The National Center on Accessing the General Curriculum and the National Center on Secondary Education and Transition

present a

capacity building institute

Access, Participation, and Progress in the General K-12 Curriculum

July 10, 2002
Arlington, VA

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Introductory Letter

The Capacity Building Institute on *Access, Participation, and Progress in the General K-12 Curriculum* was co-sponsored by the National Center on Accessing the General Curriculum (NCAC) and the National Center on Secondary Education and Transition (NCSET). The goals of this Capacity Building Institute were to provide participants with an opportunity to engage in a dialogue on current views, build consensus on critical issues, and generate solutions.

To help achieve those goals, this Capacity Building Institute was structured to include several types of activities, including presentations by people working in areas related to access to the general curriculum, a panel discussion of the impact of these issues on various stakeholder groups, small-group discussions, and opportunities to recommend future steps.

These activities, along with the pre-institute readings, the materials provided to participants, and the opportunities for post-institute conversations, should help participants increase their understanding of the issues and strengthen their commitment to providing access, participation, and progress in the general K-12 curriculum for students with disabilities.

Participants were asked to rate their experience and offer additional constructive comments regarding the various components of the Institute. Overall, participants stated that they came away from the Capacity Building Institute with new knowledge and resources about transition and assessment. The speakers were generally well received and participants provided positive feedback about the timeliness of the information provided by presenters and also the materials provided. Most participants indicated satisfaction with the organization of the Institute, the expertise of the presenters, and the quality of the work carried out in the small-group sessions. Regarding areas for improvement, many participants indicated that they would have preferred to have more time to interact with the presenters and with each other and more information about practical applications of the content and intended outcomes of the Institute.

Ann T. Clapper
Associate Director
NCSET

Charles G. Hitchcock, Jr.
Project Director
NCAC
Agenda

7:30 Registration and Continental Breakfast

8:30 Institute Overview
Welcome

David Hancox, Moderator, National Center on Secondary Education and Transition
Lou Danielson, Director, Office of Special Education Programs, U.S. Department of Education

8:45 Standards-based Reform and Students with Disabilities: Creating True Access to the General Education Curriculum
Margaret McLaughlin, Associate Director, Institute for the Study of Exceptional Children and Youth, University of Maryland; Principal Investigator, Educational Policy Reform Research Institute

9:20 Panel: The Impact of Standards-based Reform: Voices from the Field
Joanne Cashman, Project Director, PMP Partnership
Linda Marsal, Principal Investigator, ASPIIRE and ILLAD Partnerships
Dixie Jordan, Project Director, FAPE Partnership

9:50 Audience Questions

10:15 State Policies that Impact Access to the General Curriculum
Martha Minow, Professor, Harvard Law School; Co-Director on Policy, National Center on Accessing the General Curriculum

10:45 Facilitated Work Groups

12:00 Lunch

1:00 Classroom Practices to Improve Access, Participation, and Progress in the General Curriculum
Tracey Hall, Senior Research Scientist/Instructional Designer, CAST; Curriculum Director, National Center on Accessing the General Curriculum

1:30 Facilitated Work Groups

3:00 Access by Design, Not Afterthought: Advances in Universal Design for Learning
David Rose, Co-Executive Director, CAST; Principal Investigator, National Center on Accessing the General Curriculum

3:30 Facilitated Work Groups

4:45 Institute Synthesis
David Hancox

Next Steps
Chuck Hitchcock

5:30 Close of Institute

6:00-7:30 p.m. Registration and a reception for the 2002 OSEP Research Project Directors’ Conference
Background

IDEA '97 mandates that students with disabilities be educated in the general curriculum whenever possible. Providing access to the general curriculum is the first step, but participation and progress in the general curriculum are needed to take students beyond mere access to focus on their engagement with that curriculum and their achievement.

As part of its mission, the National Center on Accessing the General Curriculum (NCAC) is disseminating information on ways to facilitate such access, participation, and involvement. These include policy and instructional procedures as well as consensus building. NCAC is examining state policies and considering policies in light of educational reform movements such as standards-based reform. NCAC is also reviewing promising instructional methodologies and considering how to assist all educators in better understanding how and when to use particular methods to facilitate learning. As NCAC completes its tasks, it looks to both general and special educators to gain a better understanding of their needs and concerns, so that the information is a practical and the ideas useful for instruction.

One of the techniques to facilitate learning is “Universal Design for Learning” (UDL). The universally designed curriculum has enhanced flexibility to meet the needs of individual learners. With UDL curricula, teachers do not need to engage in designing particular modifications or retrofitting these to the curricula since special, flexible features are built into the curriculum. The adaptability of the UDL curriculum increases flexibility for students with visual, auditory, reading, cognitive, affective, or physical impairments. Often individuals without disabilities are also assisted by UDL. As CAST has indicated, “The central practical premise of UDL is that a curriculum should include alternatives to make it accessible and appropriate for individuals with different backgrounds, learning styles, abilities, and disabilities in widely varied learning contexts.” ([http://www.cast.org/udl/index.cfm?i=7](http://www.cast.org/udl/index.cfm?i=7)).

In designing the Capacity Building Institute, the planning committee was interested in bringing together researchers, administrators, parents, and general and special educators to consider how to scale up UDL for broader implementation.
Institute Overview

Approximately 70 general and special educators and parents attended the National Capacity Building Institute on *Access, Participation, and Progress in the General K-12 Curriculum*, held on July 10, 2002 in Arlington, VA. The meeting was designed to encourage dialogue and consensus building regarding solutions to improving curriculum access for students with disabilities, and was part of a series of capacity building institutes sponsored by the National Center on Secondary Education and Transition (NCSET). This Institute was co-sponsored by the National Center on Accessing the General Education Curriculum (NCAC), a five-year project operated by CAST in conjunction with the Harvard Law School, Boston College, and the Council for Exceptional Children.

This institute provided an opportunity for participants to listen to five keynote speakers and a panel of key stakeholders. Keynote speakers included:

- Lou Danielson, Office of Special Education Programs, U.S. Department of Education;
- Margaret McLaughlin, Director, Center on Policy Studies, University of Maryland;
- Martha Minow, Harvard University;
- Tracey Hall, Researcher, CAST; and
- David Rose, Executive Director, CAST.

The primary topics covered by these researchers were the impact of standards-based reform on curriculum access, an overview of state policies regarding curriculum access, research-based practices for increasing curriculum access, and the promise of Universal Design for Learning.

Participants also had the opportunity to dialogue in small breakout sessions during the day. Some of the key topics that were addressed in these breakout meetings were:

- How can national trends and successes be used to leverage greater curriculum access for students with disabilities?
- How can we increase utilization of classroom practices that are effective in supporting diverse learners?
- What are the barriers to curriculum access?
- How can we advance promising practices such as universal design for learning?

The session began with an overview of the day presented by Ann Clapper, Associate Director of NCSET, and a description of the expectations and roles of participants by David Hancox, facilitator. Dr. Clapper also provided a brief introduction to NCSET and its interest in capacity building.

Later in the day, Chuck Hitchcock, Project Director of NCAC, provided background information on NCAC. In a collaborative agreement with the U.S. Department of Education’s Office of Special Programs (OSEP), CAST has established NCAC to provide a vision of how new curricula, teaching practices, and policies can be woven together to create practical approaches for improved access to the general curriculum by students with disabilities. NCAC draws on the talents of five partners who are already established leaders in their fields (see next page):
Department of Teacher Education, Special Education, Curriculum, and Instruction, Boston College
...for its leadership in integrating best practices in regular and special education.
Boston College is a community of scholars and practitioners engaged in inquiry and practice that aim to improve the lives of children, youth, and families. Students who complete their degrees at Boston College carry into their professional lives a commitment to serve others through their teaching, counseling, school and university administration, educational evaluation, policy work, and research.

Center for Applied Special Technology (CAST)
...for its leadership in curricular adaptation and universal design for learning.
Founded in 1984, CAST is an educational, not-for-profit organization that uses technology to expand opportunities for all people, including those with disabilities.

Council for Exceptional Children (CEC)
...for its leadership in consensus-building with professionals, educational organizations, parents, and children with disabilities.
CEC is the largest international professional organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted. CEC advocates for appropriate governmental policies, sets professional standards, provides continual professional development, advocates for newly and historically underserved individuals with exceptionalities, and helps professionals obtain conditions and resources necessary for effective professional practice.

Harvard University Children's Initiative, Harvard Law School
...for its leadership in policy analysis and development.
Under the Harvard University Children’s Initiative, Schooling and Children’s emphasis on program evaluation, innovative schools, and community linkages are integrated with the activities of the Center for Children’s Health and with Children’s Studies at Harvard, an interdisciplinary effort developed by Schooling and Children.

Parent Advocacy Coalition for Educational Rights (PACER)
...for parent and advocate issues and dissemination.
The Parent Advocacy Coalition for Educational Rights (PACER) Center is a nonprofit that helps parents and families of children with disabilities. They have 25 programs assisting individuals with and without disabilities.
National Policy Background

Lou Danielson, Director, Research to Practice Division, Office of Special Education Programs (OSEP), U.S. Department of Education

Dr. Danielson opened the session by describing (1) the role of curriculum access in IDEA and No Child Left Behind legislation, (2) a paradigm for improving the translation of research to practice, and (3) OSEP’s comprehensive planning initiative.

Curriculum Access, IDEA, and No Child Left Behind. According to Danielson, “The issue of access for students with disabilities to the general education curriculum may be the centerpiece of the 1997 IDEA amendments.” Those amendments addressed curriculum participation, assessments, provisions in the IEP requirements that emphasize accommodations and student supports. As we approach reauthorization of IDEA, Danielson expects access to the general curriculum to continue to be a topic of importance and that further guidance on this topic may be included in upcoming legislation. Moreover, the No Child Left Behind Act, an important focus of the current Administration, further advances the thinking about access to the general curriculum and is critically important because it requires accountability for achieving positive outcomes for all students, including students with disabilities.

Advancing Research to Practice. To illustrate the plan within OSEP for advancing research to practice, Danielson presented the National Activities Program Improvement Paradigm (Figure 1). This paradigm incorporates research (a foundation of program improvement), the ability to transfer research knowledge through professional development, and technical assistance (TA) and dissemination. To enhance the capabilities of bringing research to practice, the Department of Education has made investments in the technology area, which is critical to ensuring access and participation for many children. Parent centers are also a critical part of the paradigm, and formula grant money has been set aside for evaluation so that improvements can be measured. “All of this together, we hope, will result in improved student results,” Dr. Danielson said.
OSEP’s Comprehensive Planning initiative. This planning initiative was organized around theme areas derived from the Department’s strategic plan. In 1999, the Department conducted a comprehensive planning process for Part D of IDEA. This involved gathering information from a series of expert panels. The goal was to link best practices to states, school systems, and families to improve results for infants, toddlers, and children with disabilities. One of the expert panels from this initiative focused on Access, Participation, and Progress in the General Education Curriculum. Three key findings from that panel were:

- Definitions are needed for the terms “access,” “participation,” and “progress” in the general curriculum. In particular, significant confusion exists about what constitutes “access.”
- It is difficult to meet the individualized educational needs of students with disabilities in the general education curriculum. However, individualization is important, especially for students with disabilities, whose needs and capabilities are very diverse.
- More school-based and district-level support is needed to support students with disabilities in accessing, participating, and progressing in the general education curriculum. Support in implementing the statute, especially in how to “scale up” research findings, is needed. Funding for several research institutes has been awarded to study specific education sectors, and numerous smaller awards are being made. One current challenge is that schools are obligated to implement certain changes/programs for which there may not be a strong research base.

To address these needs, Danielson indicated that a future investment will be the establishment of a TA center focused on access and progress in the general curriculum. Furthermore, much evidence supports the concept of progress monitoring by teachers, and an award is also expected to be made in this area.
Standards-Based Reform and Students with Disabilities: Creating True Access to the General Education Curriculum

Margaret McLaughlin, Ph.D., Associate Director, Institute for the Study of Exceptional Children and Youth, University of Maryland; Principal Investigator, Educational Policy Reform Research Institute

Dr. McLaughlin discussed policies that encompass standards-driven reform and some of the challenges/tensions in implementing this reform, specifically in the area of access to the general education curriculum.

McLaughlin began by reiterating the statement made by Dr. Danielson regarding the confusion surrounding the meaning of “access to the general education curriculum,” particularly when the different educational needs of various students are considered. According to McLaughlin, many educators find this term ambiguous, and policy clarification is needed. McLaughlin remarked that reform that is bringing curriculum access to students with disabilities is driven by a need and a desire to increase the achievement of all students, including these students.

Curriculum content and performance standards are the core of the standards-based reform initiative. Questions regarding what to teach and what levels of mastery to expect are central to standards-based reform. These questions are reflected in the various assessments that have been developed and the accountability measures that states and districts are implementing. Until recently, school governance has not been a major part of standards-driven reform in terms of “who decides what gets taught to whom under what conditions.” However, the issue of who decides what happens in school is central to implementation of standards-based reform. Determining the content has been both a political and consensus process, with little research to support either what is included in the standards, or the rationale for setting particular criteria.

“Even today, there are some who say, ‘This too will pass. We are going to get sick of this in few years.’ If you still believe that in 2002, we are in serious trouble,” McLaughlin said, indicating that it is important to look at the broader context. Putting the standards-based reform movement in historical context, McLaughlin described three “eras” of educational reform in America: (1) public education, (2) access to public education, and (3) adequate public education for all. The most significant of these eras was the public education era, during which the concept of universal public education emerged. During that era, though, access to public education was limited and often segregated. Next, educators attempted to create equal access for everyone. In the latter part of 20th century, discussion has turned to the importance of an adequate education for all students. The focus on standards emerged from this emphasis on an adequate education.

To understand the impact of the standards-based reform movement on students with disabilities, it is useful to first consider the intent to this movement. McLaughlin indicated that:

- Standards are at the core of educational reform and are the chief strategy for achieving equity.
- Standards are intended to change what and how teachers teach. Many teachers are frustrated because they can no longer teach what they believe needs to be taught.
- Assessments and accountability are the strategies for achieving standards.
There is a critical need to distinguish between content standards and performance standards. Content standards are the “what” and performance standards are the “how well.” Content standards have been created through a process of consensus, often through political committees that may or may not have adequate representation from educators.

Special educators, like other educators, may have concerns about content standards—why they have to teach that content. These concerns may result from the teacher’s lack of knowledge about student capabilities and/or effective instructional strategies. Unfortunately, when teachers are unclear about effective instructional strategies or when they hold low expectations of students, students may not have opportunities to demonstrate their abilities. However, given the opportunity to learn content, many students can learn it. This is a key challenge that manifests itself through the IEP.

McLaughlin noted that the curriculum that many students with disabilities access is very focused on academic subject manner (reading, math, and science), in part because of the demands of standards testing. However, in an effort to do “macho standards setting” with higher expectations for student achievement, the content in particular subject areas has increased dramatically and the pace of instruction has increased to cover the subject matter. Often teachers feel as if they are on a treadmill with no time for activities such as reinforcement and reteaching. This affects students with disabilities and other students as well. Educators still need to reexamine the curriculum standards and gain a better understanding of the role of non-academic standards that relate to needed “life” skills.

The interdisciplinary content that is a part of standards-based reform requires greater collaboration. Science, math, and other content specialists must collaborate more with special educators to take advantage of the knowledge and strengths of each professional. At the elementary level, where the content knowledge is more general, this is not particularly problematic. However, at the secondary level, where advanced knowledge is required in chemistry and algebra, for example, this often breaks down. We need to examine expectations of teachers and preservice training to see if teachers are given adequate preparation in light of this emerging need.

When planning how to assist students in meeting the higher standards that are required, educators need to understand the distinction between accommodations and modifications. Accommodations are supports or services provided to help a student access the curriculum, whereas modifications change the content and performance expectations. In the past, the emphasis has been on modifying the curriculum (e.g., by reducing the amount of content or changing the level of the books used), which can result in denying the student access to the general education curriculum.

To assist students in meeting the expectations of the general education curriculum, McLaughlin suggested aligning the students’ special education needs with a curriculum continuum (Figure 2). Most students should be expected to access the general education curriculum with no accommodations or modifications. Some students will need accommodations to master curriculum content. And a smaller number of students will need curriculum modifications that might include expanded or differential instruction and curriculum goals. The goal should be to move an increasing number of students out of the modified curriculum and into the general education end of the continuum by offering accommodations. Success in access should be measured by the number of students who participate in the general education curriculum.
Despite the flaws inherent in the standards-based reform movement, McLaughlin views standards as a vehicle for defining an “appropriate” education for each child. However, the concept of “appropriate” must be driven by a standard that the student can be expected to master. Another strength of this movement is that standards create a consistency in the curriculum and further a shared language among all educators.

As standards are implemented, several policy and practice challenges must be addressed, including:

- Aligning the concepts of common content and performance standards, assessments, and accountability with the legal mandate for “individualized” education.
- Aligning standards, curricula, and IEPs.
- Building professional capacity—there is an incredible need to build teachers’ and administrators’ understanding of what access means, as well as when accommodations versus modifications in the curriculum are being made.

McLaughlin closed by saying that access to the general education curriculum is probably the most significant provision of the 1997 IDEA amendments. It will lead to a new understanding of what the term “appropriate” means and of the role of special education.
State Policies That Impact Access to the General Curriculum

Martha Minow, Ed.M., J.D., Professor, Harvard Law School; Co-Director on Policy, NCAC

Professor Minow described results from a NCAC policy study of curriculum access that was conducted in nine states.

Professor Minow presented key findings from a two-year state policy study on access to the general education curriculum for children with disabilities. The study examined the ways in which state and district policies affect actual practice. She acknowledged that although there are problems with the defining “appropriate,” the IDEA legislation as defined in 1997 does state that “free appropriate education” for students with disabilities involves:

- Individualized services based on unique needs, not disability category. This represents a change in idea but not in practice.
- High expectations and meaningful access to the general education curriculum for every student. High expectations are a crucial ingredient in student performance.

The 1997 IDEA amendments include the vision of the “least restrictive environment,” which requires: (1) teacher training and (2) related services, such as speech assistance, psychological services, physical therapy, and simple medical services. Under the IDEA amendments, a child with a disability is to be removed from the regular education environment when “the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.” The amendments tilted access toward the mainstream classroom and represent a direct change in policy, although it is unclear how much practice has changed since the amendments were passed by Congress.

The amendments also sought “to ensure access of the child to the general curriculum so that he or she can meet the educational standards within the jurisdiction . . . that apply to all children.” In addition, the amendments’ vision includes non-discriminatory procedures to identify and place students with disabilities (although this vision is not the reality), and parental participation.

The NCAC study focused on nine states: California, Connecticut, Florida, Kentucky, Massachusetts, Minnesota, New Jersey, New York, and Texas. Its major finding was that little is known about the implementation of the law. The study revealed four general concerns across the states:

- Categorical placement of students;
- Frequent inclusion of students in mainstream classrooms without necessary supports, teacher training, or related services;
- Racial and gender disproportion in identification and placement of students (differences between minorities versus whites and boys versus girls); and
- Inadequate notification of parents (i.e., parents are not informed of their rights and role).

Among the conclusions reached from this policy study were that changes in policies and procedures in these areas could greatly enhance the achievement of students with disabilities.
**Settings:** National aggregate data indicate that 46% of special education students are educated in mainstream classrooms, although the figure varies widely across states. Funding incentives influence the choice of settings in several ways:

- Funding incentives result in overuse of segregated settings and under-funding of supports for mainstreamed students. For example, Texas has a high rate of placement and the rate is tied to funding. Minnesota has the fewest funding incentives to favor mainstream placements, but there is a risk of political backlash.
- Links to disability category or placement are avoided.
- When linked to placements associated with disability categories or inclusion, funding encourages separate settings.
- Inclusion does not guarantee access to the general education curriculum because teachers often do not know how to frame material for individual students. This represents a problem with translating the federal law into practice.
- Access to the general education curriculum can be enhanced outside of the mainstream classroom. The level of expectations for students outside the mainstream classroom should be monitored.

**Staffing:** The issue of staffing is critical for several reasons:

- Equipping new teachers and equipping existing teachers are two different tasks, and neither is performed well. Inadequate attention is given to state certification rules to cross-train special education and general education teachers, so teachers are not equipped to “cross the border.”
- Teacher shortages affect efforts to increase access because many new teachers, including those entering teaching as a second career, are not prepared for the classroom. Practices such as shortcut or emergency certification and suspending certification altogether result in teachers having inadequate classroom skills.
- Class sizes and the number of students with IEPs are problematic. Teachers indicate that sometimes too many students with IEPs are placed in individual mainstream classrooms, making it difficult to both implement IDEA as intended and attend to the needs of other students. A tension exists between the focus on the individual versus the entire classroom.
- Discipline and behavior supports are challenging issues, and the intersection between access and discipline policies is difficult. This reflects a failure to provide behavior support measures at the front end to teachers and assistants (e.g., through team teaching).

**Supports:** Supports include paraprofessionals, related services (e.g., psychological and medical services), and technology support. Findings included:

- Administrators and teachers lack awareness about technology and rely on low-tech options.
- Teachers lack adequate technology training and are reluctant to use technology.

**Accountability:** The 1997 IDEA amendments and No Child Left Behind Act focus on inclusion, in the absence of which access to the general curriculum and the socialization that comes from sharing the classroom experience may be reduced. Lawsuits concerned with inclusion have been filed in several states and have been won on the basis of inadequate notice. Issues related to accountability include:

- Standards and testing: inclusion/accommodation.
- High stakes standards/alternate diplomas.
- School choice (e.g., charter schools and vouchers). The study showed that the number of students with IEPs who enroll in charter schools and non-charter schools is comparable. Private schools historically have counseled out students with special needs. The current form
of reimbursement makes money available to private schools only after funds have been spent in public schools. “Public dollars are not set up to follow students to private schools,” Professor Minow said. Furthermore, suburban communities are generally satisfied with their public schools and do not want school voucher programs that would bring in students from urban areas.

- Parental involvement is affected by language, access, and information issues. The study showed that parental involvement is a problem in many states, primarily because of language issues. Many students with special needs and their parents have limited language abilities.
- The rights of students with special needs in settings such as juvenile justice systems, foster care, and homeless shelters are widely ignored. In some places, more than 50 percent of youth in the juvenile justice system have special needs.

The IDEA vision has potential for improving instruction for all students. However, barriers at the state and local levels result from inattention and failure to institute change. Financial barriers must be addressed, priorities reoriented, and teachers better-equipped if the vision is to be fulfilled.
Panel: The Impact of Standards-Based Reform – Voices from the Field

Dr. McLaughlin and Professor Minow’s presentations were followed by reactions from three panelists representing the four federally-funded IDEA partnerships that are charged with delivering a common message about the reauthorization of IDEA. Together, the four partnerships (ASPIIRE, ILIAD, FAPE, and PMP) represent more than 100 organizations that seek to improve education for all children.

Joanne Cashman, Project Director, Policy Maker Partnership (PMP), National Association of State Directors of Special Education

According to Cashman, PMP has considered standards-based reform and its implications from the perspective of different policymaking stakeholders. For example, the state governors have launched a four-year partnership, “Education in the New Economy,” that reflects the “so what” of access. Disability policy and special education have been included in these discussions.

Although curriculum access for students with disabilities is being addressed within the IDEA policymaking communities, sometimes the different terminology used by policymakers and educators impedes communication and progress. While educators talk about “access to the general education curriculum,” policymakers consider the P-16 systems (pre-school through bachelor’s degree). When educators fail to think about P-16 systems, they are not considering the full spectrum of the individual’s life decisions, so it is easy to think only about immediate concerns. Although it is important to look at P-16 systems, a fundamental tension between transition requirements and access to the general education curriculum exists. This challenge requires greater attention.

Problems with curriculum access are relevant not only to students with disabilities, but also to other populations such as students with limited English proficiency, students in urban schools, rural poor students, and minority students, according to Cashman. She urged special educators to become aware of and participate in discussions among groups who are concerned with those other populations. Educators must also address disability issues across the lifespan and must recognize that IDEA is just one mechanism, albeit an important mechanism, to ensure that students with disabilities and their families receive needed supports. For example, educators must recognize and understand IDEA’s relationship to workforce investment. “We need to develop that broader connection or we will never see what this is about,” Cashman said. “If you build a system that will accommodate kids with disabilities, you have built a system that will accommodate all kids.”

Linda Marsal, Principal Investigator, ASPIIRE and ILLAD Partnerships, Council for Exceptional Children

Marsal began by referring to the relationship between equity concerns and student performance. She remarked, “As I listened to Maggie speak today I was struck by the sentence, ‘Equity concerns undergird initiatives in the U.S., including the creation of common standards, challenging assessments, and enhanced accountability for student performance.’” For students to have equity, monetary support, leadership support, and resources—including an environment conducive to equity—are needed.
Marsal also referred to the need for professional development and the challenges facing special education teachers, most particularly the importance of access to the general education curriculum. She observed,

For students to have meaningful access, they must have the opportunity to learn important content reflected in rigorous content standards. Access to the curriculum is the cornerstone of the IEP and defines much of what constitutes special education and related services. We must begin with the expectation that each student will succeed in the general educational curriculum and that every teacher has a role in providing instruction that meets the curriculum goals.

When we consider the aims of standards-based reform and the political arena, including the impact of No Child Left Behind, Marsal noted that we need to realize there is “no professional model to improve test scores. We hear what has not been done and we need a plan to get it done.” Teachers know how to do more than what is being done, but the attitude/belief that the only time teaching occurs is when the teacher is up in front of students must be changed. Teachers need time for planning, scheduling, collaboration, and preparing curriculum modifications.

To advance learning for students in the general curriculum, Marsal recommended that special education teachers learn general education content and general education teachers learn about the needs of special education. Leadership is needed, but administrators have many responsibilities and must trust teachers to build relationships with many, including parents.

**Larry Searcy, Community Action for Public Schools Initiative, Law and Education Center, Washington, D.C.**

Mr. Searcy provided the parents’ point of view, speaking on behalf of the FAPE IDEA Partnership.

Considering standards-based reform from the parents’ perspective, Searcy observed, “Among parents, there is little confusion about what it means to create access or make progress in the general education curriculum, and in almost every environment, most parents can distinguish performance and content standards.”

Searcy also noted that many people suggest that the “access to public education” era is over, but many students still do not have good access to public education. “The real challenge is, once you’re in the front door, can you stay in the building?” he asked.

Much research and many best practices exist, but they need to be better disseminated, Searcy suggested. He also said there is a need to think “more about what we teach and less about changing the kids we teach.” He asserted that, although there is a lot of discussion about eliminating short-term objectives and IEPs, they should not be eliminated. IEPs have always been viewed as a tool to help all students gain access to the general education curriculum.
Discussion Groups

Six discussion groups met after each of the three sessions to explore the topics presented. They each used the same questions to guide their discussions. The common themes and suggestions that were raised in the groups follow.

1. How do current national trends in state policies affect access, and what must change from a policy perspective to remove barriers?

Comments:
• “The variance on inclusion of students with disabilities in general education increases from national to states to district.”
• “Policies are not readily implemented at a local level.”
• “OSEP should look at language—access is not high expectations. Success encompasses access and suggests much more.”

In responding to the first part of the question, participants focused on the relationship between policy and budgets as well as ways in which policies vary from state to state. Other points raised during the discussions follow.

Fiscal concerns. Each group voiced concern about how budget cuts impact both policies and programs. Several groups pointed to the fact that federal government promised funds in 1975 that are still unavailable. Some suggested that “funding works against special policy,” as local education agencies are funded according to the number of students labeled as special needs.

Curriculum and textbook issues. Participants articulated uncertainty regarding what constitutes the “general education curriculum.” They described the need to focus not only on access, but also on participation and progress in the general education curriculum. They also recommended that preference be given to publishers who make digital versions of texts available.

General educators. Several groups described the need to ensure that general educators are adequately prepared to teach students with disabilities.

Vouchers. Some groups discussed the policy of vouchers, sharing their concerns about how their use may mean that students with disabilities “may end up in a less desirable school.” Others suggested that a specific voucher formula was needed for placement of these students.

Standards and policy differences. A number of issues were raised in terms of how policies, particularly in relationship to standards and graduation requirements, differ from state to state. High stakes testing is important in Ohio, for example, which results in strategies being used to exempt some students with disabilities in order to facilitate graduation. Schools in Kansas, on the other hand, offer an “accommodated exam” and an “alternative exam.” In general, participants found that an emphasis on testing has been a double-edged sword. While schools and teachers are now concerned about how much a student a disability learns, testing has resulted in special diplomas, and students with disabilities may be held back because they haven’t met state or local standards.
Participants were also concerned about how policies differ from one locality to another within the same state, and about differences in terminology and policies among various governmental agencies. They recommended aligning federal, state, and local policies and requirements for grants on systems improvement.

**Removing Barriers.** When discussing the changes that are needed to remove barriers, participants focused on the teacher shortage and the need for better teacher preparation and improved working conditions. Some groups discussed the need to encourage technology and upgrade preparation and support for all teachers.

Once again the theme “participation and progress—not just access to the curriculum” was emphasized. Others suggested reexamining the “anyone can teach” approach to training.

2. **What successes, leverage points, data, or key relationships could we use to create greater access?**

**Comments:**
- “Teacher pay is a factor….Financial incentives need to be increased.”
- “Need more training for general education teaching, as the dialogue is one-dimensional.”
- “Reform means bringing special education and general education together.”
- “The re-certification process should involve training to include diverse learners.”

Participants described the need to identify and build on successful schools, to implement systems of positive behavioral support, and to ensure that special education is part of the general education agenda.

**Data.** One theme that was stressed across the board was the need to develop data to understand why schools are successful. The impact of inclusion on performance and on dropout rates needs to be researched.

**Technology.** Participants discussed the use of technology and merging good instructional content with technology. Nearly every group cited the importance of using technology as a form of accommodation, as well as ensuring appropriate instructional content and adequate training. They also acknowledged the importance of electronic texts to facilitating universal design, as well as the serious need for more texts available in electronic format.

**Goals.** Participants recommended ensuring that goals and objectives for students with special needs match the goals of the general education curriculum to the extent possible.

**Broader issues.** Broader issues such as incentives, training, and certification for special education teachers; IDEA ’97 and its upcoming re-authorization; changing the attitudes of general educators; and the role of parents were also discussed. Participants were also concerned about how to communicate with legislators so that they will listen to teachers. Some participants mentioned the value of educational stories that can be taken to policymakers.

**Access.** Participants described the need to focus more carefully on what is taught: too often teachers are expected to cover too much curriculum content.
To facilitate curriculum access, teachers in special education need preparation in content areas.

3. What logical next steps or goals might we set for ourselves to accomplish in the next year to improve access to the general curriculum?

Comments:
- “Let’s not think of access as just special education students.”
- “I think it’s the wrong question. Access is a done deal, no one is arguing access. Access is a legal issue and Brown solved that.”
- “It’s more about participation and progress.”

Teacher Education/Professional Development. The most common theme was improving both teacher education and professional development. Participants emphasized cross-training general and special education teachers in all certification and re-certification programs, and concern was expressed regarding the trend towards emergency certification. A similar recommendation was made for upgrading requirements for paraeducators using national standards.

Standards. Another theme was the role of standards. Several participants suggested setting national standards for students with disabilities, as well as establishing class size standards to prevent overcrowding. The need to enforce current standards was also expressed.

Improving Instruction. Other common themes included the recommendation to improve instruction through technology, develop programs in which successful schools provide mentoring, and reduce paperwork and caseloads for special education teachers.

Systems. One group focused on how to create more fluid models “where kids are not sentenced to a life sentence in either (general or special education) classrooms.” Another group mentioned the need to look at policy from a human service perspective throughout the lifespan of the individual. That group indicated that education is only one part of the human service system.
Classroom Practices to Improve Access and Participation in the General Curriculum

Tracey Hall, Ph.D., Senior Research Scientist/Instructional Designer, CAST; Curriculum Director, National Center on Accessing the General Curriculum

Dr. Hall described research-validated curriculum enhancements in six areas and the relationship between these enhancements and UDL.

Hall began her remarks by stating that many barriers have been identified and overcome by humans both in nature and in our man-made world. Simultaneously, other barriers have been created for students with disabilities. Enabling learners to access schools physically does not necessarily ensure that they have access to the curriculum. NCAC is looking at ways to overcome barriers to the curriculum, including through Universal Design for Learning (UDL).

NCAC’s staff is currently examining research on curriculum. They have imposed two structures by which to conduct this research—curriculum enhancements and classroom practices. To illustrate the concepts of UDL and apply those concepts to a range of classroom situations, NCAC is compiling a series of case stories. NCAC is examining ways to communicate research findings to classroom teachers and administrators and to modify practices so that education is accessible to all learners. Several topics are being investigated in the curriculum enhancements component of NCAC’s work. Initial work organized the curriculum enhancements around the following topics: anchored instruction, modified text, text to speech, manipulatives, virtual reality/simulations, technology tools, concept maps, and models.
In Phase 2 of its Curriculum Enhancements initiative (Figure 3), NCAC has modified the topics to include background knowledge, graphic organizers, text transformations, curriculum modifications, and virtual reality/simulations. Each of these are being studied in relation to the UDL structures of multiple means of expression, multiple representations, and engagement of the student.

Many classroom practices that further the learning of students with disabilities are very well researched. Practices that are being reviewed by the NCAC include:

- explicit instruction,
- differentiated instruction,
- strategic instruction,
- peer-mediated instruction,
- curriculum-based evaluation, and
- classroom management.

Explicit instruction and peer-mediated instruction have particularly strong research foundations. NCAC is producing a series of papers on these practices. The papers will include several standard components: a definition, identifying components, applications to general education classroom settings, evidence of effectiveness, Web links, and references.
Research regarding *Explicit Instruction* has occurred since the 1960s with excellent results. Well-designed explicit instruction includes both instructional design and delivery components. These include, for example, group instruction with a high level of student-teacher interaction, the use of specific instructional design principals such as focusing on the “big ideas”, and the use of scaffolds or intentional supports. The teaching procedures and instructional focus of explicit instruction have been applied to education at all ages and ability levels with great success. It has been perceived by some that teaching using explicit instruction is most beneficial for low-performing students and students with disabilities. However, the results from extensive research repeatedly indicate that *all* students benefit from well-designed and explicitly taught skills (Figure 4).

![Figure 4. Explicit Instruction](image-url)
**Differentiated Instruction** is a process to approach teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student’s growth and individual success by meeting each student where he or she is and assisting in the learning process. Often flexible grouping is used and students are active and responsible partners in the learning process. Recommended differentiated instruction structures involve the use of peers, specialists, and parents, as well as the systematic assessment to provide feedback on the individual student’s growth and help teachers plan instruction.

![Differentiated Instruction Diagram](image)

Figure 5. Differentiated Instruction
Peer-Mediated Instruction and Intervention (PMII) is an alternative classroom arrangement in which students take an instructional role with classmates or other students. PMII involves four components: students are taught roles, students instruct, teachers monitor and facilitate groups, and learners and teachers are made aware of the academic and social goals. PMII grouping can involve either cooperative learning (students are grouped by the teacher and share knowledge with the group) or dyads (students are paired by the teacher and tutor one another).

Figure 6. Peer-Mediated Instruction
Curriculum-based Evaluations are defined as “any set of measurement procedures that use direct observation and recording of a student’s performance in a local curriculum as a basis for gathering information to make instructional decisions” (Deno, 1987). CBE procedures use direct observation and recording to make instructional decisions in academic areas. Assessment using frequent, direct measures (measuring accuracy, criterion measures, and often fluency) is linked to curriculum and instruction. Typically CBE is used in the subject areas of math, reading, and spelling, but has also been found effective in content areas. Whereas standardized commercial achievement tests measure broad curriculum areas and/or skills, CBE measures specific skills, usually basic skills, that are presently being taught in the classroom. Several approaches to CBE have been developed. Four common characteristics exist across these models:

- The measurement procedures assess students directly using the materials in which they are being instructed. This involves sampling items from the curriculum.
- Administration of each measure is generally brief in duration (typically 1-5 minutes).
- The design is structured such that frequent and repeated measurement is possible and measures are sensitive to change.
- Data are usually displayed graphically, to allow for monitoring of student progress.

Initially, these tools provided an alternative to standardized norm-referenced measures. In many cases, tools were used to more accurately provide information to teachers at the eligibility and planning stages in special education. However, several forms of CBE have repeatedly been valuable tools for monitoring the progress of students in the curriculum of instruction, most often the general education curriculum (specifically, criterion-based measurement and precision teaching). Using the progress-monitoring device, teachers are able to formatively evaluate student performance in an academic skill area specific to their curriculum of instruction. Formative evaluation allows teachers to evaluate the adequacy of skills development. If progress is deemed inadequate, interventions should be implemented. On the other hand, if students perform beyond expectations or criteria, the teacher has the information to make curriculum adjustments and challenge the student in their appropriate level (zone of proximal development).

CBE can be used in general education as well as special education classroom settings.
Hall then discussed the role of UDL, which offers multiple means of expression, multiple means of representation, and flexibility and adaptability in materials and procedures. The UDL framework sets forth three principles for guiding the development of flexible teaching approaches and curriculum resources. These principles are derived from brain research and understandings of how neuroscience informs our appreciation of learning and knowing (Rose & Meyer, 2000). The brain regions that take part in learning can be grouped roughly into three interconnected networks, each with a fundamental role in the classroom:

(a) “recognition” networks are specialized to receive and analyze information (the “what” of learning),
(b) “strategic” networks are specialized to plan and execute actions (the “how” of learning), and
(c) “affective” networks are specialized to evaluate and set priorities (the “why” of learning) (Dolan & Hall, 2001).

Teachers and curriculum should allow the student multiple ways of expressing knowledge and multiple options for engaging in the task or activity.
NCAC is creating a series of case stories to illustrate information and practices about access to the general education curriculum for all students, including those with disabilities. Case stories are designed for use by administrators, general and special educators, higher education, and pre-service teachers. NCAC has designed these case stories and made them available for on-line communities of practice centered on the issue of access to the curriculum for all students.

The NCAC case stories are available via an interactive website at CAST known as TES (Teaching Every Student). Users accessing a case story may select to approach the case from varying points of view; that of policy, curriculum and teacher practices, or parents (Figure 8). Each case presents a unique setting and a case dilemma and includes background information regarding the district/region, school, classroom, and student. The presentation of cases offers interactive features such as activities, tools, and templates and the option to join a community of practice and dialogue with others about the case and various components of concern or interest.

Figure 8. TES Case Story, Introduction

Cases also include links to the NCAC glossary of terms and to information on the NCAC Web site such as reports on classroom practices and curriculum enhancements. Additionally, links to external websites include examples of research-based practices or research results and applications to the classroom. Dr. Hall described the plan for case stories to be scaffolded for users—this would include cases that are models of solving a dilemma using UDL as a completed product, as well as cases in which participants on the Web site would submit ideas and/or methods by which they would
solve the dilemma for their purposes incorporating UDL and perhaps other techniques as well. The goal for NCAC is to have four complete cases posted for viewing and participation (Figure 9).

Figure 9. TES Case Story, Case Dilemma

References


Discussion Groups

1. What do we know about education awareness and the implementation of validated classroom practices within today’s inclusive general education classrooms?

Comments:
- “IEPs should be written on the strengths, not weaknesses.”
- “Mini-assessments should go on continually.”
- “New teachers lack experience with instructional strategies for diverse learners.”

Trial and error. Participants spoke of teaching as a matter of trial and error, noting that some teachers “teach to the page,” while others create their own lessons. In fact, teachers sometimes feel like they have to please everyone, as they must teach to the test and also be creative.

General vs. Special Education. There was considerable discussion about differences between general and special education approaches. Some suggested that special educators use direct instruction and a behavioral approach, while general educators tend to take a more constructive approach. They called for combining methods to increase the repertoire of teaching strategies.

Most agreed that each teacher has his/her own style. Most teachers also rely on their own methods, often because of familiarity, even if they are aware of other approaches.

Research to Practice. In terms of validated classroom practices, most participants acknowledged that good studies exist, but are not always presented in useful ways. Many said that while it was important to use teaching practices that are research validated, many educators do not know how to get information on such practices. One commented that it “should not be the teacher’s responsibility to research the validity of instructional practices.”

Participants expressed several concerns about validated practices. Some said that it was difficult to “navigate the hype around different methods.” Others questioned what the term “validated practices” really means. They discussed the issues of how validation occurs and the practical concerns of teachers to find what works for the students they are teaching.

Peer Mediation. Several participants mentioned peer mediation (students helping students) as an instructional method that works well.

Administrative Support. Some groups noted that procedures put in place by administrators do not always facilitate best practices.
2. Which of the current research tells us the most about needed change, and how might this research be used to ensure that classroom teachers, administrators, and teachers-in-training are aware of and using effective practices of UDL?

Comments:
- “People in the classroom do not know about UDL, and do not understand how to incorporate it into the classroom.”
- “Have lessons to try in their classrooms (an interactive approach).”

Meta-Analysis. In addressing the first part of the question, one group pointed to Kavale and Forness for their meta-analysis on special education practices. Others noted that while research has informed us about why students drop out, gaps exist between research and practice and better strategies are needed to bridge those gaps.

Getting Information to Teachers. The most common theme in the second part of the question was one that asked about the best way to get information about UDL to teachers. The National Education Association is developing a Web site and a virtual classroom to facilitate getting resources to teachers.

Other suggestions included:
- Providing case studies and video, as it “needs to be modeled.”
- Using for-profit organizations, as they know how to market.
- Integrating UDL into curriculum and standards.
- Using a good textbook, related trade books, and curriculum, as UDL will not be effective until multiple versions of the text, including digital, are in the classroom.

A UDL Clearinghouse. Many participants said that special education teachers do not know where to get information, and that a clearinghouse is needed.

Standards. Several participants said it would be important to watch how UDL principles will be used with state assessments, as the content of state assessments drives the curriculum, which can then provide direction for using UDL.

3. What are the logical next steps or goals to increase understanding and acceptance of effective classroom practices that support diverse learners?

Comments:
- “We need a decentralized scaling-up strategy.”
- “Must communicate strategies that are effective for all students.”
- “Train teachers, in learning environments, to use UDL and instructional strategies.”

Identifying schools. All of the groups suggested identifying schools that demonstrate improved performance and using them as models. Some participants stressed the importance of looking at all areas—not just wealthy districts—as “some poorer schools have effective practices.”

Participants also suggested finding schools where UDL best practices have contributed to increased performance. Some pointed out that many schools have improved, but that does not always mean...
they are using best practices. Other common themes focused on long-term, goal-directed training for teachers. “Don’t expect teachers to implement many choices all at once,” said one participant.

**Administrative Support.** In general, participants agreed that teachers would be more accepting of UDL if they had training and support from administrators, as well as extra time. One participant suggested involving state education agencies (SEA) in a supportive role.

**Teacher Training and Guided Practice for Teachers.** Participants encouraged further collaboration across teacher training programs as well as guided practice for teachers to provide support as they become better consumers of research.

**Changing the Focus.** There was also discussion of changing the focus from “kids to presentation.” One participant said, “We need to stop focusing on how we are going to fix our kids, and instead on how we are going to reach them.”
Access by Design, Not Afterthought: Advances in Universal Design for Learning

David Rose, Ed.D., Co-Executive Director, CAST; Principal Investigator, NCAC

Dr. Rose provided both some general background on UDL and information on future directions, particularly in terms of the development activities being undertaken at CAST and the NCAC with respect to electronic formats.

Rose discussed advances in UDL. He said that the first stage of universal design is finding a foundation for accessing the general curriculum. The foundation for access is the same for print, film, and other media. Building a foundation for access can involve multiple means of representation, expression, and engagement. Rose presented the following examples of features that are important to consider in building a UDL:

- **Recognition Learning**
  1) Provide multiple examples
  2) Highlight critical features
  3) Provide multiple media and formats
  4) Support background knowledge

- **Strategic Learning**
  1) Provide models
  2) Provide practice with supports
  3) Provide ongoing feedback
  4) Offer multiple tools for skill expression

- **Affective Learning**
  1) Offer choice of content and tools
  2) Provide adjustable levels of challenge
  3) Offer choice of rewards
  4) Offer choice of learning context
Using print media as an example, Rose noted that the value of the media is that everyone gets the same material. This feature is valuable in the classroom, but some students cannot turn the pages of a book, have problems decoding, or are blind, so traditional, one-size-fits-all materials do not work well. Digital media are more accessible. Whereas print technologies are permanent and fixed and the knowledge and display material do not change, in a digital world, the content can be separated from the display device (e.g., a computer terminal, television, or PalmPilot). Separation of content and display means that the same content can be displayed in multiple ways, and different modalities (e.g., Braille, different colors/fonts, or auditory enhancement such as text to speech) can be used to accommodate individual users’ needs (Figure 10, below). The way in which students are supported in using the material (e.g., putting information in a computer notepad) can also be changed.

The current digital environment can make the Web more accessible to students with disabilities by providing scaffolding and support. In addition, many students are more engaged by the Web than by textbooks.

The second stage of UDL is building a foundation for learning. Access to learning, not just to documents, is critical. It is important to transfer the results of research into useful products. CAST’s approach is to:

- Synthesize existing research via an interdisciplinary team;
- Build the research into the toys, tools, tests, and texts that teachers use; and
- Disseminate through the tools that teachers use.

Flexible display uses structural HTML tags embedded in a document (Figure 11, at left). These tags can be used to tailor the display to the user, add semantic tags that state what the information is about, and include supports for learning (e.g., prompts, models, and additional background knowledge) that can be individualized.

Rose then described an electronic-based reciprocal teaching model known as the Thinking Reader that is currently under development. The model offers varied levels of support (e.g., prompts and illustrations at ranked levels) for the same content in order to encourage students to be strategic readers. The level of support decreases as the student becomes increasingly independent as a reader. A three-year study of the model showed that students using the electronic-supported method...
participated more in class and performed better on the state reading test, and that teachers increased their understanding that strategies are as important as content (Figures 12 and 13).

The next stage of this work will be to convert the research into goals and standards, methods and materials, and means of evaluation. As an example, CAST is creating an interactive digital learning environment to support the development of beginning reading skills and comprehension strategies for students with mental retardation. Using the Thinking Reader approach to early literacy development, students with mental retardation who have not yet mastered early reading skills will be supported for success using the same popular, interesting books enjoyed by classmates who are beginning to read. Two future projects will be initiated at the National Center for Research on Learning at the University of Kansas and at Gallaudet University.
Discussion Groups

1. What do we know of the current (and numerous) barriers in the general education curriculum? What are the most important barriers to address, and how might we effectively prioritize these barriers across diverse stakeholder communities?

There were many more responses to the first part of the question, which focused on barriers, than there were suggestions of methodologies.

Comments:
- “Public schools are where the private sector was thirty years ago, but it makes sense to train the kids to function the way the private sector does, since they will someday move into that sector.”

Lower Expectations and Inequities. All groups discussed their concern that students with disabilities face lower expectations, and identified this as a major barrier to curriculum access. Another barrier is the inequity in grading based on different forms of learning styles, instruction, and graduation requirements. Tests were identified as well, “because all they really test is who can take the test.”

What’s Missing. Other barriers were described by what is lacking: lack of time for teachers to adapt materials, available technology or funding for it, cross-training, and alternative means of accessing curriculum. Several participants also noted a lack of communication with administrators and parents.

The lack of clear linkages across content areas was also a concern. Math standards, for example, do not incorporate language arts goals.

Core Curriculum. The groups discussed the need to identify standards in the core curriculum, especially reasonable standards for children. The questions of defining core curriculum, and who decides what it is, were also raised. Several groups mentioned that the needs of individual communities must be considered. Because each community is unique, schools need to respond to what is important in individual locations.

Schools and the Private Sector. Some participants suggested that schools need to operate more like the private sector.

Empowerment. Several participants suggested using the “Empowerment Evaluation” of David Fetterman of Stanford University.

2. What are the most promising practices and techniques to consider as we investigate new universal designs for the future? What further research is needed to effectively advance universal design for diverse learners?

Comments:
- “Whole idea of different scaffolding looks great, but how do you implement [with limited time]?
- “Need to research how UDL becomes relevant to teachers.”
Participants recommended focusing on strategies that could be used with a variety of media. Technology, digital texts, and flexible display are essential. Participants believed educators need more information about universal design.

Specific Strategies. Some strategies identified as effective included authentic assessment, differentiated instruction, a social-cognitive approach to social skills instruction, and direct instruction.

Implementation. Concerns were expressed about how to implement strategies, including not only in general education settings, but also the classroom prerequisites for successful use of UDL.

3. What are the logical next steps or goals that will successfully move universal design forward to improve design and development of curricula?

Several next steps were identified, including moving math and science into the design, ensuring that professional development accompanies technology, and communicating with curriculum developers to make sure they understand UDL.

Comments:
- “It’s not just focusing on access but making the necessary accommodations to allow access.”
- “Need to move to math and science, examine them more closely—it is not just reading.”

A Common Definition. The most common theme was not centered on steps, per se, but instead focused on presenting UDL in a positive light. This included the need to define it clearly, or else, as one participant said, “we are going to see a lot of junk under the heading of Universal Design.”

UDL Standards. Participants also agreed on the need for standards before implementation, and that continued research is needed on the efficacy of UDL and on how the principles can be added to all parts of the curriculum. One participant said, “There will be evidence of adoption of UDL when it is visible at regular conferences and in publications.”

Pairing technology, research, and professional development. Several of the groups discussed the need for greater access to computers for students, as well as ongoing research and demonstration projects that will continue to validate best and promising practices. This research should help drive professional development so that as new technologies emerge and their validity is demonstrated, this information is readily available to teachers and teachers learn to how integrate the technology most effectively. A better research-based understanding of the interface between UDL and various effective instructional methodologies is also needed.

Stakeholder groups. Another common theme was the recommendation to include all major stakeholder groups to understand their concerns as we move forward. This collaboration must include ensuring that special educators are part of every curriculum design team. Another collaborator that is needed is state departments of education, so they understand and participate in UDL.
Appendix A: Biographies of Key Speakers

**Tracey E. Hall** received her Ph.D. from the University of Oregon in Special Education with a research emphasis in alternative assessment and instructional design. In July 2001 she joined the Center for Applied Special Technology (CAST) as a Senior Research Scientist and Instructional Designer. At CAST, Dr. Hall is Curriculum Director for the National Center on Accessing the General Curriculum and involved with various projects, including the integration of assessment with instructional design, professional development, and the National Consortium. Prior to working with CAST, she was an assistant professor at Pennsylvania State University in the Department of Educational and School Psychology and Special Education. Her public school experience includes administration, consultation, and teaching as a special educator.

**Margaret J. McLaughlin** has been involved in special education throughout her professional career, beginning as a teacher of students with serious emotional and behavioral disorders. She earned her Ph.D. at the University of Virginia and has held positions at the U.S. Department of Education and the University of Washington. Currently, she is Associate Director of the Institute for the Study of Exceptional Children at the University of Maryland, where she directs several national projects investigating educational reform and students with disabilities. These include the Educational Policy Reform Research Institute (EPRRI), a consortium involving the University of Maryland, the National Center on Educational Outcomes (NCEO), and the Urban Special Education Collaborative. EPRRI is studying the impact of high stakes accountability on students with disabilities. Dr. McLaughlin has also worked in Bosnia and Nicaragua to develop programs for students with developmental disabilities. She co-chaired the National Academy of Sciences Committee on Goals 2000 and Students with Disabilities, which resulted in the report *Educating One and All*. She is a member of the NAS committee on the disproportionate representation of minority students in special education. Dr. McLaughlin teaches graduate courses in disability policy and has written extensively in the area of school reform and students with disabilities.

**Martha Minow, Ed.M., J.D.** has taught at Harvard Law School since 1981, where she is a professor of law. Her books include *Making All the Difference: Inclusion, Exclusion, and American Law*; *Not Only for Myself: Identity, Politics, and Law*; *Between Vengeance and Forgiveness: Facing Genocide and Mass Violence*; *Partners, Not Rivals: Privatization and the Public Good*; and *Breaking the Cycles of Violence: Memory, Law and Repair*. Professor Minow has also edited or co-edited *Narrative, Violence, and the Law*; *Family Matters: Readings on Families Lives and the Law*; *Law Stories; Engaging Cultural Differences*; and case books on women and the law and civil procedure. She serves on the boards of the Bazelon Center for Mental Health Law, the Revson Foundation, the Covenant Foundation, and Facing History and Ourselves, as well as on the board of The Family Center (Somerville, MA) and the Judge Baker Children’s Center (Boston, MA). Her courses include civil procedure, family law, law and education, children and their social worlds, and non-profit organizations.

In 1984, **David Rose** helped to found CAST in order to expand opportunities for students with disabilities through the innovative development and application of technology. Dr. Rose is a licensed clinical psychologist who specializes in developmental neuropsychology and in the universal design of learning technologies. In addition to his role as co-executive director of CAST and the principal investigator for CAST’s National Center on Accessing the General Curriculum, he lectures at Harvard University Graduate School of Education where he applies CAST’s work in neural networks and learning to both the design and content of his course. Dr. Rose received his master’s degree from Reed College and his doctorate from the Harvard University Graduate School of Education.
Appendix B: THE COMPREHENSIVE PLANNING PROCESS FOR THE IDEA PART D NATIONAL PROGRAM
(see also http://www.ed.gov/policy/speced/leg/idea/cpp/index.html)

“The comprehensive planning process has given stakeholders an important role in informing OSEP on how IDEA Part D national activities can help improve results for children with disabilities.” Lou Danielson, Ph.D., Director, Research to Practice Division, Office of Special Education Programs, U.S. Department of Education

Experts Inform Part D National Program Plan

In 1999, the U.S. Department of Education’s Office of Special Education Programs (OSEP) launched a long-range, comprehensive planning process for Part D of the reauthorized 1997 Individuals with Disabilities Education Act (IDEA)*. OSEP’s goal for its Part D national program is to link best practices to states, school systems, and families to improve results for infants, toddlers, and children with disabilities. Part D of IDEA ‘97 authorizes national program activities and federal funding (see figure, this page [Research and innovation, Personnel preparation, Technical assistance and dissemination, Parent training and information, Technology, Media services, and Studies and evaluation]).

OSEP undertook a significant initiative in implementing the Part D national program comprehensive planning process. Among the activities undertaken were:

- Solicit opinions about the Part D national program through mass distribution of an opinion survey.
- Convene experts to identify issues in key program areas and make recommendations for how the Part D national program may address them.
- Use recommendations from the opinion survey, panels, and other national and state sources to develop a five-year Part D national program plan.

This brief focuses on the opinions of national authorities regarding the improvement of students with disabilities’ access to, participation and progress in the general education curriculum.

Findings

IDEA places significant emphasis on helping children with disabilities, at an individually appropriate level, participate and progress in the general education curriculum. The IEP must include accommodations, modifications, and any special services that the child needs to access the general education curriculum, as well as identify supports service providers need to carry out the child's program.

The authorities identified the following three issues as being most influential in affecting students’ access to the general education curriculum, noting that they must be addressed if access, participation, and progress are to increase. They also suggested how Part D national program activities in part might address these issues through research and knowledge building, public awareness and support, and capacity building.
Issue 1: Definitions are needed for the terms access, participation, and progress in the general education curriculum.

General education and special education stakeholders do not have a shared understanding of the IDEA provisions related to access, participation, and progress in the general education curriculum. The terms access, participation, and progress have not been operationally defined in practice, and there is great variation in how these terms currently are being used. Moreover, professionals disagree about what constitutes the general education curriculum. For some, curriculum refers strictly to the district or state mandated academic study. Others view curriculum more broadly (e.g., social, communication, orientation and mobility, life skills, and self-determination skills).

Lacking a clear consensus of these terms undermines policy, research, and practice activities. To this end, the authorities suggested that Part D national program activities might focus on defining key terms and concepts for students at different ages and with different disabilities.

Issue 2: It is difficult to meet the individualized educational needs of students with disabilities in the general education curriculum.

Although some progress has been made, many students with disabilities do not have access to general education curriculum and instruction. The barriers vary and may include:
Using instructional practices, assessment techniques, and materials that are outdated, inappropriate for the curriculum standards and goals, not reflective of current research on best practices, and that are insufficient to accommodate diverse and multifaceted needs.
Not providing supplemental supports and aids necessary for participation.

The issue is compounded further because little is known about how students with disabilities acquire, maintain, and apply knowledge and skills in general education curriculum settings, and what teaching strategies may, in fact, lead to better outcomes. For students who do not make adequate progress in the general education curriculum and who require more intensive, individualized instruction, few strong empirically documented treatments have been identified for ensuring that important skills are acquired, maintained, and transferred.

Without sound pedagogy, it will be difficult for students with disabilities to access, participate, and progress in the general education curriculum. To this end, the authorities suggested that Part D national program activities might advance research and knowledge production, as well as build the capacity for the application of research-based instructional methods and materials that enable teachers and direct service providers to tailor instruction, assessments, and interventions to meet individual needs.

Issue 3: More school-based and district level support is needed to support students with disabilities in accessing, participating, and progressing in the general education curriculum.

Progress for students with disabilities in the general education curriculum requires a system in which all stakeholders within the classroom, school, and community work together for the students’ benefit.

Authorities suggested that Part D national program activities might support research and knowledge production of formal and informal structures and supports at all levels of the school and district that enable and support stakeholders (e.g., general education teachers, special education teachers, parents, related service providers, administrators, and the students themselves) working together to address
all students’ learning needs in a rigorous curriculum aligned with high standards. In addition, Part D national programs might strengthen capacity by supporting the development and delivery of professional development and technical assistance designed to build stakeholder knowledge and skills relating to improving services and results for students with disabilities.

**Next Steps**

OSEP staff members are currently discussing the implications of expert opinions. Their results, along with those of the consumer survey and other relevant planning information—such as the findings of Parts B and C monitoring and oversight efforts and State Improvement Grant Program proposals, as required under Part D, Subpart 2 of IDEA—are being integrated by agency-wide staff workgroups into a comprehensive Part D national program plan. The public will be invited to comment on the Part D national program plan before it is presented to Congress for approval.

*The comprehensive planning process is authorized by IDEA [sec.661(1)].*
Appendix C: Record of the Expert Strategy Panel on Students with Disabilities’ Access, Participation, and Progress in the General Education Curriculum

The Role of the Panel in IDEA Part D National Program Planning

When Congress reauthorized the Individuals with Disabilities Education Act (IDEA) in 1997, it directed that the vital work sponsored under Part D be organized under a comprehensive, long-range plan that reflects the most pressing needs of children with disabilities, families, and professionals while promising to help states and community fully implement IDEA. Part D of IDEA authorizes research and development, professional development, technical assistance, information dissemination, family involvement, evaluation, systems change, and program improvement activities that expand our knowledge bases and translate useful research into practice. Congress was explicit that the purpose of Part D of IDEA is to enhance the provision of education, related, transition, and early intervention services to children with disabilities under Parts B and C of IDEA. OSEP, as the Federal administrative agency, was named to coordinate the Part D National Program plan’s development and execution.

OSEP designed a three-part participatory planning process to inform the Part D National Program plan.

1) Part one focused on soliciting direct input from the consumers of Part D activities and services—individuals with disabilities, parents and family members, and professionals working with children with disabilities—about their most pressing issues and needs.

2) Part two of the process convened five expert strategy panels comprised of nationally recognized consumer, research, and training and technical assistance authorities. Panel members were nominated by national organizations concerned with children with disabilities and their families and OSEP staff. Between 15-20 individuals served on each panel. Each panel concentrated on one of five broad Part D planning areas corresponding to major provisions of IDEA. Panels worked intensively between September and November 2000. OSEP asked each expert strategy panel to define the key issues within its assigned broad planning area that must be resolved to address the needs of consumers and improve results for children with disabilities. Having chosen the key issues, OSEP then asked each panel to explore the major gaps separating current practice from what is needed to achieve better results for children with disabilities for each issue and to reflect on the types of Part D strategies that might bridge the gaps.

This document is a record of the expert strategy panel examining students with disabilities’ access to, participation in, and progress in the general education curriculum. The panel’s record, along with those of the other four panels and consumer responses in part one of the planning process, are significant sources of planning information for the IDEA Part D National Program Plan.

Consistent with Congress’ wishes, OSEP is now assembling other important information sources, including the findings of its Parts B and C monitoring and oversight efforts (to ensure that the National Program Plan responds to the critical IDEA implementation and compliance concerns) and the needs expressed by states in State Improvement Grant proposals (as required by Part D, Subpart 2 of IDEA). The agency will take all of these sources into account as it maps long-term research-to-practice strategies in each of the five broad Part D planning areas.
OSEP looks on the expert-based opinion offered by the five panels thus far in the planning process as the beginning of an ongoing conversation between the agency and stakeholder representatives. OSEP will publish drafts of the proposed Part D National Program Plan for discussion and comment by the broad education community, including the national organization representatives and experts collaborating with the agency in the planning process. OSEP will also invite public comment before presenting a proposed National Program Plan to Congress for approval later this year.

**Broad Planning Area**

Congress viewed the reauthorization of the Individuals with Disabilities Education Act (IDEA) as an opportunity to better educate children with disabilities and enable them to achieve a quality education by, among other things, ensuring access to the general education curriculum and reform. The Office of Special Education Programs (OSEP) adopted ensuring access to, and participation and progress in the general education curriculum as one of five broad planning areas around which to organize its programs and activities. A cross-divisional OSEP workgroup has examined the area for some time.

When OSEP conducted a nationwide special education consumer survey as part of its IDEA Part D National Program planning in 2000, the agency asked consumers to select five results that would most indicate improvements in the lives of children with disabilities. Fifty-one percent (51%) of more than 14,000 individuals with disabilities, parents, service providers, administrators, and policymakers who responded to the survey selected greater participation and success in the general education curriculum. More than 50% of respondents interacting with elementary and middle school-aged children also chose higher achievement in reading, writing, and mathematics.

Confident that the broad planning area of access to and participation and progress in the general education curriculum responds to consumers needs and priorities, OSEP convened an expert strategy panel (Access panel) to examine the area in greater detail. Panelists included individuals with disabilities, parents, service providers, administrators, policymakers, and researchers whose expertise focused on the broad planning area. The panel’s charge was to (1) identify the few key issues related to making significant improvement and progress in students with disabilities’ access to and participation in the general education curriculum, (2) the most critical gaps needing to be bridged to resolve each issue, and (3) the strategies OSEP might incorporate into the IDEA Part D National Program.

**Key Issues**

The Access panel, through a process of large and small group discussions, identified the three key issues it believed must be addressed in order to make any significant progress in improving children with disabilities’ access to the general education curriculum. Besides acting as a “gatekeeper” to meaningful progress, the panel chose issues that reflect the most pressing needs of consumers and the types of activities OSEP can undertake under the IDEA Part D National Program; and that promise to leverage national attention and resources beyond those invested by OSEP. The key issues are:

1) Definition of “access”, “participation”, and “progress” in the general education curriculum.
2) The individualized educational needs of students with disabilities.
3) The school and district systems supporting students with disabilities.
The panel investigated each issue thoroughly, often dividing into smaller workgroups to address an individual issue. The panel defined each issue in terms of its desired future state, its current state, and the critical gaps between the two states. The following sections present the panel’s descriptions and understanding of each key issue.

**Issue 1: Definition of “Access”, “Participation”, and “Progress” in the General Education Curriculum**

**Description of Issue:** Define critical concepts such as “access”, “involvement”, “progress”, and “participation” in the general education curriculum for students with disabilities. The definitions would incorporate both academic and non-academic domains and ensure the opportunities for students with disabilities to learn and succeed in the general education curriculum.

**Future State**
- These concepts are defined for specific types of students at different ages and with different disabilities.
- The general education curriculum is defined broadly, including both the traditional academic areas (Reading, Writing, Science, Math, Social Science) and the knowledge, skills, and dispositions necessary for living in a diverse society.
- Access to the general curriculum for students with disabilities includes participation in music, the arts, sports, crafts, and drama as well as social skills, career education, orientation and mobility, self-determination, and communication skills.

**Current State**
- General education and special education stakeholders do not have a shared understanding of the concepts of “access”, “participation”, and “progress” in the general education curriculum.
- Fundamentally, there is disagreement about what constitutes the “general education curriculum” itself. This confusion has a deleterious effect on students with disabilities in the areas of policy, research, and practice. For example, how does a fifth grade teacher make the language arts curriculum accessible for a fifth grader with a reading disability? Access might mean something different for the same student when he is in eleventh grade and it might mean something different for a fifth grader with autism.

The panel identified two fundamental gaps between the future and current states that it believes must be bridged if significant improvement and results for children with disabilities are to be realized regarding this issue.

**Gap1A.** The profession has not agreed to coherent, operational definitions of “access”, “participation”, and “progress” in the general education curriculum.

**Gap1B.** Curricula are not designed broadly enough to enable students with disabilities to receive broad instruction (e.g., academic, social, communication, orientation and mobility, life skills, self-determination) that meets their individual needs, facilitates active, meaningful and challenging participation, and provides ways for showing progress within the general education curriculum.
Issue 2: The Individualized Educational Needs of Students with Disabilities

Description of Issue: While some progress has been made toward providing students with disabilities access to curriculum and instruction that reflects reform goals, several barriers to excellent instruction, support, and progress for students with disabilities remain. Learning goals for students with disabilities are not necessarily referenced to the general education curriculum. Many classrooms lack good instruction that is appropriate to standards and provides varied levels and kinds of support for students with disabilities.

Future State
- Teachers have a well-developed repertoire of innovative, research-based instructional methods and use well-designed instructional materials and media so they can tailor instruction in response to individuals' progress.
- A large set of empirically documented, powerful treatments are available for intervening with students with disabilities.
- An ongoing assessment system, referenced to the general education curriculum and guided by the IEP as needed, is a routine component of the school program. This assessment system permits flexible entry to and exit from more individualized and intensive special education services.

Current State
- Printed text is the primary mode of presentation for most instruction, and those who cannot demonstrate the acquisition of knowledge in writing are presumed not to possess that knowledge.
- Teachers and service providers use instructional methods with insufficient variety to the multifaceted needs of students with disabilities.
- Instructional practices and materials do not reflect current research on how best to produce desired learning objectives and, in fact, reflect principles that have changed little in a century.
- Assessment is typically relatively infrequent, isolated, and seldom well integrated with teaching and learning materials and activities. The assessment system is a formal, annual test that does not permit decisions concerning the need for more intensive, individualized instruction and how intensive instruction should be designed.

The panel identified four significant gaps related to the individualized educational needs of students with disabilities.

Gap2A. Within the context of state-of-the-art general education inclusive practice, little is known about how students with disabilities acquire, maintain, and apply knowledge and skills, and what additional teaching strategies lead to better outcomes.

Gap2B. For students who do not make adequate progress in the general education curriculum and who require more intensive, individualized instruction, few strong empirically documented treatments have been identified for ensuring that important skills are acquired, maintained, and transferred.

Gap2C. Textbooks, instructional materials, and assessments are not available in the media required for many students. The curriculum does not reflect understanding of different learning modalities or cultural differences, nor does it assist teachers in instructing diverse learners.
The school’s assessment system is a formal, annual test that does not guide instructional decisionmaking or permit decisions concerning the need for more intensive, individualized instruction and how intensive instruction should be designed.

Issue 3: The School and District Systems Supporting Students with Disabilities

Description of Issue: Schools and school districts are typically not organized to support the best collaborative practices among students, professionals in the school, parents and families, and the community. Progress for students with disabilities in the general education curriculum requires a system in which all within the classroom, school, and community work together for students’ benefit.

Future State

- School and district level leaders take active responsibility for the education of students with disabilities.
- School leaders explicitly envision the inclusion of students with disabilities in a rigorous curriculum aligned with high standards.
- There is just one school-wide system for educating students that is flexible enough to meet all students’ needs.
- All of the partners in a child’s education have the opportunity and the skills to communicate with each other in their efforts to provide excellent educational services.
- School and district leaders provide opportunities for high quality professional development for general and special education teachers in order to improve services and outcomes for students with disabilities.
- Instructional planning for students with disabilities is based on an individually-referenced, collaborative-team planning process using a joint focus on the school curriculum performance standards and the student’s strengths and needs.
- Schools are organized to connect students, families, professionals, and community partners in the design, assessment, implementation, and evaluation of learning.
- Parents of all students understand the educational goals of the school and know that the inclusion of students with disabilities only enhances all students’ learning opportunities.

Current State

- There is a lack of ownership and responsibility for students with disabilities by general education school and district leaders. As a result, there is no impetus to change or improve the system or to make the general education curriculum more accessible to students with disabilities.
- There are inherent problems with dual or parallel departments and programs within the school (i.e., special education vs. general education programs). This leads to a devaluing of students with disabilities, parents, and special education teachers.
- There is currently a lack of communication between IEP partners at both the school and district level. IEPs are written primarily by special educators and then endorsed by a larger team. Many school personnel lack the time, resources, support and skills necessary to craft relevant IEPs using a collaborative team planning process.
- The role of the family in students’ education is often quite limited.
The panel identified the following gaps between future and current states.

**Gap3A.** School and district leaders lack the appropriate knowledge, skills, understandings, and commitments to the achievement of students with disabilities as part of a single student body for whom they are responsible.

**Gap3B.** Formal and informal structures and supports are needed at all levels of the school to enable an interdisciplinary team to meet all students’ needs and ensure that students with disabilities participate fully in school life and learning.

**Gap3C.** The participation of students with disabilities and their families in the students’ educational process is limited; their involvement is often not encouraged.

### Recommendations for Addressing Each Key Issue Through the IDEA Part D National Program

The panel discussed, debated, and wrestled with plausible actions that OSEP might undertake through the IDEA Part D National Program to bridge each gap and thereby address each key issue. The panel concluded its work by drafting several possible improvement strategies for OSEP’s consideration. The strategies are organized into three categories that correspond to the types of activities the IDEA Part D National Program can sponsor: research and knowledge production, capacity-building, and generating public awareness and support.

#### Issue 1: Definition of “Access”, “Participation”, and “Progress” in the General Education Curriculum

**Gap 1A: The profession has not agreed to coherent, operational definitions of “Access”, “Participation”, and “Progress” in the general education curriculum.**

**Research and Knowledge Production**

- Form a working group to review definitions and develop a better understanding. Their goal would be to make the meanings of “Access”, “Participation”, and “Progress” clearer and more explicit for a range of disabilities. This group would compile examples of effective and promising practices. This would lead to concrete images of how “Access”, “Participation”, and “Progress” are operationalized. (Could include the use of videos, etc.) The group would provide examples of:
  - Specific students’ programs.
  - Specific activity structures (e.g., PALS, Think-Pair-Share to teach history of the Civil Rights movement, Literature Circles).
  - How progress is assessed; can compare growth of special education students to peers.
  - Specially designed instruction that provides access.
  - How a district selects key concepts and principles in a content area such as science or history that all students should acquire accompanied by materials like videos and demonstrations of how students acquire information, of student progress. The materials include interviews with teachers, administrators, curriculum specialists, or teacher-teams.
- There needs to be candid discussion among policymakers and educators about how to establish a balance between foundational skills, remediation, and access to the general education curriculum. Policymakers and educators need also to discuss the best ways of providing access in both inclusive settings and by special educators in or out of the general education setting.
• After the aforementioned discussions, a series of model demonstration projects can be developed.
• Involve relevant OSEP institutes (Accelerating Learning Institutes, Access Institute, and other OSEP projects such as Beacons of Excellence, Instructional research, and model demonstrations) when researching “access” questions.

**Capacity-building**

• OSEP needs to disseminate “access” information to IHEs, thereby creating linkages to teacher education programs.
• Create learning and professional development opportunities about “access” for IHE faculty as well as for in-service teachers.

**Gap 1B: Curricula are not designed broadly enough to enable students with disabilities to receive broad instruction (e.g., academic, social, communication, orientation and mobility, life skills, self-determination) that meets their individual needs; facilitate active, meaningful, and challenging participation; and provide ways for showing progress within the general education curriculum.**

**Research and Knowledge Production**

• Research on models and strategies for meaningful progress in the broadly designed curriculum in the following areas of development: academic, social, communication, orientation and mobility, life skills, self-determination.

**Capacity-building**

• Policy is needed to confirm the importance of broadly designed curricula (e.g., academic, social, communication, orientation and mobility, life skills, self-determination).
• Evaluate and disseminate models that will illustrate the use of broadly designed curriculum in the following areas of development: academic, social, communication, orientation and mobility, life skills, self-determination.
• Preservice and ongoing mentoring of best practices within the broadly designed curriculum in the following areas of development: academic, social, communication, orientation and mobility, life skills, self-determination.

**Issue 2: The Individualized Educational Needs of Students with Disabilities**

**Gap 2A: Within the context of state-of-the-art general education inclusive practice, little is known about how students with disabilities acquire, maintain, and apply knowledge and skills, and what additional teaching strategies lead to better outcomes.**

**Research and Knowledge Production**

• Research on the effectiveness for students with disabilities of the most frequently used, state-of-the-art teaching/learning strategies. (Outcomes assessed for students with disabilities and typical kids.)
• Development and validation of teaching/learning strategies that promote acquisition, transfer, and real-world use of important skills and knowledge.

• Research on the teaching/learning environments that promote effective use of teaching strategies that lead to better outcomes, (e.g., contextual factors such as school-wide approaches to behavioral management, classroom design, group program organization of materials and resources, time scheduling, block scheduling).

• Research on how to translate the results of the above research in classrooms and schools. This research should involve family-school partnerships to the extent possible.

Capacity-building

• Disseminate models of professional collaboration that support students with disabilities in acquiring, transferring, and using (real-world) important skills and knowledge.

Gap 2B: For students who do not make adequate progress in the general education curriculum and who require more intensive, individualized instruction, few strong empirically documented treatments have been identified for insuring that important skills are acquired, maintained, and transferred.

Research and Knowledge Production

• Research to identify the factors that indicate risk of not responding within general education.

• Research on efficient and effective methods for disseminating information to general education teachers.

• Design and evaluate methods that affect satisfactory acquisition, maintenance, and transfer of knowledge and skills for students who do not benefit from methods in the general education curriculum.

• Research on how to develop adequate student motivation and engagement.

Capacity-building

• Mentoring structures that support implementation of validated practices.

Gap 2C: Textbooks, instructional materials, and assessments are not available in the media required for many students. The curriculum does not reflect understanding of different learning modalities or cultural differences, nor does it assist teachers in instructing diverse learners.

Research and Knowledge Production

• Research on student outcomes of universally designed media, materials, and assessments, beginning with small controlled demonstrations and leading to larger scale applications across content domains.

• Research to determine what instructional changes are necessary to support universal design curriculum and assessment and to develop appropriate models.

• Research on optimal use of multimedia design with instructional materials and assessments for all students.
Capacity-building

- National repository of publishers; electronic files.
- Principles of universal design must be applied to the design of multimedia curricula and assessments.
- Personnel preparation systems to increase the number of personnel (e.g., Braille transcribers, speech-language pathologists, assistive technology specialists, etc.)
- Work with SEAs to develop guidelines that include universal design as a criterion for state/local adoption of textbooks.

Gap 2D: The school’s assessment system is a formal, annual test that does not guide instructional decisionmaking or permit decisions concerning the need for more intensive, individualized instruction and how intensive instruction should be designed.

Research and Knowledge Production

- Research to broaden formative assessments to make them more responsive to learning standards that teachers are accountable for; to address reading, math, writing, and content areas; to insure instructional utility for general education and special education teachers; and to insure meaningful links to IEPs.
- Research to study the effects of using these formative assessments on student outcomes.
- Research to identify how these formative evaluation systems, referenced to general education outcomes, can be used to encourage flexible entry to/exit from intensive, individualized instruction.
- Research to identify how to link behavioral process measures to academic/functional outcomes and how to design those assessments to build on student strengths.
- Research to identify ways to encourage teachers’ use of formative assessment in academic, functional, and behavioral domains and to encourage communication about performance/results with stakeholders (i.e., parents, students, administrators, and school board members).

Issue 3: The School and District Systems Supporting Students with Disabilities

Gap 3A: School and district leaders lack the appropriate knowledge, skills, understandings, and commitments to the achievement of students with disabilities as part of a single student body for whom they are responsible.

Research and Knowledge Production

- Fund model demonstration projects and disseminate examples of effective inclusive schools and classrooms. General and special education teachers and administrators need proof that inclusion can work, concrete examples of what their roles might be, and information on instructional accommodations for students with disabilities.
Capacity-building

- Require pre-service and in-service professional development for school and district leaders that includes information on Special Education practices, laws, and regulations. Tie this professional development to certification and re-certification requirements.
- Create partnerships on regional, state, and national levels to disseminate information and garner ongoing support.
- Explore how to tie principals’ responsibility for all students to personnel evaluations.

**Gap 3B:** Formal and informal structures and supports are needed at all levels of the school to enable an interdisciplinary team to meet all students’ needs and ensure that students with disabilities participate fully in school life and learning.

Research and Knowledge Production

- Conduct research, disseminate, and implement collaborative, team-based, and integrated general education/special education models (i.e., “single-system” approaches to education).
- Conduct research on barriers to team decision making.
- Conduct research on transdisciplinary IEP process, where each professional, parent, and student is treated as a collective component for developing and addressing goals; no one is writing isolated goals; all goals are integrated.

Capacity-building

- Increase funding for teacher conference attendance, in-service speakers, release time, collaboration time, technology (linking general and special educators and parents).
- Prepare general and special education teachers in their pre-service college programs in communication, collaboration, cultural sensitivity, and team decision making.
- Create an OSEP/SEA database of “experts” and “local resources” for teachers, administrators, and parents.
- General education staff should be assigned responsibility for IEP goals.
- Use union collective bargaining to involve all staff in the Special Education process.
- Improve and monitor the IEP process to include clear, measurable, individualized goals that reflect the general curriculum for each student with a disability.

**Gap 3C:** The participation of students with disabilities and their families in the students’ educational process is limited; their involvement is often not encouraged.

Research and Knowledge Production

- Research on the impact of the IEP process on students and families and research on alternative decision-making models.
Capacity-building

- Professional development for all staff should include information on student and parent participation; students and families should be invited to attend and participate in the school’s staff development.
- Disseminate models of student/family/staff collaboration and Public Service Announcements to improve acceptance of kids with special needs and special education programs.
- Student and family instruction on self-determination.
- Disseminate strategies to overcome cultural, linguistic, and geographical barriers to student and family participation.
- Disseminate marketing tools to schools and districts aimed at improving/correcting negative attitudes about inclusion. Disseminate data on positive results of increased inclusion of special education students.
- Professional development on student and family communication/collaboration, including outreach to student/family/community members without students with disabilities.
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