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ABSTRACT

The 1997 amendments to the Individuals with Disabilities Education Act (IDEA) required that states provide alternate assessments for students unable to participate in the statewide assessment systems (e.g., those with severe disabilities). IDEA mandated that alternate assessments access the general curriculum. This study examined the curricular focus of alternate assessments. A content validity procedure was used to examine alternate assessment performance indicators in mathematics, language arts, and functional skills from 42 states. Experts in mathematics, language arts, severe disabilities (n=30), and a group of stakeholders (5 teachers and 4 administrators) examined the alignment of the performance indicators to national standards and the general curriculum. Results suggest it is possible to create assessments for students with severe disabilities that access the general curriculum and reflect national mathematics and language arts standards and are acceptable to stakeholders; however, many states' alternate assessments were not accessing the general curriculum. This confusion is reflected in both the variation across states' examples of extended standards and the reactions of stakeholders and experts to them. Direction for improvement of alternate assessment practices is provided. (Contains 57 references.) (Author/SLD)

RUNNING HEAD: Curricular Implications of Alternate Assessments

Curricular Implications of Alternate Assessments

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Abstract

The 1997 amendments to IDEA required that states provide alternate assessments for students unable to participate in the statewide assessment systems (e.g., those with severe disabilities). IDEA mandated that alternate assessments "access the general curriculum." This study examined the curricular focus of alternate assessments. A content validity procedure was used to examine alternate assessment performance indicators in math, language arts, and functional skills from 42 states. Experts in mathematics, language arts, severe disabilities, and a group of stakeholders (i.e., teachers and administrators) examined the alignment of the performance indicators to national standards and the general curriculum. Results suggest that it is possible to create assessments for students with severe disabilities that access the general curriculum and reflect national math and language area standards and are acceptable to stakeholders; however, many states' alternate assessments were not accessing the general curriculum. This confusion is reflected in both the variation across states' examples of extended standards and the reactions of stakeholders and experts to them. Direction for improvement of alternate assessment practices is provided.

Curricular Implications of Alternate Assessments

Curriculum, the content of instruction, has been one of the most controversial areas in education because determining what students will learn in school reflects both educational philosophy and societal values (Doll, 1996; Queen, 1999) As societal perspectives change, so too does the focus of school curriculum. One of the strongest current influences on curriculum is the school accountability movement. Nearly all states have curriculum standards and most have statewide assessments to address the extent to which the standards are being met.

Since the 1997 amendments of IDEA, students with disabilities must be included in statewide assessment systems. IDEA required that as of July 2000, states provide an alternate assessment for students unable to participate in the statewide assessment system. Most students with severe disabilities (severe mental retardation, multiple disabilities, severe autism, deaf-blindness) require an alternate assessment. The interesting question that arose in the creation of alternate assessment was the curriculum to be used as its foundation (i.e., academic or functional). Societal perspectives about individuals with severe disabilities have changed dramatically in the last three decades with concurrent shifts in curricular focus.

Developmental Models

In the mid-1970s, when federal law (PL 94-142) established the right for all students with disabilities to have a free, appropriate education, many schools created their first services for students with severe disabilities. In the absence of a curriculum model for these new services, professionals adapted preexisting infant and early childhood curriculum for K-12 students. This approach, known as the "developmental model" was based on the assumption that the educational needs of students with severe disabilities could best be met by focusing on their mental age as derived from a developmental assessment. Early textbooks emphasized early

childhood skills like Piagetian cognitive stages and self-care (Bricker & Iacino, 1977; Robinson & Robinson, 1983; Stephens, 1977). Researchers demonstrated methods to teach skills with many studies being conducted in institutions for individuals with mental retardation (e.g., Azrin & Armstrong, 1973; Azrin & Foxx, 1971; Azrin, Schaeffer, & Wesolowski, 1976; Gold, 1972).

Functional Models

In a classic paper, Brown, Nietupski, and Nietupski (1976) challenged the field to reject the developmental model and instead use the "criterion of ultimate functioning" in the community to select skills based on current and future environments. The Pennhurst decision (*Haldermann v. Pennhurst State School and Hospital, 1979)* and other landmark deinstitutionalization cases of this era resulted in a large population of individuals with severe disabilities moving into community contexts. During the 1980s, many new community alternatives emerged for individuals with severe disabilities. Brown, Bronston, Hamre-Nietupski, Pumpiam, Certo, & Gruenewald (1979) introduced the term "functional" to refer to a new curriculum model that promoted community access by targeting skills needed to function in daily life. Brown et al. (1979) described four "domains" of functional skills- community, recreation, domestic, and vocational that became the new content areas for curriculum. The shift in thinking about curriculum was widespread. Most textbooks and resources on curriculum published in the 1980s and early 1990s used functional life domains as chapter organizers (Browder, 1987, 1993; Falvey, 1986; Snell, 1983, 1987, 1997; Cipani & Spooner, 1994; Westling & Fox, 1995.*)*. Westling and Fox (2000) cite 18 authors from this era who emphasized this shift to functional skills. Most intervention studies in the late 1980s and early 1990s focused on functional life skills (Nietupski, Hamre-Nietupski, Curtis, & Shrikanth, 1997.) By the late 1980s, strong consensus had emerged among professionals that curriculum should focus on age appropriate,

functional skills (Meyer, Eichenger, & Park-Lee, 1987.) Thus, the shift from a developmental model to a functional curriculum model was *transformational* (i.e., a paradigm shift.)

During this era, curriculum guides also emerged that provided resources for planning functional skills instruction. An interesting feature of these guides was the assumption that not all students would learn all skills listed, but rather, a prioritization process was presented for selecting a subset of skills (Ford, Davern, Meyer, Schnorr, Black, & Dempsey, 1989; Giangreco, Clonginger, & Iverson, 1993; Wilcox & Bellamy, 1987.) Thus, in contrast to the scope and sequence found in general education curriculum, functional curriculum guides were viewed as "catalogs" from which to select priority skills. Knowlton (1998) described this need for curriculum for students with severe disabilities to be "personalized." Students' Individualized Education Plans (IEPs) became the tool for defining these individual curricular priorities.

Additive Models

Some other changing societal perspectives, created *additive* curricular priorities, but did not totally shift the primary focus on functional skills. In the 1990s, many new resources emerged on how to include students with severe disabilities in general education schools and classrooms with a strong emphasis on social inclusion (e.g., Certo, Haring, & York, 1995; Downing, 1996; Haring & Romer, 1995). By the mid-1990s, research (Nietupski, et al., 1997) and textbooks (Cipani & Spooner, 1994; Ryndak & Alper, 1996) reflected this new interest in social inclusion.

Complementing both community and school access was an *additive* curricular focus that promoted student self-determination. This was reflected in growing resources on honoring student preferences through person-centered planning (Mount & Zwernik, 1988; O'Brien, 1987), offering choices during daily routines (Brown, Belz, Crosi, & Wenig, 1993), and teaching

students self-determination skills like goal setting and problem solving (Wehmeyer, Agran, & Hughes, 1998). A large body of research emerged on preference assessment (Lohrmann-O'Rourke & Browder, 1998), choice making (Kern, Vorndran, Hilt, Ringdahl, Adelman, & Dunlap, 1998), and teaching self-determination skills (Hughes, Korinek, & Gorman, 1991.) Textbooks provided more emphasis on self-determination in curriculum planning (Browder, 2001; Snell & Brown, 2000; Westling & Fox, 2000).

With continued efforts to promote school inclusion, finding ways for students to participate in the general curriculum also became an additive curricular focus (Downing, 1996; Ryndak & Alper, 1996). Giangreco et al. (1993) described two basic approaches to adjusting the general educational program. The first was "multilevel curriculum" in which students would learn the same curriculum content, but with different expectations for outcome. For example, in a second grade social studies lesson on their neighborhood, some students might focus on naming community helpers, while others provide information on where they live in the community (e.g., street address.) In the second option, "curriculum overlapping" students learned functional or social skills in the context of an academic lesson. For example, a student with severe disabilities might be included in a biology or French class to receive exposure to the general curriculum, but with expectations for learning social skills like turn taking. A few studies have emerged that demonstrate how students can learn functional curriculum in general education classes (e.g., Hunt, Staub, Alwell, & Goetz, 1994), but much more literature is available on the social benefits of inclusion (Cole & Meyer, 1991). In general, while there are resources describing general curriculum access, there currently is minimal guidance from research on how to achieve this access for students with severe disabilities.

Linking Curriculum to Assessment

The 1997 Amendments of IDEA had two requirements that created the need for educators to determine what the curriculum focus should be for students with severe disabilities. Not only did the law mandate the use of alternate assessments, but it also required access to the general curriculum. Given the widespread adoption of a functional curriculum focus, it is not surprising that many states first developed their alternate assessments to evaluate performance of functional skills (Thompson & Thurlow, 2001.) In surveying national experts to validate the performance indicators for alternate assessment, Kleinert and Kearns (1999) found consensus for focusing on functional skills. In fact, the highest rated performance indicators in order were integrated environments, functionality, age appropriate, and choice-making reflecting the curricular foci of the last two decades. In contrast, nine of the 44 respondents questioned the focus on functional domains and suggested instead using general academic content areas as vehicles for achieving functional outcomes. As a result of this validation, Kentucky changed the focus of their alternate assessment from functional life domains (personal management, recreation/leisure, and vocational) to academic domains that mirrored the general curriculum (language arts, math, science, social studies, and either arts/humanities or physical education.) By 2001, most states were using state standards (typically academic) as the basis for their alternate assessments or linking functional skills to these standards (Thompson & Thurlow, 2001). Thus, alternate assessment seemed to reflect a potential shift in thinking about curriculum for students with severe disabilities. States struggled with whether students with severe disabilities were in a separate functional curriculum or in the general curriculum with adaptations or both.

Early resources on alternate assessment stressed the need for this process to be linked to the state's standards and access the general curriculum (Kleinert & Kearns, 2001; Thompson, Quenemoen, Thurlow, & Ysseldyke, 2001.) Between 1998 and 2001, many states began developing curriculum guides that described how to extend state standards giving examples of skills to be targeted for alternate assessment. These "extended standards" examples provide an important resource for understanding curriculum for students with severe disabilities. Some states created these extended standards only for academic content areas (e.g., language arts, math), some organized them by functional domains (e.g., personal management, community skills), and some did both (Browder et al., 2002). These organizational structures suggest a tension between the widespread adoption of a functional curriculum approach and the newer concept of access to general curriculum for students with severe disabilities. Is access to the general curriculum *transformational* like the shift that occurred from the developmental model? Is it *additive* like the recent focus on social inclusion and self-determination? Or is it *cosmetic* in simply renaming the same functional skills as access to general curriculum?

The purpose of this study was to examine the alignment of the content on alternate assessments to academic standards and functional life domains. Data were collected from content experts and stakeholders who reviewed the examples of extended state standards provided in states' alternate assessment materials. We limited our focus to math and language arts because if a state had used an academic content area for extensions, these were the ones most often represented. Our theory was that curriculum transformation would be evident if these examples reflected national reading and math standards and were credible to stakeholders as "really math" and "really language arts." The impact on curriculum would be additive if the examples not only reflected math and language arts standards well, but also continued to represent functional

curriculum and chronological age appropriateness. In contrast, a cosmetic change would be listing functional skills under the headings of math or language arts that did not align with national standards and were not credible to stakeholders as reflecting these content areas.

Method

We used a method suggested by Crocker and Algina (1986) for conducting a content validation study that included the following steps: a) defining the performance domains of interest, b) selecting a panel of qualified experts, c) providing a structured framework for the process of matching items to the performance domain, and d) collecting and summarizing the data. The research questions of interest were:

1. Are alternate assessments aligned to national math standards?
2. Are alternate assessments aligned to national language arts standards?
3. Are functional performance indictors on alternate assessments aligned to general curriculum?
4. Do functional performance indicators on alternate assessments reflect the major life domains?
5. What age or grade levels are reflected on alternate assessments?

The following sections describe the method used for defining the performance domains and sampling performance indicators, selecting the expert reviewers, developing the framework for the curriculum alignment review, and collecting and summarizing the data.

Defining the Performance Domain and Sampling Performance Indicators

States' alternate assessment systems were reviewed to determine the domains represented in them. All states that clearly included mathematics, language arts, or functional performance domains were included in the sample. This process yielded sets of skills from a total of 42 states,

including 27 in mathematics, 27 in language arts, and 15 with functional performance domains. Some states' alternate assessments included additional academic domains (e.g., science, social studies). These were excluded from the study.

Even though states used varying labels to describe their most basic level of skills included in their alternate assessments, we refer to these as "performance indicators" for clarity and consistency. A sampling strategy was designed to produce a representative sample of performance indicators for each state. Because the researchers wanted to generalize the findings across states, a stratified random sampling method was used. All the performance indicators were identified for each state by domain (i.e., mathematics, or language arts, or functional), then a sample size was determined that would adequately represent that population (Krejcie & Morgan, 1970). The number of indicators selected from each state was dependent on the total number of indicators provided by the states. For example, if a state had 2,000 indicators 322 indicators were randomly selected. The indicators were organized by state, but the names of the states were replaced with pseudonyms before being sent to the reviewers. Each state's indicators were listed on separate pages with pseudonyms substituted for the name of the state. A total of 1,684 indicators were sampled from the mathematical domain, 1,759 were sampled from the language arts domain, and 1,564 were sampled from the functional domain.

Selection of Expert Reviewers

To obtain diverse views about the alignment of alternate assessment performance indicators to performance domains, multiple groups were asked to serve as reviewers, including experts in severe disabilities, mathematics, and language arts; special education teachers, administrators, and parents. University experts from across the United States in the areas of mathematics, language arts and special education (whose research focused on functional

curriculum for students with severe disabilities) were nominated by the researchers to serve as expert reviewers. Teachers, administrators, and parents who serve on an advisory council for this and another alternate assessment project were asked to serve as a group of stakeholder reviewers.

Because of the amount of work that would be required, experts were contacted by phone to ask if they would volunteer to review the performance indicators and respond to a brief survey. A total of 30 experts, 10 in each domain (mathematics, language arts, and functional), agreed to participate and were mailed the list of indicators, instructions, and a survey. Expert reviewers were only sent the set of performance indicators that corresponded with their area of expertise. In other words, an expert in the area of mathematics was mailed only the mathematics performance indicators. An expert in severe disabilities was sent the functional performance indicators.

The group of stakeholder reviewers was provided all three sets of performance indicators, along with the corresponding surveys and verbal instructions for completing the review. A total of 5 teachers and 4 administrators agreed to review the skills. Parents were initially invited to participate, but none were able to complete the surveys.

Curriculum Alignment Review Procedures

Because of the large number of performance indicators within each domain across 42 states, a less structured method was used to investigate the alignment of skills to standards. Reviewers were instructed to initially read the research questions and performance indicators without analyzing, then reread and begin the analyses. Because of the volume of indicators included in the packets for each domain, reviewers were asked to make a holistic judgment about the alignment of the performance indicators to the performance domains. To help illustrate the

rationale for their responses, reviewers were asked to provide examples of specific indicators and states that were clearly aligned to the domains and those that were not aligned. Reviewers were also asked to indicate the age or grade level(s) that best corresponded to the performance indicators. This study, as many qualitative studies, is dependent on the interpretive capacity of the reviewers.

Collecting and Summarizing the Data

The first step in summarizing the data involved a half-day session in which stakeholders discussed their survey responses. Small groups were formed by area of expertise and asked to review the results. They documented their agreement and disagreement with results and were asked to probe into characteristics of the indicators that were aligned to academic standards and characteristics of indicators that were not aligned. The small groups then discussed their findings as a larger group, and a preliminary set of common themes was developed.

Three experts, one with expertise in each performance domain, reviewed and summarized all of the survey responses from their expert reviewers. Stakeholder responses were summarized separately for each of the three domains by one of the project researchers. Summaries for each group were presented in another half-day session to stakeholders and the research team.

After all the survey data were summarized, results for each set of experts were presented by an expert in mathematics, an expert in language arts, and an expert in severe disabilities. A member of the research team presented a summary of the stakeholder survey results. A panel including two national experts in alternate assessments, four special education professors, two state department of public instruction representatives, and the stakeholder group were asked to review and help interpret the results. Disagreements between the groups were probed for a better

understanding of each group's perspective. The next day a smaller subgroup met to discuss implications of the alternate assessments.

Results

The results are presented in order of the research questions. Data used to investigate the research questions were collected through the surveys, focus groups, and panel discussions.

Are Alternate Assessments Aligned to National Math Standards?

On the surveys 86% of math experts and 70% of stakeholders indicated that some states' lists of performance indicators were clearly linked to mathematical standards. Both the expert and the stakeholders identified two states, South Dakota and Colorado, which clearly linked their performance indicators to math standards. Discussion groups agreed that Colorado was an exemplar state in aligning alternate assessment performance indicators to math standards. On the survey, math experts identified features of the performance indicators that illustrated a better alignment to math standards, including an emphasis on math skills and process standards, and that the indicators were well written and comprehensive. Stakeholders identified the high quality indicators as being "functional skills representing a wide range of levels of ability." We judged this to be evidence of an additive model of curriculum development. Some examples of Colorado's performance indicators in math were" "make and read simple graphs representing meaningful information and relationships", "demonstrate a beginning sense of measurement (e.g., big, little, heavy, light, etc)", "match number symbols with appropriate amount" and "find months and dates on the calendar."

Eighty-six percent of math experts and 100% of stakeholders said that performance indicators for some states were clearly not aligned to math standards. Reasons for identifying indicators as not being aligned to math standards included that they were too broad or too

limited; that they were vague; and that they were more vocational or communication goals than mathematical standards. As one stakeholder remarked on her survey,

> [This state] seems to really push the limit as far as what is considered a math competency. It's like they had an idea and kept going with that idea, but then it got away from the mathematical concept.

Some examples of poor indicators of math indicators were "trim fingernails and observe the growth of the nails over a month" and "grow a plant and observe its changes from seed to plant."

There were some disagreements between experts and stakeholders about states that did a good or bad job linking performance indicators to mathematical standards. For example, 29% of experts and 40% of stakeholders listed one state as being a good example, but 20% of experts and 40% of stakeholders listed the same state as being a bad example of alignment of performance indicators to math standards. It is possible that the mixed endorsements of this state was due in part to the fact that this state had the most indicators listed, and that the state was the sixth in a packet of 27 states to be considered.

Are Alternate Assessments Aligned to National Language Arts Standards?

Eighty-six percent of language arts experts and 100% of stakeholders that responded to the survey indicated that some states' lists of performance indicators were clearly aligned to language arts standards. One state identified as clearly linking its performance indicators to language arts standards was Arizona. Language arts experts identified features of the performance indicators that illustrated a better alignment to language arts standards, including that the indicators clearly identified specific behaviors of the students, and went beyond physical consciousness. Language arts experts also noted that states' good examples of performance indicators included a good scope and range of skills that included all four domains of language

arts (speaking, listening, reading, and writing). As one expert noted while evaluating Arizona's indicators,

> I am impressed by these because they...discriminate among those children that meet the standard and those that do not. They are not so broad, general, vague, or unclear that nearly all children could pass; they are not so specific, narrow, isolated, or idiosyncratic that they would be applicable to only certain children.

As with the math domain, stakeholders identified the high quality indicators as being functional and related to basic life skills. Some example of Arizona's performance indicator aligned to language arts standards were" "copy letters (e.g., using computer keyboard, Braille, or print), "tell story about objects/pictures", "identify main characters", "recognize name", "match picture to word", "make lists (e.g., pictorial/word shopping list)" and "answer questions related to a sequence of events."

Sixty-seven percent of language arts experts and 78% of responding stakeholders said that performance indicators for some states were clearly not examples of language arts standards. Reasons experts identified indicators as not being aligned to language arts standards included that they were too limited (e.g., to verbal/nonverbal communication), vague, or general; that they were "kindergarten level"; and that they lacked representation of all four domains of language arts (i.e., speaking, listening, reading, and writing). One expert pointed out that poor examples of some states' performance indicators combined activities with standards, presuming that "any activity that involves language is a language activity." One indicator that exemplified this point is "Searches for book that has been misplaced."

There were some disagreements between experts and stakeholders about states that did a good or bad job linking performance indicators to language arts standards. For example, 40% of

stakeholders listed one state as being a good example, but 71% of experts and 30% of stakeholders listed the same state as being a bad example of alignment of performance indicators to language arts standards. It is possible that the mixed endorsements of this state was due in part to the fact that this state had the most indicators listed, and that the state was the ninth in a language arts packet of 27 states to be considered.

Are Functional Performance Indictors on Alternate Assessments Aligned to General Curriculum?

Forty percent of severe disability experts and 71% of stakeholders indicated that some states' lists of functional performance indicators were clearly aligned to the general curriculum. In contrast 60% of experts in severe disabilities stated that the states did not do a good job of accessing the general curriculum with their performance indicators.

Several of the stakeholders were hesitant in answering this question, stating that they were uncertain of what the general curriculum was. During the focus groups, stakeholders pointed out that they were never trained or had never been provided a copy of the general curriculum. As one stakeholder said "There is a general lack of knowledge about what the curriculum is."

One state, Connecticut, was identified by both experts and stakeholders clearly identified as doing a good job of accessing the general curriculum. Experts pointed out that the indicators addressed literacy and numeracy and it was easy to see the alignment between the functional skills and academics. Stakeholders also noted the link between functional academic indicators and the general curriculum was clear, with indicators providing detailed descriptions of objectives that were tied to future personal independence (e.g., "Indicate a choice that distinguishes between healthy and unhealthy foods.")

Do Functional Performance Indicators on Alternate Assessments Reflect the Major Life Domains?

Seventy-five percent of the severe disability experts and 88% of stakeholders indicated that some states' lists of performance indicators reflected the major life domains. Experts and stakeholders cited two states, Arizona and Connecticut, as being examples of states whose performance indicators did a good job of reflecting the major life domains. The experts and stakeholders noted that the performance indicators in these states were clear, gave good examples, equally addressed all the life domains, and set high expectations for students. A stakeholder remarked about one of the states with good examples by noticing the following: "[this state] starts with simple, lower level skills and covers the gamut from self-help, communication to vocational and social skills."

There was no consensus between any of the reviewers concerning states that were over or under representing some of the major life domains. Most experts and stakeholders tended to comment on the poor quality of the performance indicators. One expert wrote, "These indicators are biased toward academics...or daily/community living...but not the full range." During the focus groups, both the experts and the stakeholders noted that some of the indicators were passive (e.g., "tolerates face being washed"), or therapy-oriented (e.g., "lifts head," "reach and grasp").

What Age or Grade Levels are Reflected on Alternate Assessments?

Among those who reviewed mathematic indicators, 100% of experts and 20% of stakeholders labeled the indicators as representing skills appropriate for elementary grades. The remaining 80% of stakeholders showed no clear agreement on the range of grades or ages represented by the states' performance indicators. Fifty-seven percent of language arts experts

and 33% of stakeholders described the performance indicators as representative of skills appropriate for preschool or lower elementary grades. Other respondents indicated they were unsure about the age range, or that it varied greatly from state to state. Forty percent of experts in severe disabilities and 67% of stakeholders stated that the states' functional performance indicators were addressed skills for students of all ages. The remaining responses varied with regard to the specific age or grade ranges represented in the indicators, but responses tended toward lower elementary grades, especially kindergarten. Stakeholders identified some performance indicators as not age appropriate for school-aged children, but aimed towards infants or young children.

Discussion

Our findings suggest that the current curriculum trend for students with severe disabilities is not to replace functional curriculum with adapted general curriculum. The work to extend standards does not seem to be a transformation from one curriculum philosophy to another as was the shift from adapting early childhood curriculum to a functional curriculum. All three states whose standards were embraced by both stakeholders and experts found a way to blend functional and general curricula. Wehmeyer et al. (2001) advocate that access to the general curriculum does not mean that all students with disabilities will learn *only* the general curriculum; this would be incompatible with their legal right for an individualized education plan. But traditionally some students have had *no* access to the general curriculum because the focus was on an alternate, functional curriculum. Our stakeholder group noted that some special educators are not even familiar with the general curriculum.

The work to extend state content standards to define performance standards for students with severe disabilities seems to reflect a move towards an additive curriculum model. Some

states have retained the functional curriculum and added (or threaded) the academic curriculum. What is interesting is that the three states identified by experts and stakeholders as having the best access to general curriculum used different frameworks to achieve this threading.

In a related study, Browder et al. (2002) conducted a document analysis to identify how states categorized the performance indicators for the alternate assessment. Colorado used two curricular categories for its alternate assessment- reading/writing and math. After task analyzing their content standards into 173 benchmarks, they defined 10 subcategories of skill areas. Two of these categories stemmed directly from reading/writing and math. The other 8 were "access skills" including communication, decision making/ problem solving, self-advocacy/self-determination, inter/intrapersonal, organization, physical, technology, and career development. The end results were performance indicators with a more traditional academic flavor like "Identify solid geometrical figures"; ones with a more functional focus like "Use coins and bills"; and others that were access skills like "Convey a message understood by another person" and "Participate in class discussion." Thus, Colorado began with two categories from the general curriculum and threaded functional and access skills into these.

Arizona, a state nominated as strong in language arts and use of functional domains, used a different approach by choosing nine academic categories and four functional categories to create performance indicators for the alternate assessment. Arizona's examples ranged from simple skills like "Rotate pictures/books to correct left/right and up/down orientation" to more complex academic responses like "Anticipate patterns in a familiar story." The end result was 188 functional indicators, including reading and math, and addition 3,030 indicators for nine general curriculum areas. In contrast, Connecticut, a state nominated for good access to the general curriculum in our study, used a functional curriculum to develop performance indicators

but organized these by language arts/communication and math/quantitative skills. Whether a state began with state standards and extended them (Colorado), began with a functional curriculum and linked back to academic standards (Connecticut), or did both (Arizona) all produced performance indicators that our experts and stakeholders considered to reflect good access to general curriculum.

Has Anything Changed?

Nolet and McLaughlin (2000) note that special education students have had a history of receiving an alternate curriculum. This alternate curriculum may have been outlined in a guide (e.g., functional curriculum guide) or created through the IEP. They propose that access to the general curriculum may involve accommodations or modifications. In contrast, an alternate curriculum has separate content and goals from the general curriculum. Educators traditionally have utilized an alternate curriculum for students with severe disabilities. In the earliest days of educational services, this was an adaptation of early childhood curriculum. With the focus on community access, curriculum thinking shifted to a focus on functional curriculum. Self-determination and social inclusion were more processes of instruction than content. Through offering opportunities for interaction with nondisabled peers and choice, teachers could incorporate these philosophies while continuing to teach functional skills. Billingsley and Albertson (1999) warned educators not to drop functional skills instruction in the push towards social inclusion. Before alternate assessment forced educators to think about state standards, access to the general curriculum could also be achieved by teaching students functional skills in the context of general curriculum activities. One popular approach was to create a matrix to show how to embed the student's IEP goals into general education classes (Downing, 1996). Some experts in severe disabilities laid the groundwork for the current era by describing how to focus

on the same content, but with different expectations for performance (Downing, 1996; Ryndak & Alper, 1996; Snell & Brown, 2000.) Some experts proposed the use of "critical or access skills" like communication and choice making that have applicability across multiple content (Grisham-Brown & Kearns, 2000).

Mehran (1998) concluded that if stakes are high enough, and if teachers deem content appropriate, there would likely be a shift in the curriculum and instruction to the content sampled by the test. Overall, our findings suggest that experts and stakeholders accept performance indicators that blend functional and general curriculum. This seems to suggest a trend towards blending these two types of curricula for students with severe disabilities. Our findings do not support that states overall have achieved this blend nor that the indicators are relevant for all students. The participants found "bad examples" across and within states of skills that were not really math, not really language arts, or not functional. The stakeholder focus groups also expressed the view that the performance indicators were not relevant for students with the most severe disabilities. Most of the math and language arts examples also had been derived from the early grades, which may make them not "age appropriate" for secondary students with severe disabilities. What we do seem to have emerging are some good examples of how to retain the traditional focus on functional skills for students with severe disabilities while also accessing the general curriculum. We also still need to enhance the quality of the examples of extended standards so that they meet the dual priorities of being both representative of the content area and relevant for students with severe disabilities.

Limitations

In interpreting these results it is important to realize that the focus of this study was only the performance indicators states used to provide examples of standards to be assessed. We did

not address the format or quality of the alternate assessment itself. Thompson and Thurlow (2001) found that states developed a variety of formats for the alternate assessment. Most have used a portfolio while others used a checklist or some form of IEP analysis. A limitation of our research is that we did not examine the alternate assessment itself to determine if the curriculum reflected in the performance indicators was also reflected in the assessment itself. One reason this would have been difficult is that many states allow teachers to determine the specific content of the alternate assessment. Consistent with the view that curriculum for students with severe disabilities must be personalized (Knowlton, 1998; Wehmeyer, Lattin, & Agran, 2001), most states specify the content areas and standards to be assessed, but allow teachers the option of defining what skills address these standards (Browder, et al 2002). A few seem to have moved away from this perspective by using a checklist of skills that most be completed for all students. Connecticut, one of the states identified as having strong access to general curriculum, uses this checklist approach. In contrast, Colorado uses performance on specified standards and Arizona uses a combination of a checklist, parent questionnaire and activity-based performance assessment.

A second limitation was that we focused on the performance standards to be used for the alternate assessment. Most states have two types of standards- content standards and performance standards. Content standards set the broad curriculum goals; whereas, performance standards translate that content into specific knowledge and skills that students are expected to demonstrate (Nolet & McLaughlin, 2000). During the stakeholder focus group, there was some discussion about whether or not the group should be looking at the content standards from which the performance indicators had been derived. Our perspective was that these content standards typically were the states' academic standards. Our interest was whether the performance

standards themselves specified for students with severe disabilities bore any resemblance to general curriculum. Cuban (1992) notes that there are three levels of curriculum- the *intended* curriculum, the *taught* curriculum, and the *learned* curriculum. While the content standards are the *intended* curriculum for all students, the performance indicators are more likely to be the *taught* curriculum for students with severe disabilities. These indicators were also sometimes several levels of translation form the original content standards. Browder et al. (2002) found that states varied in how they translated content standards into performance indicators for the alternate assessment. Some used as many as five levels of task analysis extending the standard to reach the performance indicator. For example, Kansas defined the general standard, extended standard area, benchmark, indicator, and a clarifying example. For all states, we chose the most specific level for review. If the participants had had all levels of extension or the content standard, their perspective may have differed.

Given these limitations, the contribution of our study is in describing how the states' examples of extended standards reflect curriculum philosophy for students with severe disabilities. Most states developed the standards to be used for the alternate assessment through a group consensus process with stakeholders that included special educators, parents, and general educators (Thompson & Thurlow, 2001). Through our firsthand experience in this process for our own state, interactions with colleagues from other states, and the discussion article of Ford, Davern, and Schnorr (2001) we realized that alternate assessment was creating the need to discuss curriculum philosophy for students with severe disabilities. This study was the first to explore curriculum as reflected in performance indicators for alternate assessments for students with severe disabilities.

Recommendations for Alternate Assessment Practices

States need to be involved in ongoing quality enhancement of the performance indicators used for alternate assessments. Two questions that we propose planning groups ask when revising performance indicators are: 1) Is this skill clearly aligned with the content area it is purported to assess? and 2) Is the performance indicator meaningful to the lives of students with severe disabilities? In our study, content area experts in math and language arts identified some performance indicators as aligned with national standards; and others as not being representative of their disciplines. Similarly, states need to involve content area specialists in validating the performance indicators used in alternate assessments. Extending state standards in content areas to be applicable for students with the most severe disabilities is a complex task. Once examples are generated, submitting them for review to content area specialists can help ensure that the intended curriculum (e.g., math, language arts) is reflected in items to be assessed. Performance indicators also need to be validated by stakeholders and experts in severe disabilities as relevant and applicable. For example, a performance indicator like "Can develop a written paragraph containing a topic sentence, supporting ideas, and contributing ideas" describes the focus of many statewide writing assessments or even college writing courses versus being applicable to alternate assessment. In contrast, performance indicators like "Trim nails and observe growth of nails over the month" may focus on trivial, isolated skill and "enjoys riding in a car" sets the low expectation of only passive responding. Ongoing work is also needed to ensure that what is actually assessed reflects the standards. States that specify the specific items to be assessed (e.g., through a checklist) can specify the link between each of these performance indicators and the state standard it addresses. In contrast, specifying the exact skills to be assessed is not consistent with most experts' recommendations to personalize curriculum for

students with severe disabilities through the IEP process (Giangreco et al., 1993; Knowlton, 1998). An alternative is to provide examples of performance indicators and allow teachers to identify the specific skills to assess from the students IEP. If teachers select the specific skills to be incorporated in the alternate assessment some checks and balances are needed to ensure that these actually link to state standards. To do this states need to include an evaluation of the match between the skill assessed and the state standard it addresses as part of the evaluation of the alternate assessment. It also is important for states' own examples of performance indicators to model a clear link.

A third recommendation for practice is to use both access to the general curriculum and functional curriculum in specifying performance indicators. The states whose examples satisfied both content area experts and stakeholders in our study used this threaded curriculum approach. To be consistent with IDEA 1997 alternate assessment should address state standards and access to the general curriculum. Although incorporating functional curriculum is not necessarily required for alternate assessment, doing so can provide a way to create meaningful access to academic content areas. Organizing the alternate assessment by academic content domains (math, language arts) or functional domains (vocational, community, home and personal management) may not be as important as creating performance indicators with clear links to state academic standards. In contrast, *only* using functional curriculum as the framework for an alternate assessment misses the point of assessing the progress of all students on state standards.

In summary, the IDEA 1997 requirements for alternate assessment are stimulating educators to consider access to general curriculum for students with severe disabilities. Threading functional and academic curriculum provides a way to create performance indicators for alternate assessment that address both the content area and students' need to learn skills

meaningful in real life. Alternate assessment is not creating a paradigm shift in curriculum from functional to general curriculum; but the changes are also more than cosmetic. Some states have begun to define performance indicators that do reflect content area standards for use in alternate assessment. In contrast, work is needed to develop more high quality examples for these performance indicators.

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