

● Meeting the Needs of the Academically Gifted

by Sally M. Lafferty, Ed.D.

*Sally Lafferty has 28 years of experience in science education, gifted education, curriculum development, and middle school administration. She is currently the supervisor of science and of the Gifted and Talented program for the Salt Lake City School District, in Salt Lake City, Utah. Lafferty is also the chair of the Middle School Division of the National Association for Gifted Children.*

**Keisha** ignored the antics of her friends in nearby seats and quickly whipped out her science lab report. Keeping her work hidden with a book, she quickly wrote the report. Every so often she looked up and gave Mr. Bennett, her algebra teacher, a bright smile. She even answered a question now and then. As the period ended, she quickly copied down the homework assignment, made a mental note to remember to take her algebra book into English fifth period, and headed for the science lab. She dropped her homework into the basket on the teacher’s desk and took her seat. Miss Adams glanced through the lab reports as the eighth graders completed their reading of the last section of the chapter. As usual, Keisha’s work was excellent. Before beginning the class discussion, Miss Adams asked Keisha to share with the class the steps she took in creating such a thoughtful, thorough, and well-planned lab report. When she heard her teacher’s request, Keisha blushed and dropped her eyes. She worried, “What can I say? I didn’t plan anything! I just wrote it five minutes ago. Should I lie?”

**D**are Keisha admit publicly that she wrote the report during math class, the period before? If she made up a different story, would another student report what she had done, exposing her lie? Should she say what she knows the teacher wants to hear, or should she tell the truth? Students for whom academic endeavors come easily struggle with these dilemmas daily. At the very moment at which they are being lauded as model students, many gifted students feel like impostors. They know they do not need to work long and hard and that they did not master challenging tasks with diligence and perseverance. Many gifted students are truly sorry that assignments are so easy for them. Others no longer care. While most gifted learners remain compliant (seemingly attentive while reading their novels hidden within their texts), others

### ● Meeting the Needs of the Academically Gifted *continued*

become provocative (asking questions that lead class discussions on tangents and otherwise destroying teachers' lesson plans), or even rebellious (refusing to participate in class activities or work that does not interest them). In these ways, the potential for production and performance of many gifted students is lost as they mentally "check out" of school. How can teachers make a difference for these exceptional students? How can we challenge and inspire them with engaging work without leaving the rest of the class behind?

### Knowing Your Students

Teachers who embrace the concept of flexible teaching methods can make conscious modifications to their lesson plans to better meet the needs of all their students. Perhaps the first step in effectively teaching gifted students is the teacher's acceptance that all students are different. No single teaching style, lesson plan, learning expectation, assignment, or project can be appropriate for all students. Students in the same class may have widely disparate readiness levels, abilities, and interests. They are motivated by different stimuli, engaged by different tactics, and inspired by different internal and external rewards. Indeed, classroom research suggests that the disparity among the ways students learn may be greater at the middle school level than later in their education.<sup>1</sup> Therefore, middle school educators must be creative and flexible in their teaching methods for all their students. But before a teacher can develop or modify curriculum and instruction to meet the needs of gifted learners, he or she must first recognize the differences between the truly gifted student and the high achiever.

**High Achiever or Gifted Student?** High achievers are usually described as interested, attentive, and hard-working. High achievers pay attention in class to absorb all that a teacher says. Gifted learners, on the other hand, may be quite inattentive and still pass the test with ease. High achievers answer the questions asked; gifted learners ask the unanswered questions. A high achiever is content to understand an idea, complete an assignment correctly, and know the information presented. A gifted student wants to construct new ideas, theorize about them, and change an assignment into a more complex project.

Other noticeable characteristics of truly gifted students are the fast pace at which they learn new material and the vast amount of knowledge they bring into the classroom. Many are almost compulsive in their need for intellectual stimulation. In addition, gifted learners have the ability to make intuitive leaps, making sense of isolated facts by relating them to one another. Gifted students often emphasize the relevance of an activity or task and often need to understand how the activity fits into the "big picture" before they are willing to give it their full attention and effort.

● **Meeting the Needs of the Academically Gifted**  
*continued*

**Teaching Gifted Students**

There are many excellent teaching strategies that will help teachers better meet the needs of gifted students while extending the learning opportunities of other students. These strategies will raise the level of instruction for all students and remove the “glass ceiling” that often prevents gifted students from working above the level of other students. The work of Carol Ann Tomlinson at the University of Virginia, much of which is specific to middle school teaching and learning, is particularly worthy of teachers’ review. Her first premise is that all students need relevant content material combined with engaging instruction and challenging assignments.<sup>2</sup> No visitor or participant in a classroom should be able to identify students’ learning levels simply by noting their activities and assignments. In order to engage students at different learning levels in exciting, meaningful learning experiences, Tomlinson promotes a differentiated classroom based on the principles listed in the box below.

**Principles of a Differentiated Classroom**

- The teacher understands, appreciates, and builds on students’ differences.
- Assessment and instruction are inseparable.
- The teacher adjusts content, process, and product in response to students’ readiness, interests, and learning profiles.
- All students participate in respectful work.
- Students and teachers are collaborators in learning.
- Goals of a differentiated classroom are maximum growth and individual success.
- Flexibility is a hallmark of a differentiated classroom.

Source: Carol Ann Tomlinson, University of Virginia, 1997.

Tomlinson suggests that teachers begin units of study by selecting a concept in a core curriculum or discipline, identifying one or more relevant generalizations, and designing a tiered lesson around the generalizations. A tiered lesson is a teaching strategy in which teachers assess the readiness level (interest, prerequisite knowledge, and skill level) of their students and group them accordingly for both instruction and production.

● Meeting the Needs of the Academically Gifted  
*continued*

**A Tiered Lesson in Action**

Here's an example of a tiered lesson as it would unfold in a classroom. For an integrated science unit on classification, the teacher would choose a related generalization, such as, "People use classification to organize and structure many things." Then the teacher would pretest students and assess their readiness for tackling this topic. Based on the results of the pretest, the students would be divided into four learning groups for several days of explorations.

**Group One** might begin by focusing on properties of matter by reading about and experimenting with density and temperature. Their further explorations could take them from the physical properties of water through the characteristics of living and nonliving things.

**Group Two**, having demonstrated mastery of Group One's basic knowledge in the pretest, may be asked to describe the identifying characteristics of a variety of commonly collected objects, such as insects or leaves. After selecting a different group of organisms, the students would then arrange the organisms into groups, carefully describe their reasons for including each organism in its respective group, and develop a system that they can relate to scientific classification.

**Group Three**, whose members have been assessed to have a good sense of scientific classification, might select a kingdom, identify the characteristics of the organisms within it, and delve into the patterns of taxonomic classifications. As a group, students could conceive of a "new" organism and attempt to classify it scientifically.

**Group Four**, understanding the overall system of scientific classification of living things, can be challenged to look for similar patterns of classification in other disciplines. How is the structure of scientific taxonomy like the structure of a business or a school? How does structure evolve? How is it destroyed? Ethically speaking, can one debate the need for structure? How do different people feel about structure?

For a given lesson or unit, the teacher can plan from three to six different exercises that focus on the same concept and generalizations but use resource materials and learning activities of increasing difficulty and complexity. Because students' readiness levels will be different for each topic, student groupings will vary as the class moves through the curriculum. Tiered lessons offer all students a match between their personal readiness level and content level, and they allow all students opportunities to challenge themselves. Ideally, the challenges are neither too easy nor too difficult, but just hard enough to be engaging without

### ● Meeting the Needs of the Academically Gifted *continued*

frustration or fear. Also, students gifted in math should not be expected to be equally gifted in creative writing. Likewise, learners struggling in history class may not struggle in science class. Every student is held to realistic expectations of growth and presented with appropriate challenges across the disciplines.

### Common Concerns with Differentiated Classrooms

Two issues may discourage teachers from embracing the concepts of a differentiated classroom and tiered lessons. First, traditional assessment tools must be replaced with models that allow teachers to quickly assess and group students for learning. Because a differentiated classroom is regrouped often, assessment must be a constant and ongoing process, rather than a single evaluation at the end of a course of study. Skill and product rubrics must be created for this type of assessment. In a differentiated classroom, the teacher must strive to know every student well and use this knowledge constantly. This takes a considerable amount of planning, practice, and energy.

Another question many teachers have about differentiated classrooms is how the grouping of students affects the learning of the class as a whole. Some teachers may claim that classroom differentiation is just another form of ability grouping. The debate over the issue of ability grouping has raged for years, and with good reason. The fact that gifted learners benefit by peer association is not contested, but the question of the extent to which teachers should allow groups of gifted students to work together is still hotly contested.<sup>3</sup> The differentiation of a classroom is not a method of ability grouping. Instead of being grouped according to an assessment of overall ability, the differentiated class is grouped by individual readiness for specific topics and concepts. Classroom differentiation allows students to flourish in different content areas while remaining integrated.

### More Strategies for Gifted Students

There are many other teaching strategies that may be successfully employed in differentiated classrooms. For example, supplying your student with more than one text on a topic presents different perspectives and demonstrates that there is not always one right answer or view. Matching questions to specific students helps each student to expand his or her comfort level and explore risk-taking challenges. Self-assessment through the use of rubrics teaches students to seek personal improvement and maximum growth and to hone judgment and evaluation skills. Graduated rubrics—rubrics developed by the students and teachers and modified as the students develop greater mastery and skill—demonstrate student maturity and progress.

### ● Meeting the Needs of the Academically Gifted *continued*

**Moving Toward Depth and Complexity** Sandra Kaplan, associate professor of learning and instruction at the University of Southern California, suggests that teachers move students, especially gifted students, into greater depth and complexity, guiding them toward academic excellence and scholarliness.<sup>4</sup> Kaplan recommends eight ways that teachers can guide students to a greater depth of understanding. These strategies, while particularly helpful in lifting the glass ceiling for gifted learners, will help all students excel academically.

#### 8 Ways to Greater Understanding

1. **Use the Language of the Discipline** Open the door to the discipline by modeling the use of the real vocabulary and specific terms.
2. **Embellish with Details** Identify the attributes, gather the facts, and describe specific features and characteristics. Use details to elaborate on the larger questions.
3. **Determine Patterns** Examine the body of knowledge for patterns, events, elements, and ideas, especially those that are repeated over time. Consider the sequence of events, and encourage the use of current knowledge to make predictions. Teach young scientists to “read between the lines,” searching for the logic behind the words. Hypothesize, prove, and defend.
4. **Investigate Trends** Look for connections outside the topic. Note ongoing factors that influence or contribute to the discipline. Search for the forces that are shaping the discipline. Challenge learners to think about the political, ethical, or social effect of scientific topics.
5. **Ponder the Unanswered Questions** Identify what is known, and encourage discussion about what is not known. Identify incompleteness in disciplines, and encourage students to look for inconsistencies. Theorize about the reasons for incompleteness.
6. **Hypothesize About the Rules** Experiment with structure. Discuss the stated and unstated assumptions within a discipline. Depart from the standard organization. Build new structures and classifications of information.
7. **Explore the Ethics** Tackle the tough issues in the discipline. Identify and discuss dilemmas and controversies. Consider the impact on people, and discuss how scientists should use what is known.
8. **Identify the Big Ideas** State the founding theories and principles of each discipline. Find the connections and the interrelationships that give meaning to what students learn. Discuss what people hope to achieve by carrying out scientific investigations.

### ● Meeting the Needs of the Academically Gifted *continued*

Another method a teacher may use to reach gifted learners is to add greater complexity to lessons designed for the entire class. Kaplan recommends three broad strategies for doing so.<sup>5</sup>

#### To Add Complexity:

1. Explore relationships over time.
2. Foster multiple perspectives.
3. Encourage relationships among, between, and within the disciplines.

### Common Myths

There are many myths prevalent in school corridors and classrooms about gifted students.<sup>6</sup> One is that students who are gifted in one academic discipline are gifted in all disciplines. Another common myth is that gifted students can make it on their own, with limited support and guidance from teachers and administrators. In truth, like other students, gifted students have areas of strength and weakness.<sup>7</sup> And gifted students, such as Adam (see the box below), may need specialized support in areas besides academics.

**Adam** trembled as he walked into his science class, his notes and charts ready. Today he had to give his report titled “The Structure and Function of Cells in Living Organisms.” Adam had wanted to bring a slide presentation he was working on at home about the tomatoes he was growing, or maybe turn in his creative writing piece called “To Be or Not To Be Osmosed.” But his teacher instructed each student “to give an oral report on one important aspect of Chapter 7, using at least one chart mounted on a sheet of colored poster board.” On the way to school, Adam realized that his chart was on white paper. Would he lose points for that? Would he even remember to use the chart in his presentation? Adam’s forehead was covered in beads of sweat. Why did he have to present orally? Adam had never spoken in front of a group before, and he was scared. “Adam, for goodness sake!” Miss Brooks had responded when he asked to do the assignment differently. “You will have no problem with this. You do everything so well.” Why couldn’t Miss Brooks see that he was too scared to get up in front of everyone? Why does she think that everything is so easy for him?

### ● Meeting the Needs of the Academically Gifted *continued*

Some gifted students may also be perfectionists. These students, like all students, face challenges inside and outside of the classroom. The perfectionist may have difficulty completing even the simplest assignment on time because he or she is struggling for the perfect report or project. Other gifted students become outwardly proud of their abilities, even to the point of arrogance, and cannot make friends. Still others, long bored with the classroom routine, lose the motivation to succeed in school. As teachers become more familiar with gifted students, they learn that gifted students are in many ways like others in their age group, suffering many of the same emotional and academic challenges.

#### **In Summary**

Every student, including the gifted student, needs and deserves to be challenged by a curriculum matched to his or her abilities. As teachers, it is our job to make this learning environment a reality for each of them. Tiered lessons and assessments in a differentiated classroom are some of the tools that teachers can use to help all of their students to succeed academically. Likewise, teachers must also ensure that all students receive the emotional support and guidance that make learning possible. With this support, all of our students may reach their highest potential in and out of the classroom.