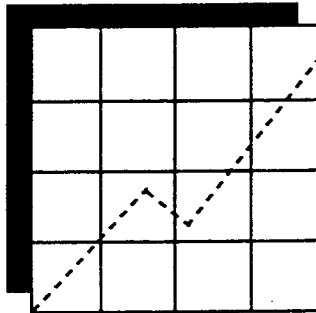


NATIONAL
CENTER ON
EDUCATIONAL
OUTCOMES

This document has been archived by NCEO because some of the information it contains is out of date.

For more current information please visit [NCEO's Web site](#).

Synthesis Report 10



The Effects of Standards and Assessment on Students in Special Education

National Center on Educational Outcomes

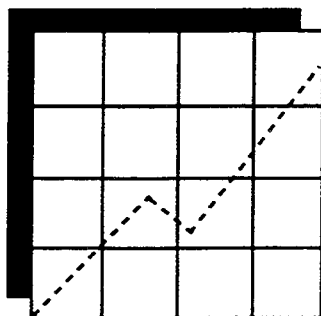
The College of Education
UNIVERSITY OF MINNESOTA

in collaboration with

St. Cloud State University
and

National Association of State Directors of Special Education

Synthesis Report 10



The Effects of Standards and Assessment on Students in Special Education

Prepared for NCEO by
Lizanne DeStefano
University of Illinois at Urbana-Champaign

National Center on Educational Outcomes

The College of Education
UNIVERSITY OF MINNESOTA

October, 1993

The National Center on Educational Outcomes (NCEO), established in 1990, works with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

The Center is supported through a Cooperative Agreement with the U.S. Department of Education, Office of Special Education Programs (H159C00004). Opinions or points of view do not necessarily represent those of the U.S. Department of Education or Offices within it.

NCEO Core Staff:

Robert H. Bruininks
Patricia Grafstrom
Kevin S. McGrew
Dorene L. Scott
James G. Shriner
Gail E. Spande
Martha L. Thurlow, assistant director
James E. Ysseldyke, director

Additional copies may be ordered for **\$3.00**.
Please write:

Publications Office
NCEO
350 Elliott Hall
75 East River Road
University of Minnesota
Minneapolis, MN 55455

Abstract

The current national emphasis on standards and assessment is likely to have an impact on many students, among them students with disabilities. As background for understanding issues, this paper provides an overview of the demographic characteristics of students in special education, outcomes associated with their schooling, and the nature of special education programs and services. Three issues relevant to the impact of standards and assessment on special education are discussed: responsibility, a shared vision of schooling, and the focus on outcomes as well as process. Several strategies are presented for increasing the positive impact of standards and assessment for students in special education.

The Effects of Standards and Assessment on Students in Special Education

Educational diversity springs from many sources: gender, ethnicity and culture, language proficiency, educational performance, and in the case of students in special education -- instructional needs. Each source presents its own issues and challenges for delivering instruction and evaluating the quality of schooling. In the paper, I deal with accountability and assessment issues that are relevant to students in special education. However, in many respects, these issues and options apply quite readily to other special populations. What is more important, strategies that increase the sensitivity of accountability and reform systems to the educational needs of students in special education may serve to make these systems more compatible with other types of diversity in our public schools.

Who Are These Students?

Before beginning a discussion of the effects of standards and assessment methods on students in special education, it might be wise to come to some common understanding about the group of students under discussion. Both their demographic characteristics and the outcomes associated with their schooling are important to consider.

Demographic Characteristics

In the first comprehensive report of the National Longitudinal Transition Study of Special Education Students, Wagner (1991) reported on the demographic characteristics of students in special education. Among special education students, comprising roughly 15% of students in our schools, males predominated, outnumbering females by three to one. The percentage of students in special education who were African-American or Hispanic was about twice as high as the percentage in the general population. Students in special education also were more likely to belong to households that were poor, headed by a single parent and located in an urban setting. In looking at these data, it becomes clear that in addition to having an identified disability that interferes with their learning, students in special education share many of the risk factors associated with other educationally disadvantaged groups, who are often characterized by their failure to keep pace with their peers as a result of poverty and other disruptive conditions in their lives.

Outcomes Associated With Schooling

Like these other groups, the outcomes associated with schooling are poor for students in special education. They face high drop out rates, negligible participation in higher education, high unemployment rates, and overemployment in jobs that pay low wages, offer no health or retirement benefits, and have no career potential (Frey & Moran, 1987; Hasazi, Brody, Gordon, Roe, Finck, Hull, & Salembier, 1986; Kaufman, Kameenui, Birman, & Danielson, 1990; Olsen, 1992; Viadero, 1989). Students in special education experience high arrest rates and low lifelong productivity (Wagner, 1991).

Given the high incidence of risk factors and the poor outcomes associated with education -- students in special education seem in dire need of the benefits of an accountability-based school reform system, one that focuses on reducing the influence of risk factors and improving educational outcomes. Unfortunately, while the benefits of such a system seem clear, there are a number of incompatibilities or competing factors that mitigate against students in special education participating in and benefiting from reform. Often, these incompatibilities arise from the nature of special education programs and their interface with the regular education system.

What Does It Mean to Be In Special Education?

Since the mandate to provide free and appropriate public education for all students was put forth in the mid seventies (P. L. 94-142), special education has evolved as an integral part of our nation's schools. While programs and services vary across states and localities, we can identify several common characteristics that are relevant to our discussion of standards and assessment.

Instruction in the Mainstream

Special education was once viewed as a separate system -- now, increasing numbers of students with special needs are receiving the majority of instruction in their home school and in regular classrooms (Thurlow & Ysseldyke, 1992). Wagner (1991) reported that 90% of students in special education attended regular schools and 86% of those students took at least some of their courses in mainstream classes. More than half received the majority of instruction in regular classes.

Varied and Idiosyncratic Content and Evaluation Procedures

While in regular classes, special education students' experiences may be undifferentiated from those of their regular education peers; they may be held to the same requirements and evaluation procedures but receive additional instructional support such as assistance with note taking or audio taping of lectures or texts; or class requirements and evaluation procedures may be modified on an individual basis. Instruction outside the regular class generally takes the form of resource room support to reinforce content taught in the mainstream. Students may also receive instruction in special classes in which content, expectations, and assessment procedures may be modified and individualized.

Given the variety of settings, adaptations, and modifications available to them, even for students receiving instruction in the mainstream, course content, requirements, and evaluation procedures for students in special education are varied and idiosyncratic.

Emphasis on Procedural Accountability

Since its inception, special education program accountability focused on determining whether a service was provided or on other procedural compliance indicators. The Individualized Education Plan (IEP), as currently designed, functions as an accountability tool to ensure that appropriate services are provided and to document the student's progress toward short term objectives and annual goals. Efforts to document program effectiveness through examination of student performance, attainment of long term goals or mastery of content are largely nonexistent in special education.

Lack of Consequences Related to Achievement

Special education students often move along in school in the company of their age-mates. Course failure and retention are reduced by participation in special classes or modified course requirements and evaluation procedures. While these accommodations alleviate anxiety, enable students to participate in age-appropriate settings and perhaps dissuade school leaving, they also eliminate important indicators of how the special education student is progressing in comparison with age-mates and other external referents and remove consequences of failing to make progress in the system.

The lack of consequences related to achievement is even more pronounced in the context of school leaving. One-third of students in special education leave by dropping out (Wagner, 1991).

About half (56%) graduate with a regular diploma, either by meeting the regular education requirements for graduation or through state or district policies that waive those requirements for students in special education. The remaining students exit school by reaching maximum age or after receipt of a "special" diploma or certificate of attendance. In each of these scenarios (dropping out, graduating, or aging out), with the exception of those students who meet the requirements for a regular diploma -- school leaving is based on factors other than what the student knows or how the student is able to function in society.

What Are the Issues Regarding Standards and Assessment for Students in Special Education?

The four characteristics of special education just described (instruction in the mainstream; varied and idiosyncratic content and evaluation procedures; emphasis on procedural accountability; and lack of consequences related to achievement) help to define the issues regarding the effects of standards on students in special education. Specifically:

Responsibility. The idea of special education as separate system is not borne out by current practice. Since students in special education spend substantial amounts of instructional time in the regular classroom, regular education should assume responsibility for their learning. In fact, schools, districts, and states should be held accountable for the learning of all students under their jurisdiction.

A Shared Vision of Schooling. The hallmark of an effective school is a shared vision (Porter, 1988). The individualized nature of special education programs makes outcome-based accountability for all students difficult to achieve unless programs and activities are linked by a common set of goals for all students and a shared vision of the standards used to judge them.

Focus on Outcomes as Well as Process. The focus on procedural safeguards and compliance in special education has had its rewards, ensuring parents and students access to free and appropriate education. Outcome-based reform requires the system to go further, to judge schools and students in terms of the outcomes they achieve, and to employ rewards and sanctions on the basis of those outcomes.

Whose Responsibility Is It Anyway?

"All" is a term used in much rhetoric about education in our nation today: All students have a right to a free and appropriate public education, all children must meet world class standards, all citizens must be literate and lifelong learners and so on (Thurlow & Ysseldyke, 1992). The evidence suggests, however, that many of the reform movements involving standards and curriculum reform do not consider the experiences of special education students (Anderson, 1992; Ferguson, 1989; Horvath, 1992; Mertens, 1992). This neglect manifests itself in two major ways: excluding students in special education from assessment for accountability purposes; and failing to include indicators of special education students' performance in general reporting.

Excluding Students From Assessment

McLaughlin and Warren (1992a, 1992b) report an increasing dilemma between the conflicting priorities of attaining higher school performance scores and the push to full inclusion of students who have difficulty developing skills emphasized in the new assessments. In reform initiatives in which rewards or sanctions are given to schools or school districts based on student performance, school personnel may be inclined to exclude students with disabilities, as well as

other students who might perform poorly. Although due process protections of the 14th Amendment declare exclusion from testing as unconstitutional when the results of testing will deprive an individual of property or other interest, such as a high school diploma or employment (Phillips, 1992), exclusion of students with disabilities from high stakes assessment is a common practice (NCEO, 1991). It appears to be most prevalent in cases where student or school performance is compared to an absolute standard or to a normative comparison. Exclusion of special education students from assessment for accountability purposes is also defended on the basis that testing can adversely affect students already at risk by increasing drop out rates, narrowing curriculum, and encouraging teaching to the test (Darling-Hammond, 1991; Haertel, 1989; Haertel & Calfee, 1983; Jaeger, 1991; Koretz, Linn, Dunbar, & Shepard, 1991; Madaus, 1991; Shepard, 1991; Stake, 1991).

As an alternative to participating in assessment for accountability purposes, many educators believe that the IEP for students with disabilities constitutes a suitable accountability tool, and within a model of accountability that emphasizes compliance, IEPs may have proven suitable. However, the IEP is designed to monitor progress toward the achievement of short term individualized objectives and annual goals rather than long term program goals and outcomes that are more typically used to judge program quality and student performance. Without a consistent framework for tying IEPs to goals and standards, the IEP is not valid for program monitoring or individual student assessment (Olsen & Massanari, 1991).

Inclusion of special education students in assessment and accountability initiatives is warranted because it satisfies the belief that students should be treated equitably and that schools are responsible for enabling all students to achieve independence and productivity in mainstream society. Since many students with disabilities spend considerable time in regular education and current integration efforts are resulting in greater education of students with disabilities in regular education environments, practice no longer supports the notion of separate systems and different outcomes. Finally, dissatisfaction with outcomes of both special education students and their regular education peers highlights the need for system-wide reform aimed at increasing the performance of all students.

The challenges created by including special education students in large scale assessment efforts are twofold: (1) Identifying ways of modifying administration procedures to make assessment accessible to all students, and (2) Creating alternate means of gathering performance data that simultaneously reflect the needs of individual students and the consensual standards of the educational system.

Failing to Include Students in Reporting

In cases where special education students are excluded from assessment for accountability purposes, in the absence of any easily aggregatable indicators such as test scores, information on the performance of these students generally is omitted from accountability reports generated by the school and disseminated to the public, policy makers, and state and federal agencies. The absence of these students when reporting performance indicators by which schools are judged and reform is guided is further evidence of a school system's failure to take responsibility for all students. Inclusion of special education students in assessment and reporting for accountability purposes has two requisites: a flexible assessment system and appropriate aggregation and disaggregation for reporting.

Flexible assessment system. In order to be valid, the measurement characteristics of an assessment system must reflect the diversity of the students it is intended to represent (Jakweth & Frey, 1992). In the best of circumstances, the reported data should indicate how the schools are doing in meeting diverse sets of student's needs and help educators better meet these needs. Therefore, the reported data should include all students.

To accomplish this, performance measures must be developed that yield accurate inferences for all students. The use of multiple data gathering strategies that incorporate on-demand assessment, examples of student work collected over time, as well as teacher judgments, is one way of achieving flexibility in an assessment system to accommodate to the unique assessment needs of diverse populations of learners (Richards, 1988). Obviously, alternative means of collecting performance data should reflect simultaneously the needs of individual students and the standards of the education system.

Appropriate aggregation. Another troublesome issue in designing an accountability system to represent a diverse population is determining the appropriate level of aggregation for reporting data (Murnane, 1987; Weber & Zin, 1992). For understanding the functioning of the system as a whole, or when considering the performance of special education students who receive instruction in regular education settings, it makes sense to aggregate outcomes across all students. Descriptive information on the diversity of disabilities would assist in the interpretation of aggregated outcome data.

Disaggregated data also may serve a useful diagnostic purpose. For example, it might be useful to know about the performance of special education students in mainstream math classes in order to judge the effectiveness of that instructional arrangement for students with special needs. Performance information could be presented by disability category or by severity of disability. If truly separate and distinct programs for special education students (i.e., self-contained classes, special vocational programs) exist at the school or district level -- then reporting outcome data for these programs also would be appropriate. Unless confidentiality is a problem or reporting becomes unwieldy, disaggregation can be useful in understanding the impact of the system on any of the diverse groups that make up our educational system.

A Sharing Vision of Schooling

The exclusion of students in special education from assessment and reporting has had negative impact on the curricular options for those students. Koehler (1992) stated:

The removal of special education students from the "accountability track" also resulted, to a large degree, in their removal from the "curriculum track", those learning expectations which guided the instruction of regular education students . . . this resulted in the special education student becoming more and more isolated from the mainstream instructional program rather than having an alternate course being charted for reaching competence in the mainstream subject area content. (pp. 2 - 3)

According to McLaughlin and Warren (1992):

It is imperative that outcomes for these students be considered in the development of the larger outcome assessment systems. Special education as a program cannot exist as a separate and parallel program only loosely coupled with the larger system. The larger system must be accountable for what happened to these students and not simply for providing services to them. (p. 13)

Both of these sources stress the importance of a single set of outcomes and standards for schooling that apply to all children. As we have discussed above, special education students are inevitably affected by outcomes-based accountability in regular education since the majority of these students participate more than half time in regular education. Further, many current reforms focus on increasing the time students with disabilities spend in regular education environments.

We have also seen that students in special education rarely receive the same curriculum as their peers. Sometimes the general curriculum is modified; sometimes it is replaced. The result is that these students receive a curriculum that is designed around their learning needs. However, unless there are clearly specified strategies for linking individualized programs to commonly agreed upon content and standards, little evidence exists to insure that students in special education are receiving a full and balanced curriculum that will lead to valued outcomes. Without outcomes clearly in focus, students in special education programs may too easily be consigned to curricula that fail to include challenges that many students are capable of handling and may face adult life unprepared and unable to compete (Sawyer, Warren, & McLaughlin, 1992).

A third problem arises when content frameworks and performance standards are defined narrowly, failing to reflect the full range of valued outcomes resulting from education or neglecting to specify alternate ways of demonstrating the standard. Most standards are designed around curriculum content, acquisition of knowledge and skills in a specific content area such as English, mathematics, history, science and geography. Though valuable for defining curriculum and informing instruction, content standards of this kind do not reflect the combination of academic and applied skills that are most relevant for students in special education. The professional community has determined that valued education outcomes for students in special education typically include a combination of academic, vocational, social and self-sufficiency skills (NCEO, 1992a, 1992b, 1992c). Some states, such as Michigan, Kentucky and Colorado have developed state goals for learning that reflect this broad based approach to defining the outcomes associated with schooling (Hennes & Petro, 1992; Jakweth & Frey, 1992; Olsen, 1992; Starlin, 1992).

Finally, while the values of a shared vision are evident, it is clear that holding all students responsible for the same set of outcomes raises enormous challenges for our educational system and calls for flexibility in a somewhat rigid system. Students in special education may require much more time and more intense intervention than other students to achieve proficiency. This may mean extended school days or years, increased instructional time, and increased staffing demands -- all of which have significant fiscal and programmatic impact upon schools, students, and families.

In some cases, students might never achieve proficiency as defined for all students. This might mean that along with content standards, performance standards may have to be broadly defined or open to negotiation. For example, in the case of a student who will not be able to achieve proficiency in an area, a standard below that for the general population might be deemed acceptable for that student. Or that standard might be deemed irrelevant for that student and an alternate standard might be developed in its place. In these cases, decisions should be based on the preferences of the student and family members, input of involved professionals and a review of student performance.

These issues speak to the value of a shared vision of schooling and the need to consider students in special education when designing content frameworks, performance standards, and assessments that shape that vision. To accommodate students in special education, content standards should be broadly defined, reflecting outcomes of schooling that go beyond content area knowledge. Performance standards should allow accommodations in terms of time, instruction, and mode response.

What are Some Strategies for Increasing the Positive Impact of Standards and Assessment for Students in Special Education?

The above discussion suggests several strategies for increasing the positive impact of standards and assessment for students in special education (adapted from Sawyer, Warren and McLaughlin, 1992):

Establish consensus on the underlying assumptions and framework for an outcomes-based accountability system that includes students with disabilities.

Include representatives from special education as well as other special populations in the development of the system. Assurances are needed that the staff commitment, technical ability and additional resources necessary are available to enable attainment of common goals by a diverse student population.

Make known the parties who will be held accountable for the outcomes of students in special education and all students within the system.

In order for an outcomes-based accountability system to instill and encourage responsibility among those identified as accountable, there is a need to identify the level of resources (fiscal and programmatic) that will be required to enable the accountable parties to succeed in obtaining the desired outcomes.

Develop a set of agreed upon outcomes and standards of performance that have relevance for all students.

Include representatives of special education in the development of standards. Content standards should be broadly defined, reflecting outcomes of schooling that go beyond content area knowledge. Performance standards should allow accommodation in terms of time, instruction, and mode of response.

Determine appropriate sources and measures of outcome data.

Such a measurement system might (1) use measures of change in addition to those based on absolute standards or norms; (2) use multiple indicators such as samples of student work, teacher judgment and on-demand tasks; (3) allow for test accommodations such as flexible time, alternate presentation, flexible setting, alternate response modes, or out of grade level testing.

Adopt reporting formats and conventions that accommodate students with disabilities.

Such a system would allow for aggregated and disaggregated reporting and permit the representation of the diversity of students with disabilities and within regular education.

Assess the unintended consequences as well as costs and benefits of a system of accountability for students in special education and other diverse groups through a program of action research.

The extensive activity in our schools surrounding standards and assessment create an environment for an agenda of action research aimed at understanding the impact and limitations of outcome-based accountability programs on students in special education. The following questions are just a few that seem appropriate for such an agenda:

- To what extent do existing content frameworks, performance standards, and delivery standards represent the school experiences of students in special education?
- How can high stakes assessment and accountability systems be designed without incentives for exclusion of students in special education?
- What accommodations and modifications are necessary to make on-demand assessments accessible and valid for students in special education?
- How can alternate forms of assessment and multiple data sources be incorporated into accountability systems to increase the participation of students in special education?

References

- Anderson, R. (1992). Educational reform: Does it all add up? Teaching Exceptional Children, 24(2), 4.
- Darling-Hammond, L. (1991). The implications of testing policy for educational quality and equality. Phi Delta Kappan, 73 (3), 220-225.
- Ferguson, D. L. (1989). Severity of need and education excellence: Public school reform and students with disabilities. In D. Biklen, D. L. Ferguson, & A. Ford (Eds.), Schooling and disability (NSEE Yearbook Series). Chicago: University of Chicago Press.
- Frey, W. D. & Moran, K. (1987). Follow-up study of students exiting Kent Occupational High School 1982 to 1985. East Lansing, MI: Disability Research Systems.
- Haertel, E. (1989). Student achievement tests as tools of educational policy: Practices and consequences. In B. Gifford (Ed.), Test policy and test performance: Education, language and culture (pp. 25-50). Boston: Kluwer Academic Publisher.
- Haertel, E., & Calfee, R. (1983). School achievement: Thinking about what to test. Journal of Educational Measurement, 20 (2), 119-132.
- Hasazi-Brody, S., Gordon, L., Roe, C., Finck, K., Hull, M., & Salembier, G. (1986). A statewide follow-up on post high school employment and residential status of students labeled mentally retarded. Unpublished paper. University of Vermont.
- Hennes, J., & Petro, J. (1992). Reporting on student outcome standards and indicators for students with disabilities. Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Horvath, L. (1992). Educating policy makers on the importance of a comprehensive evaluation approach. Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Jaeger, R. M. (1991). Legislative perspectives on statewide testing: Goals, hopes and desires Phi Delta Kappan, 73 (3), 239-242.
- Jakweth, P., & Frey, W. (1992). Including students with disabilities in educational evaluation: Implications of unique needs of learners. Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Kaufman, M. J., Kameenui, E. J., Birman, B., & Danielson, L. (1990). Special education and the process of change: Victim or master of educational reform? Exceptional Children, 57 (2), 109-115.
- Koehler, P. H. (1992). The assessment of special needs students in Arizona. Unpublished manuscript. Arizona Department of Education.
- Koretz, D. M., Linn, R. L., Dunbar, S. B., & Shepard, L. A. (1991). The effects of high stakes testing on achievement: Preliminary findings about generalization across tests. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

- Madaus, G. M. (1991). The effects of important tests on students: Implications for a national examination or system of examinations. Phi Delta Kappan, 73 (3), 226-231.
- McLaughlin, M. J., & Warren, S. H. (1992a). School restructuring and students with disabilities. College Park, MD: University of Maryland at College Park, Institute for the Study of Exceptional and Youth.
- McLaughlin, M. J., & Warren, S. H. (1992b). Outcomes assessment for students with disabilities: Will it be accountability or continued failure? Preventing School Failure, 36 (4), 29-33.
- Mehrens, W. A. (1992). Using performance assessment for accountability purposes. Educational Measurement: Issues and Practice, 4-8.
- Mertens, D. M. (1992). How can we overcome the barriers to developing measures and evaluation systems that could portray system-wide effects? Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Murnane, R. J. (1987). Improving education indicators and economic indicators: The same problems? Educational Evaluation and Policy Analysis. 9 (2), 101-116.
- NCEO (National Center on Educational Outcomes). (1991). Assessing educational outcomes: State activity and literature integration (Synthesis Report). Minneapolis, MN: University of Minnesota.
- NCEO (National Center on Educational Outcomes). (1992a). An evolving conceptual model of educational outcomes for children and youth with disabilities (Working Paper 2). Minneapolis, MN: University of Minnesota.
- NCEO (National Center on Educational Outcomes). (1992b). NCEO develops model of educational outcomes. Outcomes, 1 (2), 5.
- NCEO (National Center on Educational Outcomes). (1992c). A report on state activities in the assessment of education outcomes for students with disabilities. Minneapolis, MN: University of Minnesota.
- Olsen, K. (1992). What are critical issues in evaluation of educational services to students with disabilities in an era of reform? Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Olsen, K., & Massanari, C. (1991, October). Special education program evaluation: What should states consider? Lexington, KY: University of Kentucky, Mid-South Regional Resource Center Interdisciplinary Human Development Institute.
- Phillips, S. E. (1992). Testing condition accommodations for handicapped students. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Porter, A. (1988). Indicators: Objective data or political tool? Phi Delta Kappan, 69 (7), 503-508.
- Richards, C. E. (1988, March). Indicators and three types of monitoring systems: Implications for design. Phi Delta Kappan, 495-499.

- Sawyer, R., Warren, S., & McLaughlin, M. (1992). High stakes testing and outcomes based accountability: Critical issues for students with disabilities. Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Shepard, L. A. (1991). Will national tests improve student learning? Phi Delta Kappan , 73 (3), 243-247.
- Stake, R. E. (1991). The teacher, standardized testing, and prospects of revolution. Phi Delta Kappan , 73 (3), 243-247.
- Starlin, C. (1992). Is performance-based assessment the answer for students with disabilities? Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Thurlow, M. L., & Ysseldyke, J. E. (1992). Can "all" ever really mean "all" in defining and assessing student outcomes? Paper presented at the annual meeting of the American Evaluation Association, Seattle.
- Viadero, D. (1989, September 27). Federal panel calls for a commission to spur reforms in special education. Education Week, 9 (4), 14.
- Wagner, M. (1991). The transition experience of youth with disabilities: A report from the National Longitudinal Transition Study. Menlo Park, CA: SRI International.
- Weber, L., & Zin, T. (1992). The compatibility of individual and program evaluation: Is it reasonable to use data collected on individuals as a basis for determining the value of special education programs? Paper presented at the annual meeting of the American Evaluation Association, Seattle.