

Raising Expectations for the Gifted

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Five teaching strategies allow flexibility in meeting the needs of gifted students in inclusive classrooms.

Most gifted students study in regular classrooms for most of their school careers and are taught using the same state standards intended for all students. Most state standards, however, do not provide sufficient intellectual challenge for gifted students.

Neuroscientific research has found that rats in unstimulating environments had thinner cortexes, the part of the brain where higher mental functions reside (Diamond & Hopson, 1998). This effect appeared after just four days!

Education research has shown that gifted students' motivation and performance also declined in the absence of mental stimulation, even leading to underachievement (Purcell, 1993; Whitmore, 1980), but that gifted students exposed to intellectually stimulating content at an accelerated pace outperformed gifted peers not in such programs (Cornell & Delcourt, 1990; Kulik, 1992). It is too great a risk to subject gifted students to a steady diet of unchallenging work.

Standards need not imply standardization of learning activities or expectations. Gifted students may need less time to master a given standard, or they may address the standard in greater depth. Classroom teachers might follow the principle of teaching all students at their optimal level of instruction—what Vygotsky would call their “zone of proximal development” (1978).

How can regular classroom teachers address the needs of their gifted students? The first step in differentiating a standards-based lesson or unit for gifted students is to identify the standards that the lesson will address. An efficient way to accomplish several tasks within one lesson is to combine content, skills, and arts standards. For example, making a poster for National Arbor Day can address science standards in environmental health, language arts standards in research and communication, and standards regarding the elements and principles of visual art.

Teachers can then assess students' grasp of content and skills. They might pretest the students, using an end-of-chapter test that integrates skills with content, or review students' achievement on content and skills that they have previously studied. Perusing student portfolios or assessing interests and multiple intelligences profiles can also provide insight into skills and content knowledge.

Once teachers have determined students' readiness levels, they can execute differentiation strategies. Curriculum compacting, flexible grouping, product choices, tiered assignments, and multilevel learning stations are excellent strategies for

differentiating instruction for gifted students in regular classrooms (see Gregory & Chapman, 2002; Maker & Nielson, 1996; Reis, Burns, & Renzulli, 1992; Tomlinson, 1999; Willard-Holt, 1994). Some of these strategies also lend themselves well to meeting the needs of gifted students with disabilities.

Curriculum Compacting

Curriculum compacting is a powerful strategy for ensuring accountability for standards while acknowledging what students already know. Curriculum compacting means streamlining what is taught to students by first assessing their prior knowledge and then modifying or eliminating work that has been partially or fully mastered. After teachers assess student mastery of a particular standard, three groups often emerge: students with poor mastery, students with partial mastery, and students with full mastery who are ready for more advanced work.¹ The first group, usually the largest, proceeds with the planned sequence of instruction; the second group may accomplish the planned sequence more quickly and then proceed to a greater challenge; the third group may begin an independent project immediately.

Consider this math standard for grade 3: "Count, compare, and make change using a collection of coins and one-dollar bills" (PA Std. 2.1.3E).² The first group is ready to make several combinations of pennies, nickels, and dimes for given amounts. The second group is confident of these steps and can make change, but they need help using quarters. They will join the rest of the class when the teacher provides information and practice with quarters; the rest of the time they work together on a coin-related project that they will present to the class. The project might entail making a poster of U.S. coinage from colonial times to the present, using drawings, replicas, or actual coins when available. The third group's students, who tested 85 percent or above on the pretest, are making a chart that compares currency systems for different countries. They will defend their choice of the most efficient system at the end of the unit. Such higher-order thinking projects may also satisfy language arts standards, using a similar process for compacting skill standards in reading or writing.

In middle and high school grades, gifted students may not have the technical knowledge to meet a particular content standard and therefore may not show mastery on a pretest. They may be able to learn the content quickly by reading the text and completing application exercises on their own, however, and then successfully complete a criterion-referenced posttest. For example, a life sciences course might focus on the 10th grade standard, "Identify and characterize major life forms by kingdom, phylum, class, and order" (PA Std. 3.3.10A). The teacher invites students who have performed well in previous science units to read the text and work through a packet of exercises at their own pace. This packet consists of activities crucial to understanding the topic and differs from the step-by-step exercises given to the rest of the class. When ready, students take the posttest and, if they

demonstrate mastery, undertake an in-depth project, such as creating a three-dimensional clay model of a dissected starfish (Miller & Willard-Holt, 2000). This project addresses skill and arts standards simultaneously.

Teachers can also use compacting with gifted students who have disabilities. If the goal is to master content quickly while circumventing the disability, the teacher can compact in areas of weakness as well as strength. For the standard, “Identify planets in our solar system and their general characteristics” (PA Std. 3.4.4D), the class assignment might be a written report on a planet. A gifted student with a writing disability who demonstrates mastery of the characteristics of the planets on a pretest might instead research current theories about the birth of galaxies and create a PowerPoint presentation.

It is not always necessary to focus on remediation. If the goal is to develop coping strategies for the disability, compacting can focus on the area of strength.

Flexible Grouping

Flexible grouping is particularly effective when students' achievement levels in content and skills differ, as is often the case for gifted students with disabilities. The teacher groups students according to strength, need, or interest, and groups change frequently, sometimes in the course of a single class session. As an illustration, an 11th grade English class might address the standards, “Analyze the relationships, uses, and effectiveness of literary elements used by one or more authors, including characterization, setting, plot, theme, point of view, tone, and style” (PA Std. 1.3.11B) and “Write short stories, poems, and plays” (PA Std. 1.4.11A). The class has read a scene from *Romeo and Juliet*, viewed the corresponding scene from *West Side Story*, and discussed similarities and differences. In groups, students write a contemporary scene in which young people are in love despite their families' differences. Drawing on their knowledge of current events, students research the conflict between the groups that the families represent, such as Israelis versus Palestinians, big business versus environmentalists, or Shiite versus Sunni Muslims. Students could also choose groups that are at odds in their immediate community.

Students initially come together around the specific conflict that most interests them, with groups changing later as needed. Each group has students with mixed levels of ability. The teacher provides mini-lessons to address specific skills—for example, how to research the conflict using print resources, Internet, and interviews of community leaders; write authentic dialogue; punctuate dialogue correctly; or write stage directions. Later, gifted students might meet together to choose a multilayered conflict, the threads of which they must logically incorporate into the scene.

Product Choices

Another way to plan for gifted students is to allow them choices of what kind of product they will produce. In the *Romeo and Juliet* example, one group might complete a written script (verbal/linguistic intelligence); another, a videotaped dramatization of the scene (bodily/kinesthetic intelligence); and a third, a comic strip (visual/spatial intelligence). In this way, each group addresses the same content standard but uses a different skill or arts standard.

For the 6th grade standard, "Describe the human characteristics of places and regions by their cultural characteristics" (PA Std. 7.3.6B), students studying a unit on Central and South America might choose to create an authentic traditional costume, dance, food, artwork, or model of a home—developing a three-dimensional model, drawing, or verbal description. The projects appeal to different intelligences and address different skills and arts standards.

Product choices are important for gifted students with disabilities, allowing them to demonstrate their understanding of the content without their disability interfering. For example, a student with a learning disability in written expression may conduct research, make the necessary cognitive connections, and demonstrate understanding through art and oral expression, thereby circumventing writing. A blind student may conduct research by using text-to-speech interfaces on the Internet and create a three-dimensional model. In each case, the focus is on content mastery. Assignments in other areas would remediate or develop coping strategies for the disability.

Tiered Assignments

The advantage of this strategy is that the entire class studies the same content, but individual students choose assignments at different levels of complexity, with the teacher's assistance. For example, coupling a 4th grade science standard, "Know basic weather elements" (PA Std. 3.4.4C), with a math standard, "Organize and display data using pictures, tallies, tables, charts, bar graphs, and circle graphs" (PA Std. 2.6.5A), allows students to learn how to gather weather data from various sources and graph the data. Assignment choices might include

- Making a bar graph that shows the average monthly temperatures in two cities (basic level).
- Choosing two appropriate types of graphs to show the proportion of rainy days to sunny days, and the average rainfall by months in a city of your choice (average level).
- Generating two appropriate graphs on the computer to show the ratio of rain to snow, and monthly temperature and precipitation in a city of your choice (advanced level).

Students choose the assignment that sounds most interesting and best stimulates their learning. Gentle nudging might encourage students to accept the appropriate level of challenge.

Multilevel Learning Stations

Multilevel learning stations provide meaningful independent work that extends and enriches class discussions. For example, a learning station can assist 3rd grade students studying ancient civilizations by addressing history, geography, arts, and language arts standards, including the following:

- Compare similarities and differences between the earliest civilizations and life today (PA Std. 8.4.3C).
- Explain the historical, cultural, and social context of an individual work in the arts (PA Std. 9.2.3A).
- Relate works in the arts chronologically to historical events (PA Std. 9.2.3B) or geographic regions (PA Std. 9.2.3G).

Activity cards address such topics as leaders/famous people, arts, structures, ways of life, and location. In addition, the teacher codes the activity cards according to Bloom's thinking levels: red for knowledge/comprehension, blue for application, green for analysis, yellow for synthesis, and white for evaluation. On the basis of assessment data, each student receives an assignment sheet detailing the number of activities that he or she is to complete at each level. For example, Juan will do one of each color; Sarah will select five activities, all at green, yellow, or white levels; and Randy will choose five red or blue activities.

Teachers often assume that learning stations are appropriate only for the elementary grades, yet secondary students also seem to enjoy them. For example, U.S. history students addressing the Civil War might explore in depth topics relating to battles, leaders, military technology, camp life, civilian life, or the roles of women or African Americans in the war, according to their interests.

Inspiring Extraordinary Achievement

Some gifted students' capabilities and rates of learning are so far beyond their chronological ages that they would spend almost all of their time reviewing what they already knew if they followed the curriculum offered in a regular classroom. These students need a highly individualized program at an advanced level, perhaps through acceleration or mentoring. Other gifted students may be highly advanced in one subject and could benefit from acceleration or mentoring in that subject while remaining in the inclusive classroom for the remainder of the day.

Providing gifted students with instruction at the appropriate level also removes pressure that they might feel in cooperative learning situations within inclusive

classrooms. It may be tempting to ask advanced students to tutor others—a strategy that is permissible on occasion, but inappropriate as a regular activity. Gifted students, like all students, come to school to encounter new learning challenges. Depending on gifted students as peer tutors also places them at risk for social isolation if other students come to view them as teacher's pets or know-it-alls (Robinson, 1990).

Teaching to standards need not mean standardization of learning activities or expectations. Simply meeting standards is not an adequate challenge for most gifted students, although that is all the law may require of them. As Tomlinson states in reference to the No Child Left Behind Act of 2001,

There is no incentive for schools to attend to the growth of students once they attain proficiency . . . and certainly not to inspire those who far exceed proficiency. (2002, p. 36)

Don't we want more than minimal proficiency from our gifted students? By using strategies to challenge all students at their optimal levels of instruction, teachers can meet their responsibilities for accountability while inspiring extraordinary achievement.

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Endnotes

¹ A fourth group—those not yet ready to attempt the standard—is beyond the scope of this article.

² I refer to Pennsylvania standards. The standards are available at www.pde.state.pa.us/stateboard_ed; click Academic Standards.

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