

TOPICAL REVIEW FIVE

Preparing Educators to Teach Students with Disabilities in an Era of Standards-based Reform and Accountability

July 2003



**The Institute for the
Study of Exceptional
Children and Youth**

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The Educational Policy Reform Research Institute

Preparing Educators to Teach Students with Disabilities in an Era of Standards-based Reform and Accountability

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EPRRI, funded by the U. S. Department of Education's Office of Special Education Programs, investigates the impact of new educational accountability systems on students with disabilities and on special education. EPRRI addresses the research needs of policymakers and other key stakeholders by identifying critical gaps in current knowledge, seeking promising strategies, and publishing Topical Reviews, Policy Updates, and Issue Briefs. The Institute is a joint venture of the Institute for the Study of Exceptional Children and Youth at the University of Maryland, the National Center on Educational Outcomes at the University of Minnesota, and the Urban Special Education Leadership Collaborative.

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Topical Review Highlights

Standards-based reform and new requirements for accountability for the achievement of all students requires a thoughtful review of teacher preparation, certification, and ongoing professional development. All teachers need to become knowledgeable about the standards, assessments, and accountability system within their states. This need places an increasingly important responsibility on institutions of higher education and state departments of education.

The No Child Left Behind Act of 2001 (NCLB) requires that by the end of the 2005-2006 school year every classroom in the United States will have a teacher who is “highly qualified.” This means that the teacher must be certified by a state and have a high degree of subject-matter competence. At this time a focus on skills specific to successful standards-based reform is especially needed. Linking state academic content and achievement standards with teacher preparation standards can result in knowledgeable teachers who are able to create a high-quality learning environment for all students. Both general and special education teachers need to develop a sound understanding of academic content and achievement standards and effective instructional strategies so that all students have the opportunity to learn rigorous content.

Based on principles of inclusive accountability systems developed by the National Center on Educational Outcomes (NCEO), input by participants at a symposium conducted by the Education Policy Reform Research Institute (EPRRI), and other research, this report puts forth these key skills and knowledge that all educators need to increase the participation and performance of students with disabilities in standards-based environments:

1. Understand state and federal legislation related to academic content and achievement standards and recognize that these laws apply to EVERY student.
2. Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student.
3. Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities.
4. Develop IEPs that support the achievement of grade level academic content standards.
5. Design learning environments that support the achievement of grade level academic content standards by students with disabilities.
6. Understand state and federal legislation on state and district assessments and accountability, and recognize that these laws apply to EVERY student.
7. Understand state and district assessment and accountability systems and recognize that every student is expected to participate in general assessments with or without accommodations, or in alternate assessments.
8. Make appropriate assessment participation decisions for students with disabilities and document on each student’s IEP.
9. Assist students with disabilities in selecting and using assessment accommodations, including assistive technology.
10. Administer alternate assessments to students with significant disabilities.

States have begun to make changes in their

teacher credentialing process to better prepare teachers to teach rigorous content to all students. In order to learn these skills and knowledge, important policy improvements need to be considered, including:

- Ensure that students with disabilities have long term access to state academic content and achievement standards regardless of setting or disability category.
- Incorporate research based best practices for standards-based instruction of students with disabilities into state and national accreditation requirements for all educators.
- Incorporate the results of recent research about inclusive education and inclusive assessments into state and national accreditation requirements. Ensure that all students have highly-qualified teachers who understand the relationship between standards-based reform, school improvement, and student performance.
- Link state and national accreditation requirements to teacher licensure programs.
- Provide prospective teachers with practice teaching experiences that give them opportunities to link to their study of professional knowledge about teaching in a standards-based environment.
- Link university programs, alternate route programs, and K-12 schools.
- Increase the investment of institutions of higher education in teacher preparation programs. Use teacher education resources not only to train pre-licensure teachers, but also to offer professional development opportunities for teachers throughout their careers.

With dramatic teacher shortages and the need to hire more teachers, the focus on standards-based qualifications is more important than ever. Alignment of standards for both teaching and learning is needed, so that educators understand how to teach all students, including students with disabilities.

This topical review addresses the knowledge and skills needed by teachers to effectively promote the achievement of students with disabilities within the current era of standards-based reform and accountability. It is part of a series developed by the Education Policy Reform Research Institute (EPRRI), which is investigating issues related to accountability and special education. This review presents a comprehensive account of systems that prepare new and experienced teachers to effectively educate all students, including students with disabilities, in standards-based environments. Current teacher preparation and training practices are described generally, with models from four states examined in greater depth. Contents of this review were enhanced by input from attendees at a national symposium hosted by EPRRI in September 2002.

Standards for teacher licensure and license renewal are clearly illustrated throughout this review with examples of state programs and teacher licensure policies. The examples highlight various components of high-quality teacher education programs. A document analysis of the state Web sites devoted to teacher credentialing in California, Maryland, New York, and Texas was conducted to find examples of the skills and knowledge needed by entry-level and continuing educators to teach in a standards-based environment. These states were selected because they are the four core states that EPRRI is conducting research in to find gaps in current knowledge and to identify promising strategies to include students with disabilities in standards-based reform. The examples are not considered representative of all states but are illustrative of teacher preparation and training practices.

2. Overview of Requirements for Highly Qualified Teachers

In response to standards-based reform and new requirements for accountability for the achievement of all students, including students with disabilities, major changes are taking place in requirements for teacher preparation, certification, and ongoing professional development. This review addresses the challenges inherent in a shift to standards-based systems for both teachers and students, and how state and national policy and practice is evolving to meet these challenges. A quality education for students with disabilities in a standards-based environment requires high quality teacher preparation and training. For systemic reform to succeed there needs to be a focus on rigorous standards for both teaching and learning, requiring alignment between teacher education programs and standards-based reform efforts in schools across the United States (Wise, 2000). According to the U.S. Department of Education, National Center for Education Statistics (2000) “As the public demands improved schools and increased student achievement, teachers’ knowledge and skills are more important than ever before” (p. 1).

A tension exists between ensuring that all teachers are highly qualified and ensuring that there are enough teachers. Projections show that two million additional teachers will be needed in the United States between 2002 and 2008 (National Center for Education Statistics, 2001). Many teachers are nearing retirement at a time when student populations are expected to increase. Urban school districts have been particularly hard hit by teacher shortages (Clewell & Villegas, 2001; Fidler, Foster, & Schwartz, 2000). Districts nationwide report extreme chronic shortages of special education teachers (Smith, McLeskey, Taylor, & Saunders, 2002). As a result of the teacher shortages, many states have implemented alternative certification programs

to streamline the certification process and get teachers into the classroom quickly.

In spite of the teacher quantity challenge, a focus on quality must be maintained. All teachers need to become experts in the academic content required within each state’s standards and accountability systems. This need places an increasingly important responsibility on institutions of higher education and states to ensure that “new teachers have the content knowledge and teaching skills they need to teach all students to high standards” (U.S. Department of Education, National Center for Education Statistics, 2000, p. 1). Research suggests that teacher quality is more closely related to student achievement than other factors, including class size, spending, and instructional materials (U.S. Department of Education, Office of Postsecondary Education, 2002). Linking state academic content and achievement standards with teacher preparation standards can result in knowledgeable teachers who are able to create a high-quality learning environment for all students.

There is limited evidence about the influence of teacher preparation programs on teacher quality, and few measures that link teacher quality to the performance of students with disabilities. It is also challenging to make the link between special educators and student achievement because of the multiple roles special educators play in schools. For example, special educators may work with students across grade levels and with students who receive the majority of their instruction in general education classrooms. This makes it difficult to separate the contributions made by special educators and general educators in the achievement of students with disabilities. When a collaborative team facilitates a student’s instruction, all of the members

of the team become accountable for that student's achievement.

The No Child Left Behind Act of 2001 (NCLB) requires that by the end of the 2005-2006 school year every classroom in America will have a teacher who is "highly qualified." This means that the teacher must be certified by a state and have a high degree of subject-matter competence. NCLB (Public Law 107-110, Section 9101(23)) defines highly qualified:

The term 'highly qualified'—

(A) When used with respect to any public elementary school or secondary school teacher teaching in a State, means that—

(i) The teacher has obtained full State certification as a teacher (including certification obtained through alternative routes to certification) or passed the State teacher licensing examination, and holds a license to teach in such State, except that when used with respect to any teacher teaching in a public charter school, the term means that the teacher meets the requirements set forth in the State's public charter school law; and

(ii) The teacher has not had certification or licensure requirements waived on an emergency, temporary, or provisional basis.

Title II is making funds available to States and local communities under a variety of flexible programs that will assist in the development and support of a high-quality teaching force in order to improve student academic achievement (U.S. De-

partment of Education, 2002b). *Improving Teacher Quality State Grants* (authorized in ESEA: Title II, Part A) is a State formula grant program that makes funds available to State educational agencies (SEAs), local educational agencies (LEAs), and State agencies for higher education (SAHEs). The purpose of these grants is to "support and help shape State and local activities that aim to improve teacher quality and increase the number of highly qualified teachers and principals" (U.S. Department of Education, 2002b, p. iii).

In 1998, Congress passed Title II of the Higher Education Act in order to create a national reporting system on the quality of teacher preparation. This Act requires institutions of higher education and alternative-certification programs receiving federal aid to develop standards for teachers, to set requirements for initial certification, and to report this information on a report card. The 1998 reauthorization also established a reporting system for states and institutions of higher education to collect information on the quality of their teacher training programs. Data collected under the Title II reporting system include information on state teacher certification requirements, the performance of prospective teachers on state licensure tests, and the number of teachers hired on temporary or emergency certificates.

3. Highly Qualified Teachers for Students with Disabilities

Both general and special education teachers need to develop a sound understanding of academic content and achievement standards and effective instructional strategies so that all students have the opportunity to learn rigorous content (McLaughlin, 2000). Unfortunately, in most states, prospective general and special educators complete different college course requirements and intern or student teach in different settings (Fraser, 1996). General education teachers often major in a content area (e.g., science), or at a grade level (e.g., elementary school). Special educators may specialize in working with students within a specific disability category (e.g., deaf, learning disability). These differences may result in general educators having opportunities to obtain content knowledge without an understanding about how to effectively support students with disabilities. Likewise special education teachers may obtain several effective instructional and support strategies, but may have an incomplete understanding of academic content and achievement standards. An important question to ask is what knowledge and skills teams of general and special educators need as they work collaboratively to assist students with disabilities in meeting academic content and achievement standards (Massell, 2000).

More teacher education programs are “blending” regular and special education into dual certificate programs. Dual licensure programs try to balance field experiences and course work in ways that are responsive to the needs of both aspiring teachers and the schools where they will work (Keefe, Rossi, deValenzuela, & Howarth, 2000). Rainforth (2000) found that these programs often are designed to only prepare educators to work with students with mild disabilities, often resulting in concerns that neither general nor special education educators are prepared

to provide inclusive education for students with severe disabilities. Dual certificate programs need to be carefully designed to prepare new teachers who are able to work with all students.

State Example of a Noncategorical Certification Program

New York has a noncategorical certificate to teach K-12 special education. Licensure candidates are required to take courses that are part of a teacher education program at an institution of higher education. Aspiring special education teachers must learn about instructional planning and assessment, knowledge of the learner, instructional delivery, and the professional environment. Specialized certificates in Speech and Hearing Handicapped, Deaf and Hearing Impaired, and Blind and Partially Sighted are also offered (New York State Education Department, No Date, a).

4. Accountability for the Achievement of Students with Disabilities

Statewide assessment systems continue to be a key component of educational accountability at the federal and state levels. As a result, public reporting of student performance on state assessments is becoming an increasingly important tool for ensuring that public schools are held accountable for all students. Because all students now must participate in state assessment systems, there is continued interest in policies that determine the ways in which students participate (e.g., general assessment or alternate assessment), and the treatment of accommodations in testing (e.g., allowed or not allowed, reported, etc.). Both the Individuals with Disabilities Education Act reauthorized in 1997, and the Title I provisions of the No Child Left Behind Act of 2001 require the participation of students with disabilities in state assessments used for accountability and require public reporting of student performance (see Table 1).

The National Center on Educational Outcomes (NCEO) has compiled information on state participation and accommodation policies for students with disabilities since 1990. Each time that NCEO has examined state policies there have been changes from the time before (Thurlow, Lazarus, Thompson, & Robey, 2002). Starting from the point when the Education Summit of 1989 set an agenda for education reform that called for higher expectations, rigorous educational standards, and assessments of progress for all students, many changes have taken place. In the early 1990s, most states included 10% or fewer of their students with disabilities in state assessments; participation and accommodation policies were either non-existent or limiting (Thurlow, Ysseldyke, & Silverstein, 1993). Participation rates in state assessments increased steadily during the 1990s; by 1998 most states had over 50% of students with disabilities in

their assessments (Thompson & Thurlow, 1999). Participation and accommodation policies have now been established in every state (Thurlow, House, Boys, Scott, & Ysseldyke, 2000).

Although education statistics have been reported in the United States since the 19th century, along with reports on national and state-level education indicators since the mid-1980s (Blank, 1993), few states publicly reported the educational assessment performance results of students with disabilities until recently. In fact, most state agencies did not even keep track of the rate at which these students participated in testing or were included in any state or local accountability indices. Accountability for the educational performance of students with disabilities who receive special education services is evolving from compliance with input and process requirements to responsibility for student outcomes. (For a comprehensive account of reporting the performance of students with disabilities on state assessments see EPRRI's topical review: Reporting on the State Assessment Performance of Students with Disabilities, <http://epri.org>.)

Because performance reports provide concrete evidence of student achievement, policy-relevant conclusions are being drawn from them to determine whether students with disabilities are receiving a standards-based rigorous academic education and whether they have benefited from their educational experiences (Erickson, Ysseldyke, Thurlow, & Elliott, 1997, Roach & Raber, 1997). Thus school systems, in addition to ensuring participation in state assessments, must turn their attention to improving the performance of students with disabilities on state assessments.

IDEA required the participation of students with

Table 1. Excerpts of Federal Laws Related to Participation of Students with Disabilities in State and District-wide Assessments

<p>Individuals with Disabilities Education Act, P.L. 105-17 (1997)</p>	<p>The State will, (C) every two years, report to the Secretary and the public on the progress of the State, and of children with disabilities in the State, toward meeting the goals established under subparagraph (A); and (D) based on its assessment of that progress, and (D) will revise its State improvement plan under subpart 1 of part D as may be needed to improve its performance, if the State receives assistance under that subpart. (Sec. 612 (a) (16) (C) (D))</p> <p>Children with disabilities are included in general State and district-wide assessment programs, with appropriate accommodations, where necessary. (Sec. 612 (a) (17) (A) (i))</p> <p>As appropriate, the State or local educational agency develops guidelines for the participation of children with disabilities in alternate assessments for those children who cannot participate in State and district-wide assessment programs. (Sec. 612 (a) (18) (A) (i))</p> <p>The State educational agency makes available to the public, and reports to the public with the same frequency and in the same detail as it reports on the assessment of nondisabled children, the following: (i) The number of children with disabilities participating in regular assessments. (ii) The number of those children participating in alternate assessments. (Sec. 612 (a) (17) (B) (i) (ii))</p>
<p>No Child Left Behind Act of 2001, P.L. 107-110 (2001)</p>	<p>...the participation in such assessments of all students” (Section 1111 (3) (C)(i)); [The term “such assessments” refers to a set of high-quality, yearly student academic assessments.]</p> <p>The reasonable adaptations and accommodations for students with disabilities (as defined under section 602(3) of the Individuals with Disabilities Education Act) necessary to measure the academic achievement of such students relative to State academic content and State student academic achievement standards” (Section 1111 (3) (C)(ii))</p> <p>Each State plan shall demonstrate, based on academic assessments described in paragraph (3), and in accordance with this paragraph, what constitutes adequate yearly progress of the State, and of all public elementary schools, secondary schools, and local educational agencies in the State, toward enabling all public elementary school and secondary school students to meet the State’s student academic achievement standards, while working toward the goal of narrowing the achievement gaps in the State, local educational agencies, and schools.(Sec. 1111 (2) B)</p> <p>Adequate yearly progress shall be defined by the State in a manner that-(v) includes separate measurable annual objectives for continuous and substantial improvement for each of the following: (II) The achievement of- (cc) students with disabilities;</p> <p>Each year, for a school to make adequate yearly progress under this paragraph (i) each group of students described in subparagraph (C)(v) must meet or exceed the objectives set by the State under subparagraph (G) (Sec. 1111 (2) (C) (v) I, II(cc))</p>

disabilities in state assessments and the reporting of data related to participation and performance on these assessments and other indicators including drop-out and graduation rates. However, the only requirement under IDEA to improve the performance of students with disabilities on state assessments was the need for the state to revise its improvement plan if it was not making progress toward its specified goals. NCLB imposes significantly more responsibility on school systems to ensure the progress of students with disabilities toward challenging educational standards. NCLB focuses on the school and requires annual yearly progress for each student group toward 100% proficiency on state assessments within 12 years and indicates that if less than 45% of a student subgroup participates in state assessments it has not met its annual progress goal.

The message of the No Child Left Behind Act and its reforms is the belief that every child can learn and demonstrate progress toward challenging state standards in core academic subjects. Moreover, school systems are held accountable for improving the performance of all students and face sanctions if they do not deliver. The requirement placed on teachers, therefore, is that they are able to teach core academic subjects to all children. To achieve this, it is likely that all teachers will need to develop new professional knowledge and skills essential to teaching in an environment of accountability and standards-based education.

EPRRI's National Symposium

The Education Policy Reform Research Institute (EPRRI) conducted a national symposium to address key questions on the effect of educational accountability reforms on the teaching profession. Symposium participants included state and district

level personnel, representatives from national organizations concerned with the preparation and licensure of teachers, and representatives from the U.S. Department of Education's Office of Special Education Programs (OSEP). As a framework for the discussion, EPRRI included six essential principles of inclusive assessment and accountability systems identified by EPRRI's collaborating partner, the National Center on Educational Outcomes (NCEO) (Thurlow, Quenemoen, Thompson, & Lehr, 2001). These principles are based on a decade of NCEO's documentation of assessment and accountability systems. The principles are:

Principle 1. All students with disabilities are included in the assessment system.

Principle 2. Decisions about how students with disabilities participate in the assessment system are the result of clearly articulated participation, accommodations, and alternate assessment decision-making processes.

Principle 3. All students with disabilities are included when student scores are publicly reported, in the same frequency and format as all other students, whether they participate with or without accommodations, or in an alternate assessment.

Principle 4. The assessment performance of students with disabilities has the same impact on the final accountability index as the performance of other students, regardless of how the students participate in the assessment system (i.e., with or without accommodations, or in an alternate assessment).

Principle 5. There is improvement of both the assessment system and the accountability sys-

tem over time, through the processes of formal monitoring, ongoing evaluation, and systematic training in the context of emerging research and best practice.

Principle 6. Every policy and practice reflects the belief that *all students* must be included in state and district assessment and accountability systems.

These principles are supported by a number of characteristics that define in more detail the specifics of inclusive assessment and accountability systems.

5. Knowledge and Skills Needed by Educators to Support the Academic Content Standards by Students with Disabilities

Based on the principles developed by NCEO, participant responses, and other research, we have put forward key knowledge and skills that all educators need to increase the participation and performance of students with disabilities in standards-based environments. Though the focus of this review is on this specific set of knowledge and skills, we acknowledge the importance of pedagogy, knowledge about how children learn, collaborative belief systems, and other broad skills that are critical to the makeup of a highly qualified teacher (Darling-Hammond, 1997; Tom, 1997; Valli & Rennert-Ariev, 2000). These areas have been studied for several years and are addressed thoroughly by organizations focused on standards for teachers.

At this time a focus on skills specific to successful standards-based reform is especially needed. These skills are listed in Table 2 and described in greater detail here. Initially, when we presented each individual proposed skill we asked symposium participants whether special educators, regular educators, or all educators needed to develop it. Symposium participants generally thought that all 10 were necessary for all educators, especially numbers 3-5, which relate directly to access to the curriculum. One participant said, “The more we want all teachers to be responsible for all kids, the less we want categories of responsibility.”

Table 2. Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities

1. Understand state and federal legislation related to academic content and achievement standards and recognize that these laws apply to EVERY student.
2. Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student.
3. Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities.
4. Develop IEPs that support the achievement of grade level academic content standards.
5. Design learning environments that support the achievement of grade level academic content standards by students with disabilities.
6. Understand state and federal legislation on state and district assessments and accountability, and recognize that these laws apply to EVERY student.
7. Understand state and district assessment and accountability systems and recognize that EVERY student is expected to participate in general assessments with or without accommodations, or in alternate assessments.
8. Make appropriate assessment participation decisions for students with disabilities and document on each student's IEP.
9. Assist students with disabilities in selecting and using assessment accommodations, including assistive technology.
10. Administer alternate assessments to students with significant disabilities.

Understand state and federal legislation related to academic content and achievement standards and recognize that these laws apply to EVERY student. All educators need to develop a working knowledge of state and federal requirements for the participation of all students in academic content and achievement standards. The No Child Left Behind Act of 2001 has strengthened requirements for the participation of students with disabilities in standards-based education, and the forthcoming reauthorization of the Individuals with Disabilities Education Act is expected to continue to strengthen these requirements. In addition, each state has legislation on standards-based education that is unique to the state. Every teacher needs to be able to educate students in ways that meet both the letter and spirit of the most recently passed state and federal legislation. EPRRI symposium participants stressed their commitment to the belief that all students have to be included in standards-based reform. Students participating in alternate assessments may have different achievement levels but they have to be taught to the same standards.

Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student. Within each state's education laws and policies are explicit academic content and achievement standards toward which students are required to work. McLaughlin (2000) maintains that both general and special education teachers need an intimate understanding of these standards, using them to guide curriculum and instruction for all students. Entry-level teachers, as well as more experienced educators, need solid content knowledge and skills that are aligned with the academic content and achievement standards of a particular state. EPRRI symposium participants acknowledged that there is an incorrect

assumption that all teachers know about states' content and achievement standards. Several participants commented, "Special education teachers often don't know there is a connection between what they do and mandated standards. They may be isolated in separate schools and classrooms." In addition, most states and school districts are still in the process of aligning school curricula with these standards and a disconnect can occur. According to Burns and Purcell (2001) "the majority of teachers haven't had an opportunity to discuss standards – to own them, breathe life into them, and incorporate them into the curriculum...Standards will have an impact on equity and student achievement only after teachers have the time and opportunity to understand them, to own them..." (p. 52).

Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities. Teachers need a solid grounding in the disciplines in which they are hired in order to effectively teach rigorous content to students. Research has shown that student performance is increased with high-quality teachers who can differentiate instruction in response to the varied learning styles of their students, especially at the middle and senior high school levels (Huange & Haycock, 2002). Haycock (1998) concluded from research that mathematics and science teachers with majors in the fields in which they teach result in higher student performance than teachers without majors in these fields. Wenglinsky (2000) concluded that "well-prepared teachers produce more successful students" (p. 2). Students with disabilities need to be instructed by teams of teachers who can provide both rigorous content and instructional support.

EPRRI symposium participants reflected

the view that special education as a discipline is unique, encompassing a wide scope of educational responsibility. In some ways, it is a content area, but special educators also need to be knowledgeable in general curriculum content, to collaborate with general educators. Symposium participants pointed out that at times, special education teachers may be competent to teach one academic subject, such as English, but are actually teaching another, such as chemistry. One state-level representative said, “In one school, special education history teachers were given no training, no books, no standards, and no curriculum. Teaching academic content to those students was clearly not a priority for the state or the school.”

Develop IEPs that support the achievement of grade level academic content standards. IEP teams, which include both general and special educators, need to develop IEPs that “raise the bar” for students with disabilities, supporting the achievement of grade level academic content and achievement standards (Thompson, Thurlow, Quenemoen, Esler, & Whetstone, 2001). IEPs need to focus on providing instruction and support that enable students with disabilities to work toward rigorous educational standards. One EPRI symposium participant pointed out that only five states mention standards in their IEP forms. In addition several participants acknowledged that when IEPs document access to the “general curriculum” they may imply standards, but there is not always a clear connection that the IEP team recognizes.

Design learning environments that support the achievement of grade level academic content standards by students with disabilities. General and special educators need to collaborate to support students in their work toward standards. This sup-

port includes assisting students in the selection and use of accommodations, assistive technology, and instructional adaptations (McDonnell, McLaughlin, & Morison, 1997). It also includes the documentation of this support on each student’s IEP. Darling-Hammond, Wise, and Klein (1995) found that in order to help students meet challenging academic content standards, both general and special education teachers need a deep understanding of students and learning environments.

Understand state and federal legislation on state and district assessments and accountability and recognize that these laws apply to EVERY student. Just as teachers need to understand legislation on standards, they also need to understand both state and federal legislation on the assessment of student progress toward those standards and the implications of state and district assessments for school accountability (Quenemoen, Thompson, & Lehr, 2001; Thompson & Thurlow, 2001a). Both IDEA and No Child Left Behind clearly address the need to include students with disabilities in assessment systems.

Understand state and district assessment system and recognize that EVERY student is expected to participate in general assessments with or without accommodations, or in alternate assessments. States are now required to include students with disabilities in accountability systems. Each state has its own assessment system that includes a variety of tests at several grade levels. State assessment systems continue to evolve, making it even more important to stay up-to-date with district and state policies and assessment procedures. All students are to be included in state and district assessments in one of three ways, either under standard conditions, with accommodations, or—for a

small number of students with the most significant disabilities—through alternate assessments.

Make appropriate assessment participation decisions for students with disabilities and document on each student’s IEP. Since statewide assessment is a key component of educational accountability systems, it is vital that all teachers understand how to appropriately include students with disabilities (Thurlow et al., 2002). DeStefano and Shriner (2000) found that “teachers’ decisions about assessment participation and accommodation after training show a stronger link to students’ access to the general curriculum and needed instructional accommodations than decisions prior to training” (p. 10).

Assist students with disabilities in selecting and using assessment accommodations, including assistive technology. It is the responsibility of everyone on a student’s IEP team to help a student select and use appropriate assessment accommodations. Teachers need enough information about assessment participation and accommodations to help students make good decisions. Sometimes students are encouraged to use too many accommodations while keeping their fingers crossed that *something* will help (Thompson & Thurlow, 2001b). Students need to try out a variety of accommodations in the classroom to figure out what works best for them before making decisions about what to use on tests (Fuchs, Fuchs, Eaton, Hamlett, & Karns, 2000). It is important for teachers to know the consequences of using certain accommodations, especially those that could result in a student’s score not counting toward a high stakes decision, such as grade promotion or graduation, or in the accountability system.

Administer alternate assessments to students with significant disabilities. Educators need to develop a solid understanding of how to administer an alternate assessment to the small percentage of students with disabilities who are unable to take the general state assessment even with accommodations. Alternate assessments are often performance-based and require knowledgeable and skilled educators who can appropriately administer them within the larger accountability system (Thompson, Quenemoen, Thurlow, & Ysseldyke, 2001).

6. Teacher Preparation and Licensure Standards

It is critical, in this era of standards-based reform and accountability, for teacher preparation programs to provide new general and special education teachers with the essential skills and knowledge exemplified in Table 2. Meeting this challenge has been difficult, partly because so many stakeholders (including universities, accreditation agencies, teachers' unions, subject-matter associations, policymakers, and local, state, and federal education agencies) need to become involved in reform efforts (Tom, 1997). However, during this time when many new teachers will be trained and hired by schools, a window of opportunity exists for teacher education programs to align themselves with rigorous standards, so that the next generation of teachers is prepared to teach high academic content standards to all students. U.S. Department of Education, Office of Postsecondary Education's report (2002), *Meeting the Highly Qualified Teachers Challenge: The Secretary's Annual Report on Teacher Quality*, found that 24 states have implemented teacher standards that are aligned to the state's academic content standards for students.

As standards-based reform takes effect, several states are undergoing substantial changes in requirements for the licensure of general and special education teachers. Course-based models have been the traditional method for approving the licensure of educators. In other words, students were required to pass a number of courses in particular content areas in order to be eligible for licensure. States differed greatly in the number of courses required and the content of those courses. In the past, aspiring teachers in licensure programs have been required to take a rigid sequence of courses on college campuses with relatively few practicum opportunities. Prospective teachers often did not need to demonstrate that they had the knowledge, skills,

and dispositions needed to teach prior to licensure (Tom, 1997). Darling-Hammond (1997) argued that there is a need for rigorous standards for teacher licensure programs that will ensure that entry-level teachers are adequately prepared by providing structured internship opportunities with a performance assessment system that directly assesses what prospective teachers know and can do. Darling-Hammond et al. (1995) recommended four basic components for teacher licensure requirements: (1) Candidates must be able to demonstrate that they have the knowledge, skills, and dispositions needed to teach; (2) Candidates must have grounding in the discipline they will teach; (3) Licensure candidates must graduate from an accredited institution; and (4) Licensure candidates must pass a licensure exam that synthesizes the material they have learned throughout the training program.

In recent years, an increasing number of states are changing to competency-based or performance-based requirements as they revise their licensure systems. Standards set by national organizations for the preparation and licensure of teachers have influenced changes in teacher preparation and licensure in many states. Three organizations that have worked closely together to develop consistent and coherent standards for teacher competence and licensure are the Interstate New Teacher Assessment and Support Consortium (INTASC), National Council for Accreditation of Teacher Education (NCATE), and the Council for Exceptional Children (CEC). These groups have worked to develop a consensus about the basic performance standards that focus on the knowledge and skills needed by entry-level general and special education teachers across various subject areas (Wise, 2000).

Interstate New Teacher Assessment and Support Consortium (INTASC)

INTASC is a consortium of states organized by the Council of Chief State School Officers (CCSSO) and consisting of state education agencies, higher education institutions, and national education organizations. The mission of INTASC is to promote standards-based reform through the development of model standards and assessments for beginning teachers. INTASC also “provides states with tools and working knowledge that can guide their efforts to redesign all aspects of teacher policy, including program approval, teacher education, licensing, and ongoing professional development” (Interstate New Teacher Assessment and Support Consortium, 2002). The teacher preparation standards of 30 states are based on the INTASC standards (Council of Chief State School Officers, 2000).

The INTASC core standards serve as a starting point for states to develop policies that shape teacher preparation programs for new teachers as well as professional development for continuing teachers. The standards view teaching as a complex art that requires prospective teachers to demonstrate that they have a “common-core” of teaching knowledge (Darling-Hammond et al., 1995). The consortium-designed model standards include 10 “principles” that define the knowledge, skills, and dispositions that are considered essential for entry-level teachers. The principles, developed in 1992, represent “those principles which should be present in all teaching regardless of the subject or grade level taught and serve as a framework for development” (Interstate New Teacher Assessment and Support Consortium, 2002, p. 1). The ten overarching INTASC principles are:

Principle 1: The teacher understands the central concepts, tools of inquiry, and structures of the

discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

Principle 2: The teacher understands how children learn and develop, and can provide learning opportunities that support their intellectual, social, and personal development.

Principle 3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse students.

Principle 4: The teacher understands and uses a variety of instructional strategies to encourage students’ development of critical thinking, problem solving, and performance skills.

Principle 5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

Principle 6: The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Principle 7: The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

Principle 8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

Principle 9: The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

Principle 10: The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.

The core principles are currently being translated for specific disciplines. Mathematics, for example, was completed in 1995 and a special education draft (described in more detail below) was recently released, along with standards for teaching science, arts, and foreign language. A draft of standards for English language arts is under development, along with social studies and elementary education. See <http://www.ccsso.org> for a complete listing of available discipline-specific standards.

In 1997 INTASC formed a Special Education Standards Initiative. This initiative included representatives from the Council for Exceptional Children (CEC) and the National Association of State Directors of Special Education (NASDSE) with the Council for Chief State School Officers (CCSSO). The INTASC Special Education Sub-Committee released a draft for comments in May 2001 called *Model Standards for Licensing General and Special Education Teachers of Students with Disabilities: A Resource for State Dialogue* (Council of Chief State School Officers, 2001) (see Appendix A). These standards represent one of the first efforts to develop consensus on defining what a quality educator of students with disabilities actually does. According to Mainzer and Horvath (2001), "There

have never before been national level principles for what all educators need to effectively teach children and youth with disabilities in regular education classrooms" (p. 6). Table 3 shows that many of the essential knowledge and skills introduced in this review are addressed in the Model Standards for Licensing General and Special Education Teachers of Students with Disabilities.

As shown in Table 3, the "Model Standards for Licensing General and Special Education Teachers of Students with Disabilities" do not specifically address state academic content or achievement standards, but do address the need for all teachers to adapt instruction for students with disabilities and the importance of teachers being experts in the content areas they teach. Some might argue that it could be assumed that academic content and achievement standards, as required by NCLB, are addressed under content; however, it could also be argued that a teacher could meet all of these standards with limited knowledge of standards-based reform. The Model Standards do address the need for students with disabilities to participate in state and district assessments, including an understanding of accommodations and alternate assessments.

National Council for the Accreditation of Teacher Education (NCATE)

NCATE is a voluntary association that represents four groups: teacher educator programs, classroom teachers, policymakers, and professional specialty areas (Lucas, 1997). For colleges to be accredited, they are required to include liberal arts courses in their teacher preparation programs, as well as practical and theoretical knowledge of pedagogy provided in a sequential way. The NCATE standards set benchmarks that universities can use as they reform their general and special education teacher

Table 3. Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Addressed in INTASC’s Model Standards

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	INTASC’s Model Standards for Licensing General and Special Education Teachers of Students with Disabilities
1. Understand state and federal legislation related to academic content and achievement standards and recognize that these laws apply to EVERY student.	(1.04) All teachers understand major principles of federal disabilities legislation (i.e., IDEA, Section 504, and ADA). (1.12) Special education teachers serve as a resource to others by providing information about the laws and policies that support students with disabilities (e.g., IDEA, Section 504, Americans with Disabilities Act) and how to access additional information when needed.
2. Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student.	(1.06) All Special Education Teachers have a solid base of understanding in the content areas of math, reading, English/language arts, science, social studies, and the arts comparable to elementary generalist teachers.
3. Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities.	(1.01) All General and Special Education teachers have solid base of understanding of content areas they will teach.
4. Develop IEPs that support the achievement of grade level academic content standards.	(1.11) Special education teachers have knowledge of the requirements and responsibilities involved in developing, implementing, and evaluating individualized education programs (IEPs), individualized family service plans (IFSPs), and individual accommodation plans (IAPs) for students with disabilities. (7.01) All General and Special Education Teachers contribute their expertise as part of a collaborative team to develop, monitor, and revise IEPs.
5. Design learning environments that support the achievement of grade level academic content standards by students with disabilities.	(1.03) All teachers understand that students with disabilities may need accommodations, modifications, or adaptations to the general curriculum. (1.08) Special education teachers have knowledge of when and how to develop, structure and implement accommodations, modifications and/or adaptations to provide access to the general curriculum. (1.10) Special education teachers have knowledge of the range of assistive technology (e.g., augmentative communication devices, student-specific software, optical devices) that support students in the learning environment and know how to access resources related to this technology (e.g., through the Internet, district/state agencies, professional organizations) (7.04) All teachers design a learning environment so that the individual needs of students with disabilities are accommodated.

Table 3. Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Addressed in INTASC’s Model Standards (continued)

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	INTASC’s Model Standards for Licensing General and Special Education Teachers of Students with Disabilities
6. Understand state and federal legislation on state and district assessments and accountability, and recognize that these laws apply to EVERY student.	(1.04) All teachers understand major principles of federal disabilities legislation (i.e., IDEA, Section 504, and ADA). (1.12) Special education teachers serve as a resource to others by providing information about the laws and policies that support students with disabilities (e.g., IDEA, Section 504, Americans with Disabilities Act) and how to access additional information when needed.
7. Understand state and district assessment and accountability system and recognize that EVERY student is expected to participate in general assessments with or without accommodations, or in alternate assessments.	(8.05) All teachers understand that students with disabilities are expected to participate in district and statewide assessments and that accommodations or alternate assessments may be required when appropriate.
8. Make appropriate assessment participation decisions for students with disabilities and document on each student’s IEP.	(8.11) Special education teachers ensure that students with disabilities participate in district and statewide assessments and document on the IEP the use of accommodations or an alternate assessment when appropriate.
9. Assist students with disabilities in selecting and using assessment accommodations, including assistive technology. 10. Administer alternate assessments to students with significant disabilities.	(8.03) All teachers collaborate with others to incorporate accommodations and alternate assessments into the ongoing assessment process of students with disabilities when appropriate.

preparation program requirements. NCATE has provided leadership in assisting universities in aligning with the INTASC performance standards to ensure the competence of new teachers. NCATE standards for teacher preparation programs (see Appendix B) are partially aligned with INTASC standards, and both are frequently used in the development of state standards for licensure (Wise, 2000).

Like INTASC, NCATE requirements emphasize that candidates should be able to demonstrate certain competencies rather than just take a certain number of courses. These competencies are program-oriented rather than content-oriented like those of INTASC. The standards include clinical practice, diversity, and resource requirements for school accreditation. Universities are encouraged to closely cooperate with K-12 schools to provide high-quality training opportunities for aspiring teachers as they proceed through the licensure process (Wise, 2000).

NCATE has worked closely with the Council for Exceptional Children (CEC) to develop a list of special education advanced program evidence. NCATE has partnered with many states to accredit institutions. In some states program evidence does not need to be provided to NCATE and NCATE will defer to state program requirements (National Council for Accreditation of Teacher Education, 2002).

Many colleges and universities try to comply with NCATE regulations because accreditation is seen as a sign of quality. Almost all large teacher education institutions have NCATE accreditation, though many smaller programs do not. Some state departments of education work closely with NCATE to ensure the quality of the teacher licen-

sure programs within their states. The percentage of institutions with NCATE membership varies widely among states, with some states requiring all programs in their state to meet NCATE standards. The number of institutions that belong to NCATE has greatly increased in recent years. In 1996, 481 schools belonged to NCATE; by 2001, the number had increased to 517 as policymakers and the public demanded more accountability (NCATE, 2001).

Council for Exceptional Children (CEC)

The Council for Exceptional Children (CEC) historically has provided leadership in the development of standards for beginning special educators (Mainzer & Horvath, 2001). Twenty-nine states have used the CEC model standards to some degree as they developed their state standards for special education teacher licensure (Geiger, 2002). CEC also provides technical assistance to states that are in the process of revising their licensing requirements. CEC has new performance-based standards for the preparation and licensure of special educators that have been approved by the National Council for the Accreditation of Teacher Education (NCATE). In addition CEC has collaborated with both the Interstate New Teacher Assessment and Support Consortium (INTASC) and the National Board for Professional Teaching Standards (NBPTS) to make sure the standards are coordinated.

CEC's most recent standards are divided into three parts: Field Experiences and Clinical Practice Standards, Assessment System Standards, and Special Education Content Standards (see <http://www.cec.sped.org/ps>). According to Mainzer and Horvath (2001), "Each of the sets of the beginning special educator standards have gone through a comprehensive process of review and validation that involved literally thousands of practicing spe-

cial educators” (p. 5). The content standards, the focus of this paper, are made up of 10 narrative standards that have been reorganized from the previous 8 domain areas. These new domain areas parallel the INTASC principles (Council for Exceptional Children, 2002).

The review procedures used to monitor implementation of these standards are also new. Rather than review syllabi from programs showing that the standards were taught, programs must now provide evidence that the standards are assessed and that students show achievement of the standards through those assessments. This requires program faculty to develop a comprehensive assessment system that addresses each of the 10 Content Standards, and to collect and aggregate student performance on those assessments. The CEC standards recognize that both beginning teachers and more experienced special education teachers need to have the skills and knowledge that are contained in the CEC standards (Council for Exceptional Children, 2000).

Forty-two states had state-approved standards in place for teacher licensure in 2000, with four additional states in the process of developing standards (Council of Chief State School Officers, 2000). Several states have been guided by nationally recognized standards in the development of the set of knowledge and skills/competencies contained in their professional standards. Other states have adopted national accreditation standards for their teacher preparation programs and require program completion for licensure. These states have made an assumption that “the act of majoring or passing a certain number of courses in accredited universities in itself certifies a sufficient level of content knowledge” (Mitchell & Barth, 1999, p. 4). Even though national standards drive many states’ certification,

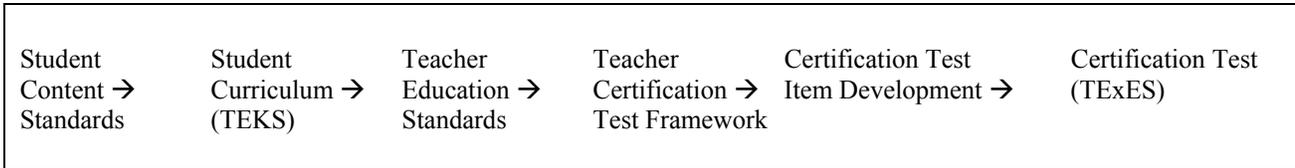
the language used for standards in each state varies a great deal. States also vary in their requirements for new and continuing teachers.

State Example of Standards for Teacher Licensure

Figure 1 shows an example of Texas, a state that is beginning to link teacher certification to standards-based reform for students. The state-mandated student curriculum, Texas Essential Knowledge and Skills (TEKS), is based on academic content standards. The Texas teacher education standards are aligned with the TEKS curriculum and are used in the development of the Texas Examinations of Educator Standards (TExES).

According to the Texas State Board for Educator Certification (No Date, a), Texas is in transition from using the Examination for the Certification of Educators in Texas (ExCET) to TExES. The TExES examinations are multiple-choice, criterion-referenced tests that are designed to measure the skills and knowledge needed by entry-level teachers. Certification candidates take both a pedagogy and professional responsibilities examination, and a certification area examination. There are three levels of certification: Early childhood (EC)-Grade 4; Grades 4-8; and Grades 8-12. Some certification areas include EC-12. Beginning in Fall 2002, the TExES pedagogy exams will be offered. The TExES Special Education examination will be available in Fall 2003.

Figure 1. Alignment of Student Content Standards to Teacher Certification Requirements in Texas



Texas has a variety of educator preparation programs, including both traditional and alternate certification programs. Several community colleges, a private entity, several school districts, and some regional education service centers offer alternate teacher certification programs. Educator preparation programs are in the process of aligning their programs with the state teacher education standards. Programs have the incentive to change so that program participants (i.e., teacher licensure candidates) will have the skills and knowledge needed to pass the TExES examination. Table 4 shows examples of the alignment between skills needed by educators to instruct students with disabilities in standards-based environments and the Texas standards for beginning general and special educators. Table 5 then shows the alignment between the Texas teacher education standards and the TExES test frameworks.

Table 4. Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Documented in Texas Teacher Education Standards

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	Texas Teacher Education Standards	
	Texas Standards for General Educators	Texas Standards for Special Educators
1. <i>Understand state and federal legislation related to academic content and achievement standards and recognize that these laws apply to EVERY student.</i>	4.13k: The beginning teacher knows and understands the legal requirements for educators (e.g., those related to special education students’ and families’ rights, student discipline, equity, child abuse).	1.1k: The beginning special education teacher knows and understands the historic foundations, classic studies including the major contributors, and major state and federal legislation that has affected the knowledge and practices in the education of individuals with disabilities.
2. <i>Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student.</i>	1.7k: The beginning teacher knows and understands the importance of the state content and performance standards as outlined in the Texas Essential Knowledge and Skills (TEKS).	
3. <i>Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities.</i>	1.6s: The beginning teacher is able to use the Texas Essential Knowledge and Skills (TEKS) to plan instruction. 1.19k: The beginning teacher knows and understands the importance of designing instruction that reflects the TEKS. 1.19s: The beginning teacher is able to plan instructional activities that progress sequentially and support stated instructional goals based on the TEKS	
4. <i>Develop IEPs that support the achievement of grade level academic content standards.</i>		3.1s: The beginning special education teacher is able to work collaboratively with parents, students, and school and community personnel in the development of clear, measurable Individual Educational Plan (IEP) goals and objectives that are aligned with the Texas Essential Knowledge and Skills (TEKS). 10.9k: The beginning special education teacher knows and understands the role of the Texas Essential Knowledge and Skills (TEKS) in the development of the Individual Educational Plan (IEP) for individuals with disabilities.

Table 4. Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Documented in Texas Teacher Education Standards (continued)

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	Texas Teacher Education Standards	
	Texas Standards for General Educators	Texas Standards for Special Educators
5. <i>Design learning environments that support the achievement of grade level academic content standards by students with disabilities.</i>	1.3s: The beginning teacher is able to use effective approaches to address varied student learning needs and preferences.	5.8s: The beginning special education teacher is able to use information from teachers, other school and community personnel, individuals with disabilities, and parents/guardians to make or suggest appropriate accommodations/modifications to learning environments. 8.6k: The beginning special education teacher knows and understands the role of assistive technology, devices, and services in facilitating students' access to the general curriculum and active participation in educational activities and routines.
6. <i>Understand state and federal legislation on state and district assessments and accountability, and recognize that these laws apply to EVERY student.</i>	4.17k: The beginning teacher knows and understands the importance of adhering to required procedures for administering state- and district-mandated assessments	5.1k: The beginning special education teacher knows and understands state and federal laws (e.g., IDEA, Title I) that require the assessment of the progress of all students toward state standards.
7. <i>Understand state and district assessment and accountability system and recognize that EVERY student is expected to participate in general assessments with or without accommodations, or in alternate assessments.</i>	1.30k: The beginning teacher knows and understands the connection between the Texas statewide assessment program, the TEKS, and instruction.	
8. <i>Make appropriate assessment participation decisions for students with disabilities and document on each student's IEP.</i>		
9. <i>Assist students with disabilities in selecting and using assessment accommodations, including assistive technology.</i>		
10. <i>Administer alternate assessments to students with significant disabilities.</i>		

Source: Texas State Board for Educator Certification (No date, a and c). The Special Education Standards and Pedagogy and Professional Responsibilities Standards (EC-Grade 12) were used to compile this chart. Texas also has separate standards at each of three certification levels (EC-Grade 4, Grades 4-8, and Grade 8-12).

Table 5. Example of Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Aligned to Standards for Beginning Teachers, and a Test Framework to Measure Teacher Achievement of Skills

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	Texas Teacher Education Standards	
	Texas Standards for Beginning Special Education Teachers	Texas Test Framework for Beginning Special Education Teachers
<i>Develop IEPs that support the achievement of grade level academic content standards.</i>	<p>3.1s: The beginning special education teacher is able to work collaboratively with parents, students, and school and community personnel in the development of clear, measurable Individual Educational Plan (IEP) goals and objectives that are aligned with the Texas Essential Knowledge and Skills (TEKS).</p> <p>10.9k: The beginning special education teacher knows and understands the role of the Texas Essential Knowledge and Skills (TEKS) in the development of the Individual Educational Plan (IEP) for individuals with disabilities.</p>	Included in Domain II, Competency 003: The beginning special education teacher knows the role of the Texas Essential Knowledge and Skills (TEKS) in developing Individual Education Programs (IEPs) for students with disabilities, and applies skills for sequencing, implementing, and evaluating individual learning objectives.
	Texas Standards for Beginning General Education Teachers	Texas Test Framework for Beginning General Education Teachers
<i>Understand state and district academic content and achievement standards and recognize that these standards apply to EVERY student.</i>	1.7k: The beginning teacher knows and understands the importance of the state content and performance standards as outlined in the Texas Essential Knowledge and Skills (TEKS).	Included in Domain I, Competency 003: The beginning teacher understands the significance of the Texas Essential Knowledge and Skills (TEKS) and of prerequisite knowledge and skills in determining instructional goals and objectives.
<i>Select curriculum and design instruction that supports the achievement of grade level academic content standards by students with disabilities.</i>	<p>1.6s: The beginning teacher is able to use the Texas Essential Knowledge and Skills (TEKS) to plan instruction.</p> <p>1.19k: The beginning teacher knows and understands the importance of designing instruction that reflects the TEKS.</p> <p>1.19s: The beginning teacher is able to plan instructional activities that progress sequentially and support stated instructional goals based on the TEKS.</p>	<p>Included in Domain I, Competency 003: The beginning teacher understands the significance of the Texas Essential Knowledge and Skills (TEKS) and of prerequisite knowledge and skills in determining instructional goals and objectives.</p> <p>The beginning teacher plans lessons and structures units so that activities progress in a logical sequence and support stated instructional goals.</p>

Table 5. Example of Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities Aligned to Standards for Beginning Teachers, and a Test Framework to Measure Teacher Achievement of Skills (continued)

Knowledge and Skills Needed by Educators to Support the Achievement of Academic Content Standards by Students with Disabilities	Texas Teacher Education Standards	
	Texas Standards for Beginning Special Education Teachers	Texas Test Framework for Beginning Special Education Teachers
<i>Understand state and federal legislation on state and district assessments and recognize that these laws apply to EVERY student.</i>	4.17k The beginning teacher knows and understands the importance of adhering to required procedures for administering state- and district-mandated assessments.	Included in Domain IV, Competency 013: The beginning teacher understands the importance of and adheres to required procedures for administering state- and district-mandated assessments.
<i>Understand state and district assessment system and recognize that EVERY student is expected to participate in general assessments with or without accommodations, or in alternate assessments.</i>	1.30k The beginning teacher knows and understands the connection between the Texas statewide assessment program, the TEKS, and instruction.	Included in Domain I, Competency 003: The beginning teacher understands the connection between various components of the Texas statewide assessment program, the TEKS, and instruction, and analyzes data from state and other assessments using common statistical measures to help identify students' strengths and needs.

Source: Texas State Board for Educator Certification (No date, a, c, d). The Special Education Standards and Pedagogy and Professional Responsibilities Standards (EC-Grade 12) were used to compile this chart. Texas also has separate standards at each of three certification levels (EC- Grade 4, Grades 4-8, and Grade 8-12). The TExES Test Framework was also used to prepare this table.

7. Licensure Examinations

In addition to requiring teacher licensure candidates to meet certain competencies, most states require prospective teachers to pass an examination prior to licensure (U.S. Department of Education, Office of Postsecondary Education, 2002). There are two broad perspectives about how to best improve general and special education teacher preparation: (1) Raise teacher preparation program standards, and (2) Use test results to measure teacher knowledge (Linehan, 2001).

Licensure examinations are designed to ensure that teacher candidates are well-prepared regardless of the institution from which they graduate. However, states continue to vary greatly in their requirements for measuring the proficiency of teacher candidates. For example, in order to license special educators, some states require the assessment of basic skills, pedagogical knowledge, or knowledge of special education using different instruments and requiring different standards for achievement. An increasing number of states are requiring some type of performance assessment, especially for special educators, when passing a basic skills test does not address the skills needed to support the learning of students with disabilities. One difficulty with licensure tests is that they are seldom aligned with the emerging academic content required for states under the No Child Left Behind Act (Mitchell & Barth, 1999).

Licensure examinations are only a small piece of teacher education reform, but they do articulate what teachers are expected to know; they can be a component of systemic reform. The examinations can serve as an impartial final decision-maker about who is qualified to teach. Policymakers often feel less need to micro-manage teacher education programs in states that have a licensing examination

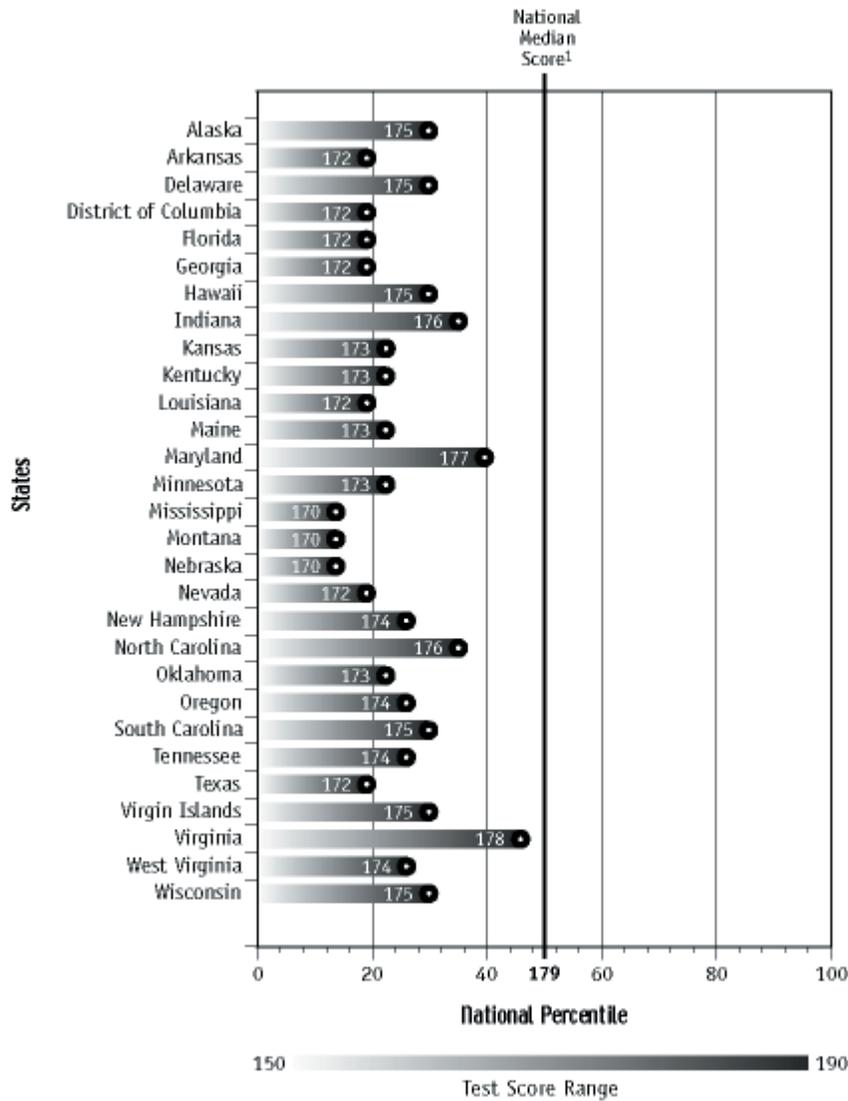
(Darling-Hammond et al., 1995).

Melnick and Pullin (2000) assert that any licensure tests must have both validity and reliability. The tests should accurately measure the skills, abilities, and knowledge needed for entry-level teachers to successfully perform their job. The test results should be predictive of important teacher behaviors that are highly correlated with student achievement. The tests should also be aligned with the curriculum taught in teacher-preparation programs. According to Melnick and Pullin (2000), “teacher candidates in a state-approved program have a legitimate expectation that the institutions’ teacher education and liberal arts requirements would afford them reasonable preparation for the tests” (p. 270).

Licensure exams are typically taken either near the midpoint of the academic preparation program or near program completion. In 2000, 44 states had a written test policy for new teachers. A total of 39 states required assessment of the basic skills of licensure candidates; 30 states required a test of subject-matter knowledge in the area of licensure; and 28 states required a test of professional knowledge of teachers. The Praxis I and the Praxis II (offered by the Educational Testing Service) are the most commonly used assessments, though some states have designed their own assessments (Council of Chief State School Officers, 2000).

Passing scores on licensing examinations are established state by state and not by the test publisher (Mitchell & Barth, 1999). Huange et al. (2002) assert that often it is difficult to determine how well beginning teachers are prepared since the passing scores on licensure exams are set so low in many states that almost all candidates pass (see Figure 2). For example, on a teacher licensure

Figure 2. State Minimum Passing Scores, Preprofessional Skills Test: Reading, 1999-2000.



1. National median score is defined by the score realized by the 50th percentile test taker.
 Note: States not listed did not participate in Praxis Pre-Professional Skills Testing Program in 1999-2000.
 Source: Educational Testing Service. Analysis by Westat, March, 2002.

Source: U.S. Department of Education, Office of Postsecondary Education, Office of Policy Planning and Innovation (2002). *Meeting the Highly Qualified Teachers Challenge: The Secretary's Annual Report on Teacher Quality*, Washington, DC Retrieved August 2002, from the World Wide Web: <http://www.title2.org/SecReptHTML/index.html>

test used by 29 states, 14 states set passing scores below the 25th percentile. As shown in Figure 3, during the 1999-2000 school year, 93 percent of prospective teachers passed state examinations for initial certification (U.S. Department of Education, Office of Postsecondary Education, 2002). It has been argued that setting the passing scores so low may reduce the credibility of the examinations and permit students with insufficient content knowledge to become teachers.

State Example of Licensure Examinations

California provides an example of a state that requires prospective teachers to pass a number of assessments. They must pass the California Basic Educational Skills Test (CBEST). This assessment tests basic reading, writing, and mathematics skills. Many licenses also require the Reading Instruction Competence Assessment (RICA), which can be taken as a written paper/pencil test or a candidate-created video of the candidate teaching reading. Candidates seeking multiple subject teaching credentials must take the Multiple Subject Assessment for Teachers (MSAT). Single subject matter teaching credential candidates take either the Praxis II or the Single Subject Assessment for Teachers (SSAT) (California Commission on Teacher Credentialing, 2002b).

In California all preliminary credential candidates are also required to take a performance assessment. This assessment is still in the pilot stage. Teacher preparation programs may choose to administer either an assessment of their own design or use the Teaching Performance Assessment Pilot (TPA) developed by the California Commission on Teacher Credentialing. Thirteen Teaching Performance Expectations (TPEs) are measured by the TPA. Candidates must respond to a number

of complex tasks in writing. A proficiency scale is then used to measure the responses. The TPA was piloted until September 2002; the proficiency scale is currently being refined and a schedule for implementation will be developed (California Commission on Teacher Credentialing, 2002b). According to the CCTC Web site:

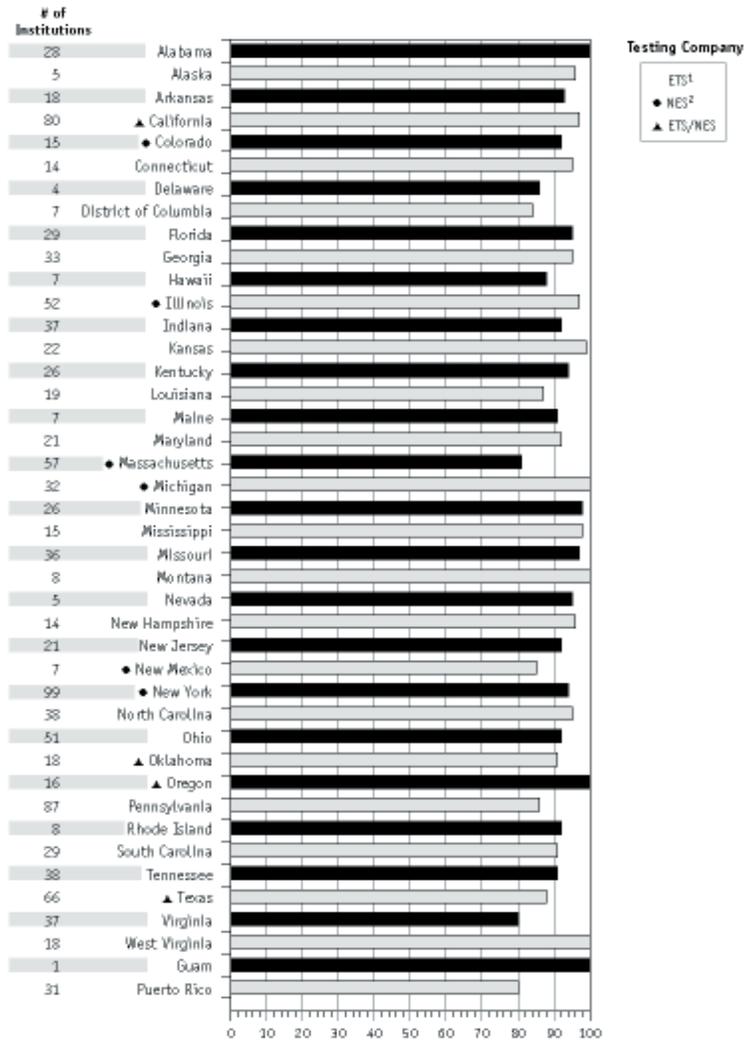
Task One: Knowledge of principles of developmentally appropriate pedagogy, of adaptation of content for students with exceptional needs and for English language students, and of specific pedagogical skills for subject matter instruction as well as interpretation and use of assessment.

Task Two: Ability to learn important details about a small group of students and to design a lesson that is shaped by those contextual details.

Task Three: Ability to design standards-based, developmentally appropriate student assessment activities in the context of a small group of students and a specific lesson. In addition, the candidates will demonstrate their ability to assess student learning and diagnose student needs from individual responses to the assessment activities.

Task Four: Ability to design a standards-based lesson for a class of students, implement that lesson making appropriate use of class time and instructional resources, meet the differing needs of individuals within the class, manage instruction and student interaction, assess student learning, and analyze the strengths and weaknesses of the lesson (California Commission on Teacher Credentialing, 2002b).

Figure 3. Summary Pass Rates by State and Testing Company: 1999-2000.



1: Educational Testing Service (ETS)

2: National Evaluation Systems (NES)

Source: U.S. Department of Education, Office of Postsecondary Education, Office of Policy Planning and Innovation (2002). *Meeting the Highly Qualified Teachers Challenge: The Secretary's Annual Report on Teacher Quality*, Washington, DC Retrieved August 2002, from the World Wide Web: <http://www.title2.org/SecReptHTML/index.html>

8. Alternate Certification Routes

Some states offer alternate teacher licensure routes to expedite the licensure of individuals with a college degree. These programs generally assume that if a prospective teacher has subject-area knowledge, the student teaching and education coursework can be condensed into a very short time period. Licensure in alternate certification programs often relies heavily on the results of licensure examinations. States often do not require teacher licensure candidates in alternate certification programs to have met the same teacher education standards as licensure candidates in more traditional programs. Darling-Hammond et al. (1995) found that alternative-route certified teachers are very unevenly prepared to teach. Some do quite well, but many lack needed skills and are unable to create high-quality classroom environments that focus on student learning and success. These teachers also tend to have lower levels of job satisfaction.

In spite of possible limitations, alternative certification programs are likely to continue to train a substantial number of teachers in the future. Rude (2002), in a survey of the State Improvement Directors in 14 states, found that many of the states used the Council for Exceptional Children (CEC) framework as the basis for developing their alternate certification requirements for special education teachers. Policies need to be thoughtfully designed so that all alternative certification programs are structured in such a way to ensure that everyone completing the programs truly is highly qualified and prepared to teach all students rigorous standards-based content.

State Example of Alternate Certification Routes

California provides an example of a state with a number of alternate certificate routes. Almost one

third of all new teachers in California in 2000-01 were certified through alternate programs. Forty-six percent of the alternate certified teachers were ethnic minorities, whereas that group represents only 25% of all teachers in California (U.S. Department of Education, Office of Postsecondary Education, 2002, p. 16). According to the Commission on Teacher Credentialing Web site:

Eighty-two projects have been awarded state funding to prepare and support teachers in alternative certification programs. Approximately 12,000 teachers are serving in California's hardest-to-staff schools as a result of these programs. More than 600 districts in all 58 counties are involved. Most of the teachers in these programs are entering teaching as a second career. They teach students in both the major urban centers as well as some of California's rural and remote areas. Among the students they serve are children in special education, bilingual students, incarcerated youth, and students who live in some of California's most economically distressed areas.

In addition to \$42 million in state funding that is available to help districts and universities prepare teachers for California classrooms, the Commission on Teacher Credentialing has received a grant from the federal government to provide placement assistance to persons whose first career was in a military service. The goal is to facilitate the certification and employment of 300 veterans of the armed services per year as teachers in California public schools (California Commission on Teacher Credentialing, No Date, b).

California permits uncertified people who are

hired by a school district to participate in an alternate certification program. Prospective special education teachers and aspiring teachers in other subject areas where there are teacher shortages are especially encouraged to consider the alternative certification route. The California Web site states that if an aspiring elementary teacher has a BA/BS degree, has passed the CBEST test, and has a job offer, the candidate “may be eligible for a pre-internship or internship program in lieu of completing a traditional teacher preparation program” (California Commission on Teacher Credentialing, 2002a).

9. Professional Development Schools

Professional Development Schools offer an approach to teacher education reform that has the potential to help both teacher licensure candidates and experienced teachers learn new skills. All teachers need to learn how to provide an inclusive, rigorous, standards-based curriculum to all students. In some states, Professional Development Programs are a component of alternate certification programs.

University faculty are often isolated from the schools in which they are preparing students to work. John Goodlad and others have advocated for autonomous “centers for pedagogy” that would eliminate the barriers between universities and schools (Tom, 1997). These centers are school-university partnerships that take responsibility for teacher preparation. University faculty are housed within a school district to train new teachers by designing learning opportunities in a school setting that enables the new teachers to learn the attitudes, skills, and competencies needed to become exemplary teachers. Professional development schools can connect professors with district and state standards and assessments. University staff can also work closely with experienced teachers to help them learn how to incorporate more effective instructional strategies that include all students in their classroom practices (Tom, 1997).

Tom (1997) argues that it is not necessary to have official “centers of pedagogy” with a separate budget and staff, but that the term could be used in a metaphorical sense to describe close collaborative relationships between schools and universities that are designed to integrate practice teaching and the study of knowledge. New teachers could gradually take on more responsibilities.

State Example of Professional Development Schools

There are 92 Professional Development Schools (PDS) in Maryland. Many have a unique focus such as special education or technology (Maryland State Department of Education, 2001a). Maryland has developed standards for professional development schools in the state. They are based on the NCATE draft standards for identifying and supporting quality Professional Development Schools and the Maryland Professional Development School Consortium Common Understandings About Professional Development Schools. These standards describe the expected performance of professional development schools in the areas of learning community, collaboration, accountability, and organization roles and resources. Each standard has four components:

- Teacher Preparation (Extensive Internship);
- Continuing Professional Development;
- Action Research/Inquiry and Performance Assessment; and
- Student Achievement (PreK-12 Priorities) (Maryland Department of Education, 2001a).

The standards focus on how to train and evaluate teachers, rather than on student curriculum standards; however, the cell in the standards matrix where accountability and student achievement intersect states that “[Professional Development School] partners collaborate to determine the impact of PDS on student achievement . . . All PDS stakeholders assume responsibility for student achievement” (Maryland State Department of Education, 2001b).

10. Career Ladders

Many states have designed two- or three-tiered licensure systems that recognize a career continuum for teachers. Beginning teachers have entry-level skills, but they are still learning new skills. In some states, alternate certification programs have blurred the distinction between student teachers and first-year teachers. It is important to develop criteria for teacher expectations as they move from novice to master teacher. There should be distinct job titles and expectations, as well as differences in remuneration, for teachers at different points on the career ladder.

David Berliner, a nationally recognized expert in teacher training and expertise, has found:

- teachers develop from beginning to expert teachers over a period of five to eight years;
- prospective teachers need more field-based experiences and mentoring opportunities;
- pre-licensure teachers need to learn a wide range of pedagogical skills, including instructional strategies, learning styles, how to work with diverse students, and how administer and interpret student assessments; and
- as teachers grow as professionals they develop a knowledge bank of previous situations that guide them as they teach (Berliner & Scherer, 2001).

New teachers need support and assistance. One-fifth of all public school teachers in the United States leave their current position within three years—9.3% quit without even completing their first year of teaching (Fideler, 2000). The high turn-over of teachers is not only costly, but students often end up getting short-changed as novice teachers go through the “revolving door.” A study by the National Center for Education Statistics (Henke,

Chen, & Geis, 2000) found that the national attrition rate for new teachers who had participated in an induction program was only 15% within the first three years of teaching, compared with 26% for teachers who had not received any induction support.

School districts and policymakers can enact teacher induction programs as a way to foster the retention of high-quality teachers. One EPRRI symposium participant pointed out that teacher preparation programs cannot turn out a finished product and that it is important to remember “teacher education ends with a ceremony called a commencement, which means a beginning—the start of a career. School districts also have to be involved in training—they shouldn’t point fingers. Everyone needs to work together to develop good teachers.” New teachers often feel isolated and unsure of their competence. Induction programs can provide new teachers with support and assistance from a mentor or coach as they learn needed skills to teach rigorous standards-based content. Fideler (2000) recommends that induction programs:

- treat teacher induction as a multi-year process as new teachers go through several developmental stages;
- provide a supportive atmosphere for inductees;
- use trained mentors and provide mentors with a stipend and work release time;
- facilitate cooperation between schools and training institutions;
- disseminate information about best practices; and
- have sufficient resources to offer a quality program.

The CEC International Standards for Entry into Professional Practice recommend that each new special education teacher receive a minimum of a one-year mentorship during the first year of practice in a new role. CEC recommends that the mentor be an experienced professional in the same or similar role who can provide support and expertise on an ongoing basis (Council for Exceptional Children, 2002). CEC has developed principles and guidelines for mentoring induction in order to help local school districts establish or strengthen mentoring programs in their schools (White & Mason, 2001).

The National Board for Professional Teaching Standards (NBPTS) provides a voluntary opportunity for experienced teachers to continue to grow as educational professionals. Board certification candidates are assessed using multiple measures, including portfolio assessments. Some states recognize board certified teachers as “master teachers.” The NBPTS model has five key propositions that are aligned with the INTASC standards and are designed to complement state licensure requirements (Wise, 2000). See Appendix C for the propositions.

NBPTS has standards for many different program areas, including standards for Early Childhood through Young Adult/Exceptional Needs Specialist Standards. There are five distinct paths for board certification as Exceptional Needs Specialist:

- Early childhood (birth to 8 years);
- Mild and moderate disabilities (5 to 21+ years);
- Severe and multiple disabilities (5 to 21+ years);
- Visually impaired (birth to 21+ years); and
- Deaf/hard of hearing (birth to 21+ years) (Helms, 2000).

All teachers going through the board certification process create performance-based portfolios and analyze videotapes of lessons they have taught. These experiences require teachers to reflect upon their teaching practices as they grow as educational professionals. Teachers working on certification learn how to better focus their instruction on student learning and outcomes. A total of 39 states and 180 school districts provide rewards and incentives to encourage teachers to work for board certification (Bohen, 2001). Special educators seeking board certification prepare an Exceptional Needs portfolio and videotapes that demonstrate that the candidate can:

- Link assessment and instruction;
- Foster communications development;
- Enhance social development;
- Investigate student learning;
- Collaborate with other professionals; and
- Provide outreach to families (Helms, 2000).

State Examples of the Use of Career Ladders

An example of a career pathway initiative implemented in the city of Rochester, New York called the “Career in Teaching” program, “incorporates support for new teachers, provides opportunities for highly accomplished teachers to share their skills, and offers peer review and assistance to teachers experiencing problems in their practice” (Koppich, Asher, & Kerchner, 2002, p. v). Program implementers found that a critical element was having mentors guide and encourage new teachers during their early years. These mentors are considered lead teachers, with at least seven years of successful classroom teaching experience. In addition to mentoring for new teachers, Rochester’s career path includes peer assistance and review of new

and veteran teachers and leadership roles for highly qualified, experienced teachers. The four stages in a teacher's career include intern, resident teacher, professional teacher, and lead teacher (Koppich et al., 2002). This program has resulted in a drastic improvement in special education and general education teacher retention.

The state of Maryland found that many new teachers quit during the early years of their career. Maryland recently began a new program called Maryland's Initiative for New Teachers (MINT). The program is designed to mentor new teachers and assist them in building social connections within the educational community. It also provides incentives to exemplary teachers to encourage them to use their experience to help others (Leadership Maryland, 2002). The program is supported with corporate and foundation funds. The program provides support for new teachers through newsletters, electronically, and through the development of social networks. The goal of the program is to "encourage commitment toward Maryland's reform programs and build teachers' expertise in aligning classroom practice with state curriculum and content standards" (U.S. Department of Education, 2002a). The program is designed to increase teacher retention and pairs new teachers with award winning teachers from the Teacher of the Year Program, Disney's American Teacher Awards, Milken Family Foundation National Educator Awards for Excellence in Mathematics and Science Teaching Program, and NBPTS certified teachers (U.S. Department of Education, 2002a).

11. Professional Development

Title II of No Child Left Behind addresses and funds in-service professional development for teachers in areas such as intensive training to increase teacher knowledge of the academic subjects they teach, and aligning professional development activities with student academic content and achievement standards and assessments. According to James Stigler (Willis, 2002), “the standards movement has created a real need for teacher learning, so people are looking critically at the kinds of learning experiences we’re providing for teachers” (p. 6). Stigler believes that in the long run, the accountability movement will have “an excellent effect on professional development because it creates a context in which everyone is really motivated to improve...Another reason the standards movement is good is that it means all teachers in a state – within a grade level or subject area – are sharing the same learning goals for their students, which gives them a much richer basis for sharing the provisional knowledge that can help them improve” (Willis, p. 11). Forty-seven states had policies in place in 2000 that required teachers to complete certain professional development requirements to renew their license. The majority of those states required at least six semester credit hours of professional development every five years (Council of Chief State School Officers, 2000).

A recent study of mathematics and science teachers concluded that there are six keys to effective professional development:

- teacher mentoring and study groups are more effective than workshops or conferences;
- programs that are continued over a longer period of time have more impact;
- teachers who work together in a collegial atmosphere have more opportunities to cre-

ate high-quality learning environments for students;

- teachers need to continue to learn subject matter;
- teachers retain more from active learning experiences; and
- professional development needs to be a coherent part of the larger context of school improvement efforts (Time is Key, 2002).

Wenglinsky (2000) used data from the National Assessment of Educational Progress (NAEP) to analyze the responses of mathematics and science teachers to see how much professional development they had received in the past year. Only 45% of the mathematics teachers and 55% of the science teachers had received more than 15 hours of professional development during the past year. Thirty-eight percent of the mathematics teachers and 53% of the science teachers had had a professional development experience in the past five years on performance-based assessment.

Professional development requirements in many states have not been closely aligned with the key knowledge and skills teachers need to prepare students to meet challenging academic content and achievement standards. McLaughlin (2000) found that “teacher knowledge and ability to incorporate the standards into pedagogy was very much affected by the quality of professional development, as well as the strength of teacher-to-teacher support” (p. 29). In a study by the Center for Policy Research on the Impact of General and Special Education Reform, McLaughlin (2000, p. 29) concluded:

Professional development that was focused on integrating specific curricular goals, instruction, and assessment in the standards was

most effective in helping teachers understand standards. However, too little professional development focused specifically on helping teachers understand the needs of students with disabilities or other students with significant achievement deficits. The challenge seemed to be how to provide the high-quality professional development directed to teaching and learning as well as to students with significant learning problems.

CEC's International Standards for Entry into Professional Practice recommends that special educators participate in a minimum of 25 clock hours each year of planned preapproved, organized and recognized professional development activities related to professional practice. CEC also recommends that employing agencies provide the resources for teachers to enable their continuing development.

State Example of Web-based Professional Development Resources

Teachers and administrators need easy access to information about professional development opportunities. They also need quality information to use in creating high quality professional development opportunities for educators in a school building or school district. Texas provides an extensive Web-based "Resource Connection" professional development site at <http://lucas.tea.state.tx.us/PAI/TTB/links/1,2096,45,00.html>. It provides detailed information about professional development. For example, there is a page on "TEKS for Leaders" that provides links, seminar information, and other resources for educators about the statewide assessment program.

Another page contains professional develop-

ment resources especially for special educators. There are extensive links to relevant legislation, lesson planning assistance, information about collaborating with other teachers and parents, and material about specific disabilities (Texas Education Agency, No date).

12. Conclusion

The reform of teacher education is complicated and multifaceted. States have begun to make changes in their teacher credentialing process to better prepare teachers to teach rigorous content to all students. Many of the state teacher education standards, however, are not closely aligned with student academic content and achievement standards. They also do not require teachers to have the knowledge and skills needed to understand how to appropriately include all students in state and district assessments.

EPRRI symposium participants strongly believe that all teachers need to know the content their students are required to learn and they suggested that special education teachers should have at least a minor in a content area. Symposium participants believe that teachers of early grades should have strong skills related to teaching reading, and strategies for teaching reading and math to students with special needs. In addition, symposium participants believe that special educators should understand and interpret the results and implications of state assessments, have an overall understanding of state standards and benchmarks, know how to make modifications to curriculum, and know how various accommodations may impact a student's ability to participate equally in state assessments.

Important policy considerations include:

- Ensure that students with disabilities have long term access to state academic content and achievement standards regardless of setting or disability category.
- Incorporate research based best practices for standards-based instruction of students with disabilities into state and national accreditation requirements for all educators.

- Incorporate the results of recent research about inclusive education and inclusive assessments into state and national accreditation requirements.
- Ensure that all students have highly-qualified teachers who understand the relationship between standards-based reform, school improvement, and student performance.
- Link state and national accreditation requirements to teacher licensure programs.
- Provide prospective teachers with practice teaching experiences that give them opportunities to link to their study of professional knowledge about teaching in a standards-based environment.
- Link university programs, alternate route programs, and K-12 schools.
- Increase the investment of institutions of higher education in teacher preparation programs.
- Use teacher education resources not only to train pre-licensure teachers, but also to offer professional development opportunities for teachers throughout their careers.

When dramatic teacher shortages and the need to hire emergency teachers is at the top of most districts' and states' priorities, the focus on standards-based qualifications is often lost. Defining ways to address the shortages within a standards-based environment is key to preparing future educators who focus on student achievement. Alignment of standards for both teaching and learning is needed, so that educators understand how to teach all students, including students with disabilities.

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Appendix A. INTASC Model Standards for Licensing General and Special Education Teacher of Students with Disabilities

Principle 1: The teacher understands the central concepts, tools of inquiry, structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful to students.

All General and Special Education teachers have solid base of understanding of content areas that will teach (1.01).

All teachers know key concepts, ideas, facts, processes students should know in content area in different grades and developmental levels (1.02).

All teachers understand that students with disabilities may need accommodations, modifications, or adaptations to the general curriculum (1.03).

All teachers understand major principles of federal disabilities legislation (i.e., IDEA, Section 504, and ADA) (1.04).

All teachers know how to access resources about special education policies and procedures (1.05).

All Special Education Teachers have a solid base of understanding in the content areas of math, reading, English/language arts, science, social studies, and the arts comparable to elementary generalist teachers (1.06).

Special education teachers have knowledge of the content of an expanded curriculum including such areas as communicative, social and emotional development, communication skills and oral language development, social/behavior skills, motor skills, functional and independent living skills, employment-related skills, self-advocacy skills, orientation and mobility skills, and travel instruction (1.07).

Special education teachers have knowledge of when and how to develop, structure and implement accommodations, modifications and/or adaptations to provide access to the general curriculum for students with disabilities (1.08).

Special education teachers of students with disabilities have knowledge of services, procedures, and policies that support transition from secondary school settings to post-secondary and work settings, as well as to participation in all aspects of community life (1.09).

Special education teachers have knowledge of the range of assistive technology (e.g., augmentative communication devices, student-specific software, optical devices) that support students in the learning environment and know how to access resources related to this technology (e.g., through the Internet, district/state agencies, professional organizations) (1.10).

Special education teachers have knowledge of the requirements and responsibilities involved in developing, implementing, and evaluating individualized education programs (IEPs), individualized family service plans (IFSPs), and individual accommodation plans (IAPs) for students with disabilities (1.11).

Special education teachers serve as a resource to others by providing information about the laws and policies that support students with disabilities (e.g., IDEA, Section 504, Americans with Disabilities Act) and how to access additional information when needed (1.12).

Special education teachers know major trends and issues that define the history of special education, and understand how current legislation and recommended practice fit within the context of this history (1.13).

Principle 2: The teacher understands how children learn and develop, and can provide learning opportunities that support the intellectual, social, and personal development of each learner.

All General and Special Education Teachers have sound understanding of physical, emotional and cognitive development from birth through adulthood (2.01).

All teachers continually examine their assumptions about the learning and development of individual students with disabilities (2.02).

All teachers recognize that students with disabilities have varied approaches to learning (2.03).

All teachers are knowledgeable about multiple theories of learning and research-based teaching practices (2.04).

All Special Education Teachers have knowledge of a wide array of disabilities and are cognizant of the range and types of individual variation that exist within disability categories (2.05).

Special education teachers understand how a disability in one area (e.g., physical, cognitive, social/emotional) can impact learning and development in other areas (2.06).

Special education teachers seek to understand the current and evolving development and learning of individual students from a life-span perspective (2.07).

Special education teachers seek a holistic understanding of each student's current learning and development, based on knowledge of the student's performance within a variety of settings (e.g., home, school, workplace) (2.08).

Principle 3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse students.

All General and Special Education Teachers build students' awareness, sensitivity, acceptance, and appreciation of students with disabilities (3.01).

All teachers recognize that a specific disability does not dictate how an individual student will learn (3.02).

All teachers understand how disabilities are perceived differently across families, communities, and cultures (3.03).

All teachers understand and are sensitive to cultural, ethnic, gender, and linguistic differences that may be confused with or misinterpreted as manifestations of a disability (3.04).

All Special Education Teachers have a repertoire of strategies to build students' awareness, sensitivity, acceptance and appreciation for students with disabilities, and collaborate with general education teachers to implement these strategies (3.05).

Special education teachers seek to understand how having a child with disabilities may influence a family's views of themselves as caregivers and as members of their communities (3.06).

Special education teachers share the values and beliefs underlying special education services for individuals with disabilities in the United States with students, families, and community members, and seek to understand ways in which these are compatible or in conflict with those of the family and community (3.07).

Special education teachers understand that second language students can also have language-based disabilities (3.08).

Special education teachers actively ask questions, seek information from others, and take actions to guard against inappropriate assessment and identification of students whose cultural, ethnic, gender, and linguistic differences may be confused with manifestations of a disability (3.09).

Principle 4: The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

All General and Special Education Teachers have shared responsibilities for education of students with disabilities (4.01).

All teachers understand how different learning theories and research contribute to effective instruction for students with disabilities (4.02).

All teachers use research-based practices for students with disabilities (4.03).

All teachers understand importance of providing multiple ways for students with disabilities to participate in learning activities (4.04).

All teachers provide a variety of ways for students with disabilities to demonstrate their learning (4.05).

All teachers adjust their instruction in response to information gathered from ongoing monitoring of performance and progress of students with disabilities (4.06).

All teachers use strategies that promote independence, self-control, and self-advocacy of students with disabilities (4.07).

All teachers expect and support the use of assistive and instructional technologies to promote learning and independence of students with disabilities (4.08).

All Special Education Teachers have responsibility for ensuring the appropriate delivery of instruction for students with disabilities (4.09).

Special education teachers know a range of specialized instructional strategies that have been found through research and best practices to support learning in individual students with disabilities (4.10).

Special education teachers collaborate with general education teachers to infuse individualized goals and specialized strategies into instruction for students with disabilities (4.11).

Special education teachers keep abreast of research-based instructional practices for students with disabilities (4.12).

Special education teachers identify instructional strategies that have been successful in different learning environments (such as home, workplace and school) and work to embed these strategies across environments for individual students with disabilities (4.13).

Principle 5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

All General and Special Education Teachers identify interests and preferences of students with disabilities and uses that information to design activities to permit students to make positive contributions to learning community (5.01).

All teachers develop positive strategies for coping with frustrations in the learning situation that may be associated with their disability (5.02).

All teachers promote positive social relationships among students with disabilities and their age-appropriate peers in learning community (5.03).

All teachers recognize factors that are likely to promote (or diminish) intrinsic motivation (5.04).

All teachers participate in the design and implementation of individual behavior support plans on individual students with disabilities (5.05).

All Special Education Teachers have a repertoire of effective strategies, including explicit teaching and adult-mediated and peer-mediated learning, for promoting positive behavior and building constructive relationships between students with disabilities and their age-appropriate peers (5.06).

Special education teachers facilitate the development, implementation and monitoring of prevention and intervention programs for students with disabilities who exhibit challenging behavior (5.07).

Special education teachers prepare students with disabilities to take an active role in their IEP planning process, when it is appropriate to do so, in order to support their commitment to learning, self-motivation and self-advocacy (5.08).

Principle 6: The teacher uses knowledge of effective verbal, nonverbal, and media communication technologies to foster active inquiry, collaboration, and supportive interaction in the classroom.

All General and Special Education Teachers are knowledgeable of how communication strategies and assistive technologies can be incorporated as regular part of instruction (6.01).

All teachers know how to collaborate with speech/language pathologists and other language specialists (6.02).

All teachers understand that linguistic background has an impact on language acquisition (6.03).

All teachers provide multiple opportunities to foster effective community between all classroom members (6.04).

All teachers are sensitive to the verbal and non-verbal messages they may convey to students with disabilities (6.05).

All Special Education Teachers know how to assess, design, and implement strategies that foster the language and communication development of students with disabilities, including non-verbal and verbal communication (6.06).

Special education teachers are familiar with a variety of types of assistive communication devices and know how to access support specialists and services within and outside the school setting (6.07).

Special education teachers monitor students' use of assistive communication devices across environments (e.g., special class, general education class, after school child care center, home) and provide assistance in using the devices or in changing the device in response to changes in need (6.08).

Principle 7: The teacher plans instruction based on knowledge of subject matter, students, the community and curriculum goals.

All General and Special Education Teachers contribute their expertise as part of a collaborative team to develop, monitor, and revise IEPs (7.01).

All teachers plan ways to modify instruction as needed (7.02).

All teachers collaborate to plan instruction related to expanded curriculum in general education classrooms for students with disabilities (7.03).

All teachers design a learning environment so that the individual needs of students with disabilities are accommodated (7.04).

All teachers monitor student progress and incorporate knowledge of student performance across settings (e.g. home, neighborhood) into instructional planning process (7.05).

All Special Education Teachers incorporate their knowledge of the impact of disabilities on individual student learning and information gathered in assessment of specific students to guide and oversee the development of various individual plans including Individualized Education Programs (IEPs), Individualized Family Service Plans (IFSPs), and Individual Accommodation Plans (IAPs) (7.06).

Special education teachers oversee the development of individualized transition plans to guide students' transitions from preschool to elementary school, middle school to high school, and high school to post-school opportunities (7.07).

Special education teachers provide for the active involvement of students, families, and other professionals in constructing the student's education program (7.08).

Special education teachers take the primary responsibility for planning and developing an expanded curriculum, such as the development of functional life skills and communication skills, when needed (7.09).

Principle 8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

All General and Special Education Teachers understand the purposes, strengths and limitations of formal and informal assessment approaches (8.01).

All teachers use a variety of assessment procedures to document students' learning, behavior, and growth within multiple environments (8.02).

All teachers collaborate with others to incorporate accommodations and alternate assessments into the ongoing assessment process of students with disabilities when appropriate (8.03).

All teachers engage all students, including students with disabilities, in assessing and understanding their own learning and behavior (8.04).

All teachers understand that students with disabilities are expected to participate in district and statewide assessments and that accommodations of alternate assessments may be required when appropriate (8.05).

All Special Education Teachers understand how to administer, score, interpret, and report on formal and informal assessments (including standardized tests) related to their areas of specialization (8.06).

Special education teachers plan and conduct assessments (e.g. informal and formal assessments of academic achievement, functional behavioral analyses, curriculum-based assessments, ecological assessments) in the school, home, and community in order to make eligibility and placement decisions about individual students with disabilities (8.07).

Special education teachers initiate, contact, and collaborate with other professionals (e.g., general education teachers, psychologists, social workers, speech/language pathologists, medical personnel) throughout the identification and initial planning process (8.08).

Special education teachers are aware of and guard against over and under identification of disabilities based on cultural, ethnic, gender, and linguistic diversity (8.09).

Special education teachers regularly use ongoing assessment and student progress monitoring to make instructional decisions and adaptations and modifications in instruction (8.10).

Special education teachers ensure that students with disabilities participate in district and statewide assessments and document on the IEP the use of accommodations or an alternate assessment when appropriate (8.11).

Principle 9: The teacher is a reflective practitioner who continually evaluates the effects of his/her choices on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

All General and Special Education Teachers regularly use reflection and evaluation strategies to reflect on how students with disabilities are functioning in the classroom (9.01).

All teachers continually challenge their beliefs about how students with disabilities learn and how to teach them effectively (9.02).

All teachers seek out current information and research about how to educate students with disabilities for whom they are responsible (9.03).

All teachers reflect on the potential interaction between a student's cultural experiences and their disabilities (9.04).

All Special Education Teachers reflect on the progress of individual students with disabilities and work with general education teachers, other professionals, and families to consider ways to build on the students' strengths and meet their needs (9.05).

Special education teachers are current in their fields. They read the professional literature and research, network with colleagues, and engage in professional development (e.g., workshops, professional association conferences, study groups) (9.06).

Special education teachers reflect on their personal biases and the influences of these biases on the instruction they provide to students with disabilities, and on the interactions they have with other personnel, families, and the community (9.07).

Principle 10: The teacher fosters relationships with school colleagues, families, and agencies in the larger community to support students' learning and well being.

All General and Special Education Teachers Share instructional responsibility for students with disabilities and works to develop well-functioning collaborative teaching relationships (10.01).

All teachers understand the purposes of, and are effective members of, the different types of teams within the special education process (10.02).

All teachers understand the roles and responsibilities of paraprofessionals (10.03).

All teachers accept families as full partners in planning appropriate instruction and services for students with disabilities (10.04).

All Special Education Teachers provide leadership that enables teams to accomplish their purposes (10.05).

Special education teachers take a life span view of students with disabilities and use their broad knowledge of disabilities, legislation, special education services, and instructional strategies to ensure implementation of each student's individual education program (10.06).

Special education teachers work with related services professionals to design, implement, and evaluate instructional plans for students with disabilities (10.07).

Special education teachers include, promote, and facilitate family members as partners on parent-professional, interdisciplinary, and interagency teams (10.08).

Special education teachers collaborate with families and with school and community personnel to include students with disabilities in a range of instructional environments in the school and community (10.09).

Special education teachers understand the impact that having a child with a disability may have on family roles and functioning at different points in the life cycle of a family (10.10).

Source: INTASC (2001). *Standards for Licensing General and Special Education Teacher of Students with Disabilities: A Resource for State Dialogue*.

Abbreviated NCATE Accreditation Standards

(The complete annotated standards can be found <http://www.ncate.org>).

Standard 1: Candidate Knowledge, Skills, and Dispositions

Candidates preparing to work in schools as teachers or other professional school personnel know and demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Assessments indicate that candidates meet professional, state, and institutional standards.

Standard 2: Assessment System and Unit Evaluation

The unit has an assessment system that collects and analyzes data on applicant qualifications, candidate and graduate performance, and unit operations to evaluate and improve the unit and its programs.

Standard 3: Field Experiences and Clinical Practice

The unit and its school partners design, implement, and evaluate field experiences and clinical practice so that teacher candidates and other school personnel develop and demonstrate the knowledge, skills, and dispositions necessary to help all students learn.

Standard 4: Diversity

The unit designs, implements, and evaluates curriculum and experiences for candidates to acquire and apply the knowledge, skills, and dispositions necessary to help all students learn. These experiences include working with diverse higher education and school faculty, diverse candidates, and diverse students in P-12 schools.

Standard 5: Faculty Qualifications, Performance, and Development

Faculty are qualified and model best professional practices in scholarship, service, and teaching, including the assessment of their own effectiveness as related to candidate performance. They also collaborate with colleagues in the disciplines and schools. The unit systematically evaluates faculty performance and facilitates professional development.

Standard 6: Unit Governance and Resources

The unit has the leadership, authority, budget, personnel, facilities, and resources, including information technology resources, for the preparation of candidates to meet professional, state, and institutional standards.

Core Propositions of the National Board for Professional Teaching

1. Teachers are committed to students and their learning.

Accomplished teachers are dedicated to making knowledge accessible to all students. They act on the belief that all students can learn. They treat students equitably, recognizing the individual differences that distinguish one student from another and taking account of these differences in their practice. They adjust their practice based on observation and knowledge of their students' interests, abilities, skills, knowledge, family circumstances and peer relationships.

Accomplished teachers understand how students develop and learn. They incorporate the prevailing theories of cognition and intelligence in their practice. They are aware of the influence of context and culture on behavior. They develop students' cognitive capacity and their respect for learning. Equally important, they foster students' self-esteem, motivation, character, civic responsibility and their respect for individual, cultural, religious and racial differences.

2. Teachers know the subjects they teach and how to teach those subjects to students.

Accomplished teachers have a rich understanding of the subject(s) they teach and appreciate how knowledge in their subject is created, organized, linked to other disciplines and applied to real-world settings. While faithfully representing the collective wisdom of our culture and upholding the value of disciplinary knowledge, they also develop the critical and analytical capacities of their students.

Accomplished teachers command specialized knowledge of how to convey and reveal subject matter to students. They are aware of the preconceptions and background knowledge that students typically bring to each subject and of strategies and instructional materials that can be of assistance. They understand where difficulties are likely to arise and modify their practice accordingly. Their instructional repertoire allows them to create multiple paths to the subjects they teach, and they are adept at teaching students how to pose and solve their own problems.

3. Teachers are responsible for managing and monitoring student learning.

Accomplished teachers create, enrich, maintain and alter instructional settings to capture and sustain the interest of their students and to make the most effective use of time. They also are adept at engaging students and adults to assist their teaching and at enlisting their colleagues' knowledge and expertise to complement their own. Accomplished teachers command a range of generic instructional techniques, know when each is appropriate and can implement them as needed. They are as aware of ineffectual or damaging practice as they are devoted to elegant practice.

They know how to engage groups of students to ensure a disciplined learning environment, and how to organize instruction to allow the schools' goals for students to be met. They are adept at setting norms for social interaction among students and between students and teachers. They understand how to motivate students to learn and how to maintain their interest even in the face of temporary failure.

Accomplished teachers can assess the progress of individual students as well as that of the class as a whole. They employ multiple methods for measuring student growth and understanding and can clearly explain student performance to parents.

4. Teachers think systematically about their practice and learn from experience.

Accomplished teachers are models of educated persons, exemplifying the virtues they seek to inspire in students—curiosity, tolerance, honesty, fairness, respect for diversity and appreciation of cultural differences—and the capacities that are prerequisites for intellectual growth: the ability to reason and take multiple perspectives to be creative and take risks, and to adopt an experimental and problem-solving orientation.

Accomplished teachers draw on their knowledge of human development, subject matter and instruction, and their understanding of their students to make principled judgments about sound practice. Their decisions are not only grounded in the literature, but also in their experience. They engage in lifelong learning which they seek to encourage in their students.

Striving to strengthen their teaching, accomplished teachers critically examine their practice, seek to expand their repertoire, deepen their knowledge, sharpen their judgment and adapt their teaching to new findings, ideas and theories.

5. Teachers are members of learning communities.

Accomplished teachers contribute to the effectiveness of the school by working collaboratively with other professionals on instructional policy, curriculum development and staff development. They can evaluate school progress and the allocation of school resources in light of their understanding of state and local educational objectives. They are knowledgeable about specialized school and community resources that can be engaged for their students' benefit, and are skilled at employing such resources as needed.

Accomplished teachers find ways to work collaboratively and creatively with parents, engaging them productively in the work of the school.





The U.S. Department of Education's
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