Chapter 28

How Do I Differentiate Instruction to Meet the Needs of All Learners?

Effectiveness Essentials

- You will find that diverse classrooms are the rule rather than the exception.
- Howard Gardner has identified eight facets of intelligence.
- Differentiated learning describes a set of principles that enable you to meet the broad range of readiness, interests, abilities, talents, and skills in your classroom.
- The three components of instruction that can be modified are the content, the process, and the products.
Teaching is such a complex, unique profession that I can offer only one assurance in this book—you will have a perfectly successful year if all of your students are cloned from one individual of your choosing. I can make this offer knowing that at some time in the sci-fi future, I may have to pay out, but I feel confident at the moment.

**Individual Differences**

On that first day of school, the individual differences in your class will jump out at you. Gender and physical differences are only the tip of the iceberg. Beneath the surface are students from different socioeconomic strata; students who come from various family configurations; students with special needs, differing interests, and abilities; students with different cultural backgrounds, different languages, different learning styles, and different attitudes toward school. This is not a new phenomenon. Consider that in one-room schoolhouses of the past, teachers had a similar challenge.

Although the statistics in your school may differ from those in the statistics feature at the right, increasingly, you will find that diverse classrooms are the rule rather than the exception. You can look at this new population either as a daunting challenge or as an opportunity to stretch your skills and abilities in new directions while celebrating the multitude of unique individuals relying on you to guide and assess their progress fairly.

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**Statistics**

An Elementary School Snapshot
- The total school population is 850.
- 10 percent are African American.
- 44 percent are Latino.
- 4 percent are Native Americans, Pacific Islanders, and Asians.
- 42 percent are Anglo.
- 560 children are free-lunch recipients.
- 290 students are recipients of Aid for Families with Dependent Children (AFDC).
- 36 are identified as gifted.
- 193 are English language learners.
- 120 have individual education plans (IEPs).
- A special day class of students with learning disabilities is mainstreamed into “regular” classes for part of the day.
- Some children are homeless.

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Diversity Now
One-fifth of U.S. children under age 18 either are immigrants or are members of an immigrant family (Coles, 2000).

**Myth Buster!**

We should always teach to the middle.

In reality, good teachers demonstrate enthusiasm for all students' ability levels. Our passion for our role as teachers is evident and contagious. Students respond to energetic and motivating instructors. While it is easier to prepare lessons for one general group, all students, regardless of ability, deserve high standards and equal representation. In California a teacher must expect the make-up of a class to include RSP (resource) students, English language learners, at-risk students, and non-readers. Identifying the needs of each individual not only ensures that students receive a quality education, but also upholds the integrity of the teacher. We are teachers of all students, not just a select few.

Ingrid Munsterman, Principal  
Ruth Grimes Elementary School  
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Bloomington, California

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**The Theory of Multiple Intelligences**

One way to understand how your students differ from each other and what each brings to the classroom is through Howard Gardner’s theory of multiple intelligences. Gardner’s work (1993, 2000) proposes that instead of a single, fixed intelligence, there are actually eight facets of intelligence. In other words, we are all smart, but in different ways. The exciting part of this theory is that teachers can organize learning to take into account the differing intelligences in the classroom.

**Visual/Spatial**

Students with visual/spatial intelligence excel at spatial relationships and learn visually. They enjoy drawing, creating, illustrating, and learning from photographs, videos, and other visual aids.

**Verbal/Linguistic**

Students who have strength in verbal/linguistic intelligence learn best through the language arts: reading, writing, speaking, and listening. These constitute the traditional methods of instruction.
Mathematical/Logical
Students who show evidence of mathematical/logical intelligence demonstrate skill with numbers and problem solving. They think abstractly and analytically. They do well when instruction is logically sequenced.

Bodily/Kinesthetic
Students who exhibit bodily/kinesthetic intelligence have good motor skills and are coordinated. They learn best through hands-on activity: games, movement, role-play, and building and manipulating things.

Musical/Rhythmic
Students who excel in musical/rhythmic intelligence learn through songs, patterns, rhythms, instruments, chants, listening to music, and other forms of musical expression.

Intrapersonal
Students who shine in intrapersonal intelligence are introspective and in touch with their feelings, values, and beliefs. They need time alone to reflect on their learning and how it relates to them.

Interpersonal
Students who demonstrate interpersonal intelligence are outgoing, sociable, and people-oriented, and they learn best working in groups or interacting with others.

Naturalist
Students whose forte is naturalist intelligence (added in 1996 to the original seven) demonstrate an ability to find patterns in the natural world and the plant and animal life therein. They learn best through classifying and visual discrimination activities, especially when environmental education is involved. Field trips and gardening are two activities they enjoy!
An Example

Imagine your class is studying desert environments. Here are some ideas for activities that would afford opportunities for students to activate the eight intelligences. You can provide your students with a contract that requires that they complete a certain number of activities, each representing a different intelligence to expand their repertoire.

**Visual/Spatial**
- Paint or draw a desert scene.
- Create a desert collage.
- Watch a video about the desert.
- Construct a desert diorama.

**Verbal/Linguistic**
- Read a factual book about the desert and write a book report.
- Write a coyote trickster tale after reading some examples.
- Create a desert crossword puzzle using desert vocabulary.
- Write a research report about a desert animal.

**Mathematical/Logical**
- Design and conduct an experiment to see how much water a small cactus plant needs.
- Classify and categorize the plants found in the desert.
- Locate three deserts on a U.S. map and specify the longitude and latitude of each.
- Make a graph of annual rainfall in 3 deserts: Gobi, Kalahari, and Sahara.

**Bodily/Kinesthetic**
- Pantomime desert animals and have the class guess what you are.
- Feel and describe desert plant specimens.
- Fill a bottle with colored sand that you have dyed in desert colors.
- Create a game or sport that can be played in the desert and teach it to the class.

**Musical/Rhythmic**
- Write a song or jingle about the desert.
- Listen to the theme music from “Lawrence of Arabia.”
- Make a list of sounds you might hear at night in the desert.
- Write a rap about the desert.

**Intrapersonal**
- Describe how you would feel if you were stranded on a desert island and saw a ship in the distance.
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- Should the desert tortoise be a protected animal? Why or why not?
- Write a poem about how the desert makes you feel.
- Would you rather live in the desert in a big house or by the sea in a small one?

**Interpersonal**
- Interview someone who has lived in or visited a desert to get his or her reactions to the experience.
- Debate: The desert tortoise should or should not be protected.
- Write a group report comparing three deserts: Gobi, Sahara, Kalahari.

**Naturalist**
- Make a collection of desert fauna and flora using pictures from the Internet.
- Sort the pictures into categories, as a scientist would do.
- Learn the scientific names of at least ten desert plants.
- Research Death Valley on the Internet through the National Park Service.

**DESERT CONTRACT:** Name ____________________
Choose 3 activities

<table>
<thead>
<tr>
<th>Pantomime a desert animal</th>
<th>Create a desert diorama</th>
<th>Write a coyote trickster tale</th>
<th>Create a desert mural with 3 others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listen to Lawrence of Arabia music</td>
<td>Classify desert plants</td>
<td>Learn the scientific names of 10 desert plants</td>
<td>Should the desert tortoise be protected?</td>
</tr>
</tbody>
</table>

**Figure 28.1**
Multiple Intelligences Sample Contract
Differentiated Instruction

Differentiated learning describes a set of principles that enable you to meet the broad range of readiness, interests, abilities, talents, and skills in your classroom. The principles of differentiated instruction as articulated by Tomlinson (1999) provide another perspective on meeting the diverse needs of your students.

Core Knowledge

Teachers need to focus on the core knowledge of each subject area. The core knowledge can be the concepts, skills, and principles that are required of each student, and are also known as the essential standards.

Formative Assessment

Teachers need to continuously assess where students are vis-à-vis what they need to learn. The assessment involves not only readiness but also interests and how that student learns best. This is known as formative assessment.
Modifying Instructional Components
The three components of instruction that can be modified based on a teacher’s ongoing assessment are the content, the process, and the products. You can modify content by choosing the way you “input” it. You can simplify for those who are

Figure 28.2
Differentiating Instruction Planning Form

<table>
<thead>
<tr>
<th>Curriculum/Subject Area</th>
<th>Standard(s) Addressed</th>
<th>Date</th>
<th>Period</th>
<th>Teacher</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Content Input</th>
<th>Process</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 2</td>
<td></td>
<td></td>
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<tr>
<td>Student 3</td>
<td></td>
<td></td>
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<tr>
<td>Student 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strategies for Adapting Instruction
A language arts teacher adapts instruction for a student with a hearing impairment. After viewing the video clip, think about a particular lesson you have taught recently and adapt it for a low achiever, a high achiever, a student with a learning disability, a student with physical, emotional, or behavioral challenges, or any other student with special needs you are currently teaching. Use the template shown in Figure 28.2.
not yet ready and enrich the content for those who have mastered it. Some ways of varying the “input” include using:

- varied level text material
- supplementary materials
- varied audio-visuals
- interest centers
- varied time allotments
- technology of all sorts
- varied instructional strategies
- cooperative learning
- varied community resources, such as speakers and field trips

Some of the ways you can modify the process are by helping students make the learning experience relate to their needs and interests and by focusing attention on multiple intelligences.

You can make the material more meaningful (the process) when you include some of the strategies that were covered in this unit. These strategies include graphic organizers of all sorts, group investigation, classifying and sorting, cooperative learning, reciprocal teaching, advance organizers, and analogies and metaphors.

You can modify the product by designing product options for your students based on Gardner’s theory of multiple intelligences or tiered assignments. Students can be given a list of options to show their mastery of the content and you can assess them based on predetermined criteria or rubrics.

Providing for Every Student

You will have students in your class who need extra support in one or more areas. Following are ways to modify lessons for higher and lower achievers and for students with unique challenges.

Students with Learning Difficulties

You can support your students with learning difficulties by teaching to their strengths and making some simple accommodations in your planning, instruction, and assignments. The following modifications are straightforward and easy to
Higher Achieving Students Who Need Enrichment

It is also probable that you will have students in your class who excel in one or more areas, especially if you subscribe to the theory of multiple intelligences. For these students, more of the same is not acceptable.

- Encourage the reading of library books and perhaps totally individualize the reading and/or math program.
- Encourage individual research, construction, or science projects geared to the students’ abilities and interests, for extra credit.
- Provide opportunities to sit in on special unit activities in other classes.
- Introduce new and challenging materials, games, puzzles, and brain teasers.
- Have individual conferences with the student to guide his or her progress.
- Encourage creative responses to stories (e.g., writing to the author, creating a play script from the story, etc.).
- Consider modifying assignments based on multiple intelligences.

her arms move while we were doing this activity and sometimes not.

One day, six months into the school year, we started our warm up as usual and as I looked around the room, and there was Aubrey, on her own, moving her arms up and down with the others. I pointed it out to the teachers and we were all very excited. That moment had a deep impact on my life as a teacher and a musician. And 19 years later it still inspires me.

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(As seen on http://www.LessonPlansPage.com)

Statistics

- Nationally, 13 percent of public school students had a Special Education individualized education program (IEP) in 2001–2002.
- Among those states reporting students with IEPs, the proportion ranged from 10 percent in Colorado to 20 percent in Rhode Island.
- Specific learning disabilities, speech or language impairments, mental retardation, and emotional disturbance continued to account for the majority of students served (Report to Congress, 2002).

Students with Special Physical, Emotional, or Behavioral Needs

Some students in your class may need some differentiated and/or individualized attention because they have special needs related to specific physical, emotional, or behavioral challenges. Individual differences may point to a need for further testing. If you suspect that a student is either gifted or has learning disabilities, notify your principal, who will outline for you the legal requirements for arranging more intensive testing by the school psychologist, nurse, or special education resource teacher. If you have student in your class with behavioral or physical challenges, you will have a great deal of help from the special education team.

An Example
I had a student with a hearing impairment in my methods class last year, and a student assistant was assigned to sign for him during class. I was very nervous about how I should modify my instruction. I consulted the Office of Students with Disabilities and they offered some simple guidelines such as using the board more, looking at the student when I was talking because he read lips, and writing out all directions for him. That quarter I did some of the best teaching I have ever done! The principles that guided me turned out to benefit all the students. If you are fortunate enough to have students with special needs in your class, seek advice and you will be the better teacher for the experience.

Avoid It!

Although the number of students in your classroom who fall within the norm may already overwhelm you, direct your attention to those who need your extra effort. Do not hesitate to seek out your resource teacher for suggestions and strategies that can be tailored to the students you have in mind.