Curriculum and Instruction
Key Strategies to Promote Equity and Excellence

prepared by Cheryl M. Jorgensen, Ph.D.
Institute on Disability, University of New Hampshire

A Tale of Two Classrooms

In Ms. Mendoza's chemistry class, tenth-grade students are working on a unit that focuses on balancing equations. She begins each class period by having students take out the homework from the night before. She reads off the answers to twenty problems and goes over those that caused several students difficulty. Using an overhead projector, Ms. Mendoza teaches the lesson of the day as students take notes. The class is very quiet except for an occasional question from a student confused about some aspect of the concept being taught. Under Ms. Mendoza's direction, the class works through a couple of new sample problems together. With fifteen minutes left in the class, the next homework assignment is given and students begin to work on it until the end of the period. Over the course of the year the students progress through the textbook from beginning to end. Because this is an "honors" chemistry class, no students with significant learning challenges are enrolled. Despite the school's location in an urban area, all but one of the students are Caucasian.

In another school, Mr. Gordon's tenth-grade science classroom looks very different. At the beginning of class, Mr. Gordon rolls a book cart into the room and describes the unit the students are about to start:

> For the next couple of weeks we are going to be working together to answer the question 'How can you tell if something is living?' by studying cell structure and function. I've got lots of resources here including my old college chemistry book, videos, computer simulation programs, pop-up picture books, plastic models, scientific journals, and high school textbooks representing a variety of reading levels. I know that each of you has a favorite learning style but you will probably need to use several

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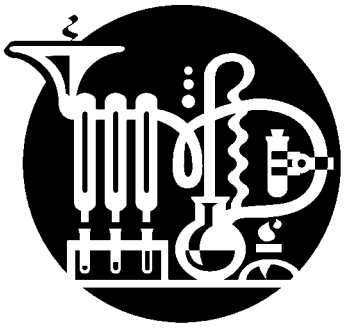

of these resources. We are going to use a cooperative learning jigsaw structure to learn about the six major functions of living organisms, and working in small groups, you'll be doing a final exhibition that illustrates your answer to the essential question. Right now I'd like you to organize yourselves into six groups, elect a secretary, and brainstorm some of your initial ideas about the answer to the question, 'How can you tell if something is living?' Go!

Not only is this class — also located in an urban school — racially heterogeneous, but it includes students who experience a variety of learning abilities, including honors students, students with disabilities, and children whose primary language is not English.

Which classroom is the "better" learning environment for a diverse group of students? Would students from the "honors" class be challenged in the second classroom? What is the relevance of cell structure and function for a young man with Down syndrome, for example? What kinds of beliefs and skills does the second teacher possess?

States must ensure that students with disabilities are involved and progress in the general curriculum and receive appropriate accommodations and modifications to address their unique needs arising from their disability. States must then assess the progress of children by establishing performance goals and indicators. These mutually reinforcing provisions of the 1997 amendments to the *Individuals with Disabilities Education Act* (IDEA)[1] strengthen the law's requirement that children with disabilities have full and meaningful access to the same content and high standards that apply to children without disabilities. The new amendments to IDEA reinforce the message that past practices of segregating students with disabilities into separate classrooms to learn a watered-down curriculum or to focus only on functional skills in isolation are no longer acceptable.

For parents and educators who value both equity and excellence — not only access to the mainstream but support to reach high standards — essential questions might be:

"How must curriculum and instruction be designed so that all students belong and achieve to the same high standards?"

"What role can parents play in promoting curriculum and instruction that supports equity and excellence for not only their child, but for their school district?"

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is a project of the
Federation for Children with Special Needs
1135 Tremont Street
Suite 420
Boston, MA 02120

Web:
www.fcsn.org/peer

Email:
peer@fcsn.org

Voice/TTY:
(617) 236-7210

Fax:
(617) 572-2094

An Historical View of Curriculum

To answer these questions, we must begin with an understanding of how educational philosophy has evolved over the past 30 years, especially with regard to the view that curriculum for students with and without disabilities has been treated as

[1] IDEA is the federal law that guarantees a free appropriate public education to all eligible children with disabilities in mandatory age ranges, residing in states and jurisdictions receiving IDEA funds.

inherently different. Since the 1960s, our thinking about curriculum and instruction has passed through four distinct stages (although one can still find examples of all four stages in many of today's schools).[2]

Stage 1

Students with disabilities need specialized curriculum and instruction in a special education classroom.

Many different kinds of special education classrooms are examples of this philosophy of curriculum and instruction. You might observe students with disabilities in a self-contained classroom working on a specialized reading program, sitting in a circle with a speech-language pathologist practicing communication skills, pretending to shop for food items in a section of the class set up to look like a grocery story, or learning to balance a checkbook. High schools that offer English or mathematics instruction in "resource classes" still operate on the belief that students with disabilities need to learn together with other students who have disabilities, using a special curriculum based on separate standards.

Stage 2

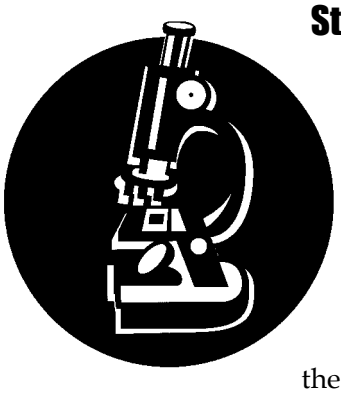
Students with disabilities need specialized curriculum and instruction, but in a general education classroom.

As a result of early mainstreaming efforts, teachers and parents noticed that students with disabilities who spent time with students *without* disabilities made gains in their social skills and picked up academic knowledge that surpassed many people's expectations. This experience led to more integration of students with disabilities into general education classrooms, but students were still working on specialized curricula based on separate standards. In a math class at this stage, you might see most students using graphing calculators while a student with disabilities puts together a picture shopping list. In a science class where students are doing a dissection lab, a student with disabilities might be washing dissecting instruments in the back of the room. Or a student with disabilities might be included in an English class but not be required to do any reading or writing because the goal is "socialization."

In schools that subscribe to the beliefs that underlie this stage of curriculum thinking, students are probably clustered into "ability" groups.[3] In elementary schools this means that there is "within-class grouping" (remember the "bluebirds," "robins," and "cardinals" sitting in different parts of the classroom?) for reading and mathematics. In middle and high schools this means that students with disabilities are clustered into the lower general education tracks or levels, but they go into selected general education classes a period or two each day.

[2] S. Shapiro-Barnard, personal communication, September 1, 1996.

[3] Ability grouping refers to the practice of clustering students together who demonstrate comparable skills in one particular area or who achieve a similar score on a particular achievement or placement test.



Stage 3

Students with disabilities can benefit from the general education curriculum in the general education classroom, with individualized modifications and supports.

In many schools that have embraced the values and benefits of inclusion for students with disabilities, students are full-time members of general education classes, and the general education curriculum — the learning standards, the materials, the homework, and other learning products that students are expected to produce — is modified for students with disabilities. In a second-grade class at this stage, most students might be working on a common 20-word spelling list, but one student with significant disabilities might have her own five-word list. In a fourth-grade class where students are required to do a written report on New Hampshire history, a student with disabilities might be allowed to put together a collage of historic state buildings and personalities. In a high school science class where most students would be required to write a lab report, a student with learning disabilities might be allowed to tape record the report or dictate it to a teaching assistant. The curriculum is still designed by general education teachers for the "average" student, but modifications are readily made for some students.[4]

Stage 4

Curriculum and instruction are designed "right from the start" to include and challenge all students in heterogeneous, general education classrooms.

And finally, in schools where inclusion initiatives have joined together with broader efforts to reform and restructure all parts of the educational system, teachers are designing units and lessons with student diversity in mind — "right from the start," so to speak. In this kind of school, you would see teachers providing a variety of source materials on a common topic or theme; students would be coached to demonstrate their knowledge using their favored learning style or "intelligence;" student work would be evaluated relative to a common standard of quality; and grading would be based on individualized expectations and growth over time. Teachers would use many different teaching methods, including phonics, cooperative learning, problem-based learning, and the "reading and writing process." Teachers would use these varied approaches throughout the weeks and months, varying their approach and grouping and re-grouping students frequently.

Special education teachers would work collaboratively with general education teachers to design curriculum and select instructional practices. They would be in the classroom most of the time teaching large and small groups of students and would spend some time in a learning center providing one-to-one tutoring for specific skills. Modifications would only

[4] The Filbin and Kronberg publication listed in the Resources section contains examples of modifications and personalized learning objectives for many different subject areas.

be necessary for those students who need greatly adjusted expectations or who use unique communication systems or other technology.

In these Stage 4 schools *challenge* and *individualization* are inseparable in the minds of teachers. Because the curriculum is organized in thematic units framed with broadly stated "essential questions" or problem statements, each student in the class can answer the questions in ways that are most meaningful for him or her. Students can start the year doing work in a comfortable learning style — whether it is writing, building, speaking, demonstrating — and then be coached to "stretch their comfortable limits" into other modes of expression (Souhegan High School Mission Statement, Amherst, New Hampshire, 1992). The "honors" student and the student with Down syndrome (who might be one and the same) would be able to approach the question from different perspectives, learn different content, and still be held accountable for many of the same skills.

Clearly, teachers and schools at Stage 4 hold a very different set of beliefs from those held by traditional schools, and those beliefs are directly reflected in how curricula and instruction are designed. These beliefs (Onosko & Jorgensen, 1997) include:

1. All students have value and unique gifts to offer their school.
2. All students can think and learn.
3. Diversity is to be embraced and celebrated.
4. Effective teaching for students with disabilities is good teaching for all students.
5. Students learn best when studying interesting and challenging topics that they find personally meaningful.
6. Students learn best when they are actively and collaboratively learning with their classmates and their teacher.
7. Students differ in the ways that they most effectively learn and show what they know.

In addition, Stage 4 schools believe that schools should be held accountable for *all* children achieving to high standards. Based on these beliefs, curricula, instruction, and standards in Stage 4 schools differ dramatically from those in schools whose personnel do not share these beliefs. Table 1 on page 6 displays the characteristics of curricula that challenge and value all students.

The Endangered Species Board Game:
An Example of Challenging and Inclusive Curriculum

The Endangered Species Board Game, developed by Mark Pellegrino and his colleagues at Gananda Central Senior High School in Walworth, New York, has most of the elements of challenging, inclusive curriculum design (Jorgensen, 1997).

(continued on page 7)

TABLE 1: CHARACTERISTICS OF CURRICULUM AND INSTRUCTION DEVELOPED TO CHALLENGE AND INCLUDE ALL

STANDARDS

- A common core of learning standards has been set that applies to all students.
- Performance criteria are personalized for each student.
- Learning standards are expressed in terms that promote the highest levels of expectation and achievement for each student.
- Learning standards promote each student's entry into post-secondary education, typical jobs, active citizenship, and community membership.

THEMATIC CURRICULUM

- Provocative "real world" subject matter is chosen that appeals to the interests of all students.
- Major units of study are framed with "essential questions," problem statements, or compelling issues that apply to all students.
- The interconnectedness of knowledge is evident in the design of interdisciplinary units.

LEARNING OPPORTUNITIES AND INSTRUCTIONAL DESIGN

- Students are given choices in the learning resources they use, project topics, and group membership.
- A variety of learning materials are available in different formats and at different reading levels that match students' interests and learning styles.
- Learning activities are structured so that students progress from identifying, classifying, and defining knowledge to synthesizing, judging, and hypothesizing.

LEARNING OPPORTUNITIES AND INSTRUCTIONAL DESIGN (CONTINUED)

- Small groups and cooperative learning structures are frequently used.
- Teaching and learning occur both inside the school building and in a variety of community environments.
- The primary work of learning is accomplished by students actively thinking, speculating, researching, debating, discussing, and responding rather than by teachers lecturing.
- Modifications and adaptations — particularly learning and communication technology — are available for any student who needs them.

DEMONSTRATION OF LEARNING

- Options are given for how students demonstrate what they know and can do. Students are encouraged to progress from using comfortable styles of demonstration to those that are personally challenging.

EVALUATION AND GRADING

- Evaluation consists primarily of conversations with (and among) students about the quality of their work relative to common standards and individualized student progress.
- Students with disabilities should be included in state and districtwide assessments with whatever accommodations are necessary for them to demonstrate what they know and are able to do.

This game is a good example of an inclusive instructional strategy that supports both equity and excellence. Students find it challenging, fun and relevant. It offers opportunities for students to collaborate, taps into a variety of learning styles, and provides choices for how students can demonstrate what they know. The evaluation is rigorous.

So What's a Parent to Do?

Some parents live in school districts where curriculum and instruction exemplified by the Endangered Species Board Game are common fare. For others, reading this paper probably stirs feelings of frustration and raises the question "How can I get *my* child's school to do this?"

Parent involvement in curriculum reform can occur on two levels. On the personal level, parents can advocate for inclusive and creative learning experiences for their child who has a disability or unique learning style. In addition, parents can advocate for systemic reform by joining with other parents and educators to promote broad-based curriculum reform at the school or district level. Suggestions for how parents can get involved at both levels begin below.

Advocating for Your Child

One

Your child's IEP should address the following considerations:

- How your child's disability affects your child's involvement and progress in the general curriculum; and
- How your child's needs that result from your child's disability are being addressed to enable your child to be involved and progress in the general curriculum.

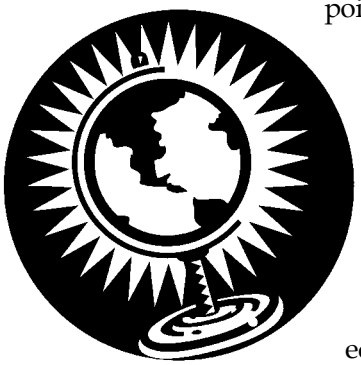
Begin with the general education curriculum offered to all students as the starting

The Endangered Species Board Game

This unit is appropriate for middle or high school students. Students are assigned to work in cooperative groups to design an educational board game to teach younger children about endangered species. Students first spend a week researching organisms that are considered endangered species in their state. Each team of students must answer a number of questions through their research: What are the characteristics of the organism? What adaptations does it possess that enable it to be successful? What is its natural habitat? What environmental factors have led the species to become endangered? What recommendations would you make to promote the species' health and propagation? The teacher guides each group's research and teaches mini-lessons on research skills. A panel of outside experts — representing the Sierra Club and industrial developers — comes to class to debate economic and environmental issues.

Students are given art supplies and shirt-size gift boxes in which to make their game. Computer games are also an option for the programming whizzes in the class! Each team must design and build the game, write an instruction sheet, and give a five-minute presentation to the class showing how the game answers the research questions and will result in new learning for students who play it.

The final step in this unit is the evaluation. The teacher and other students in the class will score the game according to an evaluation rubric. But here's the element of the unit that takes it to another level of quality. All of the games will actually be played by younger students who will rate the game according to its "fun" factor as well as its ability to teach them about the endangered species.



point for developing your child's IEP. If your child is 9, for example, find out what the other third or fourth graders are learning by getting a copy of the curriculum and the standards. Use the general curriculum as the basis for your child's IEP goals and objectives. Typically, special education teachers have had little exposure to grade-level content, so do not be surprised if the special education teachers are not familiar with the regular education curriculum. Think of the special education and related services as resources for providing the accommodations, modifications, and supports your child needs to advance appropriately toward attaining the annual goals and to be involved and progress in the general curriculum.

Two

Ask your child's IEP team to arrange for a full and individual evaluation. You may ask that the evaluation include an assessment of your child's learning strengths and weaknesses, including a reading assessment from a qualified teacher. Such an assessment may include a learner profile that describes the kinds of learning activities and teaching styles that promote his or her success, including a learning style inventory or an assessment of multiple intelligences.[5]

Three

When participating in the writing of your child's IEP, ask that the IEP team ensure that specific learning conditions are incorporated into the short-term objectives or benchmarks. For example, an objective might be written like this: "In cooperative learning groups, Jessica will write for the the group using her laptop computer." Given such an objective, your child's IEP team would then have the authority to seek out appropriate classroom experiences necessary to implement the IEP goals, objectives, and benchmarks.

Four

When it comes time to choose a teacher or select your child's courses, ask that several general education teachers attend the team meeting to describe their own teaching styles so that a match can be found. (Remember that only one regular education teacher, under certain circumstances, must be a member of the team.) Acknowledge that a variety of teaching styles can be effective with different students but that you are looking for the style that best matches your child's needs. If it is not possible for teachers to attend, ask the leader of the IEP team or appropriate administrator to assign your child to a teacher with experience in one of the teaching styles that best matches your child's learning needs. You might also request an opportunity to interview or observe teachers to identify an appropriate match.

Five

Be sure that the IEP lists all the modifications and supports that the team thinks necessary for your child to be involved and progress in the general curriculum.

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[5] Howard Gardner (1983) theorized that there are at least seven kinds of "intelligence" including musical, interpersonal, spatial, linguistic, and kinesthetic. *See* Goldman, J. and Gardner, H. (1997). Multiple Paths to Educational Effectiveness. In D.K. Lipsky and A. Gartner (Eds.) *Inclusion and School Reform* (pp. 353-373) for a description of a multiple-intelligences based assessment.

Modifications that may be effective for different students include:

- individualizing the amount of work required (e.g., 5 spelling words vs. 20, 10 problems instead of 30);
- personalizing the way that students will show what they know (e.g., multiple choice instead of essay);
- written report instead of an oral presentation; and
- provision of assistive technology (e.g., programming an augmentative communication system with vocabulary from the unit, providing word prediction software to facilitate writing).

Each child's IEP must contain a statement of the special education and related services and supplementary aids and services to be provided to the child, or on behalf of the child. The IEP must also include a statement of the program modifications and supports that school personnel need to ensure that the child:

- advances appropriately toward attaining the annual goals,
- is involved and progresses in the general curriculum and participates in extracurricular and other nonacademic activities, and
- is educated and participates with other children with disabilities and nondisabled children in those activities and in the general curriculum.

Six

Insist that your child be included in the state and districtwide assessments, as required by IDEA. Exemption from participation in the assessments often means that students are short-changed by low expectations and less challenging curriculum. If your child needs accommodations to participate in the assessment, appropriate accommodations and individual modifications in the administration of the assessment of student achievement must be determined by the IEP team. All testing accommodations must be listed in your child's IEP and provided to your child. The same modifications and accommodations that are used in the classroom, plus others that may be required to take a particular test, should be available for the child to participate in such assessments.

If your child's IEP team decides that your child cannot participate in general state and districtwide assessment programs, even with appropriate modifications or accommodations, ensure that the IEP team specifies how your child will be assessed with an alternate assessment. Make sure that your child has a full and equal opportunity to demonstrate what he or she knows and is able to do.

Tips for Advocating for Systemic Reform

One

Learn more about the issues of curriculum design, ability grouping and tracking, and effective instruction by reading, talking with other parents and teachers, or auditing a course in the education department of a nearby university.

Two

Contact state or local advocacy or training resources (e.g., Parent Training and Information (PTI) Center,[6] Protection and Advocacy organization, Legal Services agency, University Affiliated Program, State Department of Education). Ask for information about the design of curriculum and instruction to include children with disabilities in your community. Ask for their assistance in working in your school community.

Three

Within almost every school community there are committees and task forces working on various aspects of school reform. Sometimes curriculum committees invite parent representatives to participate. In some communities, schools have a "school improvement council or committee" that includes parents and meets to discuss a variety of educational issues. Join them and invite a local university faculty member to provide curriculum restructuring resources to that committee.

Four

The 1997 amendments to IDEA require states that apply for State Improvement Grants to involve parents in the design of the State plan to improve educational results for children with disabilities. Contact your State Department of Education and request to participate in the plan.

Five

Run for a position on the school board on a platform of equity and excellence for all students, not just students with disabilities.

Six

Offer to help write a grant for your school to provide staff development for teachers on curriculum design for heterogeneous classes. It is an enormous challenge to effectively teach all of the students who walk into today's classrooms. Furthermore, teachers may get far too little professional development or in-class assistance to try new methods. Be part of the solution by procuring training and other resources for your teachers and schools.

Seven

Participate in your school's PTA and join a professional society (e.g., the Association for Supervision and Curriculum Development, TASH, the National Association for the Education of Young Children, the National Parent Teacher Association) as a parent representative. Most of these groups have parent/consumer membership rates. Attend their conferences, read their publications, and bring back materials to share with teachers and administrators.

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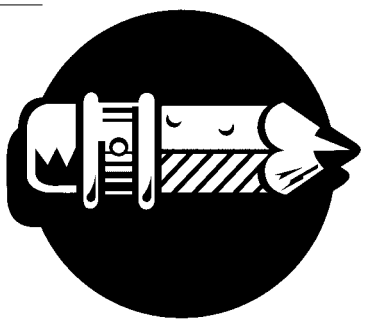
[6] Every state has at least one Parent Training and Information (PTI) center funded by the U.S. Department of Education. Its purpose is to provide training and information to parents of infants, toddlers, children and youth with disabilities, and to persons who work with these parents, to enable such individuals to participate more effectively with professionals in meeting the early intervention and special educational needs of their children. To find the PTI in your state, call NICHCY (The National Information Center for Children and Youth with Disabilities) at 800-695-0285 or the Technical Assistance Alliance for Parent Centers at 888-248-0822.

Eight

Parents and others advocating for students with disabilities will be reinforced by the new IDEA requirements related to assessment. Now states must have policies and procedures to ensure that children with disabilities are included in state and districtwide assessment programs with appropriate accommodations, where necessary. If your state or district has an assessment program (and most do), investigate the results achieved by students with disabilities. If they are not on a par with typical students, invite someone from your State Department of Education to a school board meeting to discuss strategies for aligning your district's curriculum and instruction more closely with the standards reflected in the assessments.

Advocate for the scores of students with disabilities to be included with the scores of students without disabilities in reports, as required by the new IDEA amendments. Accountability of schools for the learning results of all students is "where the action is" in the school restructuring world. Make sure that efforts to raise scores and improve schools are judged by how well they accomplish those goals for *all* students.

Resources on Curriculum Reform



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Souhegan High School Mission Statement. (1992). Amherst, NH: Souhegan High School.

Organizations

The Annenberg Foundation
St. Davids Center, Suite A-200
150 Radnor-Chester Road
St. Davids, PA 19087
610-341-9066
www.whannenberg.org

Association for Supervision and Curriculum Development (ASCD)
and the ASCD journal, *Educational Leadership*
1250 N. Pitt Street
Alexandria, VA 22314
703-549-9110 • 800-933-2723
703-299-8631 fax
www.ascd.org

Organizations, cont.

The Coalition of Essential Schools
and its newsletter, *Horace*
Box 1969
Brown University
Providence, RI 02912

National Council of Teachers of English (NCTE)
1111 West Kenyon Road
Urbana, IL 61801
217-328-3870 • 800-369-6283
217-328-9645 fax
www.ncte.org

National Council of Teachers of Mathematics (NCTM)
1906 Association Drive
Reston, VA 20191-1593
703-620-9840
703-476-2970 fax
www.nctm.org

National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
703-306-1234
703-306-0090 TDD
www.nsf.gov

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