

CHAPTER 1

The Differentiated Instruction Mind-set: Rationale and Definition

Recall your days as a student in middle and high school. Did your teachers differentiate for you? Think carefully.

If you consider it long enough, clear examples of differentiated practice from your childhood will flood into your mind's eye. If your teacher ever rephrased a question; extended a deadline; provided a few extra examples in order to help you understand something; stood next to you to keep your attention focused on the lesson; regrouped the class according to student interest, readiness, or the way students best learned; gave you a choice among assignments based on something she knew about you; or let you redo a test or project if at first you didn't succeed, she differentiated instruction. They may not have called it "differentiated" back then, but our teachers differentiated instruction.

In the first fifteen minutes of a successful, secondary school math class in today's world, we see the following easy evidence of differentiated practice.

Students have homework laid out on their desks for teacher checking. Some students have done alternative problems based on yesterday's level of mastery prior to receiving the homework.

Some students have preferential seating because of attention problems.

The teacher moves physically closer to some students, using proximity to him or her to keep them focused.

Desks are clustered, or if in rows, movable, for flexible grouping later in the lesson.

Students are discussing difficult problems from last night's homework in small groups because the teacher recognizes that small-group work best

meets the needs of some students in the class. Later she does whole-class and independent work to meet other students' needs.

If the day's lesson isn't one about basic calculations or graphing, but about advanced and abstract concepts instead, the teacher allows the use of TI-83 calculators to keep the momentum of the lesson and prevent students from getting bogged down by tenacious calculations and simple arithmetic errors. She wants to keep students focused on the new concept of the day for now.

The teacher offers one student a second example of a math concept when the one given to the class doesn't clarify the concept for him.

Students who are struggling with an assignment while a teacher is working with four students in the back of the room are working through a list of "What to do when I'm stuck and the teacher is not available" ideas previously taught to them.

The teacher has two students who serve as "graduate assistants" whom she knows have mastered the concepts and she has identified to the class as good resources if they have questions.

The teacher provides a few moments for students to think reflectively regarding a prompt before he guides their thinking. Those students who need intrapersonal contact appreciate the time to think, and many others would benefit from learning how to think reflectively.

These are all examples of teaching in a fair and developmentally appropriate manner—that is, differentiating instruction.

The exciting thing for today's teacher is that we've learned more about how the brain learns and about differentiated practices in the last twenty years than in all of civilization put together. For good reason, the 1990s were known as the Decade of the Brain, and that is expected to continue into the 2000s and beyond. There are two problems, however.

First, what we know about the brain is still being tested, and that means most of our assertions about it should be preceded by the words "seems to be" or "as of our understanding today." Cognitive theory and neuroscience are very dynamic fields and what we quote as fact this year may be proven otherwise next year. It's difficult to keep track with so much on an educator's plate, so we are indebted to those who make sense of the research and share it with us—folks like David Sousa, Pat Wolfe, Robert Sylwester, Spencer Rogers, Marilee Sprenger, Howard Gardner, William Bender, Thomas Armstrong, Robert Marzano, Debra Pickering, Art Costa, Marian Diamond, Eric Jensen, the Caines, among others.

The second and far more daunting problem, however, is how to get our modern classroom to reflect what has been distilled from the research. Of course, we don't want to drop everything we find effective in teaching for the sake of an interesting conjecture by a cognitive theorist; the leap from observ-

ing the behavior of neurotransmitters in our synapses to how we should write information on the board is too great—we're not there yet. There's enough positive correlation to warrant further experimentation and discussion, however.

We have salient patterns that suggest what would be successful in a classroom, and teachers are finding them useful. Teachers are on the frontlines of these applications, and it's time they use what has stood the test of time so far. Our fear is that teachers from the 1950s, 1960s, 1970s, or 1980s could transfer through time, end up in our classrooms, and be completely at home. The more hopeful result is that they would be fish out of water: They'd ask us why we're doing what we're doing, and upon hearing our explanation, they'd lament, "Wow, I wish I had known that back in '69. I could have really helped Rudy in my fourth period class."

When first learning about differentiated practices, many of us focus primarily on differentiation principles and structures such as scaffolding, tiering, respectful tasks, flexible grouping, learner profiles, readiness, and anchor lessons. At the same time, however, we are wise to explore cognitive science as well, realizing that our strategic application of cognitive principles is actually one of the best ways to differentiate effectively. For example, in order to provide scaffolding for students who need it, we sometimes structure struggling students' interactions with text, labs, field trips, and DVDs by providing them with graphic organizers in advance of those learning experiences. This not only primes their minds for what to identify as salient in the experience, but it also structures information for meaningful management and retrieval later. Sometimes, then, we don't spend energy identifying tasks for high-, medium-, and/or low-functioning groups so much as we consider whether we've taught in a way the brain best processes.

Professional development and creating a culture of teachers focused on cognitive theory and differentiated instruction are great fodder for other books. For purposes of *this* one, we will assume readers have a basic understanding of both topics and that they embrace the principles therein. The bibliography contains suggestions for further reading. To ensure a common frame of reference, however, let's review the basic logic behind differentiated practices.

Definition. *Differentiated instruction* is doing what's fair for students. It's a collection of best practices strategically employed to maximize students' learning at every turn, including giving them the tools to handle anything that is undifferentiated. It requires us to do different things for different students some, or a lot, of the time in order for them to learn when the general classroom approach does not meet students' needs. It is not individualized instruction, though that may happen from time to time as warranted. It's whatever works to advance the students. It's highly effective teaching.

If we accept this premise, then every aspect of our teaching, including our grading and assessment practices, should be fair to students; and it should maximize the students' learning. Anything that does not provide for such is suspect.

Let's push our acceptance of differentiated practices a little further. What would happen if we differentiated for a particular student every single time he needed it, kindergarten through twelfth grade? (Notice the clarification that differentiation is done as needed—not all the time.) What kind of students would graduate from our high schools?

Some of us claim students from such experiences would be highly competent, independent thinkers. These students would be tolerant of others, and they would be creative and willing to take risks. Such students would be well-prepared for the world beyond high school.

What is it about differentiated practice that yields those results? Competence and diverse approaches to learning lead the way. Students for whom teachers have differentiated instruction learn well; they're competent. They understand themselves as learners, and because of that, they are better equipped to advocate for themselves. They see classmates as being at different points on the same journey, and differences from their own point on the journey are not seen as weak—just different. They are not threatened by difference; it's seen as strength. These students consider themselves beginners at some things, experts in others, and this variance is natural.

Looking at these traits, you'd think differentiated practice leads to an almost utopian, model citizen. Could there be a downside with too much differentiation? For example, could students become dependent on others to differentiate for them in the real world? After all, since age five, the adults in their educational lives have always made it easier for them to learn and succeed.

There's the rub: Differentiated instruction does *not* mean we make learning easier for students. Instead, it provides the appropriate challenge that enables students to thrive. Because we know our students so well, we know what buttons to push. We teach in a responsive manner: If students are becoming too dependent, we do whatever it takes to create personal autonomy within them. When we teach in the way a student's mind best processes information and skills, he or she finds the lessons compelling. What gets easier is classroom management; appropriately challenged students are cooperative.

Some educators and parents still see differentiated instruction and assessment as a crutch. In truth, they are correct—but not in the negative sense they intend. In their minds, a *crutch* refers to something leaned on too much. Students limp around, never really growing autonomous, always dependent because things are made easier for them when the teacher differentiates.

Nothing could be farther from the truth. In the last few decades, we've witnessed amazing heroes of our time—Canada's Terry Fox and Rick Hansen,

the United States's Christopher Reeve, to name just a few—who've achieved greatness through the use of prosthetic legs, crutches, and wheelchairs. These objects (and their analogous applications to the classroom) allow individuals to rise, be held accountable, and soar. We wouldn't dream of limiting them by removing their support devices. Because of the differentiated approaches, they become full individuals, identified first for who they are inside, and labeled only much farther down the road with an almost incidental comment that they happen to be in a wheelchair or have a fake leg. This is what can happen when we differentiate instruction and assessment for students who struggle.

When we differentiate, we give students the tools to handle whatever comes their way—differentiated or not. This is why differentiated instruction and standardized testing are not oxymoronic: Students will do well on standardized, undifferentiated tests only if they have learned the material in the class, and differentiated practices are the ways we maximize students' learning at every turn. Standardized tests can only sample learning, making observations about mastery inferential at best. They are meant to look at trends and patterns for a school, not exclusive evidence about an individual student's or teacher's performance. State and provincial policy makers want us to focus on our true goals: to teach students how to interpret graphs, obtain insight from historical events, understand the scientific processes of living organisms, incorporate healthy diet and exercise into everyday life, and create the jarring beauty of music written with just the right dynamics. Anything we do to enable students to become their own advocates in this cause is worthy, and differentiated practices do just that.

What if students experience differentiated practices in middle or high school, yet the next grade levels (high school and college, respectively) do not differentiate? Won't they be expecting it, and when they don't get it from their teachers, be disabled?

No. They will do well in the next grade levels, differentiated or not, if they know the material of the earlier grade levels and they know themselves as learners. Differentiated approaches provide both of these in abundance when done well.

Here's a clarifying example used by many educators: Two students are seated at the back of the classroom. One of them is nearsighted and cannot see anything clearly that is more than a few feet away. He wears thick glasses to see long distances. The teacher asks both of them to read, record, and learn the information written in small print on the front board, on the opposite side of the room. In order to be equal, however, the teacher removes the nearsighted child's glasses and asks both students to get started. The child needing glasses squints but can't read anything on the board.

Did the teacher make it harder or easier for the nearsighted child? Most educators claim the teacher made it harder. On the contrary, however, the

teacher made it much easier. We learn from cognitive scientists that the brain is a survival organ—it's out for its own self-preservation. With the removal of the glasses, the student has an excuse: he can cop out, escape. When we give him his glasses, which are analogous to scaffolding (providing support) and differentiating, he is compelled to read the board and consider its content. He thrives. We didn't make it easier by providing him with his glasses, we made it more demanding. *Undifferentiated* classes are the easy ones because the “my approach or nothing” teacher conveys to students that they can coast or drop out if the lesson is not working for them. In differentiated classes, teachers know them so well that they know how to get students engaged with their learning, and they use it. These classes are challenging. Students are held accountable and they achieve more.

Is providing support and differentiation fair for both children? To answer this question, let's look at the results of the next day's test on the board's material: If we remove the glasses, will both children have fair opportunities for success? No. If we don't provide the glasses to the student who needs them, the grade he earns on the test is not accurate. The grade does not indicate his true mastery of the topic; he didn't have the tools to learn well. So now, not only did the child not learn, but also any grade we give him is distorted and cannot be used to document progress, provide feedback, or inform instructional decisions. In short, by not differentiating, we defeated the whole purpose of schools and grading.

As we do when providing students with their glasses, we provide fair support like this in many ways: We allow the use of graph paper or turning lined paper sideways for some students so that their numbers will line up in columns as they complete math problems; we allow some students to use “focus frames” (Forsten, Grant, and Hollas 2002) with interlocking I's to direct their eyes while reading; we allow some students to hear their history textbooks on compact disc rather than having to read them silently. In all these ways, students learn the material, and any assessments given to them will accurately render their mastery, assuming there are no issues with the assessment formats and test protocols themselves.

What is fair isn't always equal, and our goal as teachers is to be fair and developmentally appropriate, not one-size-fits-all equal. If we give a graphic organizer to four students who are struggling with text but not to their classmates who do not need it, we are still being fair. The same test will be given to all students at the end of the unit, and the grades are legitimately earned. While some tests are about procedures and processes, most tests are about essential understandings—knowledge, concepts, and skills—not how students came to know the information.

Would we announce the availability of that graphic organizer to the rest of the class and allow other students to use it if they wanted to? Sure. Will we require some students to use it even if at first they are not interested? That

depends. If we want students to appreciate the great success achieved via the graphic organizer, we might let them work without it and subsequently do poorly on the assessment, but then offer them another chance to succeed using the scaffolding (the organizer) and record the new, improved grade. In some cases, however, differentiated approaches are non-negotiable. If a student declines, he or she is committing insubordination by defying the teacher. We handle it as a discipline issue. This doesn't happen often, however, because students find differentiating teachers are out for their success. That encouragement is powerful motivation.

Let's examine the real world as well. Is the real world differentiated? Absolutely. Imagine a garage mechanic charged with fixing the timing in a car's engine, but it's a car he's never serviced or studied before. In such a circumstance, he consults the manufacturer's manual or even with the manufacturer directly. He can ask for guidance from a senior mechanic, and he can even extend the deadline by telling the customer that, though he promised it would be ready by 5:00 P.M., the car won't be ready until the next day at 10:00 A.M. In the real world, we gravitate toward careers with tasks for which we have some proclivity. We don't spend an entire day working in our weak areas.

On the surface, the military seems fairly rigid, no-nonsense, with little accounting for individual learning styles. Yet it's a perfect example of differentiated practices. When young recruits are learning how to take apart and put back together an assault rifle in the field, for example, some need nine times of disassembly and reassembly; others need only four times before they get it done without thinking. Some recruits look at the manual, while others concentrate on their trainer's words. Some require their trainers to physically move their fingers to find the safety release mechanisms, while others don't. Some need to practice on less complex firearms in clear daylight, while others are ready for learning how to assemble more complex assault rifles in total darkness. Each of these approaches demonstrates differentiated practice.

How about surgery? Absolutely. We hope our surgeon differentiates. If she opens our bodies for surgery and finds something unexpected, for our sakes she better be able to adapt and go a different direction, perhaps with a different procedure, piece of equipment, or length of time to complete the task. Yes, the real world is differentiated.

What if we never differentiated instruction for students who needed it, kindergarten through twelfth grade? What kind of students would graduate from our high schools?

It's a trick question. In all likelihood, they wouldn't graduate. If differentiated instruction advances a student's learning, lack of differentiated instruction puts competence in jeopardy and passing graduation assessments in question. It's a little absurd to think that a one-size-fits-all approach by every teacher a child has kindergarten through twelfth grade is the best way for that

child to learn day after day, week after week, month after month, year after year—and how can that be true of all children at the same time?

Nobody cares what we teach—not our principals, our superintendents, or our legislative bodies. No one. In fact, what we teach is irrelevant. It's what our students learn after their time with us that matters. What students learn is the greatest testimony for us as teachers, as schools, and as communities. Let's rally our assessment and grading energy around that fact.

Differentiation provides focus. It is a compelling, highly effective approach that is equal parts technical dexterity and professional can-do attitude. That commitment to all students and their learning extends to grading and assessment, and *this point is key*: We commit to students and to sound grading practices. Unsuccessful teachers deny their own involvement in their students' success or lack thereof. Secondary school educator, Ellen Berg comments:

In my experience, there are teachers who put 100 percent of the responsibility on the kids, teachers who share the responsibility, and teachers who take 100 percent of the responsibility. Teachers in that middle category seem to be the most successful at my school.

The thing is, if I took a look at my end grades and saw a huge percentage of F's, I'd be disturbed. I'd look for causes (missing work, low scores, etc.) and figure out what types of strategies to try with those students. I am the teacher, and so it is up to me to teach the kids I have, be they unprepared, irresponsible, etc. . . . I'm not saying that's easy, but if what we're doing isn't getting us the desired results, doing the same thing over and over and expecting something different is not only nonproductive, it creates stress and unhappiness in our lives.

Most teachers who dive into differentiation's mind-set and practices feel liberated, not burdened. They breathe a little easier because they experience students' learning as a direct result of their decisions, and those students are learning at a level otherwise not achievable through non-differentiated practices. The cement overshoes of cynicism and settling for less are cast off, replaced by hope and by students achieving every day. We rediscover ourselves as teachers and as students when we differentiate. Yeah, it has that much of an impact.

When it comes to difficult grading decisions, having a differentiated mind-set illuminates correct paths readily. We sort through competing priorities and choose the most effective response. In fact, if we are hesitant or confused about our differentiated rationale, grading becomes tortuous and we doubt our enterprise. If we are struggling to accept the rationale for differentiated approaches, the material presented in the remaining pages of this book will be difficult to swallow. If we've accepted differentiated approaches as the

great positive they are, regardless of our skill development with them, the remainder of this book will be like a visit with a good friend, one who affirms our efforts yet also pushes us to explore new territories in pursuit of our cause—student growth. That’s pretty good for something that’s been around since the Ancient Greeks and earlier. Not even close to being a passing fad, differentiated instruction is good teaching, and it’s here to stay. Let’s hope we’re wise enough to use it.

It’s just as true today as when Dr. Haim Ginott (1993) said it decades ago:

I have come to the frightening conclusion that I am the decisive element in the classroom. It is my personal approach that creates the climate. It is my daily mood that makes the weather. As a teacher, I possess tremendous power to make a child’s life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humor, hurt or heal. In all situations it is my response that decides whether or not a crisis will be escalated or de-escalated, and a child humanized or de-humanized. I am part of a team of educators creating a safe, caring and positive learning environment for students and teaching them in a manner that ensures success because all individuals are capable of learning.

With this mind-set, let’s explore assessment and grading in the differentiated classroom.