No Child Left Behind and Students With Autism Spectrum Disorders

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The No Child Left Behind Act of 2001 (NCLB) is a complex, sweeping, and controversial law that was passed as a reaction to the low academic achievement exhibited by so many public school students in the United States. This powerful law profoundly changes the ways in which educators work with students in both general and special education by holding states, school districts, principals, and teachers accountable for making meaningful improvements in students' academic performance and by requiring the use of scientifically based practices. In this article, the authors (a) describe the history of NCLB; (b) explain the law's purpose and major principles; (c) discuss how NCLB's principles will affect students with disabilities, specifically those students with autism spectrum disorders; and (d) offer recommendations to teachers, administrators, and teacher trainers to ensure that educators meet the letter and spirit of NCLB.

The No Child Left Behind Act of 2001 (NCLB) is a sweeping, comprehensive, and powerful law that is changing the way public school students are educated in the United States. The law represents an unprecedented increase in the role of the federal government in education, because NCLB dramatically increased federal mandates and requirements on states, school districts, and public schools. In fact, NCLB represents the most significant expansion of the federal government into education in U.S. history. NCLB will affect all students who attend special education programs for part or all of their instruction by holding states and public schools accountable for improving student achievement in reading and math. Moreover, NCLB requires that educators use scientifically based strategies and methods, which represent the primary tools that will allow schools to make meaningful changes in the academic achievement of their students.

NCLB gives states a great deal of flexibility in determining how they will implement much of the law. To gain a thorough understanding of how NCLB affects a particular school district, one must know how a state and school district implement the various components of the law. We suggest, therefore, that for readers to truly understand how NCLB will affect students in their state, they need to investigate how their particular state and school district interpret and implement NCLB. To assist in understanding NCLB, in this article, we (a) describe the history of NCLB; (b) explain the law's purpose and major principles; (c) discuss how NCLB's principles will affect students with disabilities, especially those students with autism spectrum disorders; and (d) offer recommendations to teachers, administrators, and teacher trainers to ensure that educators meet the letter and spirit of NCLB.

History of NCLB

Although education is primarily a local and state responsibility, the federal government has provided funding to the states. States and school districts provide approximately 90% of the funding, and the federal government contributes the remaining 10%. States and school districts determine attendance, enrollment, and graduation requirements and develop curricula. Despite the low level of funding, the federal government's role in education has been an important one, often because it provides funds to assist states in such crucial areas as educating economically disadvantaged children and youth. The federal role has evolved, however, from one in which the government primarily provided federal assistance to the states to one in which the federal government is holding states accountable for improving learning outcomes and achievement of all students. NCLB represents a logical step in a series of education laws passed by the federal government that were intended to improve the academic achievement of the nation's students.

Since the mid-1960s, the federal government has provided large amounts of money to states to assist them in improving education programming for public school students. Beginning with the publication of the report *A Nation at Risk* in 1983, officials in the federal government began to question the results that federal funding was having on states' education systems (Commission on Excellence in Education, 1983). Many believed that the evidence reported in *A Nation at Risk* clearly

showed that federal funds were not being spent on meaningful state activities designed to improve education results. In fact, since 1965, almost $400 billion has been spent on education. Unfortunately, state and national assessments of student progress, particularly the National Assessment of Educational Progress (NAEP), given biannually to a sample of America's students, have shown that student achievement in reading and math has remained stagnant over the past 40 years despite massive infusions of federal money. These facts have led legislators to argue that the federal funds should be spent in a more effective manner and should be tied to measures of accountability.

The federal role in education began to expand with the passage of the Improving America's Schools Act of 1994, which extended the programs in the Elementary and Secondary Education Act of 1965. These laws created a new role for the federal government in public and secondary education by tying government funding to the development of rigorous academic content standards by the states. Unfortunately, although states began to develop these standards, increases in student achievement did not occur. The passage of NCLB in 2001 expanded the role of the federal government in public education by holding states, school districts, and schools accountable for producing measurable gains in students' achievement in reading and mathematics. Specifically, NCLB was a reaction to low academic achievement in general and reading in particular. For the first time, the federal government began requiring states and school districts to use numerical data to provide evidence of improved student outcomes.

Purpose of NCLB

The primary purpose of NCLB is to ensure that students in every public school achieve important learning goals while being educated in safe classrooms by well-prepared teachers. To increase student achievement, the law requires that school districts assume responsibility for all students reaching 100% proficiency levels on tests assessing reading and mathematics by the 2013–2014 academic year. Furthermore, NCLB requires schools to close academic gaps between economically advantaged students and students who are from diverse economic, racial, and ethnic backgrounds, as well as students with disabilities.

To measure progress, NCLB requires that states administer tests to all public school students. The states set proficiency standards, called adequate yearly progress (AYP), that progressively increase the percentage of students in a district required to meet the proficiency standard. Every element of NCLB is intended to move all public school students closer to the overall levels of proficiency set by their respective states. If a school district does not meet these proficiency levels, the law mandates that corrective actions be applied.

The following are the primary goals of NCLB:

- All students will achieve high academic standards by attaining proficiency or better in reading and mathematics by the 2013–2014 school year.
- Highly qualified teachers will teach all students by the 2005–2006 school year.
- All students will be educated in schools and classrooms that are safe, drug free, and conducive to learning.
- All limited English-proficient students will become proficient in English.
- All students will graduate from high school.

These goals pose great challenges for schools, school districts, and states. NCLB requires states to test students to ensure that these goals will be met and it holds schools, school districts, and states accountable for making demonstrable improvements toward meeting these goals. In an effort to assist states to achieve these goals, Congress significantly increased federal spending on education and gave states greater flexibility to use federal funds in ways that will be of the greatest benefit to individual school districts. Although we may debate about how realistic these goals are, we can all agree that these goals will require a fundamental change in the ways that we measure student progress.

Major Principles of NCLB

The major principles of NCLB that will have the greatest effect on teachers, parents, and administrators include ensuring accountability for results, using scientifically based instruction, and providing highly qualified teachers and paraprofessionals.

Accountability for Results

NCLB focuses on increasing the academic performance of all public school students and improving the performance of low-performing schools. It does this by requiring states to identify the most important academic content for students to learn and then assessing students to determine if they are learning this content.

Statewide Standards. The U.S. President and Congress believed that many schools were operating without a clear set of expectations of what students should achieve in important academic subjects. In NCLB, therefore, states are required to establish their own standards citing what students should know and be able to do and provide guidelines to schools, parents, and communities that tell them what achievements will be expected of all students. Specifically, NCLB requires states to develop academic standards for all students in reading/language arts, math, and science. States are free to develop standards in other areas, as well. For example, a state could develop standards in social studies, although social studies standards are not required by NCLB.

The purpose of the state-defined standards is to provide guidelines to schools, parents, and teachers for what achievement will be expected of all students. To reach the goal of having every child proficient on state-defined standards by the target date, NCLB requires every state to develop achievement standards or benchmarks for all public schools.

Statewide Assessments. NCLB also requires that states implement a statewide assessment system that is aligned to the state standards in reading/language arts, math, and eventually science. The purpose of the statewide testing is to measure how successfully students are learning what is expected of them and how they are progressing toward meeting these important academic standards. Moreover, the state tests enable stakeholders (e.g., teachers, administrators, parents, policymakers, and the general public) to understand and compare the performances of schools against the standards for proficiency as set by the states.

Two types of testing are used to measure academic progress: statewide standardized assessment and alternate assessments. Statewide standardized assessment consists of every public school testing 95% of all students including 95% percent of students in each of the following subgroups: (a) low-income students, (b) students with disabilities, (c) limited English-proficiency students, and (d) students from diverse racial and ethnic groups. The purpose of disaggregating test scores by subgroups of students is to ensure that schools will be responsible for improving the achievement of all of their students.

The results of these assessments are then reported to parents in annual report cards. This information provides parents with data about where their child stands academically and whether their child's school and school district are succeeding in meeting state standards. Thus, these assessments are used to hold schools accountable for the achievement of all students.

Adequate Yearly Progress. To receive federal funding under NCLB, states were required to submit accountability plans to the U.S. Department of Education. These plans defined the states' procedures for reporting school performance and the system for holding schools and school districts accountable for increasing student achievement. In accordance with the terms of NCLB, states must develop academic standards and tests to assess students' knowledge and skills in reading and math in Grades 3 through 8. Furthermore, states must set state proficiency standards that schools and school districts must attain within a certain time.

States develop a definition, or AYP, to use each year to determine whether schools and school districts are meeting the state standards. In the accountability plans submitted to the U.S. Department of Education, the states defined their AYP criteria for increasing student achievement to meet the 100% proficiency goal in reading/language arts and math by the 2013–2014 school year. In addition to providing data for all students in the school, schools are required to report AYP data for the following subgroups: students who are economically disadvantaged, students from diverse racial and ethnic groups, students with disabilities, and students with limited English proficiency. To ensure that all students, including students from each of the subgroups, are making progress toward reaching the 100% proficiency goal by the target date, the state must set specific annual targets for all students in reading/language arts and math. These targets are the AYP criteria.

States are responsible for determining their own system of requirements and rewards to hold all public schools and school districts responsible for meeting the AYP. States may set aside 5% of their Title I funds to provide rewards for the schools and teachers in the schools that substantially close the achievement gap between the lowest and highest performing students or make outstanding yearly progress for 2 consecutive years. Although each state determines what the rewards will be, rewards often include some form of public recognition and money. States also can designate schools that have made the greatest achievement gains as Distinguished Schools.

NCLB also has very specific requirements for schools that do not make the AYP. If a school does not make the AYP, this information must be published and disseminated to parents, teachers, and the community in an easy-to-understand format. Furthermore, the school will receive assistance from the state to improve. The state will designate a school that has not achieved the AYP for 2 consecutive years as *identified for improvement*. When a school is first identified for improvement, the state provides technical assistance to enable the school to address the specific problems that led to its being identified. The school, in conjunction with parents and outside experts, will develop a 2-year improvement plan. Although neither the law nor regulations specify who these outside experts may be, they most likely would include faculty from institutions of higher education and private consultants who have expertise in research-based strategies in the areas in which the school needs help.

In such situations, the state must continue to provide technical assistance to the school. Additionally, the school must offer the parents of students in the designated school the option of transferring to another public school in the district. This option is called *public school choice*. The rationale behind public school choice is that by providing parents a variety of school options when their children currently attend a school that is designated as in need of improvement, quality educational opportunities are made available to all students. Additional requirements are added each year that a school in need of improvement fails to make the AYP. These requirements are listed in Table 1. If a school in need of improvement then makes the AYP for 2 consecutive years, the in need of improvement designation is removed. If students have chosen to attend another school during this period, they can continue to do so until they finish the top grade in their new school.

TABLE 1
When a School Fails to Make Adequate Yearly Progress (AYP)

Length of time	Accountability measures
2 consecutive years	• The school will receive technical assistance from the state. • A committee of school personnel and parents will develop a 2-year school improvement plan. • Every student must be given the option of transferring to a school that has made AYP within the district.
3 consecutive years	• In addition to the above, the school must offer supplemental services to disadvantaged students.
4 consecutive years	• In addition to the above, the school must implement corrective actions to improve the school: Replacing certain staff responsible for failure to make AYP. Implementing a new curriculum grounded in scientifically based research. Hiring outside experts to assist the school. Reorganizing the management structure.
5 consecutive years	• In addition to the above, the school must be restructured by taking such actions as: Replacing the staff. Contracting with a private firm to run the school. Reopening the school as a charter school. • If these measures do not succeed, the state will take over management of the school.

Scientifically Based Instruction

The second major principle of NCLB requires that states and school districts use scientifically based instructional programming to improve the achievement of students. Too often, schools have used programs and practices based on fads, fancy, and personal bias, which have proven to be ineffective (Carnine, 2000). Unfortunately, when ineffective procedures are used, it is at the expense of students. NCLB emphasizes using educational programs and practices that have been demonstrated to be effective by rigorous scientific research.

In the past few years, we have seen a number of national efforts to ensure that all teachers use instructional procedures that have been validated as effective by scientific research. For example, the National Research Council (2002) and the Coalition for Evidence-Based Policy (2002) issued reports stating that education will see progress only if we build a knowledge base of educational practices that have been proven effective by rigorous research. A central principle in NCLB requires that federal funds be expended to support only educational activities that are backed by scientifically based research.

Rod Paige, Secretary of the U.S. Department of Education, noted that the intent of NCLB is to require that rigorous standards be applied to education research and that research-based instruction be used in classroom settings (Paige, 2002). Furthermore, he asserted that states must pay attention to this research and ensure that teachers use evidence-supported methods in classrooms. Paige further stated that NCLB demands the use of methods that really work, "no fads, not feel-good fluff, but instruction that is based upon sound scientific research" (p. 1). NCLB targets federal funds to support programs and teaching methods that actually improve student achievement. For example, states must ensure that funds for Reading First activities go only to programs that are based on sound scientific research.

What constitutes sound scientific research? The National Research Council (2002) reports that for a research design to be scientific, it must allow for direct, experimental investigation of important education questions. NCLB defines scientifically based research as "research that applies rigorous, systematic, and objective procedures to obtain relevant knowledge" (NCLB § 1208(6)). This includes research that (a) uses systematic, empirical methods that draw on observation or experiment, (b) involves rigorous data analyses that are adequate to state hypotheses and justify the conclusions, (c) relies on measurement or observational methods that provide valid data evaluators and observers across multiple measures and observations, and (d) has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review.

Highly Qualified Teachers

The quality and skill of a student's teacher are extremely important factors in student achievement (Whitehurst, 2003). The U.S. Congress recognized the importance of having well-prepared teachers in public school classrooms when it included provisions in NCLB requiring that all new teachers hired in programs supported by Title I funds be highly qualified teachers, beginning with the 2002–2003 school year. Furthermore, the law requires that, by the end of the 2005–2006 school year, all teachers in public schools must be highly qualified. NCLB also requires that states ensure that paraprofessionals who work in classrooms be highly qualified.

There are three basic requirements in NCLB that public school teachers must meet to be highly qualified. First, teach-

ers must hold a minimum of a bachelor's degree from a college or university. Second, teachers must have full state certification or licensure for the area in which they teach. Third, teachers must be able to demonstrate subject matter competency in the core academic subjects that they teach. Teachers can demonstrate subject matter competence by passing a state-administered test in each of the core subjects that they teach. The structure and content of these tests are determined by the individual states.

To ensure that only highly qualified teachers teach in public school classrooms, each state receiving funds under Title I of NCLB must develop a plan to ensure that all of the state's public school teachers are highly qualified to teach the core academic subjects in which they provide instruction. The NCLB regulations define core academic subjects as English, reading/language arts, mathematics, science, foreign languages, civics, government, economics, art, history, and geography. If a teacher teaches in one of these core subjects, the NCLB highly qualified requirement applies to them. If a teacher teaches more than two of these core subjects, he or she must be qualified in all the subject areas taught. The requirement for highly qualified teachers, as well as for scientifically based instruction and accountability for results, applies to the instruction of all students in public schools.

Highly Qualified Paraprofessionals

Congress recognized the importance of paraprofessionals in the U.S. education system when they included in NCLB a requirement that states ensure that paraprofessionals who work in the nation's classrooms also are highly qualified. NCLB allows paraprofessionals to provide instructional support services only when they are directly supervised by a teacher. The teacher must plan all instructional activities in the classroom, and he or she must evaluate the achievement of the students who work with the paraprofessional. The law clearly specifies what duties paraprofessionals may perform. Paraprofessionals may assist a teacher with one-to-one tutoring, classroom management, computer instruction, parent involvement activities, educational support in a library or media center, translation, instructional support services under the direct supervision.

NCLB and Students With Disabilities

Students with disabilities are an important part of a school's student body. Most students with disabilities spend the majority of their time on the regular school campus and at least part, if not all, of their day receiving instruction from a general education teacher. Moreover, the Individuals with Disabilities Education Act (IDEA) of 1990 requires that students with disabilities have access to, be involved with, and progress in the general education curriculum. Congress and the President believed that to ensure that instruction and achievement for students with disabilities are improved, all students with disabilities must be assessed and the results of these assessments must be included in the data used to determine whether schools and school districts make the AYP. They also believed that if students with disabilities were excluded from schools' accountability systems, these students would be ignored and not receive the academic attention that they deserved. By including students with disabilities in NCLB's assessment system, Congress made certain that schools would be held accountable for the academic performance of these students.

Assessment

Students with disabilities are to be held to the standards for the grade in which the student is enrolled, although accommodations, modifications, or alternate assessments may be needed in some situations to get a true picture of a student's achievement (Elliott & Thurlow, 2003; Thurlow, Elliott, & Ysseldyke, 2001). NCLB, therefore, requires that school districts provide students with disabilities who are included in statewide standardized assessments access to appropriate accommodations or modifications if needed for the assessment. If the standardized statewide assessment is not appropriate for some students, their progress would be measured using an alternate assessment.

To receive these accommodations, modifications, or alternate assessments, students with disabilities must be eligible for special education services under IDEA or Section 504 of the Rehabilitation Act of 1973. Each student's individualized education program (IEP) planning team or Section 504 planning team must determine how that student will participate in the statewide assessment. The team may determine that a student will take (a) the regular assessment that is given to all students, (b) the regular assessment with state-approved accommodations or modifications, or (c) an alternate assessment. The IEP team or Section 504 team decides *how* the student will participate, not *whether* the student will participate.

If the team decides that a student will take the regular assessment with accommodations or modifications, they can only request accommodations or modifications that are approved by the state. Furthermore, these accommodations or modifications should be consistent with accommodations or modifications that are provided during instruction. States must provide training and guidance to IEP and 504 teams on the appropriate use of testing accommodations and modifications.

Alternate Assessments

If the IEP team decides that a student will take an alternate assessment, there will usually be at least two types of alternate assessments that a student may take; one is aligned with the state's academic content standards and the other is aligned with a state's alternate achievement standards. The alternate assessments are designed by the state and are to be taken by students with disabilities who are not able to participate in the standard assessment, even with the provision of accommoda-

tions. Only students with significant cognitive disabilities may take an alternate assessment based on alternate achievement standards. Neither NCLB nor its implementing regulations define what qualifies as a significant cognitive disability. A definition was deliberately not provided so that states would have flexibility in determining which students could take an alternate assessment. Out-of-level testing (i.e., off-grade level testing) is considered a form of alternate assessment. All students who take an alternate assessment will be scored as either proficient or not proficient.

When a student's IEP is developed, the team must note that the student will take an alternate assessment. The IEP team must include a statement that explains why the regular assessment is not appropriate and how the student will be assessed using the alternate assessment. Additionally, the student's parents should be informed of the consequences, if any, of taking the regular assessment with accommodations or taking the alternate assessment based on either the grade-level standards or alternate achievement standards. For example, some states do not allow students who take the regular assessment with accommodations or the alternate assessment to graduate with a regular diploma.

AYP

In NCLB, the statewide assessment scores of all students with disabilities must be reported as a subgroup and as part of the student body. AYP must be reported for the entire student body and separately for students with disabilities. Congress's purpose for including students with disabilities in the total student body as well as separating them as a subgroup was to ensure that schools and school disticts would be held accountable for the achievement of students with disabilities and would pay close attention to the instruction and educational progress of students with disabilities.

Students who are assessed using an alternate assessment are also included in the AYP. The federal government, however, put a cap on the number of students who pass the alternative assessment who can be counted as scoring proficient for purposes of determining the AYP. This cap is currently set at 1% of the total school population at each grade level that is tested. This does not mean that there is a cap on the number of students with disabilities who can take an alternate assessment. Rather, it means that a school or school district can include students who score proficient on the alternate assessment as proficient in the AYP calculation only if the percentage of students who take the alternate assessment comprises 1% or less of the total student population at their grade level. For example, if in the fourth grade at Springdale School District, 1% of the students at that grade level took the alternate assessment and scored proficient, Springdale School District could count the students who scored proficient on the alternate assessment as proficient for AYP calculations. In the fifth grade, a total of 2% of the students scored proficient on the alternate assessment. Because the number of students exceeded the cap of 1%, however, all the students above that percent must be included in the AYP calculations as failing to demonstrate proficiency. This is despite the fact that students scored proficient on the alternate examination. The 1% cap, however, only applies at the school district and at the State Education Agency (SEA) level; it does not count at the individual school level. Therefore, a school that is small or has a higher percentage of students with significant cognitive disabilities will not be penalized for purposes of the AYP.

Although the number of students with disabilities varies by state, the 1% cap across the total student population equates to approximately 9% of all students with disabilities. The U.S. Department of Education calculated this percentage on the basis of incidence levels of students whom the Department believed had significant cognitive disabilities. SEAs may request an increase in the 1% cap from the Department, and school districts may request an increase in the cap from the SEA. Requests to have the cap raised must include documentation that within the school districts or state, incidence of students with significant cognitive disabilities exceeds 1% and that circumstances exist that increase the incidence of these students (e.g., community programs draw families of students with significant cognitive disabilities). The U.S. Department of Education expects that applications will request to lift the cap by small amounts (e.g., 2% or 3%).

Scientifically Based Instruction

Although there is much controversy regarding interventions for students with autism spectrum disorder (ASD), there also is a large and burgeoning body of research (Heflin & Simpson, 1998). This research has led to several reviews in search of effective educational practices. Most reviews have focused on younger children with ASD (e.g., Lord, 2002; National Research Council, 2001). These reviews have provided a general consensus in identifying effective instructional practices. Most recently, Iovannone, Dunlap, Huber, and Kincaid (2003) published an elegant integration of these reviews and extended the synthesis on effective instructional practices for students with ASD to include students at the elementary and secondary school level. The analytic review resulted in identifying six core elements of effective instruction regardless of age that are supported by empirical research. These core elements represent scientifically based instruction for students with ASD (see Table 2).

Highly Qualified Special Education Teachers

According to the Individuals with Disabilities Education Improvement Act of 2004 (IDEA, 2004), special education teachers must meet the same highly qualified standards as general education teachers. The law, signed by President George W. Bush on December 3, 2004, requires that all special education teachers be highly qualified as of the date that the bill was

TABLE 2
Core Elements of Effective Educational Practices

Core element	Description
Individualized supports and services	Must be tailored to meet the unique individual needs and family characteristics of each student. Individualized programming includes (a) considering family preferences when selecting curriculum, (b) developing programming that reflects a student's preferences and interests, and (c) determining the appropriate intensity and level of instruction on the basis of the student's strengths and weaknesses.
Systematic instruction	Teaching based on identifying desirable learning outcomes, developing specific and focused teaching strategies to achieve these outcomes, consistently implementing the teaching strategies, and using information about student performance to guide daily instructional decisions.
Comprehensible and structured learning environments	Allow students to predict their daily routine and respond appropriately to behavioral expectations during different activities.
Specific curriculum content	Must include and emphasize language and social interaction, because these are the primary challenges for students with ASD.
Functional approach to problem behavior	Represents a movement away from punishment-based approaches that emphasize obedience and compliance and toward instruction that emphasizes useful skill development.
Family involvement	Improves programming because family members know their child best, spend the most time with him or her, and have an immense influence on their child. It is crucial that they are active participants in developing and implementing their child's educational programming.

Note. Based on the recommendations of Iovannone, Dunlap, Huber, and Kincaid (2003).

signed into law. This requirement is true for special education teachers who are new to the profession, as well as experienced special education teachers. Experienced teachers, however, may use a state's High Objective Uniform State Standard of Evaluation (HOUSSE; see Note) to show competence in core academic subjects.

There are three general requirements that special education teachers must meet under the highly qualified standard of NCLB. First, all special education teachers must have a bachelor's degree. Second, special education teachers must have obtained a full state certification as a special education teacher or have passed the state special education teacher licensing examination and hold a state license to teach as a special education teacher. This license includes certification obtained through state-approved alternative routes to certification. States cannot waive special education certification or licensure requirements on an emergency, temporary, or provisional basis. Third, special education teachers who teach in elementary schools, middle schools, and high schools must pass a state-administered test of subject knowledge and teaching skill to demonstrate competency in the core academic subjects in which they teach. For elementary special education teachers, this means competency in areas of the basic elementary school curriculum (e.g., reading/language arts, writing, mathematics).

Special education teachers in middle and high school often provide instruction in multiple core academic subjects (e.g., English, math, social studies, science). Rather than specializing in one subject area like most secondary teachers, special education teachers often specialize in working with students with certain disabilities covered by IDEA (e.g., children with autism, learning disabilities, emotional disabilities). Nonetheless, the NCLB requirements regarding being highly qualified in the core academic subjects they teach apply to these teachers. They must demonstrate competency in every core academic subject that they teach by passing a state-administered test of content knowledge. This requirement applies whether a special education teacher provides core academic instruction in a regular classroom, a resource room, or another setting. For example, if a special education teacher provides reading instruction to students with learning disabilities, he or she must be highly qualified in reading. Furthermore, they must demonstrate competency on the state HOUSSE within 2 years of their employment. Special education teachers who instruct middle and high school students in multiple subjects can also demonstrate competency on the other core subjects that they teach on a state's high HOUSSE requirements.

Some activities that special education teachers may take part in do not require them to be highly qualified. Such

activities include providing consultation to highly qualified teachers of core academic subjects, using behavioral supports and interventions, selecting appropriate academic accommodations, assisting students with study skills, and reinforcing instruction a student has received in a core academic subject from a highly qualified teacher. Moreover, if a special education teacher team teaches with a general education teacher in a core academic subject, the special education teacher must be certified or licensed to teach special education in the state, but does not need to be certified in the academic subject as long as the general education teacher is certified in that subject.

Highly Qualified Teachers of Students With Significant Cognitive Disabilities

Special education teachers who teach core academic subjects to students with disabilities who are assessed using alternate achievement standards must meet the same three requirements to be highly qualified. Special education teachers at the elementary school level must demonstrate competency in the basic elementary school curriculum. If a special education teacher works with students assessed with alternate assessments, but provides instruction at the middle or high school level, then the teacher must demonstrate subject matter knowledge appropriate to the level of instruction needed to teach the student effectively.

Implications of NCLB

Yell and Drasgow (2005) identified the implications of NCLB for administrators, special education teachers, and teacher trainers. These implications tell us what personnel need to know to meet their responsibilities under the NCLB.

Know the Law

Because of the strict accountability requirements of NCLB, it is crucial that administrators, teachers, and teacher trainers know exactly what the law requires. The consequences of failing to meet the requirements of NCLB are so serious that every public school district should have at least one district-level administrator who specializes in NCLB. This person should be charged with two major areas of responsibility (Yell & Drasgow, 2005). First, he or she must ensure that the school district, and every school in the district, is in compliance with NCLB. Second, this person must ensure that all school district administrators, principals, and teachers are well trained in their responsibilities under NCLB. Furthermore, because principals are ultimately accountable for everything that occurs in their schools, they must be fully aware of all of their and their teachers' responsibilities under NCLB.

Because there are many NCLB requirements that directly affect special education teachers, it is important that these teachers understand their responsibilities under the law and act accordingly to meet them. Moreover, teacher training faculty in colleges of education must thoroughly prepare teachers during preservice to meet their responsibilities under NCLB.

Assess Students for Instruction

When a student fails to learn, it is often because the student's abilities and the instructional program do not match. To ensure a match between abilities and programming, teachers need to make good decisions about instructional programs and procedures and be able to revise the programs when needed. Making good decisions requires that teachers understand how to (a) conduct relevant and meaningful assessments, (b) interpret the assessments, and (c) match special education programs and strategies to the assessment results. States and schools districts should have personnel with expertise in implementing the statewide assessment system and the state's alternate assessments. Furthermore, these personnel should have expertise in developing and conducting appropriate and relevant assessments that lead to meaningful instructional programming on an individual student level. School principals must ensure that teachers are knowledgeable about their assessment responsibilities under NCLB and that they carry out their responsibilities in an appropriate manner. Principals should monitor student achievement, work with teachers who are having difficulties, and arrange appropriate professional development activities.

Teacher training faculty in colleges of education must thoroughly prepare teachers during preservice to (a) develop assessment instruments, (b) interpret assessment results, and (c) base instructional decisions on the assessments. NCLB focuses on increasing student achievement. If students have difficulties learning in the regular curriculum, teachers must be able to assess the students' educational needs and respond to them with meaningful instruction.

Use Instructional Procedures Grounded in Scientifically Based Research

A central principle of NCLB is that federal funds will support only those educational procedures, materials, and strategies that are backed by scientifically based research. This requires that teachers use procedures and strategies endorsed by scientifically based research findings and offers a great opportunity to bring evidence-based practices to elementary and secondary classrooms. There is a huge gap between what we know works from scientifically based research and what is actually taught in many teacher preparation programs and then applied in classrooms.

NCLB focuses on embracing teaching methods and procedures that scientifically based research supports as increasing student achievement. According to the writers of NCLB, the knowledge from scientifically based research in reading, math, and other academic subjects must be the core of educational practices to create meaningful changes in our schools. Thus,

NCLB is moving education away from philosophy and toward science.

Most school districts have administrators responsible for staff development activities. Moreover, state departments of education have people with expertise in particular areas who are in positions to influence educational practices in schools. NCLB puts educators under intense pressure to produce better results (Yell & Drasgow, 2005). Therefore, state department personnel, school administrators, and principals must understand the difference between science and fads, experts and entrepreneurs, and they must ensure that research-based practices are used to educate students.

Scientifically based research on instructional practices will not affect students' academic achievement unless such practices are actually used in classrooms. Unfortunately, teachers may be forced to adopt unproven practices by well-intentioned, but ill-informed, school district officials or principals. Moreover, their teacher-training programs may rely more on ideology than science. In such situations, the only way that a teacher can determine which educational practices are research-based and which teacher-training programs and professional development activities will prepare them to use research-based methods is to become an educated consumer who is able to distinguish among fad, ideology, and science. Teacher trainers must become connected to the empirical bases in their fields and prepare their students to discriminate between proven and unproven education methods and strategies and between testimonial and empirical evidence.

Collect Meaningful Data on Student Progress

Teachers need to collect meaningful data on their students' progress to ensure that their instructional programs are working. Furthermore, these data should be collected during the course of instruction, so that the teacher's instructional decisions are guided by what the student is currently doing or not doing. The purpose of collecting data is to provide objective evidence of a program's effectiveness and to guide instructional decisions. Teachers can ensure that they provide meaningful instruction by collecting useful data on students' progress and then by using the data to inform their instructional decisions. In other words, teachers can adjust their instruction in response to students' performance. If teachers are going to be required to collect and use data in a meaningful way, then they must be prepared to do so in their teacher-training programs. This means that colleges of education across the country must include specific training in formative evaluation procedures (i.e., evaluation conducted during the course of instruction) in preservice courses.

Summary

NCLB is a complex, sweeping, and controversial law that was passed as a reaction to the low academic achievement exhibited by so many public school students in the United States. This powerful law profoundly changes the ways that educators work with students in general and special education. It accomplishes this by holding states, school districts, principals, and teachers accountable for making meaningful improvements in students' academic performance. NCLB also points educators toward the tool that will allow schools to make meaningful changes in the academic achievement of their students: scientifically based research. If the core of our educational practices becomes what the evidence shows works in teaching, then meaningful changes can be made in schools.

NCLB is here to stay. Although Congress and the U.S. Department of Education may make slight alterations to the law, the major goals of NCLB will be with us for a long time. Moreover, NCLB's requirements that states, school districts, and schools be held accountable for increasing student achievement and that educators develop meaningful programs using scientifically based educational practices hold the promise of changing our education system from one that is too often based on fads and what sounds good to a system that embraces science and accountability.

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NOTE

States have the option of developing a method by which teachers can demonstrate competency in each subject they teach according to a High Objective Uniform State Standard of Evaluation (HOUSSE). This standard must provide objective and coherent information about a teacher's attainment of core subject knowledge in the academic subjects in which the teacher teaches. The state's HOUSSE criteria must evaluate a teacher's knowledge and ability. The HOUSSE provisions give states flexibility in addressing how they will meet the highly qualified standard.

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