Testing-Based Education Reforms and Implications for Speech-language Pathologists

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Some current educational reforms are concerned with ensuring the accountability of educational agencies (i.e., school districts, state boards of education, individual public or private schools). One accountability strategy is the use of mandated testing of educational achievement (U.S. Department of Education, 2002). Tests have increasingly become the standard by which pupil competency and school accountability are assessed (Kane, 1994; Lanese, 1992). For the general public, student performance on tests may be the primary indicator of the standing of a school or district (NEA, 2001a). Tests have the potential to become the driving force behind educational decision-making (e.g., curriculum design, textbook adoption, scheduling, student assignment to classes or groups, etc.; Kohn, 2000; Tapper, 1997).

This purpose of this article is to provide speech-language pathologists with background information on mandated achievement testing. This article will describe the rationale behind testing, explore the potential impact of testing, and discuss some characteristics of tests. This article is not meant to be an indictment of testing; rather the intent is to help speech-language pathologists become familiar with some of the issues and concerns attendant to testing. The Individuals with Disabilities Education Act (IDEA; 1997) charges school personnel with preparing special needs students to meet contextual demands, which may include tests. To participate,

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speech-language pathologists need to be familiar with the types of tests their students are taking, understand how tests coincide with curriculum, and assess the applicability, comparability, and implications of test scores.

The Rationale for Testing

Accountability and Motivation

The effort to establish tests of academic performance overlaps the school accountability movement, which promotes the expectation that schools and educators should be held responsible for students' progress (National Education Association [NEA], 2001a; 2001b). The presumption behind testing is that if students, educators, schools, and districts are held accountable for test performance, individuals will be motivated to do their best and educational programs will be successful (NCEO, 2001). A fairly common working assumption is that strong scores establish that test-takers' schooling has caused them to possess substantial skills and knowledge. It follows that the presence or absence of school accountability can be inferred from test scores (Kohn, 2000). In a Tarrance Group/Quinlan Greenberg Research poll of one thousand voters, 78% approved of annual testing of student performance in Grades 3 to 8 and 72% approved of annual testing in all grades (NEA, 2001a), but only 16% believed that test scores alone are the best indicator of a school's performance. Yet, it might be said that impressive test scores serve as proxies for accountability.

The diversity of local and state testing policies makes it hard to characterize whether learning outcomes are directly enhanced for students who must perform on tests (Koretz, 1991). In some settings, the prospect of testing may serve to increase the stakes for students and teachers and promote attainment of higher educational standards (Falk, 2000). Although the promise of testing might logically be perceived as a powerful impetus for learning (Kohn, 2000; Tapper, 1997), in other settings it may be that the perceived or purported stakes are higher, but instructional practices do not improve commensurately (Raivetz, 1992; Webb, 1995; Winfield, 1990). As a case in point, according to the National Assessment of Educational Progress (NAEP; 1998, 1999b), improvement in reading scores nationally cannot be attributed to the implementation of competency-based testing programs. NAEP (1998; 1999b) studies of more than 10,000 fourth graders nationally found no effects for testing, either positive or negative, on reading achievement. While positive effects for reading achievement were seen in Grades 8 and 11 for schools that test, much of this gain can be attributed to remedial and supplementary reading instructional programs geared toward boosting test performance, not to the fact that students were better prepared due to the promise of testing. There is perhaps insufficient research to claim that testing motivates performance (Heubert & Hauser, 1999; High stakes testing and social promotion, 1999; Linn, 1994; Phelps, 1999).

Assessment of Students' Attainment of Curriculum Mastery

Testing might be established as a mechanism for assessing pupil progress (U.S. Department of Education, 2002). Testing may be conducted at several grade levels, from elementary through high school, in an effort to increase reliability through repeated measures and to obtain cross-sectional and/or longitudinal data (AERA, 2000; Winfield, 1990). Education agencies can select tests designed to measure curriculum mastery (Airasian, 1988; Barton, 1999; Barton & Coley, 1994) and can engage in testing practices that are procedurally integrated with school learning opportunities. Content validity is demonstrated when tests correspond with what is taught (i.e., the content and skills that students had the opportunity to learn in school; Kane, 1994; Linn, 1994; Popham, 1994; 1999; Pottle, 2001). Tests that reveal whether students master curriculum may substantiate students', teachers', and speech-language pathologists' efforts (Kane, 1994; McGee, 1997; Texas Reading Initiative, 2002; United States Department of Education, 2002).

How Adequately Is Achievement Being Measured?

Tests cannot provide unimpeachable measures of student achievement. Conditions exist that introduce flaws and fallibility but that are sometimes inescapable.

Tests Are Usually Administered Only Once

Tests of curriculum mastery are summative, that is, they are given to summarize students' final performance, be it at completion of a grade level, at graduation, or over the intervals since testing was last given (AERA, 2000; Barton, 1999; Heubert & Hauser, 1999). Tests sample performance on demand, using one or very few items as the basis for an inference about what test takers know about a given domain. Important judgments about students' knowledge or skills are made given only a small amount of evidence. Testing is rarely administered in a pretesting-teaching-posttesting sequence. It is not known how far students were from this summative end-state before instruction began. Summative tests do not identify educationally handicapping conditions or suggest the academic supports that students would need to receive in order to perform better on curriculum demands and on subsequent testing (Barkley, 2001). This stands in contrast with formative assessment, where school personnel gather frequent data on student per-
formance, preferably using a variety of measures, which may include testing, collecting student work samples, conferencing with students, and keeping anecdotal notes of classroom observations—practices that may be familiar to many speech-language pathologists (ASHA, 2000; Nelson, 1998).

Scores Do Not Report Differences in Communities and in Test-takers

Curriculum achievement tests attempt to measure students' acquired, cumulative knowledge, and skills (Glaser, 1994) and may determine a student's standing relative to other students (U.S. Department of Education, 2002). Scores designed to compare individuals appear to be potentially unsuitable measures for comparing communities. This is especially so when comparing communities where pupils took different curriculum achievement tests. Moreover, educational inequities may be borne out in testing performance (Manning, Lucking, & MacDonald, 1995; Winfield, 1990). Comparison is difficult across communities where pupils differ in affluence, resources, or racial or ethnic composition (Barton & Coley, 1994; Bobbett, 1993; Gallagher, 1993; Lanese, 1992; Manning, Lucking, & MacDonald, 1995; McGee, 1997; Popham, 1994, 1999; Webb, 1995). A criterion-referenced state-mandated test may be, for all practical purposes, a test of minimal achievement in an affluent, high-achieving school that teaches concepts and skills that are far more complex than what is prescribed by the state curriculum. However, the same test might be very rigorous for students in challenged schools where academic demands may not be elevated beyond state minimum requirements (Lanese, 1992; McGee, 1997; Pershey, 2001). Educational setting is a variable that is not taken into account when test scores are calculated or reported (Barton & Coley, 1994).

Several studies have shown that students from minority and low income groups are more likely to fail tests and that remediation for those who fail is less likely to be effective (NAEP, 1998, 1999a, 1999b, 2000; Winfield, 1990). Repeated test failure and remediation attempts can have a cumulative negative impact on students (Winfield, 1990). A test-driven curriculum may alienate pupils who are already at risk for school disengagement and leave educators and speech-language pathologists little opportunity to deviate from test preparation to design curriculum, instruction, and assessment that might be more captivating (Ladson-Billings, 1994; Manning, Lucking, & MacDonald, 1995). This is not to propose that an absence of standards and testing would be the answer; the point is to suggest that engagement and accountability ought not be mutually exclusive objectives.

Test Scores May Not Reflect School Learning

There are many factors that may prevent test scores from being a direct measure of achievement. While there is the assumption that students test as they do because of their school experiences (Glaser, 1994), test scores may be misleading and not reliably reflect what has been learned in school. First, test performance might be influenced by test-taking circumstances that prevent students from demonstrating their learning, such as time pressures, question format, or test anxiety. Second, students may fail to apply themselves during testing. Third, it is problematic to assume that school exposure is equally meaningful to all students. Temporary or abiding issues of motivation, comprehension, health and wellness, emotional distress, school attendance, and a host of other factors can render school experiences more or less meaningful. Fourth, because of differences among learners, the claim that a test can be used as a measure of learning that has resulted from exposure to an instructional program is not realistic. If, for example, the instructional program was somehow inappropriate instruction for the learners, then learners are also taking an inapplicable test. Fifth, test scores may reveal nothing about how much of a given capability students possess, how far each student may be from mastery of a concept or skill, and what knowledge or behaviors are missing. By and large, test outcomes do not point to guidelines for how to design ensuing instructional practices relative to future test expectations. Indeed, the clarity and usefulness of test score reports have been called into question (NEA, 2001b).

Tests May or May Not Correspond to Curriculum

Some education agencies use norm-referenced achievement tests that do not directly correspond to curriculum, but are designed to determine a student's standing relative to other students (Bond, 1995; U.S. Department of Education, 2002). Tests may not evidence whether students' performance is related to whether students acquired content and skills that were taught by teachers and speech-language pathologists. Districts often conduct large-scale administrations of well-known norm-referenced achievement tests, such as the Iowa Tests of Basic Skills (ITBS) (Hoover, Hieronymus, Frisbie, & Dunbar, 1996), the Stanford Achievement Test (1996), the Metropolitan Achievement Test (MAT) (Balow, Farr, & Hogan, 1992), the California Achievement Tests (CAT) (CTB/McGraw-Hill, 1992), and the TerraNova (CTB/McGraw-Hill, 1998). Test authors strive to select content that matches grade level learning outcomes (Bond, 1995) but this is a difficult proposition. Even if only one curricular area, for example, language arts, is considered, state curriculum standards vary widely (Stotsky, 1997). It would be very difficult for questions to correspond to 50 state curricula, let alone to thousands of district courses of study, plus the objectives addressed by the scope and sequences of the larger number of textbook series in use, as well as school building-based mandates (Bobbett, 1993; Commission on Behavioral and Social Sciences and
School-Based Issues

According to Bond (1995), norm-referenced standardized tests are based on data gathered from a broad cross-section of learners. Questions are prepared that will produce response variance. A student’s score is compared to the scores obtained by the students in the standardization sample. The objectives of norm-referenced testing are to see where a student scores given a range of possible scores and to rank students from high to low achieving (Bond, 1995). Norm-referenced testing of curricular concepts and skills could present significant challenges to students with language, learning, and cognitive differences who receive the services of SLPs. Recall that students who are served by speech-language pathologists generally qualify for services based on testing that has determined that their performance is not commensurate with a standardization peer group.

In summary, the reliability and representativeness of students’ performance on summative testing may be questioned. Test content may not address school curriculum (Airasian, 1988; Barkley, 2001). Questions of comparative reliability and validity arise because there are so many tests from which to choose, all of which use different normative samples and test different content and skills (Etsey, 1997; Koretz, 1991; Phelps, 1999; Pottle, 2001).

Involving SLPs in Achievement Testing

It is critical that speech-language pathologists be aware that the issues attendant to testing do not automatically result in misapplication of testing. Education agencies can select valid performance indicators that are closely related to student learning (Linn, 1994). It is important for speech-language pathologists to be informed about specific considerations for test selection and use and to classify the types of tests available and differentiate their purposes.

SLPs Can Provide Cumulative Performance Data

With awareness of some of the limitations inherent in one-time testing, speech-language pathologists can be a part of educational teams that evaluate students’ test scores and develop allied means of monitoring students’ progress. They are particularly well able to provide ongoing clinical data on students’ performance that may help explain students’ progress toward targeted learning outcomes and reveal why students obtain certain scores. Scores and other data may be used to help teachers and speech-language pathologists design subsequent instruction to redress weaknesses (Falk, 2000; Jones, 1997; Popham, 1999).

Facilitating Language-Based Instruction Across the Curriculum

Failure on achievement testing may be due to a lack of language-based information learned in and out of school (Popham, 1999). In some cases, test performance is related to underlying oral language insufficiencies and, hence, poorer reading, writing, and school learning (Pershey, 2001). Identification of students in need and at risk should take achievement testing expectations into account (NCEO, 2001). Three domains of academic proficiency that are commonly tested are language-based processes: (a) knowledge of academic content (Kohn, 2000); (b) mastery of learning processes (for example, finding a main idea; Pottle, 2001); and (c) producing written products (for further description, see Pershey, in press). In line with IDEA (1997) mandates, roles for speech-language pathologists include assessing and enhancing literacy-related and curriculum-relevant language abilities and collaborating with others to modify the curriculum (ASHA, 2000; NCEO, 2001). This may entail new or expanded roles for speech-language pathologists as members of collaborative intervention teams whose focus is a single set of educational goals addressed by means of collaborative, transdisciplinary service delivery (Lyon & Lyon, 1980). Goals should reflect current educational reforms (U.S. Department of Education, 2002) that recognize discipline-based standards (see, for example, National Council of Teachers of English [NCTE, 2001] and the National Association for the Education of Young Children [NAEYC, 1998]). Speech-language pathologists’ efforts might include providing consultation to teachers relative to curricular and instructional modifications, serving on regular education curriculum committees, and utilizing more test-relevant regular education materials when providing services (Pershey & Rapking, 2002).

An Advocacy Role: Promoting Appropriate Accountability Efforts

As the mandates of IDEA (1997) become fully implemented (ASHA, 1996, 1999, 2000), education agencies will be required to hold students with disabilities to the same standards as students without disabilities. Students’ participation in assessment is an important aspect of equal access to education (NCEO, 2001). Standards-based reforms emphasize that every student, regardless of degree of disability, must work toward the expectations set for academic content and skills.

Speech-language pathologists can become informed about appropriate, curriculum-relevant testing and about guidelines for testing special needs populations (NCEO, 2001). Accurate, repeated measurement of the content and processes that students have had the opportunity to learn and practice with the support of their clinicians should be gathered (see, for example, Texas Reading Initiative, 2002; Texas's
Reading Success Network: Year 1, 2002).

Speech-language pathologists can demonstrate to teachers, parents, administrators, voters, politicians, and others that language proficiency is integral to meeting curricular demands and subsequently demonstrating competence on testing (Pershey, 2001). Supporting students with challenges and/or special needs as they undergo testing is the responsibility of stakeholders at all levels—state, community, district, and school. Accountability can then reasonably be a shared effort with by teachers, students, parents, and special educators. Each has the capacity to help pupils deliver performance that is reflective of academic standards.

References


Continue Education Questions

1. According to the National Assessment of Educational Progress (1998; 1999b), improvement in reading achievement test scores can be attributed to
   a. the implementation of competency-based testing programs.
   b. remedial and supplementary reading instructional programs geared toward boosting test performance.
   c. special education services for test takers with special needs.
   d. allowing students with special needs to be tested using modified or alternative assessments.

2. Tests' content validity is demonstrated when
   a. tests are be conducted at several grade levels, from elementary through high school.
   b. repeated measures provide cross-sectional and/or longitudinal data.
   c. tests correspond with what is taught in school.
   d. test norms were established by sampling a diverse body of students.
3. Tests of curriculum mastery are summative. “Summative” means
a. tests that are cumulative, meaning all grade-level content and skills specified in a curriculum are assessed.
b. tests are administered in a pretesting-teaching-posttesting sequence.
c. tests are readministered at intervals during a school year in order to frequently gather data on student performance.
d. tests measure students’ final performance, be it at completion of a grade level, at graduation, or over the interval since testing was last given.

4. Standardized achievement tests are designed to reveal
a. educationally handicapping conditions.
b. guidelines for how to design ensuing instructional practices relative to future test expectations.
c. students’ acquired, cumulative knowledge and skills and a student’s standing relative to other students.
d. differences in resources across communities.

5. Speech-language pathologists can become involved in schools’ testing efforts by
a. being part of educational teams that evaluate students’ test scores and develop allied means of monitoring students’ progress.
b. providing ongoing clinical data on students’ performance that may help explain students’ progress toward target learning outcomes and reveal why students obtain certain scores.
c. assessing and enhancing literacy-related and curriculum-relevant language abilities and collaborating with other staff to modify the curriculum.
d. all of the above.

Language-Reading Resource Model
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In the 1978-1979 school year, the Cobb County School District implemented a full-day program for students with severe language-learning disabilities. The program was taught by speech-language pathologists and included all academic subjects. It was developed at a time when general education was focusing on skill-based instruction, basal readers, as well as scripted teacher editions for classroom instruction. At that time, little focus was placed on language skills and their role in developing literacy skills. The severe language program offered a different kind of instruction than was provided in general education or learning disabilities classes. Speech-language pathologists integrated language therapy techniques with content area instruction. Oral language development was emphasized along with visual cues to teach the alphabetic principal. Thematic units were also used to integrate language and literacy skills.

The program continued quite successfully through the 1980s and into the 1990s. Eligibility for the severe language program included an in-depth language evaluation along with a psychological evaluation and academic assessment. Speech-language pathologist diagnosticians completed the language evaluation and worked with other evaluators to gather information on student performance from multiple sources. A committee of speech-language pathologists then reviewed the information to determine if the language disorder appeared to be the primary problem impacting student achievement. Students placed in the program usually were also eligible for learning disabilities services and tended to be the lowest readers when compared to their learning disabled peers.

During the 1990s, some issues of concern began to emerge with the severe language program. Even though the speech-language pathologist diagnosticians became more skilled in differential diagnosis, it became harder to determine that language was the primary area of disability. Students with more complex and varied disabilities were being referred to the program. These students tended to have multiple disabilities, complex learning problems, and a need for a multifaceted program that included much more than the focus on language development. The speech-language pathologists who taught in the severe language program learned much about classroom management, teaching strategies and content area instruction, but the requests to place students of widely varying ability levels and instructional needs in the program increased. It soon became clear that the classes were beginning to lose their focus and possibly their ability to meet student needs.

At the same time, the emphasis on inclusion and serving students in their neighborhood school was coming to the forefront in the district. Students participating in the severe language program had always been bused from their home school to the nearest of four locations in the county (three at the elementary level and one at the middle school level). Instructionally, general education had moved from a skills-based approach to a whole-language approach and finally to a balanced literacy approach. More emphasis was placed on language development in both general and special education classes. In light of these factors, special education administration in the school district indicated a need for change in the severe language program model.