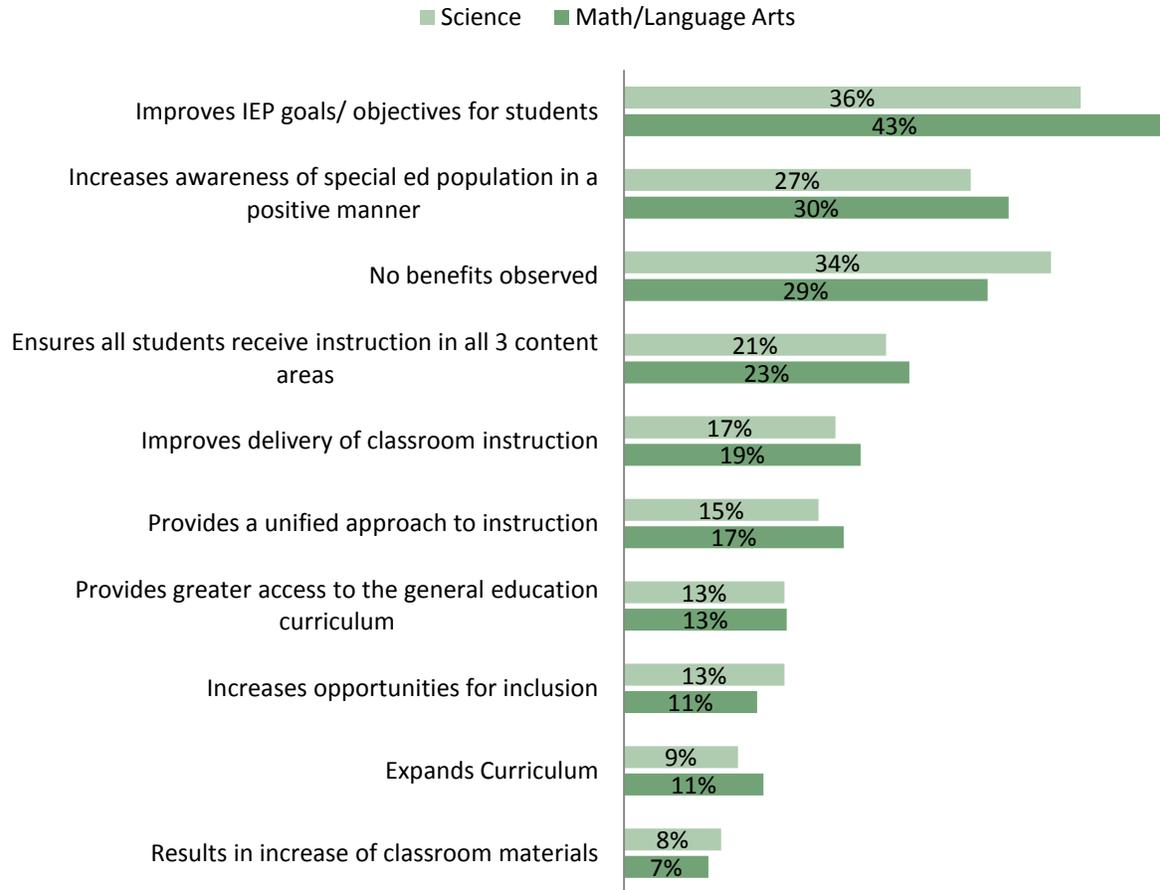
The responses to questions regarding the benefits of AA-AAS were very consistent across subject matter and fairly consistent across states. The greatest percentage variation occurred on providing greater access to the general education curriculum which ranged from a low of 7% to a high of 18%.

Figure 18.
Benefits of the Alternate Academic Standards



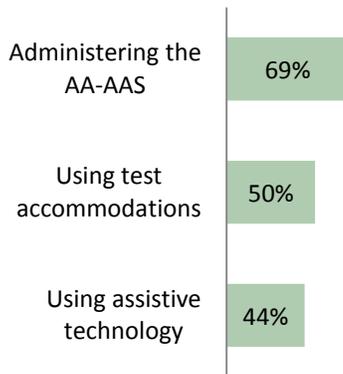
⁵ Percentages do not equal 100 due to allowance for responses in multiple categories; percentages represent the number of teachers selecting a benefit.

Figure 19.
Benefits of the AA-AAS



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Figure 20.
Areas of Professional Development Rated Most Highly



INTERPRETIVE ARGUMENT 2

PROFESSIONAL DEVELOPMENT SUPPORT IS BEING PROVIDED

An important strategy for evaluating the consequences of an assessment system is to examine aspects of professional development. For example, it is important to ask, “Have teachers received professional development concerning the new standards and assessment?” Questions about the extent, the quality, and the content of professional development can help states understand the impact of the assessment program.

Section Summary:

The questions in this section of the survey provide data on the type and quality of the professional development teachers have received from 2007 through 2009 (when this survey was administered). Teacher responses differed markedly by state and professional development topic.

It is important to keep in mind that the AA-AAS in these states have existed for 10 years. It is very likely that the teachers had received professional development on the AA-AAS prior to 2007. Therefore, caution should be used when interpreting the response of “no professional development received.”

Teachers were given a list of topics for professional development around AA-AAS. Teachers were then asked to rate the quality of that training as “Poor,” “Fair,” “Good,” “Excellent,” or “No Training Received.”

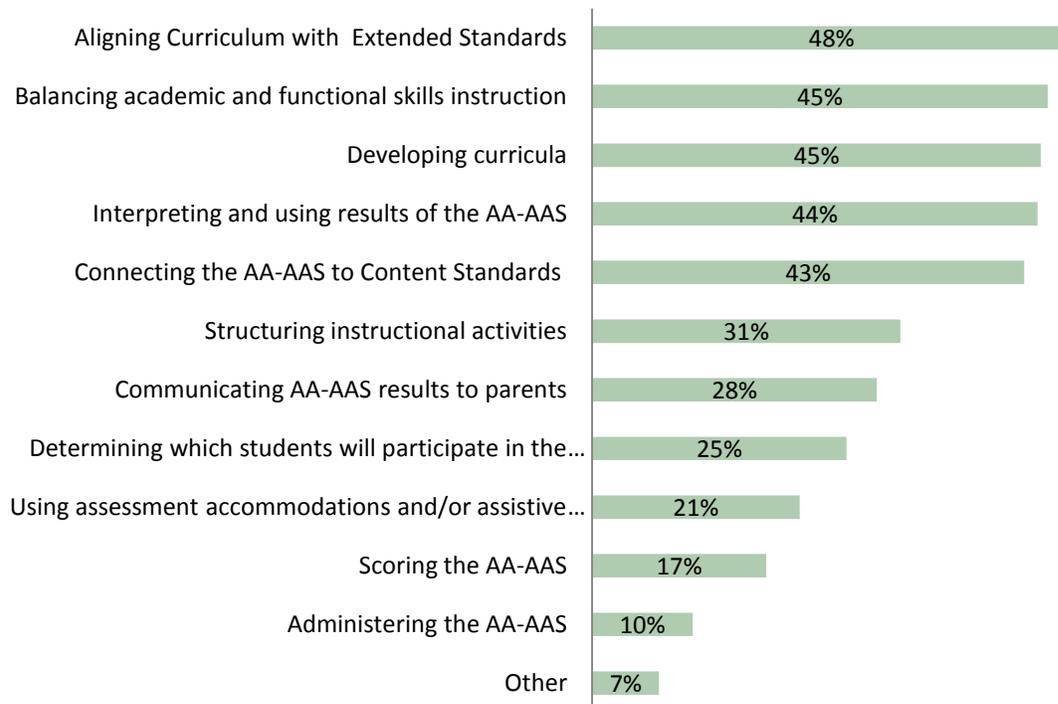
The areas that teachers rated most highly as having received professional development were administering the AA-AAS (69% of teachers rated this training as “Good” to “Excellent”), using test accommodations (50% of teachers rated this training as “Good” to “Excellent”), and using assistive technology (44% of teachers rated this training as “Good” to “Excellent”) However, teachers in State 3 rated their professional development in administering the AA-AAS significantly lower than the other two states ($\chi^2(6, N = 318) = 22.37, p < .01$).

In contrast, the average response of “No Training Received” was over one third for topics covering instructional practices such as interpretation and use (36%) and communicating the AA-AAS results (36%). In regard to balancing academic instruction and functional skills, teachers in State 1 were significantly more likely to rate that training as “Good to “Excellent” ($\chi^2(6, N = 273) = 13.59, p = .03$) than teachers in States 2 and 3.

Teachers indicated that they most preferred workshops as a professional development format (67%), followed by independent learning through print or media (40%) and mentoring (32%).

When asked in what areas they could most use additional professional development, the areas most frequently chosen were aligning curriculum with standards (48%), balancing academic content with functional skills instruction (45%), developing curricular materials (45%), interpreting and using the results of the AA-AAS to improve instruction (44%) and connecting the AA-AAS to content standards (43%). Relatively few teachers indicated a need for additional professional development focused on administration and scoring of the AA-AAS.

Figure 21.
Areas Most Cited for Additional Professional Development



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INTERPRETIVE ARGUMENT 3

CURRICULUM IS BEING ALIGNED WITH ACADEMIC CONTENT STANDARDS

- *There is evidence that classroom instruction includes academic content*
- *Supervisors and administrators encourage teachers to consider the AA-content standards when developing and delivering instruction*
- *Quality curricula is being developed or adopted to support the new standards*

The survey included questions to ascertain the degree that curriculum and instruction are aligned to the new alternate academic content standards. This interpretive argument has three parts: evidence that classroom instruction includes academic content aligned with standards, that supervisors and administrators are encouraging their teachers to use the standards, and that curricula (texts, media, scopes and sequences of instruction) is being developed to support the new standards.

As noted previously, there are differences between investigating these propositions in general education and investigating them in special education. For example, when the question as to whether classroom instruction reflects the new academic content is posed in a general education setting, the key point is that the instruction reflects a change from the old standards to the new standards. While that proposition is the same in special education, the new standards represent a greater degree of change. The change from an exclusively functional curriculum with functional academics to an academic curriculum aligned with general education standards can represent a dramatic shift in educational emphasis for students with significant cognitive disabilities

Interpretive Argument 3.a - There is evidence that classroom instruction includes academic content.

A set of survey items were developed to ascertain the degree to which academic content is being infused into classrooms for students with significant cognitive disabilities and that content reflects current state alternate academic standards.

Section Summary:

The teacher survey contained nine questions addressing instructional practices around delivering academic content to students with the most significant cognitive disabilities. Many of these questions addressed the use of the individualized educational program (IEP). All students who take the AA-AAS have an IEP. The IEP is developed specifically for the student and includes benchmarks for progress. A first step toward ensuring that academic content is included in a child's instruction is including academic goals and objectives based on the alternate academic standards in the student's IEP.

When asked the extent to which they find the alternate academic standards useful when developing academic goals and objectives for their students with the most significant cognitive disabilities, 38% of teachers have found their standards at least "A Little" useful when writing academic goals and objectives. Twenty-two percent (22%) of teachers report that they are not useful at all. When the item was posed around assessment results, an even greater percentage of teachers respond, "Not at All" (28%).

Figure 22.
Usefulness of Standards and Results for Writing Goals

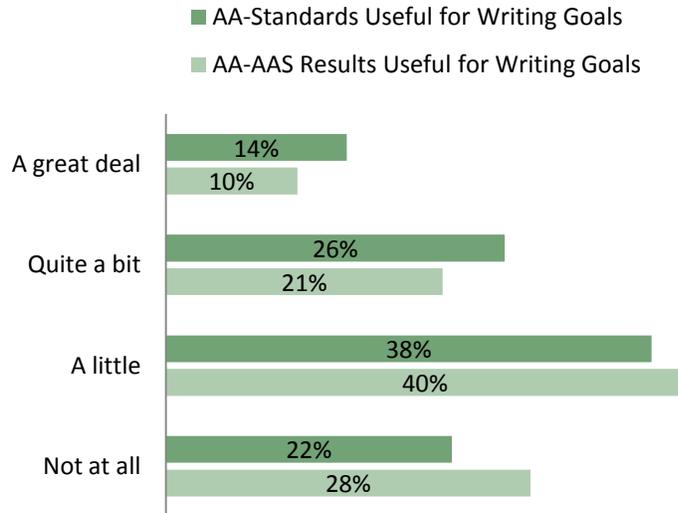
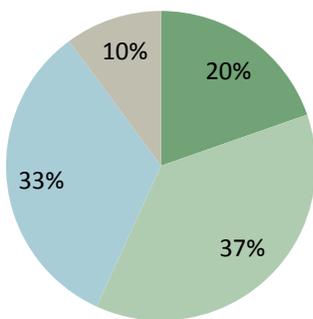


Figure 23.
Incorporating Academic Content

■ A great deal ■ Quite a bit
■ A little ■ Not at all



When asked, “Since the AA-AAS has been required; to what extent have you incorporated academic content into what you teach your students with the most significant cognitive disabilities?” 57% of teachers responded that they had incorporated academic content since the AA-AAS, either “A Great Deal” or “Quite a Bit.” Over 40%, however, indicated that in spite of academic content standards and assessment mandates, they incorporate such instruction “A Little” or “Not at All.”

In language arts, there were no significant differences across states. In mathematics and science, however, teachers from State 1 were significantly less inclined to select “A Great Deal” or “Quite a Bit” when asked the extent to which they had incorporated academic content in mathematics ($\chi^2(6, N = 354) = 12.78, p = .05$) and science ($\chi^2(6, N = 256) = 12.92, p = .04$).

Across all three states, teachers were significantly less likely to respond that they had incorporated science “A Great Deal” or “Quite a

Bit” as compared to mathematics ($t(253) = 3.77, p < .01$, and reading $t(253) = 5.04, p < .01$).

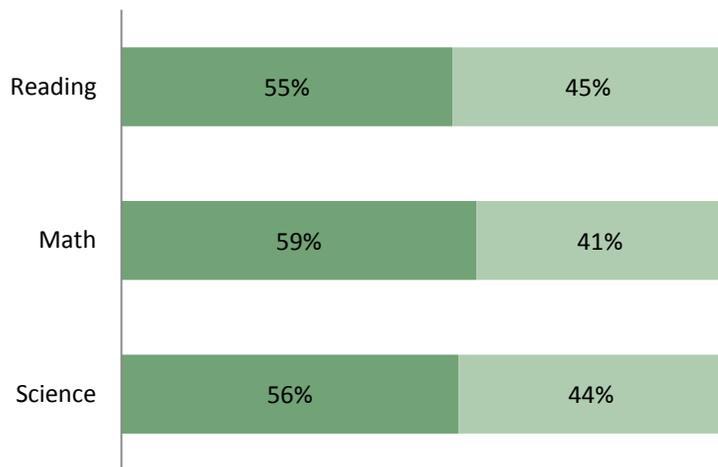
Teachers were also asked if the AA-AAS has helped them align their instruction to the standards. Responses varied by state and subject area. Teachers in State 2 and State 3 were more likely to “Agree/Strongly Agree” that the AA-AAS has helped them align their instruction to the state’s alternate academic content standards in mathematics ($\chi^2(2, N = 375) = 9.07, p = .01$) and science ($\chi^2(2, N = 292) = 6.25, p = .04$) than State 1.

When academic content areas were compared, teachers across states were more likely to “Agree/Strongly Agree” that the mathematics assessment was more helpful for aligning instruction to the alternate academic content standards than the science assessment ($t(290) = 2.67, p = .01$).

Figure 24.

AA-AAS Helps Align Instruction

■ Strongly Agree/Agree ■ Disagree/ Strongly Disagree

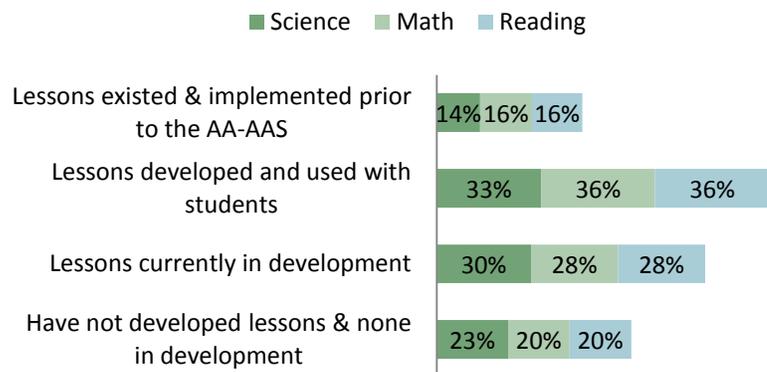


In order to provide learning opportunities for students to master the academic content specified in the alternate academic content standards, educational staff must develop and implement lessons based upon this content.

Two survey items addressed the degree to which teachers were developing lessons around the standards and the assessment. One such question was, “Since the AA-AAS has been required, in which of the following areas have you developed lessons based upon alternate academic content standards for students with the most significant cognitive disabilities?” Less than 20% of teachers report that they have not and are not in the process of developing lessons for mathematics and language arts (23% for science). Notably, only 15% of teachers selected that “Lessons existed & implemented prior to AA-AAS.”

Figure 25.

Developing Lessons on Alternate Academic Content Standards



When queried as to the extent to which they had developed lessons based on the *assessment content*, data suggest that teachers are developing lessons around the standards more frequently than the assessment.

Two survey items asked teachers the extent to which the AA-AAS influenced what they taught and how they taught. Across states, teachers were somewhat more likely to report that the AA-AAS influenced what they taught “A Great Deal” and “Quite a Bit” more than how they taught. The largest percentage of respondents indicated “A Little” in regard to the extent that the AA-AAS and the alternate academic content standards influenced what and how they taught (43% and 24% respectively).

Figure 26.
**Degree of Influence of the AA-AAS
on Content and Methodology**

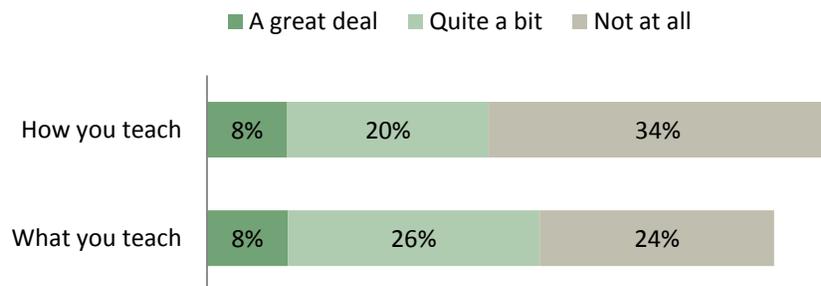
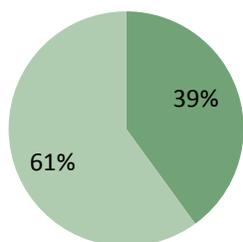


Figure 27.
**Attention
from
Administrators
has Increased**

- Strongly Agree/ Agree
- Disagree/ Strongly Disagree



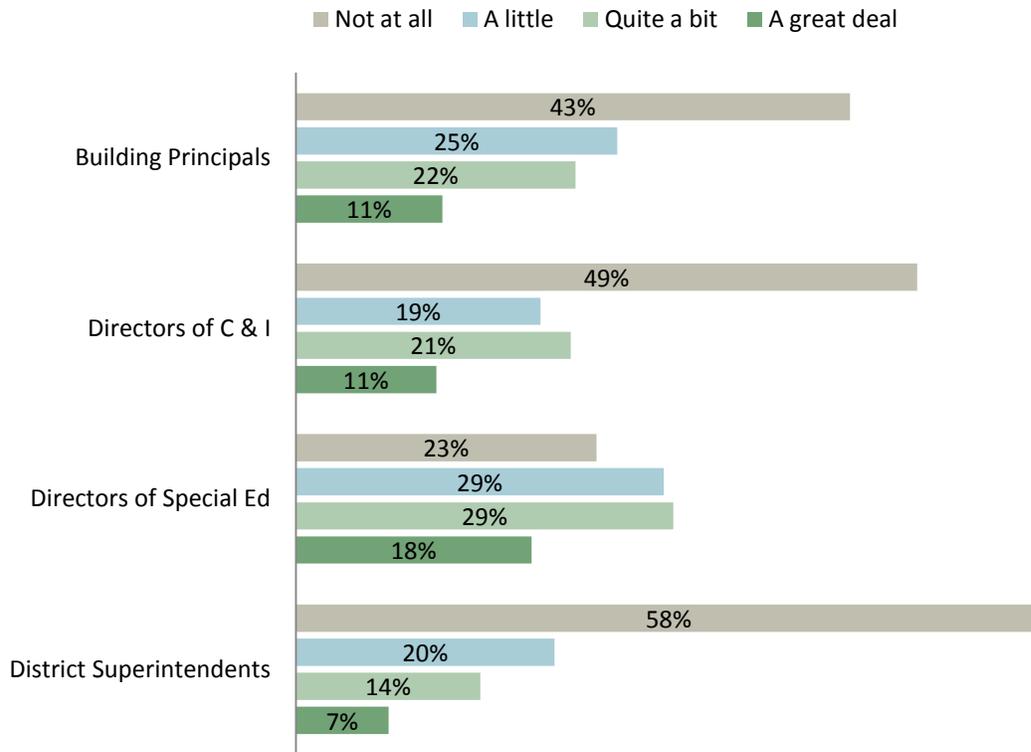
Interpretive Argument 3.b Administrators and Supervisors encourage teachers to consider the Alternate Academic Standards when developing and delivering instruction.

Students who take the AA-AAS are part of the overall accountability system for each school and district. The performance of children and youth taking the AA-AAS is not inconsequential to school requirements for adequate yearly progress and other measures of accountability. Prior to NCLB legislation, administrators concerned with accountability were not required to consider the assessment results of students with the most significant cognitive disabilities. One positive impact of the AA-AAS program would therefore be greater involvement on the part of administrators in encouraging teachers to use the alternate academic content standards in their classroom instruction.

Section Summary:

Overall, only 39% of teachers report that their students' academic performance has received more attention from supervisors and administrators since the AA-AAS. Teachers report receiving the most encouragement to consider the alternate academic content standards in their instruction from directors of special education and the least from district superintendents. A noticeable statistic is that 43% of teachers report receiving no encouragement for addressing the alternate academic-standards from their building principal.

Figure 28.
Encouragement from Supervisors



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Interpretive Argument 3.c Quality curricula are being adopted and developed to support the new content areas.

A positive impact of the alternate assessment program would be the development of academic curricula to support students with the most significant cognitive disabilities. Compared with the wide array of curricular materials available for general education, there is a paucity of published curricula for students with significant cognitive disabilities in terms of aligned, grade-level content in academic subjects.

Section Summary:

The survey asks teachers to report on the status of content area curricula for their students who take the AA-AAS. Teachers were asked to select a statement which best represented the state of the curriculum. Teachers could select “No District Curriculum and none in Development,” District Curriculum Currently in Development (since the AA-AAS),” District Curriculum Fully Developed and Implemented since the AA-AAS,” “District curriculum implemented prior to the AA-AAS,” or “Teacher or School has Independently Development or is Developing Curricula.” Between 17% and 22% of teachers across states indicated that “District Curriculum implemented prior to the AA-AAS.”

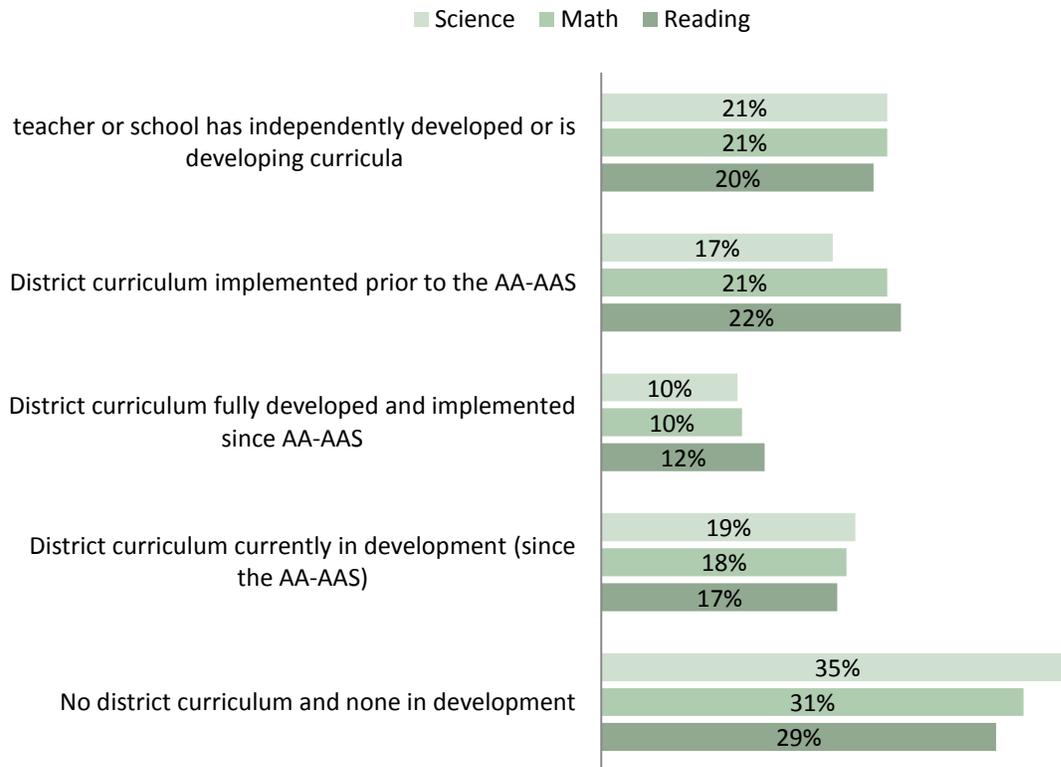
Of the teachers responding that curricula is available, approximately 20% of teachers are reporting that they personally, or their school, have needed to independently develop curricula in these content areas. One third of teachers report that they do not have curricula and there is none in development.

There are significant differences between states and subject areas. Teachers in State 1 were significantly more likely to select “No District Curriculum and None in Development,” than teachers from States 2 and 3 for language arts ($\chi^2(8, N = 401) = 22.95, p < .01$) and mathematics ($\chi^2(8, N = 401) = 22.50, p < .01$).

Across all three states, teachers were most likely to note that there was “No District Curriculum and None in Development” for science when compared to mathematics ($t(307) = 3.74, p < .01$); and there is more language arts curricula available than mathematics ($t(312) = 3.06, p < .01$)

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Figure 29.
Status of Curricula

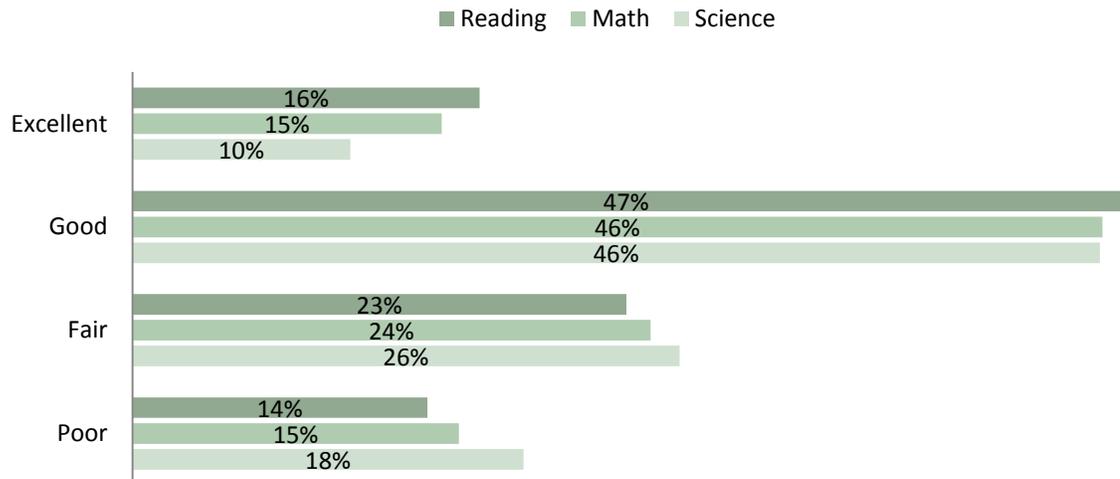


When teachers who had access to content based curricula were asked about the quality of the material, most (56% - 63%) indicated that it was of high quality (good – excellent). Across the academic content areas of reading, mathematics and science, only 14% to 18% of teachers appeared extremely dissatisfied with the material they had available, rating it “Poor” in quality.

Overall, teachers selected “Fair” and “Poor” more often in relation to science curricula than language arts ($t(285) = 4.24, p < .01$) and mathematics ($t(288) = 4.12, p < .01$).

Among the states, State 1 teachers were more likely to rate their science curriculum as “Excellent” and “Good” than teachers from States 2 and 3 ($\chi^2(6, N = 290) = 14.38, p = .03$).

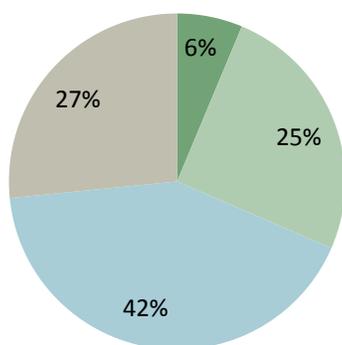
Figure 30.
Quality of Curricula



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Figure 31.
**Extent to Which
AA-AAS are
considered for
Curriculum
Development**

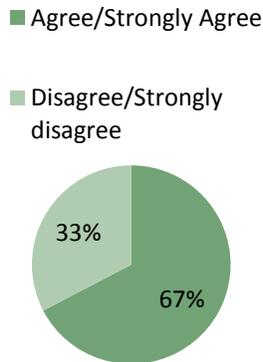
■ A great deal ■ Quite a bit
■ A little ■ Not at all



Teachers were also asked to evaluate the extent to which the AA-AAS is considered when the district develops curricula. Over one fourth of the teachers selected “Not at All.”

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**Figure 32.
Students
Maintain
Attention
During AA-AAS**



INTERPRETIVE ARGUMENT 4

STUDENTS WILL PUT FORTH THEIR BEST EFFORT TO LEARN THE MATERIAL AND DO WELL ON THE ASSESSMENT

Lane and Stone (2002) proposed that student effort to learn new material would be an indication of the degree to which assessment programs were having their intended effects. In the context of general assessments, the importance of this proposition is how students respond to the new material that will be covered in the new standards and subsequently assessed. In contrast, in special education the assessment could generate instruction that is conceivably the student's first encounter with academic material which was based on or linked to grade-level performance standards.

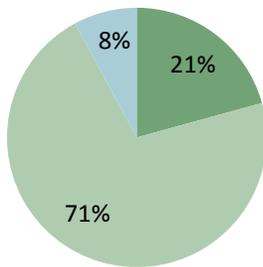
Section Summary

While the majority of teachers see no change in either student effort or student performance as a result of teaching academic content based on the alternate academic content standards, it is not inconsequential that 25% of teachers indicate an increase in student *effort* and approximately 30% report an increase in student *performance* in these areas.

In terms of student performance, teachers in State 3 were significantly more likely to indicate that classroom performance had increased "A Lot" or "A Little" in language arts ($\chi^2(4, N = 368) = 11.11, p = .03$) and mathematics ($\chi^2(4, N = 370) = 10.66, p = .03$). State 3 teachers were also significantly more likely to select a decrease in classroom performance "A Little" or "A Lot" in regard to science ($\chi^2(4, N = 261) = 9.98, p = .04$). States were similar in mathematics and language arts regarding student effort.

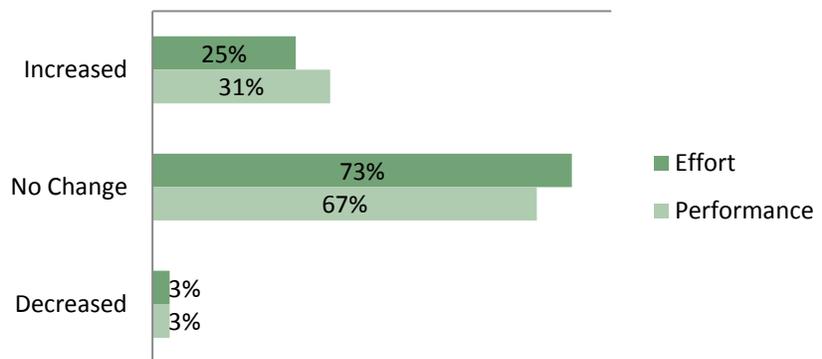
Figure 33.
Changes in Student Self Esteem

- Positive Impact
- No impact
- Negative Impact



Teachers also reported that to a large degree, the majority (67%) of their students taking the AA-AAS can maintain their attention during the assessment, and, in addition, 21% of teachers indicated that they perceived including students with significant cognitive disabilities in the assessment and accountability program has had a positive impact on student self esteem.

Figure 34.
Teacher Report of Changes in Student Effort and Performance

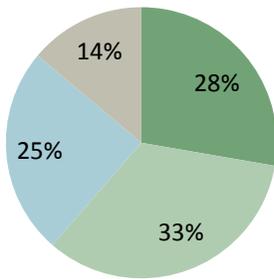


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Figure 35.
Received AAC
Since AA-AAS

■ A great deal ■ Quite a bit
 ■ A little ■ Not at all



INTERPRETIVE ARGUMENT 6

STUDENTS ARE RECEIVING AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

A strong endorsement of the AA-AAS program would be that students who are in need of augmentative and alternative communication (AAC) are more likely to have access to AAC due to the assessment requirement than prior to the AA-AAS.

Section Summary

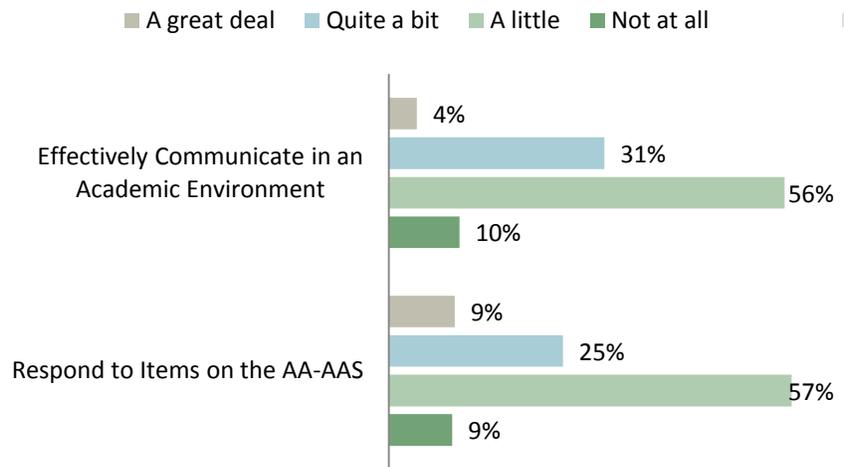
States varied widely in the number of teachers who responded that their students who took the AA-AAS were in need of AAC. In States 1 and 3 very few students were viewed by their teachers as in need of AAC (16% and 28%), while in State 3, 52% were viewed as requiring AAC to effectively communicate.

The types of AAC to which teachers reported students taking the AA-AAS most frequently having access were voice output devices (37%) and pictures or picture systems (29%). Less than 10% of respondents indicated that their students had access to all other forms of AAC. The majority of teachers (71%) rated the AAC to which students had access as good to excellent in quality.

Sixty-one percent (61%) of teachers across the states responded that, since the AA-AAS has been required, their students have had access to AAC “A Great Deal” or “Quite a Bit.” However, there remains a sizable minority (39%) of teachers who indicated little or no access at all to AAC even though the student demonstrated a need.

One third of respondents indicated that students who use AAC can respond to the items on the AA-AAS and also effectively communicate in an academic context. However, 10% of teachers responded that their students could do neither. Access to AAC did not vary significantly among states.

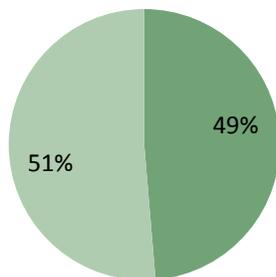
Figure 36.
Communication with AAC



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Figure 37.
**Guardians/
Parents
Understand
Results**

- Strongly Agree/agree
- Disagree/ Strongly disagree



INTERPRETIVE ARGUMENT 7

THE AA-AAS WILL HAVE A POSITIVE IMPACT ON PARENTS' INTEREST AND PARTICIPATION IN THE ACADEMIC CAREER OF THEIR STUDENT WITH A SIGNIFICANT COGNITIVE DISABILITY

Introduction of academic standards and instruction in academic areas to students with the most significant cognitive disabilities has the potential to increase parental interest and participation in a student's academic career. The survey addressed questions about parents in two areas related to this topic. First, teachers were asked if parents understood the results of the AA-AAS and what kinds of opportunities they were given to discuss results with them. The survey then posed a series of questions regarding any changes in parent interest and involvement with the students taking the AA-AAS.

Section Summary

Teachers in all three states were evenly divided when asked if parents clearly understand results of the AA-AAS in the manner in which they are currently presented. States 1 and 2 had a slight majority of teachers who selected "Strongly Disagree/Disagree" (56% and 52% respectively) while this pattern was reversed in State 3 where 55% were more likely to "Agree/Strongly Agree."

Most teachers reported discussing AA-AAS results at IEP meetings and during parent/teacher conferences. There were a small number of teachers who reported not receiving the results of the AA-AAS at all (2%). That is, even though their students took the AA-AAS, the results of the assessment were not provided to the teacher. Another small group of teachers (2%) reported that there were no opportunities to discuss the results with parents.

Teachers across the States most often selected “No Change” to questions which probed changes in parental expectations, involvement, interest, and participation (80% - 93%).

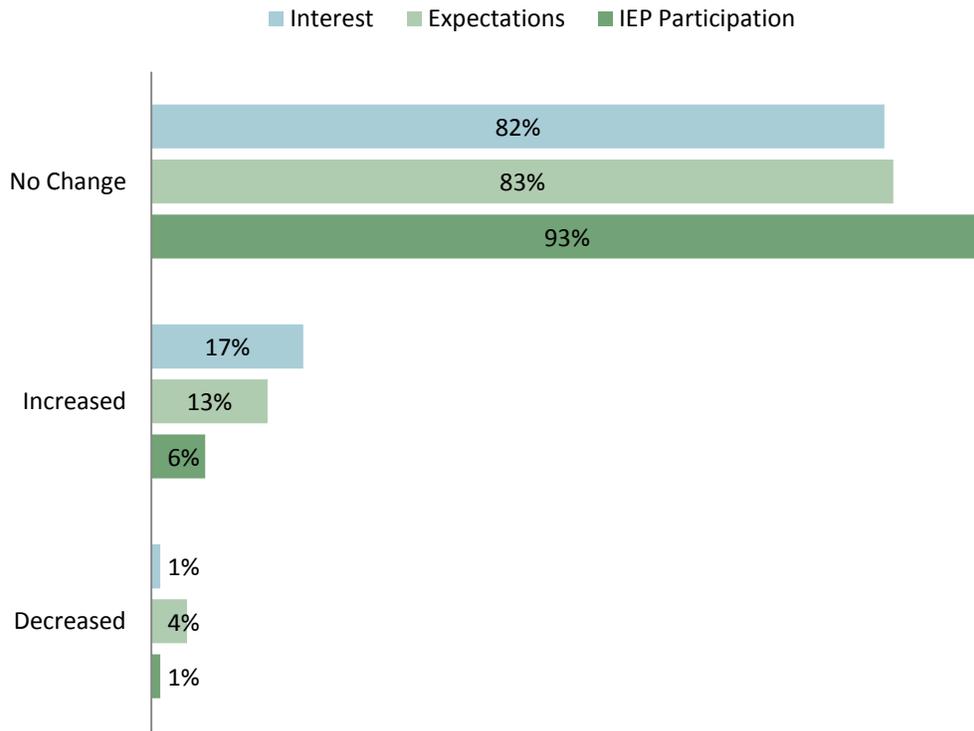
However, between 14% and 16% of teachers reported that the alternate standards and the alternate assessment had increased parent/guardian expectations at least “A Little.” A very small percentage (1% to 3%) of teachers reported that parent expectations, involvement, interest, and participation had “Decreased a Little” or “Decreased a Lot.”

While the overall number of teachers reporting changes in parental /guardian expectations, involvement, interest and participation was low, there were significant differences by state and by subject area. Teacher in State 1 were more likely to report “No Change in Expectations” in science, than teachers in States 2 and 3 ($\chi^2(4, N = 401) = 10.33, p = .04$). .

Again, cautioning that most teachers selected “No Change in Interest,” (82% - 84%), teachers were more likely to select “Increased Interest a Lot” and “Increased Interest a Little” for language arts than they did for mathematics ($t(298) = 2.15, p = .03$).

These data suggest that the AA-AAS is generating a small increase in parental/guardian interest and expectations for students with the most significant cognitive disabilities; however, for the most part, parental/guardian expectations, involvement, interest and participation are unchanged.

Figure 38.
**Changes in Parent/Guardian Expectations,
Interest and Participation**



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PERCEIVED NEGATIVE CONSEQUENCES OF THE ASSESSMENT AND STANDARDS

A study of consequential validity is not complete without an investigation of the unintended and potentially negative consequences of the assessment program (Lane, et al., 1998). During the pilot study, teachers were asked to provide negative consequences of the assessment and the standards. Common themes were identified from pilot survey responses which resulted in the development of closed-ended options.

Section Summary

Teachers were provided with a list of 5 potential negative consequences of the alternate academic content **standards**. The list of potential negative consequences was derived from the pilot surveys where teachers responded to an open-ended question about the negative consequences that they saw from the development and use of the alternate academic content standards. The answers provided by the teachers participating in the pilots were analyzed for common themes and there were five negative consequences that multiple teachers noted. For the sake of clarity, this question is provided here. If teachers agreed that the negative consequence was present, they selected that item. If they did not agree, they left the item blank.

Figure 39.

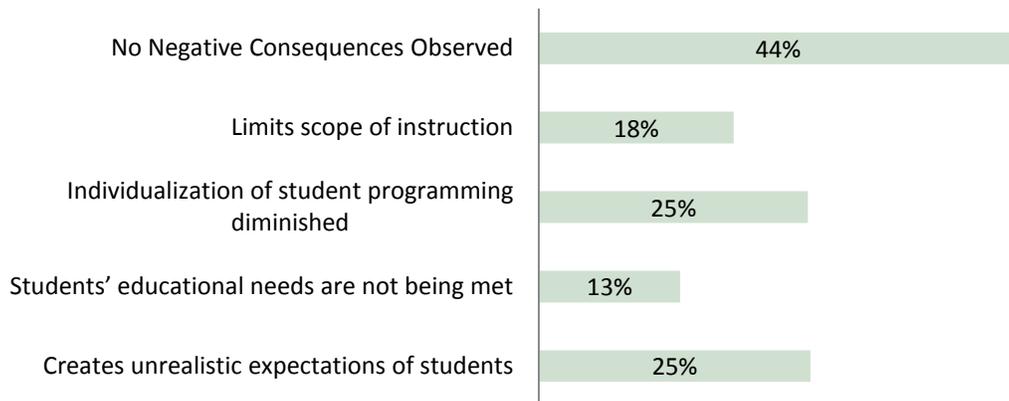
Question 22.

“What Negative Consequences Have you Observed as a Result of the Development and Use of the Alternate Academic Content Standards? Check all that apply.”

- Takes too much time away from instruction
- Doesn't demonstrate students' ability
- Provides an inaccurate profile of student's abilities
- Increases likelihood of student frustration
- Other (Please Specify): _____
- No negative consequences observed

Figure 40.

Negative Consequences of the Alternate Academic Standards

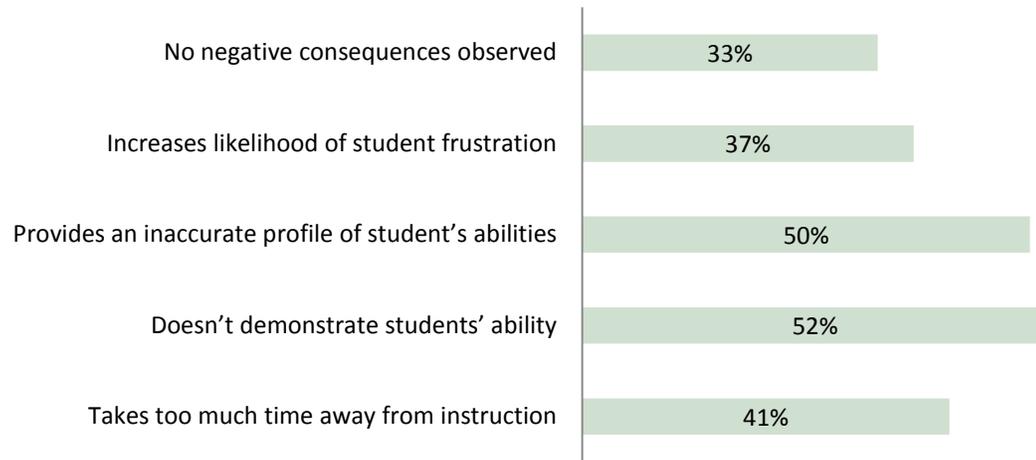


With respect to the standards, 44% of teachers responded that they did not observe any negative consequences. Of those teachers who did endorse negative consequences, the most frequently cited responses were that the individualization of student programs was diminished (25%) and that the AA-Standards create unrealistic expectations of students (25%).

With respect to the assessment, 52% of the teachers indicated that the assessment does not demonstrate the students' abilities and 50% indicated that the assessment provides an inaccurate profile of the students' abilities. Forty one percent of the teachers indicated that the assessment took too much time away from instruction. One-third of the teachers noted no negative consequences from the development and use of the assessment.

Figure 41.

Negative Consequences of the *Assessment*



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Figure 42.
Changes in Teacher Expectations

- Expectations decreased a little
- Expectations decreased a lot
- Expectations increased a lot
- Expectations increased a little
- Expectations stayed the same

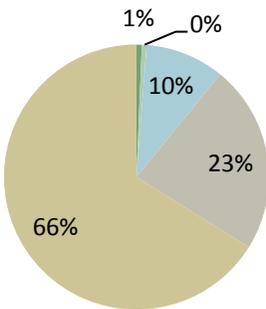
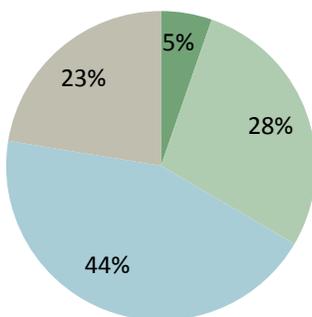


Figure 43.
Learned New Information about Students

- A great deal
- Quite a bit
- A little
- Not at all



IMPACT OF THE ASSESSMENT PROGRAM ON TEACHERS & INSTRUCTION

While the bulk of survey items were written to support specific, pre-defined Interpretive Arguments, a number of items were included to provide important feedback to states that did not fit into the framework of an Interpretive Argument. These responses provide valuable insight into some of the impacts that the AA-AAS program has had on classrooms and instructional practices.

Section Summary

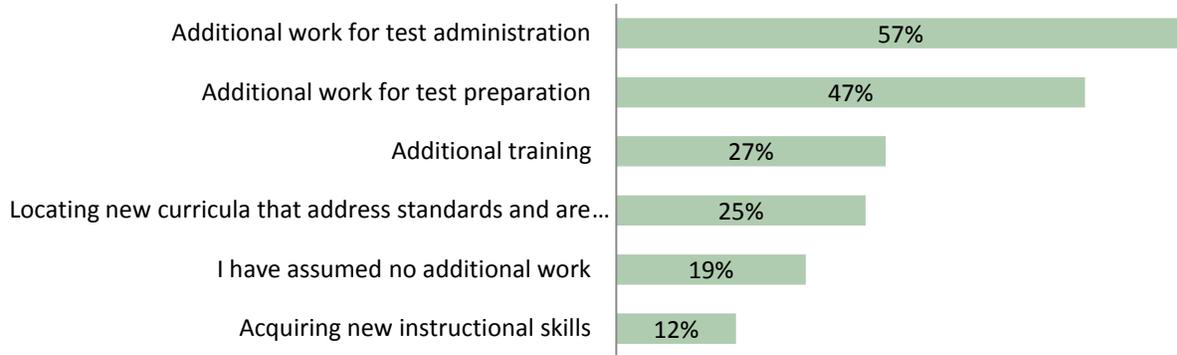
Teachers were asked if their academic expectations for their students had changed since the AA-AAS. To a large degree (66%), teachers reported no change in their expectations. However, in terms of overall direction (“Increased a Little” and “Increased a Lot”) 33% of teachers reported an increase in their academic expectations. When asked if they had learned new information about their students as a result of the AA-AAS, 44 % of teachers responded that they had learned “A Little,” 28% “Quite a Bit,” and 5% “A Great Deal.”

Fifty-seven percent (57%) of teachers indicated that they had assumed additional work for administering the AA-AAS and 50% responded that they had assumed additional work for test preparation. The lowest area where teachers reported additional work was in acquiring new instructional skills (12%).

Teachers responded that they measured student progress toward IEP goals mostly through daily class work (92%) and direct observation (91%). Seventy percent of teachers reported using quarterly reports, curriculum based measures/progress monitoring and teacher-made tests. Over half of the teachers reported using checklists and 35% reported using a portfolio. Other reported methods of measuring student progress included district assessments, commercial computerized progress software, and rubrics.

Figure 44.

Additional Work Assumed by Teachers



When asked at what level teachers were instructing their students, less than 10% of teachers reported instructing their students at grade level. Approximately 60% of teachers reported teaching students at their instructional level with lower level or significantly lower level content. However, there were differences among states. Teachers in State 3 were less likely to indicate that they were “Teaching at Instructional Level using Significantly Lower Level Content” than teachers in States 1 and 2 in language arts ($\chi^2(8, N = 373) = 30.02, p < .01$) and mathematics ($\chi^2(8, N = 373) = 30.69, p < .01$).

SUGGESTIONS FOR CHANGES TO THE AA-AAS AND STANDARDS

Section Summary

During the pilot study, teachers were solicited for changes that they would like to see to both the alternate academic content standards and the AA-AAS. The answers provided by the teachers participating in the pilots were analyzed for common themes and there were four changes that multiple teachers noted. These items were developed into closed-ended choices from which teachers could select.

For the sake of clarity, this question is provided here. If teachers agreed with the change, they selected that item. If they did not, they left the item blank.

Figure 45.

Survey Question 10

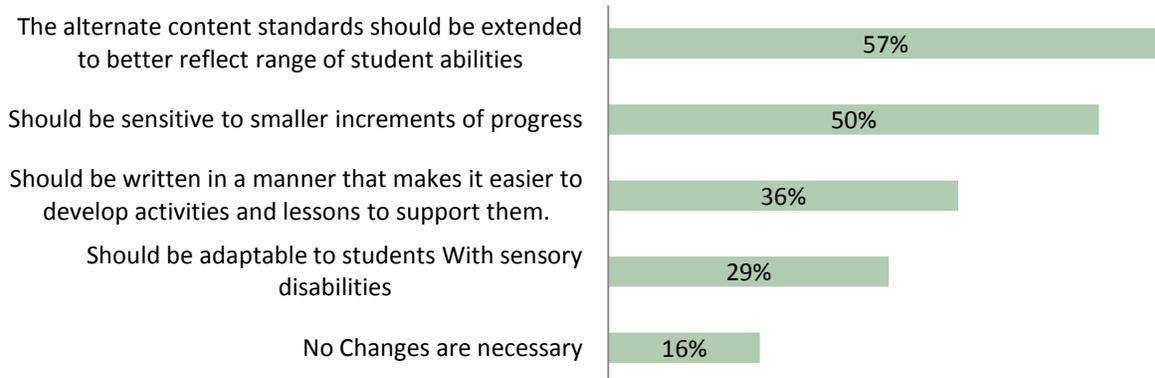
What Changes Would You Like to See to the Alternate Academic Content Standards?

- The AA-Content Standards should be expanded to better reflect range of student abilities
- The AA- Standards should be adaptable to students with sensory disabilities
- The AA- Standards should be sensitive to smaller increments of progress
- The AA-Standards should be written in a manner that makes it easier to develop activities and lessons to support them
- Other (Please specify): _____
- The Current AA-Content Standards are adequate, no changes necessary

Over half (57%) of the teachers responded that the standards should be extended to reflect a broader range of student abilities with 50% indicating that the standards should be sensitive to smaller increments of student progress. Approximately one third of teachers indicated that the standards should be written so that it is easier for teachers to develop lessons to support them, with an equal number indicating that they should be adaptable to students with sensory disabilities.

Figure 46.

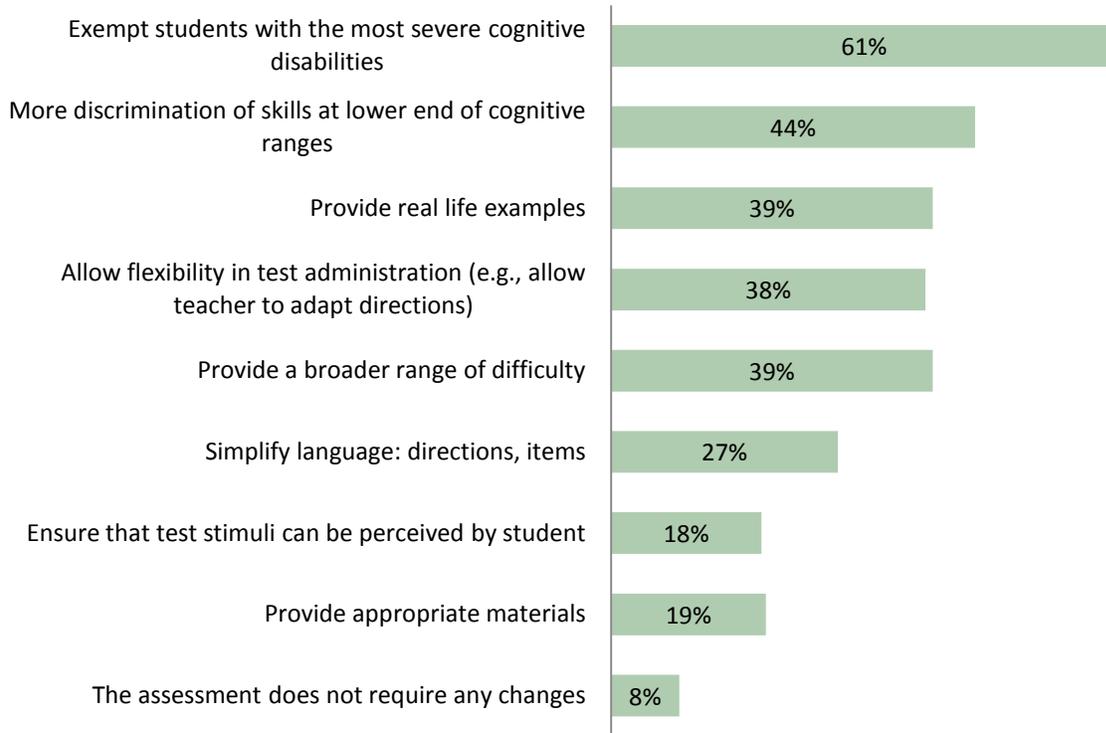
Suggestions for Changes to the Alternate Academic Standards



A similar (but not identical) list of suggestions for changes to the assessment was provided in the survey. Across all states and subject areas, on average, 61% of teachers selected the option to exempt students with the most severe disabilities from taking the assessment. There was, however, considerable variation between states, ranging from 41% in State 3 (science assessment) to 76% in State 2 (language arts).

Figure 47.

Suggestions for Changes to the AA-AAS



Other changes to the assessment that were identified by teachers were that the test should have more discrimination at the lower end of item difficulty (44%), and teachers should be allowed flexibility in the administration of items (38%). Specifically, teachers noted that the requirement to read long verbal directions was problematic for students with limited attention and receptive language.

Eighteen percent (18%) of teachers indicated that the test stimuli could not be perceived by students. Other notes suggested separating item responses for students who use eye gaze to select answers and ensuring that large print and visuals were provided.

State 3 had the highest percentage of teachers responding that the assessment did not require any changes (15%) and State 2 the lowest (4%).

Approximately 10% of the teachers wrote in other changes that they would like to see in the assessments. A small number of teachers suggested that student proficiency on AA-AAS should not be counted toward accountability measures, with a similar number suggesting that the assessment be more focused on functional skills allowing teachers to concentrate on assessing the extent to which students are achieving their IEP goals.

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DISCUSSION AND CONCLUSIONS

Despite complex epistemological issues around the subject of consequential validity—one thing is certain—that understanding consequences regarding the use of alternate assessments is critical to increasing the knowledge base for doing what is best for students with significant cognitive disabilities. Although this particular report is only a slice of a much larger and comprehensive effort to study consequential validity issues, it nevertheless yields some findings that will be important for educational practitioners and policymakers to consider as they continue to improve their AA-AAS systems. In this section, highlights of results associated with the various interpretive arguments will be discussed, along with implications for policy and practice.

The results of this survey indicate that most teachers are familiar with the purposes and administration of the alternate assessment. Moreover, they have a good understanding of which students should be eligible for the alternate assessment and utilize the context of the IEP decision-making process for this purpose. These results suggest that whatever professional development has been provided to respondents was effective in training what might be referred to as the “mechanics” of alternate assessment: administration, accommodations, and assistive technology. While understanding the mechanics of the alternate assessment is important, the results from this survey would suggest that additional professional development efforts need to be considered emphasizing how to most effectively use alternate assessments to improve instructional practices. The goal of further professional development in this area would be to improve students’ achievement of the academic content contained in the alternate academic standards.

Another focus for professional development activities should be on increasing the knowledge and understanding of administrators, especially general education administrators, in supporting teachers' efforts on behalf of their students with the most significant cognitive disabilities. Even though a majority of teachers indicated that issues related to their students with significant cognitive abilities were receiving more attention from supervisors and administrators, a number of respondents indicated that such support was lacking with regard to encouraging them to incorporate content standards in their instruction. A body of literature strongly supports the role of the principal in particular to impacting student achievement. Robinson et al. (2008) and Hallinger and Heck (1996) offer broad summaries of research which maintain that the principal's "vision and goals" are significant avenues through which student learning is impacted. To the extent that providing students with significant cognitive disabilities access to a challenging curriculum aligned with general education standards can be made a part of the vision and goals of the school principal, research supports improvement in student learning.

Further, teachers indicate that they have not received an increase in classroom materials or inclusive opportunities for their students.

Even with the need for additional professional development in how to use assessment results in the instructional process; most teachers indicated they are indeed developing instructional plans around content standards. Whereas according to the survey, few developed such plans prior to the advent of alternate achievement standards, two of three teachers indicated they are doing that now. Clearly, the results from this survey show that a consequence of alternate assessment has been in the way teachers design and implement instruction.

Over half of the teacher respondents reported that the alternate assessment has influenced their methods of teaching and the content of instruction. A continuing issue remains the lack of availability of curriculum to support teaching academic content based on alternate achievement standards. However, teachers responding to the survey who reported having access to curricula that focused on these standards, generally rated the quality as good to excellent.

The results of this survey are consistent with what has been observed by researchers over the last decade with regard to the need to increase instructional opportunities and access to the general curriculum for students with significant cognitive disabilities (Browder & Spooner, 2006; Roach & Elliott, 2006)—that teachers’ perceptions about the importance and relevance of academic instruction for students with significant cognitive disabilities can change. In this case, survey results showed that two out of every three teachers indicated they learned new information about their students as a result of the alternate assessment. These results indicate that the alternate standards and assessments are having an intended impact of broadening teachers’ perspectives of the potential academic capabilities for students with significant cognitive disabilities. Although a majority of teachers reported no observable change in either student effort or performance, about one-fourth indicated that they observed an increase.

With regard to parental involvement, expectations and interest in their student’s academic career, most teachers reported little change, especially in terms of parent participation in IEP meetings. However, 17% of teachers report an increase in parental/guardian interest regarding their interest in their student’s academic career.

Quenemoen, Kearns, Quenemoen, Flowers & Kleinert (2010) recommend that “educators persistently and systematically seek

multiple and varied communication strategies including assistive technology” so that students can actively participate in a variety of academic contexts and take part in alternate assessment activities. In this survey, it was found augmentative and alternate communication (ACC) devices and services are being increasingly used for the eligible students, and that teachers report that they are generally of high quality. Still, about 10% teachers reported that some students continued to experience difficulties in responding to academic content on the alternate assessment and in the classroom.

The results of this survey have shown many positive outcomes for students and teachers with regard to the use of AA-AAS.

Most teachers seem to have a good understanding of the purposes of the AA-AAS, how they are administered, and who is eligible to take them—the “mechanics.” In addition, evidence suggests that, as a result of using alternate assessment, many teachers have modified instructional content accordingly, incorporating alternate academic state standards. It would not be unreasonable to conclude that, in this case, policies and practices related to the use of alternate assessments continue to show progress, although much remains to be done.

One area that might be explored further is a finding related to teacher attitudes about whether participation in alternate assessments constitutes a benefit to students. Approximately 53% of teacher respondents indicated disagreement with the notion that it was important to include students with significant cognitive disabilities in assessment and accountability programs. The perceptions of those who thought students with significant cognitive disabilities should not be included on such assessments also appeared to be reinforced on items soliciting opinions about the overall quality of the assessment, whether

the assessment accurately reflected state standards and/or student classroom performance.

These results are not unlike other studies on large scale assessments and reports which show that all types of teachers (general and special educators) view accountability assessment systems with some degree of skepticism, asserting that such assessments add to student stress, are focused on learning goals that are unrealistic, and are not reflective of student knowledge (Kaufmann & Konold, 2007; Griefner, 2007). Such data suggest the need for states and districts to develop and implement strategies that provide compelling reasons why such assessments are necessary and important to student learning. This is particularly the case with teachers of students with significant cognitive disabilities where much of the focus of instruction for this population of students remains on the acquisition of functional skills.

Increasing teacher support for the alternate assessment will be challenged by several factors. One is the additional time that teachers need to devote to preparing for, administering and interpreting the results of the alternate assessment. The majority of teachers in this survey indicated they had needed to assume additional work for administering the alternate assessment and for test preparation.

Another challenge will be securing the support of school administrators. Most teachers reported they received little encouragement from building principals, curriculum and instruction personnel, and district superintendents with regard to considering state content standards in developing instruction. Clearly, states and districts will need to consider a number of professional development strategies aimed at administrators to gain stronger support for teaching alternate academic standards.

While the development and implementation of alternate assessment based on alternate achievement standards have improved in terms of measurement properties, it is evident that nagging problems persist. One is the limited difficulty range of the of the items—teachers in the survey reported that alternate assessments often lacked item discrimination for lower difficulty items. In addition, a number of teachers suggested a need to recognize the heterogeneous nature of students within the 1% population, suggesting more and varied choices needed to be made available for test accommodations and administration to reflect the needs of students. Some also raised the issue whether alternatives to standardized assessment protocols might also be considered given the diverse range of response capabilities of students with significant cognitive disabilities.

Revisiting Consequential Validity

States are required to provide evidence of the validity of their alternate assessments. Teacher survey data is one way of gathering evidence to support a validity argument around the consequences of the AA-AAS programs. However, complex questions require complex answers and an unequivocal response of yes or no in regard to each of the interpretive arguments put forth in this study is simply not an appropriate use of the data. What we can observe is the status of those aspects of consequential validity that are important to understand.

In this study we found that teachers are for the most part aware of the students who are eligible for the AA-AAS, and they are familiar with many of the aspects of the AA-AAS (particularly the mechanics). In terms of a positive attitude toward the assessment, teacher opinions hover around the 50% mark in terms of the importance of including their students in the program.

There does seem to be professional development in the field to support the administration of the AA-AAS and other aspects of the mechanics. These data suggest a positive relationship between what teacher's state they know and where they indicate they have received professional development. There would appear to be far less professional development on how teachers should teach content aligned with the AA-Standards.

In terms of curriculum and instruction being provided to support the new standards, it would appear that teachers are moving in the right direction, albeit with very little guidance or materials. The survey design is not strong enough to make causal inference; however, many questions about teaching content were written, "Since the AA-AAS..." The answers to these survey questions suggest that the AA-AAS program could be the catalyst to some of the changes that are occurring in the classrooms.

Formal curricula for 1% students have never been on a par with the abundant resources available for students in general education. Many teachers report concocting their own materials and adapting what exists in the mainstream for their students. So while the presence of quality curricula would be an indicator of consequential validity, the extent that the assessment program has shed light on this need and raised the demand for such curricula could be interpreted as a step in the right direction.

Teacher report of student effort and performance is positive. Although most teachers don't report an increase in their students' effort or performance, the survey indicates that one-fourth of the teachers do see some increase in effort and almost one third report some increase in performance.

The surveys suggest that the assessment program has been helpful in securing access to AAC. Again, the study design is not strong enough to support causal inferences, however, questions worded “Since the AA-AAS has been required, my students in need of AAC have had access to it,” imply that access to AAC has increased. However, with one-third of teachers reporting that their students do NOT have access to AAC, the assessment program has highlighted this ongoing need.

The surveys suggest that parent/guardian interest, expectations and IEP participation have remained largely unchanged. However, where there are teacher reports of changes, they are in the desired direction. Twenty-two (22%) of teachers in State 3 reported an increase in parent/guardian interest in their student’s reading.

In summary, while much work remains to be done, it would appear that the AA-AAS program is having the intended impacts. The challenge and the questions that remain are the magnitude and the sustainability of those impacts which can only be unearthed through longitudinal study.

OTHER FINDINGS/RECOMMENDATIONS

Teacher Attitudes and Beliefs – Is the Glass half Empty or Half Full

The results of the survey demonstrate that teachers of children with significant cognitive disabilities are divided in their opinions of the value of including these students in assessment and accountability programs. Unfortunately, there is no way to judge at this time whether this is an improvement, a lapse, or the status quo.

There appears to be a relationship between the level of assessment and the degree to which teachers agree that students should be included in assessment and accountability systems. Teachers of students with the *most* significant cognitive disabilities (within the 1% population) are more likely to disagree that their students should be included in assessment and accountability programs.

While most teachers did not report a change in their academic expectations overall 33% of teachers reported an increase (“A Little” or “A Lot”) in their academic expectations and 32% reported that they had learned new information about their students’ knowledge and skills (“Quite a Bit”, “A Great Deal,”) and 44% reported that they had learned “A Little.”

Multi Level Assessments

Although not an intended purpose of the study, the survey allowed us to compare responses by teachers in two States using tiered assessment systems and one state that used a single AA-AAS.

In the tiered systems, teachers are more likely to rate the difficulty level of the AA Content Standards as “Just right” than teachers from the state without a tiered system. It is also notable that teachers in the state with the un-tiered system had the highest percentage of teachers indicating that the standards were “too easy” for their students.

It would appear that a fairly large proportion of teachers believe that the assessments could be improved to more accurately measure the students’ current performance and the degree to which the students have met the standard. Survey results suggest that teachers judge the mathematics assessments as more likely to reflect the AA standards and also reflect actual student performance than the science and language arts assessment.

Differences among States and Content Area

By far, teachers from the three consortium states were more likely to be similar than different across all survey questions. There were some significant differences among states (noted in the text); however, there was no one state where teacher perceptions were more positive or negative overall. Survey responses suggest that teacher perceptions about the AA-AAS are not a function of the state assessment, but rather indicate opinions about the AA-AAS as a whole.

On any question in regard to the quality or utility of the assessments by subject area, the science assessments were more likely to be perceived as significantly different from the mathematics and

language arts assessments. In general they were perceived to be inferior in any measure for which there were significant differences.

Teachers from State 3 were more likely to “Agree/Strongly Agree” that their AA-AAS reports were an effective means of communication to parents and other educators. These data suggest that reporting formats are one area where states could learn from one another in sharing their ideas on report format.

Professional Development

Professional development should focus more on providing teachers with instructional skills for the academic content which is assessed and less on the mechanics of the AA-AAS. Further, professional development should be directed to supervisors and administrators to provide them with the skills and knowledge to support and encourage the special educators in their schools.

Curriculum

The survey indicates that when curricula are available, teachers generally rate it as “good” to “excellent.” This could suggest that curriculum development would be a worthwhile endeavor for districts.

AAC

Survey results indicate that there are still many students who need AAC, but do not have access to it.

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