

the teacher may ask her to create a song using the vocabulary words. This is a misapplication and misunderstanding, not just of differentiation, but also of multiple intelligences. The student has already mastered the material. She needs to learn something new, not just practice the same words in a different way. The teacher has ignored the substance of the results of the pre-assessment. The student needs new vocabulary, application activities that include etymology and Latin and Greek word parts, and reading assignments that reflect her capability to handle more complex material.

Differentiation isn't just "different." Here's where principals and administrators are often led astray when they conduct observations and evaluations. If they see students doing different things, they may assume that the teacher has differentiated these activities on the basis of students' needs. The only way an observer can determine whether appropriate differentiation is taking place is if he or she understands *how* the teacher used the pre-assessment to assign students to activities. This is especially difficult to ascertain with young children and learning centers. If everyone rotates to all the learning centers and does the same activities, no differentiation is occurring.

Starting Out

Ideally, a gifted intervention specialist can work with the classroom teacher to review the pre-assessment, help design activities, and collaborate when the multiple groups are working. Students may be advanced in different ways and will require varied materials and approaches.

For example, if young children were to go to a learning center on insects, the teacher might differentiate activities at ascending levels of complexity by color. He or she would guide students to choose among red, blue, or green activities, basing this guidance on an understanding of each student's readiness level for this particular content, including the student's pre-assessment results in both reading and science. This would reduce situations in which advanced students take the easy way out to finish quickly or struggling learners select activities so far beyond their zones of proximal development that they are sure to experience frustration or failure. The following week, the teacher could change the meaning of the colors or use different colors so students don't decide that blue means smart and green means dumb. Besides, the groups would always vary depending on the content, thus helping to avoid assigning labels.

The complexity of differentiation requires that teachers start with something manageable, especially if they're working alone. They should begin with one unit or subject area at a time rather than try to differentiate all units for the whole year at once. One way of easing this process is to work during summer planning time with a gifted intervention specialist, consultant, or faculty member from a local university to develop activities and materials.

Grouping—Not Tracking

Most elementary schools have special groups for struggling learners as well as special classes for students with physical and mental disabilities or behavior problems. These placements should be data-based, frequently revisited for appropriateness, and reflect principles of social justice. The labels we apply to students help them access these services and therefore can be helpful.

But when we look at the typical response to grouping practices for high achievers, the party line is frequently "we don't use tracking." Of course not. Nobody uses tracking anymore in the way it used to be implemented—as an inflexible trajectory toward college, the factory, or the street.

However, we *do* use achievement grouping to meet students' needs. Just as in grouping for special services, these groups should be flexible and frequently reevaluated. Teachers should use assessments that document student ability, prior achievement, motivation, and interest to make appropriate placements. By the time students reach about 6th grade, advanced and gifted learners need subject specialists. And to meet with these teachers and use the teachers' time effectively, students need to be grouped.

Students who demonstrate advanced knowledge and skills in science in 7th grade probably need an additional licensed science teacher with advanced content knowledge, perhaps even with high school teaching experience, to prepare them for AP science classes or dual enrollment at a local college. The same is true for math and foreign language.

The "gifted" label simply isn't enough. Too many schools provide pull-out or push-in services with a gifted intervention specialist for just a few hours a week. These programs offer wonderful opportunities for creative problem-solving activities; participation in competitions (such as Destination Imagination, Knowledge Master Open, Geography Bee, or MathCounts); and social interactions with students' intellectual peers. But like students with learning disabilities, gifted students are gifted all day long. In elementary school, teachers can offer flexible reading and math groups, interest centers, and Internet-based enrichment in their classrooms while the gifted intervention specialist, who provides the pull-out or resource room program, can offer a different and more challenging kind of curriculum.

Laying the Foundation

Once gifted students hit middle school, often called the "black hole of gifted education," few services are available. In addition, the pull-out model, which worked in elementary school, is a social disaster in middle school. The peer pressure not to be "a nerd" is fierce, and being pulled out of class often embarrasses gifted students at this age. A recent Fordham report (Xiang, Dahlin, Cronin, Theaker, & Durant, 2011) describes how "high fliers" often hit a wall in middle school, where the emphases on social development, well-roundedness, and athletic competition can trump meeting students' academic, artistic, and intellectual needs.

The fact is that if we expect students to take AP courses in high school, we need to lay the foundation in middle school. Many 6th graders could take pre-algebra or algebra and possibly complete a high school-level honors geometry course before they leave middle school.

So what are the roadblocks? First, there's the assumption that serving gifted learners is inherently undemocratic. Second, the detracking movement insists that all students have access to the same advanced material at the same time because it shouldn't be restricted to an "elite." But when a school's racial, linguistic, or ethnic diversity isn't reflected in the makeup of advanced classes, we need to address the problem, not cancel the class! Finally, the pressures of standardized testing and accountability, coupled with decreased financial resources, can inhibit even a motivated district or school from implementing programming for gifted and advanced learners and professional development for their teachers.

One district with which I have worked addressed the issue of lack of diversity in advanced classes in high school by starting with kindergarten. Understanding that AP calculus and AP English students are nurtured from a young age, the district began using alternative talent identification tools (such as the Naglieri and Discover assessments) to find more high-potential minority students. These assessments draw more on students' multiple intelligences and nonverbal problem-solving skills than traditional verbal-oriented ability tests do. However, students weren't just dropped into an existing academic gifted program. Teachers and administrators recognized that they needed to build a bridge for these students between their strong, often nontraditional, abilities and traditional academics.

Taking Action

The time has come to put aside the outdated notion that flexible achievement groupings designed to meet students' needs are the same as tracking and cannot also reflect principles of social justice. It's also time for the United States as a nation to do a better job of nurturing our most capable and creative students and providing them with the tools and opportunities they need to lead us into a brighter future.

What Teachers Can Do

Tiered Assignments

Tiered assignments offer students at different starting points appropriate ways to engage with the same content. For example, a student who's fluent with basic work in fractions might have homework that focuses on problem-solving using fractions and pre-algebraic constructs. Other students might have a homework assignment that involves more concrete activities, such as cutting and creating physical fractions (pieces of a pie, fraction bars, and so on). In language arts class, tiered assignments might be as simple as varied journal prompts. Social studies teachers might give advanced learners more complex comprehension questions on a whole-class text.

Also, for students who resist doing homework because they insist that they already know the material, teachers can combine pre-assessment with tiered homework assignments to help ensure fair and appropriate accountability decisions.

Most Difficult First

Teachers can use this strategy as a pre-assessment or as a differentiated practice activity. It's most effective with skill-based content, such as math problems, spelling, and so on. For example, instead of completing a whole sheet of 25 practice problems, the student completes the five most difficult (which, in math, are often the last five). Students who do them correctly don't have to complete the remaining problems. This strategy also can engage underachievers who refuse to do homework that they perceive to be a waste of time.

Curriculum Compacting

Curriculum compacting is best applied to sequential material or to more concrete skills like grammar or math computation. In curriculum compacting, the teacher pre-assesses students to see what parts of the curriculum they already know. Students who have mastered specific areas are not required to complete the grade-level work in those areas but can move on to the next level, if there is one. If there isn't, the students can use that time to work on another subject area or project of interest. Curriculum compacting fits well with independent inquiry projects.

Independent Learning

Gifted and advanced students often have clear areas of interest, so independent study and inquiry projects are a natural match. In younger grades, teachers might work with students to create contracts that identify a topic the students want to explore as well as the product they wish to create to share what they have learned. It's helpful for students to complete a time sheet showing when they have worked on the project and to meet with the teacher at set times during the week. Students can work independently on their projects during "choice time" or when they have finished their regular work. The "resident expert" model developed by Susan Winebrenner works well for students doing independent learning in the elementary grades.

For older students, research might involve connecting with a mentor outside school and sharing their work with an authentic audience or with classmates.

Parallel Curriculum Model

For those looking to do more substantive curriculum revision, the parallel curriculum model is a thorough way to revise content, processes, and student products for a unit of study. Drawing on both cognitive and affective learning outcomes in four strands (or parallels), the model identifies the *core curriculum* (What are the key content standards and learning outcomes?); the *curriculum of identity* (What relationship does this content have to an individual learner?); the *curriculum of connections* (How does this content connect across disciplines, time, place, and so on?); and the *curriculum of practice* (How is this content implemented and applied in the real world?).

For example, while typical students might be studying core curricular concepts around the American government, advanced learners might explore nation-building and the creation of new governments; compare the American system to other nations' governments; or examine the connection between economic and political systems.

What Schools and Districts Can Do

Continuum of Services

There should be no one "gifted program" in a school or district, just as there should be no one special education program. Some profoundly gifted learners may need radical acceleration (two or more grade levels); other advanced learners may just need to be in an advanced math group. Gifted learners benefit from time spent with their intellectual peers as well as with gifted specialists who can help them navigate the sometimes-difficult social experiences connected to being gifted, such as being bullied and teased.

Acceleration

A Nation Deceived: How Schools Hold Back America's Brightest Students,¹ the 50-year meta-analysis of research on acceleration or "grade skipping," showed that acceleration is an underutilized tool and that most students who are accelerated are successful. This includes early entrance to kindergarten or 1st grade. Each school district should have a policy for implementation of grade and subject acceleration just as they have policies for grade retention.

When making acceleration decisions, using the Iowa Acceleration Scale as an information-gathering tool can ensure that key stakeholders consider all available data and perspectives.

Homework

Schools and districts may need explicit policies that instruct teachers not to penalize students by insisting that they make up homework or classwork missed while they participate in a pull-out gifted program. Forcing students to make up missing work may make them feel that being gifted is a punishment.

Early Identification

District testing and assessment policies, including screening entering kindergartners and transfer students, should include opportunities for identifying gifted learners. This is especially important in urban areas and in areas with sizeable populations of low-income students and English language learners. Schools can identify advanced learning potential and giftedness using many of the same tools they use to identify students with learning disabilities. Reliable early screening and identification tools include the Wechsler Preschool and Primary Scale of Intelligence; the Woodcock-Johnson III; the Cognitive Abilities Test (CogAT); and checklists such as the one developed by the Ohio Department of Education in its publication *The Young Gifted Child: A Guide for Families*.²

Twice-Exceptional Students

School and district policies should include provisions for students to receive both special education services and gifted services where appropriate. For example, a student who has support for his or her attention deficit disorder through the special education department should also be eligible for any advanced groups or classes for which he or she qualifies.

References

- Cassady, J. C., Neumeister, K. L. Speirs, Adams, C. M., Cross, T. L., Dixon, F. A., & Pierce, R. L. (2004). The differentiated classroom observation scale. *Roeper Review*, 26(3).
- Loveless, T., Farkas, S., Duffett, A. (2008). *High-achieving students in the era of NCLB*. Washington, DC: Thomas B. Fordham Institute.
- Tomlinson, C. A. (2001). (2nd ed.).
Alexandria, VA: ASCD.
- Ward, V. (1980). *Differential education for the gifted*. Ventura, CA: Ventura County Schools.