3rd Edition



How to

DIFFERENTIATE INSTRUCTION

in Academically Diverse Classooms



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First edition published 1995 as How to Differentiate Instruction in Mixed-Ability Classrooms. Third edition 2017.

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PAPERBACK ISBN: 978-1-4166-2330-4 ASCD product #117032 n3/17 PDF E-BOOK ISBN: 978-1-4166-2332-8; see Books in Print for other formats. Quantity discounts: 10–49, 10%; 50+, 15%; 1,000+, special discounts (e-mail programteam@ascd.org or call 800-933-2723, ext. 5773, or 703-575-5773). For desk copies, go to www.ascd.org/deskcopy.

Library of Congress Cataloging-in-Publication Data

Names: Tomlinson, Carol A., author. | Tomlinson, Carol A. earlier edition. How to differentiate instruction in mixed-ability classrooms,

Title: How to differentiate instruction in academically diverse classrooms /

Title: How to differentiate instruction in academically diverse classrooms / Carol Ann Tomlinson.

Description: Third edition. | Alexandria, Virginia: ASCD, 2017. | Revised edition of: How to differentiate instruction in mixed-ability classrooms / Carol Ann Tomlinson. 2nd ed. Alexandria, Va.: Association for Supervision and Curriculum Development, c2001. | Includes bibliographical references and index.

Identifiers: LCCN 2016049811 (print) | LCCN 2016051073 (ebook) | ISBN 9781416623304 (pbk.) | ISBN 9781416623328 (PDF) | ISBN 9781416623335 (EPUB)

Subjects: LCSH: Mixed ability grouping in education--United States. |

Learning ability. | Classroom management--United States.

Classification: LCC LB3061.3 .T65 2017 (print) | LCC LB3061.3 (ebook) | DDC 371.39/4--dc23

LC record available at https://lccn.loc.gov/2016049811

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in Academically Diverse Classrooms

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Introduction

Bill Bosher, a former Superintendent of Education for Virginia, was fond of saying that the only time there was any such thing as a homogeneous classroom was when he was in the room by himself. He would follow this statement with a longish pause and a questioning brow—then, "and come to think of it, I'm not even sure about *that*."

He's right, of course. All classrooms are heterogeneous on many levels, as are the individual students within them.

Some kindergartners arrive at school already able to read 3rd grade books with comprehension, while their peers grapple for months, if not years, with the idea of left-to-right print progression or the difference between short and long vowel sounds. Some 3rd graders make an independent leap from multiplication to division before any explanation has been offered. Many of these same children, when they reach middle school, make connections between themes in social studies and literature, or apply advanced mathematical tools to solve science problems before other students in their classes have grasped the main idea of a chapter in the textbook. In high school, students who have been seen as "slow" or "average" can surprise everyone by developing a complex and articulate defense of a position related to scientific ethics or economic strategy. Meanwhile, some of their classmates who had always found school a "cinch" find they must now work hard to feel comfortable with ideas at a more abstract level. One student is more successful in math than in English and, within math, more comfortable with geometry than with algebra and, within English, more competent—at least for the time being—with analyzing fiction than with analyzing nonfiction or with grammatical constructions. Another student easily envisions objects moving in space but has great difficulty following the multistep directions necessary to complete science labs.

In life, kids can choose from a variety of clothing to fit their differing sizes, styles, and preferences. With just a few clicks, they can create their own playlists one song at a time, free from earlier generations' obligation to buy an entire album just to hear a favorite song. They can access all kinds

of media on demand and on multiple platforms. We understand, without explanation, that these choices make them more comfortable and give expression to their developing personalities.

In school, instruction that is differentiated for students of differing points of entry and varied interests is also more comfortable, engaging, and inviting. Even though students in a classroom may be chronologically the same age, one-size-fits-all instruction will inevitably sag or pinch just as surely as single-size clothing would. Acknowledging that students learn on different timetables, and that they differ widely in their ability to think abstractly or understand complex ideas, is no different than acknowledging that students at any given age aren't all the same height. It is not a statement of worth but of reality.

To operate with the assumption that it is of little significance whether a student understood last year's math, or whether a student loses concentration when forced to sit still for extended periods, or whether a student can read the required textbook, or whether words scramble on a page for a student, or whether a student has already mastered the content in the unit of study that is about to begin is delusional.

To argue that we teach too many students to be expected to know them in a multidimensional way is to reject one of the clearest and most fundamental findings of educational research: that learning is relational.

To say that teachers don't have time to attend to student differences is akin to a physician telling a patient that his case is taking too much time to figure out and should therefore be dismissed.

In truth, most teachers grasp the reality of learner difference early in their careers and quickly begin the process of adapting to it. They use humor differently with one student than another. They move around the classroom while most students are working confidently to answer questions for those who are still uncertain with the content. They ask questions targeted at students' different interests or strengths during class discussions. They offer choices of topics for papers or performance tasks. The question is not whether asking teachers to attend to students' varied learning needs is appropriate or desirable, but rather how school and district leaders can systematically and vigorously support the growth in the direction that virtually all teachers begin as a matter of course and a matter of necessity.

A baseline goal for success in today's schools should be helping teachers create "user-friendly" learning environments in which they become

systematically more confident and competent in flexibly adapting pacing, approaches to learning, and channels for expressing learning in response to their students' differing needs—learning environments designed to make room for the students who inhabit them. While the goal for each student in such environments is challenge and maximum growth, teachers will often define challenge and growth differently in response to students' current, diverse interests and starting points.

A goal of this book is to provide a reliable source of guidance for teachers seeking to create learning environments that address the variety typical of academically diverse classrooms. It aims to help these teachers determine what differentiated instruction is, why it is essential for all learners, how to begin to plan for it, and how to become comfortable enough with student differences to make school comfortable for each and every student.



Kids of the same age aren't all alike when it comes to learning any more than they are alike in terms of size, hobbies, personality, or food preferences. Kids do have many things in common, because they are human beings and because they are all young people, but they also have important differences. What we share in common makes us human, but how we differ makes us individuals. In a classroom with little or no differentiated instruction, only student similarities seem to take center stage. In a differentiated classroom, commonalities are acknowledged and built upon, and student differences also become important elements in teaching and learning.

At its most basic level, differentiating instruction means "shaking up" what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas, and expressing what they learn. In other words, a differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively.

In many classrooms, the approach to teaching and learning is more unitary than differentiated. For example, 1st graders may listen to a story and then draw a picture about the beginning, middle, and end of the story. While they may choose to draw different aspects of the elements, they all experienced the same content, and they all engaged in the same sensemaking or processing activity. A kindergarten class may have four centers that all students visit to complete the same activities in a week's time. Fifth

graders may all listen to the same explanation about fractions and complete the same homework assignment. Middle school or high school students may sit through a lecture and a video to help them understand a topic in science or history. They will all read the same chapter, complete the same lab or end-of-chapter questions, and take the same quiz—all on the same timetable. Such classrooms are familiar, typical, and largely undifferentiated.

Most teachers (as well as students and parents) have clear mental images of such classrooms. After experiencing undifferentiated instruction over many years, it is often difficult to imagine what a differentiated classroom would look and feel like. How, educators wonder, can we make the shift from "single-size instruction" to differentiated instruction to better meet our students' diverse needs? To answer this question, we first need to clear away some misperceptions.

What Differentiated Instruction Is NOT

Differentiated instruction is NOT "individualized instruction."

Decades ago, in an attempt to honor students' learning differences, educators experimented with what was called "individualized instruction." The idea was to create a different, customized lesson each day for each of the 30-plus students in a single classroom. Given the expectation that each student needed to have a different reading assignment, for example, it didn't take long for teachers to become exhausted. A second flaw in this approach was that in order to "match" each student's precise entry level into the curriculum with each upcoming lesson, instruction needed to be segmented or reduced into skill fragments, thereby making learning largely devoid of meaning and essentially irrelevant to those who were asked to master the curriculum.

While it is true that differentiated instruction can offer multiple avenues to learning, and although it certainly advocates attending to students as individuals, it does not assume a separate assignment for each learner. It also focuses on meaningful learning—on ensuring all students engage with powerful ideas. Differentiation is more reminiscent of a one-room-schoolhouse than of individualization. That model of instruction recognized that the teacher needed to work sometimes with the whole class, sometimes with small groups, and sometimes with individuals. These variations were important both to

move each student along in his or her particular understandings and skills, and to build a sense of community in the group.

Differentiated instruction is NOT chaotic.

Most teachers remember the recurrent, nightmarish experience from their first year of teaching: losing control of student behavior. A benchmark of teacher development is the point at which the teacher becomes secure and comfortable with managing classroom routines. Fear of returning to uncertainty about "control of student behavior" is a major obstacle for many teachers in establishing a flexible classroom. Here's a surprise, though: teachers who differentiate instruction are quick to point out that, if anything, they now exert more leadership in their classrooms, not less. And, student behavior is considerably more focused and productive.

Compared with teachers who offer a single approach to learning, teachers who differentiate instruction have to be more active leaders. Often they must help students understand how differentiation can support greater growth and success for everyone in the class, and then help them develop ground rules for effective work in classroom routines—all while managing and monitoring the multiple activities that are going on. Effectively differentiated classrooms include purposeful student movement and sometimes purposeful student talking, but they are not disorderly or undisciplined. On the contrary, "orderly flexibility" is a defining feature of differentiated classrooms—and of any classroom that prioritizes student thinking. Research tells us that neither "disorderly" environments nor "restrictive" ones support meaningful learning (Darling-Hammond & Bransford, 2007).

Differentiated instruction is NOT just another way to provide homogeneous grouping.

Our memories of undifferentiated classrooms probably include the bluebird, cardinal, and buzzard reading groups. Typically, a buzzard remained a buzzard, and a cardinal was forever a cardinal. Under this system, buzzards nearly always worked with buzzards on skills-focused tasks, while work done by cardinals was typically at "higher levels" of thought. In addition to being predictable, student assignment to groups was virtually always teacher-selected.

A hallmark of an effective differentiated classroom, by contrast, is the use of flexible grouping, which accommodates students who are strong in

some areas and weaker in others. For example, a student may be great at interpreting literature but not so strong in spelling, or great with map skills and not as quick to grasp patterns in history, or quick with math word problems but careless with computation. Teachers who uses flexible grouping also understand that some students may begin a new task slowly and then launch ahead at remarkable speed, while others will learn steadily but more slowly. They know that sometimes they need to assign students to groups so that assignments are tailored to student need, but that in other instances, it makes more sense for students to form their own working groups. They see that some students prefer or benefit from independent work, while others usually fare best in pairs or triads.

In a differentiated classroom, the goal is to have students work consistently with a wide variety of peers and with tasks thoughtfully designed not only to draw on the strengths of all members of a group but also to shore up those students' areas of need. "Fluid" is a good word to describe assignment of students to groups in such a heterogeneous classroom. See the Appendix for more information on flexible grouping.

Differentiated instruction is NOT just "tailoring the same suit of clothes,"

Many teachers think they are differentiating instruction when they let students volunteer to answer questions, grade some students a little harder or easier on an assignment in response to the students' perceived ability and effort, or let students read or do homework if they finish a class assignment early. Certainly such modifications reflect a teacher's awareness of differences in student needs and, in that way, the modifications are movement in the direction of differentiation. While such approaches play a role in addressing learner variance, they are examples of "micro-differentiation" or "tailoring," and are often just not enough to adequately address significant learning issues.

If the basic assignment itself is far too easy for an advanced learner, having a chance to answer an additional complex question is not an adequate challenge. If information is essential for a struggling learner, allowing him to skip a test question because he never understood the information does nothing to address the student's learning gap. If the information in the basic assignment is simply too complex for a learner until she has the chance to assimilate needed background information or language skills, being "easier

on her" when grading her assignment circumvents her need for additional time and support to master foundational content. In sum, trying to stretch a garment that is far too small or attempting to tuck and gather a garment that is far too large is likely to be less effective than getting clothes that are the right fit. Said another way, small adjustments in a lesson may be all that's needed to make the lesson "work" for a student in some instances, but in many others, the mismatch between learner and lesson is too great to be effectively addressed in any way other than re-crafting the lesson itself.

Differentiated instruction is NOT just for outliers.

Certainly students who have identified learning challenges such as autism spectrum disorder, ADHD, intellectual disabilities, visual impairment, and so on are likely to need scaffolding on a fairly regular basis in order to grow academically as they should. Likewise, students who learn rapidly, think deeply, and readily make meaningful connections within or across content areas will need advanced challenge on a regular basis in order to grow as *they* should. And students who are just learning the language spoken in the classroom will typically require support as they seek to master both content and the language in which it is communicated. But in virtually any class on any day, there are students "in the middle" who struggle moderately, or just a little, with varied aspects of what they are seeking to learn.

There are students who know a good bit about a portion of a lesson or unit but struggle with specific steps or content. There are students whose experiences outside the classroom weigh negatively on their ability to concentrate or complete work. There are students who are just about to "take flight" with an idea that has been out of their reach and need encouragement and a boost to ensure their launch is successful. Every student benefits from being on the teacher's radar and from seeing evidence that the teacher understands their development and plans with their success in mind.

What Differentiated Instruction IS

Differentiated instruction IS proactive.

In a differentiated classroom, the teacher assumes that different learners have differing needs and proactively plans lessons that provide a variety of ways to "get at" and express learning. The teacher may still need to fine-tune instruction for some learners, but because the teacher knows the varied learner needs within the classroom and selects learning options accordingly, the chances are greater that these experiences will be an appropriate fit for most learners. Effective differentiation is typically designed to be robust enough to engage and challenge the full range of learners in the classroom. In a one-size-fits-all approach, the teacher must make reactive adjustments whenever it becomes apparent that a lesson is not working for some of the learners for whom it was intended.

For example, many students at all grade levels struggle with reading. Those students need a curriculum with regular, built-in, structured, and supported opportunities to develop the skills of competent readers. While it may be thoughtful, and helpful in the short term, for a teacher to provide both oral and written directions for a task so that students can hear what they might not be able to read with confidence, their fundamental reading problems are unlikely to diminish unless the teacher makes proactive plans to help students acquire the specific reading skills necessary for success in that particular content area.

Differentiated instruction IS more qualitative than quantitative.

Many teachers incorrectly assume that differentiating instruction means giving some students more work to do, and others less. For example, a teacher might assign two book reports to advanced readers and only one to struggling readers. Or a struggling math student might have to complete only computation problems while advanced math students complete the computation problems plus a few word problems.

Although such approaches to differentiation may seem reasonable, they are typically ineffective. One book report may be too demanding for a struggling learner without additional concurrent support in the process of reading as well as interpreting the text. Or a student who is perfectly capable of acting out what happened in the book might be overwhelmed by writing a three-page report. If writing one book report is "too easy" for the advanced reader, doing "twice as much" of the same thing is not only unlikely to remedy that problem but could also seem like punishment. A student who has already demonstrated mastery of one math skill is ready to stop practicing that skill and needs to begin work with a subsequent skill. Simply adjusting the quantity of an assignment will generally be less

effective than altering the nature of the assignment to match the actual student needs.

Differentiated instruction IS rooted in assessment.

Teachers who understand that teaching and learning approaches must be a good match for students look for every opportunity to know their students better. She sees conversations with individuals, classroom discussions, student work, observation, and formal assessment as ways to keep gaining insight into what works for each learner. What they learn becomes a catalyst for crafting instruction in ways that help every student make the most of his or her potential and talents.

In a differentiated classroom, assessment is no longer predominantly something that happens at the end of a unit to determine "who got it." Diagnostic pre-assessment routinely takes place as a unit begins to shed light on individuals' particular needs and interests in relation to the unit's goals. Throughout the unit, systematically and in a variety of ways, the teacher assesses students' developing readiness levels, interests, and approaches to learning and then designs learning experiences based on the latest, best understanding of students' needs. Culminating products, or other means of "final" or summative assessment, take many forms, with the goal of finding a way for each student to most successfully share what he or she has learned over the course of the unit.

Differentiated instruction IS taking multiple approaches to content, process, and product.

In all classrooms, teachers deal with at least three curricular elements: (1) **content**—input, what students learn; (2) **process**—how students go about making sense of ideas and information; and (3) **product**—output, or how students demonstrate what they have learned. These elements are dealt with in depth in Chapters 12, 13, and 14.

By differentiating these three elements, teachers offer different approaches to what students learn, how they learn it, and how they demonstrate what they've learned. What the different approaches have in common is that they are crafted to encourage substantial growth in all students with established learning goals and to attend to pacing and other supports necessary to advance the learning of both the class as a whole and individual learners.

Differentiated instruction IS student centered.

Differentiated classrooms operate on the premise that learning experiences are most effective when they are engaging, relevant, and interesting to students. A corollary to that premise is that all students will not always find the same avenues to learning equally engaging, relevant, and interesting. Further, differentiated instruction acknowledges that later knowledge, skill, and understandings must be built on previous knowledge, skill, and understandings—and that not all students possess the same learning foundations at the outset of a given investigation. Teachers who differentiate instruction in academically diverse classrooms seek to provide appropriately challenging learning experiences for all their students. These teachers realize that sometimes a task that lacks challenge for some learners is frustratingly complex to others.

In addition, teachers who differentiate understand the need to help students develop agency as learners. It's easier sometimes, especially in large classrooms, for a teacher to tell students everything rather than guide them to think on their own, accept significant responsibility for learning, and build a sense of pride in what they do. In a differentiated classroom, it's necessary for learners to be active in making and evaluating decisions that benefit their growth. Teaching students to work wisely and share responsibility for classroom success enables a teacher to work with varied groups or individuals for portions of the day because students are self-directing. It also prepares students far better for life now and in the future.

Differentiated instruction IS a blend of whole-class, group, and individual instruction.

There are times in all classrooms when whole-class instruction is an effective and efficient choice. It's useful for establishing common understandings, for example, and provides the opportunity for shared discussion and review that can build a sense of community. As illustrated in Figure 1.1, the pattern of instruction in a differentiated classroom could be represented by mirror images of a wavy line, with students coming together as a whole group to begin a study, moving out to pursue learning in small groups or individually, coming back together to share and make plans for additional investigation, moving out again for more work, coming together again to share or review, and so on.

Figure 1.1 The Flow of Instruction in a Differentiated Classroom A differentiated classroom is marked by a repeated rhythm of whole-class preparation, review, and sharing, followed by opportunity for individual or 1 Teacher pre-assesses small-group exploration, extension, and production. students on upcoming concepts/skills. 3 Teacher models some ways to think about skills involved. (11) Students work (4) Students in self-selected, work in small interest-based heterogeneous (7) Class reviews groups to try out groups on new content. ideas from exploratory task. previous day. (9) Students (5) Class comes share their together to ideas/solutions share ideas, in whole-class pose questions. discussion. (2) Teacher 6 Students 10 Teacher introduces new complete introduces new ideas/ a guick skills, followed by topic/concept to students. formative discussion/modeling. assessment. 8 Students work on assigned readiness-based task, which reflects assessment data.

Differentiated instruction IS "organic" and dynamic.

In a differentiated classroom, teaching is evolutionary. Students and teachers are learners together. While teachers may know more about the subject matter at hand, they are continuously learning about how their students learn. Ongoing collaboration with students is necessary to refine learning opportunities so they're effective for each student. Teachers monitor the match between learner and learning and make adjustments as warranted. And while teachers are aware that sometimes the learner/learning match is less than ideal, they also understand that they can continually make adjustments. This is an important reason why differentiated instruction often leads to more effective learner/learning matches than the mode of teaching that insists that one assignment serves all learners well.

Further, teachers in a differentiated classroom do not see themselves as someone who "already differentiates instruction." Rather, they are is fully aware that every hour of teaching and every day in the classroom can reveal one more way to make the classroom a better environment for its learners. Nor do such teachers see differentiation as "a strategy" or something to do once in a while or when there's extra time. Rather, it is a way of life in the classroom. They do not seek or follow a recipe for differentiation, instead, they combine what they can learn about differentiation from a range of sources with their own professional instincts and knowledge base in order to do whatever it takes to reach each learner.

A Framework to Keep in Mind

As you continue reading about how to differentiate instruction in academically diverse classrooms, keep this framework in mind:

In a differentiated classroom, the teacher proactively plans and carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest, and learning needs.

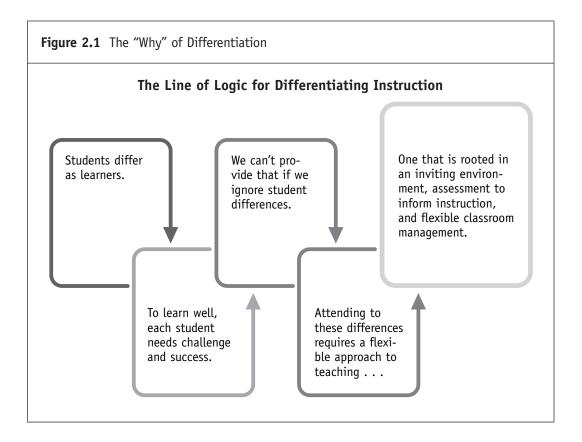


The explanations and examples in this book are presented to help populate this new framework for you as you work to differentiate instruction in your academically diverse classroom. Let's get started with a closer look at the rationale for differentiation.

The Rationale for Differentiating Instruction in Academically Diverse Classrooms

Basic as it may seem, the definition of what "a good education" is varies among educators, parents, politicians, and the citizenry at large. Some say a good education is one that ensures that all students learn specified core information and master basic skills according to a prescribed route, timeline, and even script. Others see it as the near opposite: a good education means students pursue what is meaningful to them and on a timeline defined by the students themselves. In between are many other visions—ones emphasizing preparation for 21st century demands, focused on inquiry, advancing a product orientation, built around community service, and so on. Despite our differences in what we believe a good education to be, we all generally agree on the importance of ensuring all students maximize their capacity as learners within that particular framework. Figure 2.1 provides a basic line of logic supporting differentiated instruction.

In a preponderance of schools and classrooms, the unit of focus is the group as a whole. In those places, to differ from the norm in any significant way is to be an inconvenience—a stressor on the system. One of two "solutions" is commonly applied. Either the inconvenient students remain in academically diverse classrooms with minimal instructional adaptations made to address their needs, or they are separated into "homogeneous" classrooms of peers who "learn like they do." In the former case, students who are lost tend to become more so, and students who are advanced or divergent in their



thinking often become more disenchanted with schoolhouse learning. When the latter course is taken, students who are lost typically find themselves taught as though they have little capacity for anything other than *being* lost. In a homogenous classroom, students who are advanced in learning generally receive more experienced and attentive teachers, but too often they find curriculum that is "harder" without being significantly more engaging.

Differentiation proposes an alternative approach—a classroom that honors and adapts to learner variation while building a "team of learners" who work together to benefit outcomes for the group and each of its members and around curriculum that is designed to be relevant and engaging to young people. Further, differentiation encourages the lifting of ceilings and testing of personal limits and advocates "teaching up," otherwise known as working from a complex curriculum that will challenge advanced learners and providing scaffolding for other students to enable the greatest number possible to access and succeed with the key elements of the complex curriculum and meaning-rich learning experiences.

Considered alongside the more standard approaches to attending to students' varied learning needs, differentiation is far more likely to provide virtually all students equity of access to a high-quality education. This is because it's rooted in our best understanding of how people learn.

How People Learn Best: The Engine That Drives Effective Differentiation

We actually know a great deal about how people learn. For example, we know that each learner must make meaning of what teachers seek to teach. We know that the meaning-making process is influenced by the student's prior understandings, interests, beliefs, how the student learns best, and the student's attitudes about self and school (National Research Council, 1999).

We also know that learning takes place most effectively in classrooms where knowledge is clearly and powerfully organized (Erickson, 2006; National Research Council, 1999; Wiggins & McTighe, 2005), students are highly active in the learning process (Hattie, 2009, 2012; McTighe & Wiggins, 2013; National Research Council, 1999; Sousa, 2011), assessments are rich and varied and yield meaningful feedback (Black & Wiliam, 2010; Hattie, 2009, 2012; National Research Council, 1999), and students feel a sense of safety and community (Hattie, 2009, 2012; National Research Council, 1999).

We know that learning happens best when a learning experience pushes the learner a bit beyond his or her independence level. If the challenge is too little, as when a student continues to work on understandings and skills already mastered, little if any new learning takes place. If the challenge is too great, and tasks are far beyond a student's current point of mastery, the outcome is frustration, not learning (Sousa & Tomlinson, 2011; Vygotsky, 1986; Willis, 2006).

In addition, we know that motivation to learn increases when the learner feels a kinship with, interest in, or passion for the subject (Piaget, 1978; Wolfe, 2010). Further, we know that people go about learning in a wide variety of ways, influenced by how our individual brains are wired, by our culture, and by our gender (Delpit, 1995; Gardner, 1983; Gay, 2013; Ladson-Billings, 1995; Noddings, 2005; Sternberg, 1985; Tannen, 2013).

In the end, we can draw at least three powerful conclusions about teaching and learning:

- 1. While the image of a "standard issue" student is comfortable, it denies most of what we know about the wide variance that inevitably exists within any group of learners.
- 2. There is no substitute for highly relevant, meaning-rich, student-focused curriculum and instruction in every classroom.
- 3. Even in the presence of high-quality curriculum and instruction, we will fall woefully short of the goal of helping each learner build a good life through the power of education unless we consistently seek to understand that learner, understand that learner's progression of growth in critical content and skills, and build bridges between the learner and learning.

These three conclusions are the engine that drives effective differentiation. They, along with our best knowledge of what makes learning happen, are non-negotiables in a classroom where a teacher sets out awaken all children to the mystery and power of knowing about the world.

Academically diverse classrooms in which teachers are ambiguous about learning goals, exhibit and evoke little passion, cast themselves as the centerpiece of learning, and lack responsiveness to student variance exhibit little understanding of these various learning realities. They lack the foundation of powerful learning, dynamic curriculum and instruction, and the intention to connect each learner's experiences with that curriculum and instruction. Thus, these classrooms operate as though understanding can be achieved through ambiguity and as though fires of inquiry will be ignited in the absence of a flame. They appear to accept as given that all students will learn the same things in the same way over the same time span simply because content—meaningful or not—is laid out before them.

Ensuring clarity about where students should end up as a result of a sequence of learning is fundamental to educational success. Understanding the students we ask to learn is foundational to creating learning opportunities that enliven them. Remembering that we cannot reach the mind we do not engage ought to be a mandate for instructional planning. Offering multiple and varied avenues to learning is a hallmark of the kind of professional quality that denotes expertise. Our students, each of them, are individual reminders that we can never stop attending to either the art or the science of teaching.

The focus of this book is the refinement of high-quality, alluring instruction that we call "differentiation." However, this book also calls for clarity and quality in what we differentiate. It is an exercise in futility to try to meet the needs of learners from a base of low-quality, incoherent curriculum and rote instruction. Such approaches, at best, provide learners with several varieties of gruel that will fall short of nourishing virtually all of them.

Looking at the Classroom Through Many Eyes

Their teacher cares about her work. She likes kids, and she likes teaching. She works hard and is proud of her profession. The kids know that, and they like her for all those things. But the day too often seems long for many of them. Sometimes their teacher knows it. Often she does not.

Rama does not understand English well. No one understands her language either, as far as she can tell. The teacher smiles at her and assigned a classmate to help her. That classmate does not speak her language. The classmate smiles too. Sometimes smiles help. Sometimes they seem like music without sound. In math, she understands more. Numbers carry fewer hidden meanings than words. No one expects her to understand, however, and so no one asks her to share her thinking about the problems. That's OK, she thinks, because if she tried, she wouldn't have the words to talk about her numbers. And yet, she's disappointed.

Santiago wants to read aloud, wants to ask for more books about the people in history, wants to add his questions to the ones the other kids ask in discussions. He doesn't, though. His friends are down on school. It's not for kids like us, they say. Where would grades get you? they ask. Maybe they're right. He knows he won't go to college or get a big-deal job . . . but he secretly thinks about it. And he wants to know things. But it's hard to ask.

Abby reads her mom's books at home. She reads her dad's newspapers online. She and her friends write and produce a neighborhood play every summer. Lots of people come. In school, she's "learning" 4th grade spelling words. She gets As on the tests. She gets As on everything. Still, she doesn't work hard in school like she does when she's getting the plays ready. This makes her feels dishonest somehow. She makes up stories in her head while she waits for other students to learn. They try hard and don't get As. That makes her feel dishonest, too.

Noah hates reading. He misbehaves sometimes, but it's not that he wants to. He's just tired of seeming stupid in front of everyone. He thinks he sounds like the dumbest kid in the class when he tries to reads aloud. The weird thing is that he understands what the pages are about when somebody else reads them. How can you not be able to read something but still understand it? And how can you be a normal 4th grader and not be able to read?

Livvie knows she doesn't learn like the other kids do. She knows people think she's "slow." She has a special teacher who comes to class to help her or takes her to a special room to learn things. She likes that teacher. She likes her main teacher, too. But she doesn't like the fact that having two teachers makes her feel different. She doesn't like the way her peers look at her when she leaves to go to the special room with the special teacher. She doesn't like that what she studies there seems so different from what everyone else in her "real" class studies. She doesn't like feeling like she's on the outside so much of the time.

Daniel likes coming to school because people there don't yell all the time. Nobody hits at school—or if they do, they get in trouble. There are things to play with at school. His teacher smiles. She says she's glad he's there. He's not sure why. He doesn't do well. He wants to, but it's hard to concentrate. He worries about his mom. He worries about his sister. He forgets to listen. At home, it's hard to do homework. He gets behind. He wonders how he'll ever catch up.

Anthony keeps listening in class for questions that sound like something a person in his house would ask. In the books they read, he keeps looking for language that sounds like his and for people he can relate to. He keeps waiting to see how what they're learning will make a difference in his life. He doesn't mind learning. He just wants to know why. He's restless.

Anna is curious. She asks a lot of questions at home. There are so many things she wants to learn about. (Who invented trees? Why are the Jedis good and the Sith bad? Why do people from different parts of the world have different-colored skin?) These things almost never come up at school.

Their teacher works hard, and she cares about them. They know that. But sometimes—many times—it seems like she thinks they are all the same person. Sometime they feel bad or embarrassed for falling behind, or having a question, or wanting to try things a different way, or being bored. Sometimes they wonder why they have to spend so much time with so

many tests. Sometimes it feels like school is like a shoe that's shaped for somebody else's foot.

A good way to begin an exploration of differentiated teaching is to look at the classroom through the eyes of four broad categories of students: advanced learners, learners who struggle, English language learners, and learners "in the middle." These categories, of course, are fluid; students can and do move among them at varied points in their academic careers. Nevertheless, we know that much of a student's experience in the classroom is colored by readiness to learn particular content at a particular time. Accordingly, these categories can help us focus our thinking about the readiness-related needs that academically diverse learners bring with them to school on any given day.



The next chapter will briefly examine needs of students in these four broad categories, looking at ways in which teachers in differentiated classrooms might adjust their practices to meet these needs and teach these students most effectively.

References

- Altintas, E., & Ozdemir, A. S. (2015). The effect of the developed differentiation approach on the achievements of the students. *Eurasian Journal of Educational Research*, 61, 199–216. doi: 10.14689/ejer.2015.61.11
- Ayers, W. (2010). To teach: The journey of a teacher (3rd ed.). New York: Columbia University Press.
- Berger, R. (2003). An ethic of excellence: Building a culture of craftsmanship with students. Portsmouth, NH: Heinemann.
- Bess, J. (1997). Teaching well and liking it: Motivating faculty to teach effectivity. Baltimore, MD: The Johns Hopkins University Press.
- Black, P., & Wiliam, D. (2010). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 92(1), 81–90.
- Blad, E., (2015, January 20). New milestone: Majority of public school students now considered low-income [blog post]. *Rules for Engagement*. Retrieved from http://blogs.edweek.org/edweek/rulesforengagement/2015/01/new_milestone_majority_of_public_school_students_now_considered_low-income.html
- Brandt, R. (1998). Powerful learning. Alexandria, VA: ASCD.
- Clark, B. (1992). Growing up gifted. New York: Macmillan.
- Clarke, J. (1994). Pieces of the puzzle: The jigsaw method. In S. Sharan (Ed.), *Handbook of cooperative learning methods* (pp. 34–50). Westport, CT: The Greenwood Press.
- Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). *Should we be using learning styles?* What research has to say to practice. London: The Learning and Skills Research Centre.
- Cohen, E., & Lotan, R. (2014). Designing groupwork: Strategies for the heterogeneous classroom (3rd ed.). New York: Teachers College Press.
- Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper & Row.
- Dack, H., & Tomlinson, C. (2015, March). Inviting all students to learn. *Educational Leadership*, 72(6), 10–15.
- Daniels, H. (2002). Literature Circles: Voice and choice in the student-centered classroom. York, ME: Stenhouse Publishers.
- Darling-Hammond, L., & Bransford, J. (Eds.) (2007). Preparing teachers for a changing world: What teachers should learn and be able to do. Hoboken, NJ: John Wiley & Sons.
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum.
- Delpit, L. (1995). Other people's children: Cultural conflict in the classroom. New York: The New Press.
- Dewey, J. (1938). Experience and education. New York: Macmillan.
- Dweck, C. (2008). Mindset: The new psychology of success. New York: Ballantine.
- Earl, L. (2003). Assessment as learning. Thousand Oaks, CA: Corwin.
- Education World. (2013a, March). Creating a WebQuest: It's easier than you think. Retrieved from http://www.educationworld.com/a_tech/tech/011.shtml
- Education World. (2013b, January). Literature Circles build excitement for books! Retrieved from http://www.educationworld.com/a_curr/curr259.shtml

- Education World. (2013c, June). The "Jigsaw" technique. Retrieved from http://www.education-world.com/a_curr/strategy/strategy/036.shtml
- Emdin, C. (2016). For white folks who teach in the hood . . . and the rest of y'all too: Reality pedagogy and urban education. Boston: Beacon.
- Erickson, H. (2006). Concept-based instruction for the thinking classroom. Thousand Oaks, CA: Corwin.
- Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.
- Gardner, H. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.
- Gay, G. (2013). Culturally responsive teaching (2nd ed.). New York: Teachers College Press.
- Gilligan, C. (1982). In different voice: Psychological theory and women's development. Cambridge, MA: Harvard University Press.
- Ginsburg, D. (2015, June 1). Ability grouping: Better for students or easier for schools? [blog post]. *Education Week Teacher*. Retrieved from http://blogs.edweek.org/teachers/coach_gs_teach-ing_tips/
- Goddard, R., Tschannen-Moran, M., & Hoy, W. (2001). A multilevel examination of the distribution and effects of teacher trust in students and parents in urban elementary schools. *Elementary School Journal*, 10(1), 3–17.
- Graff, L. (2014). Absolutely almost. New York: Philomel Books.
- Grigorenko, E., & Sternberg, R. (1997). Styles of thinking, abilities, and academic performance. *Exceptional Children*, 63, 295–312.
- Guskey, T., & Bailey, J. (2010). Developing standards-based report cards. Thousand Oaks, CA: Corwin.
- Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. New York: Routledge.
- Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. New York: Routledge.
- Hayman, S. (2016, May 31). Two receive Teachers with Heart Award. ArkansasOnline: Three Rivers Edition. Retrieved from http://www.arkansasonline.com/news/2016/may/31/2-receive-teachers-heart-award/
- Hopfenberg, W., & Levin, H. (1993). The accelerated schools resource guide. Hoboken, NJ: John Wiley & Sons.
- Kelly, R. (2000). Working with WebQuests: Making the web accessible to students with disabilities. *Teaching Exceptional Children*, 32(6), 4–13.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. American Educational Research Journal, 32(3), 465–491.
- Ladson-Billings, G. (2009). The dreamkeepers: Successful teachers of African American children. San Francisco: John Wiley & Sons.
- Lisle, A. (2006, September 6–9). Cognitive neuroscience in education: Mapping neuro-cognitive processes and structures to learning styles, can it be done? Paper presented at the British Educational Research Association Annual Conference, University of Warwick, Coventry. Retrieved from http://www.leeds.ac.uk/educol/documents/157290.htm
- McTighe, J., & Wiggins, G. (2013). Essential questions: Opening doors to student understanding. Alexandria, VA: ASCD.
- Means, B., Chelemer, C., & Knapp, M. (Eds.). (1991). Teaching advanced skills to at-risk learners: Views from research and practice. San Francisco: Jossey-Bass.
- National Research Council. (1999). How people learn: Brain, mind, experience, and school. Washington, DC: National Academies Press.
- Noddings, N. (2005). The challenge to care in schools: An alternative approach to education (2nd ed.). New York: Teachers College Press.
- O'Connor, K. (2009). How to grade for learning (3rd ed.). Thousand Oaks, CA: Corwin.
- O'Connor, K. (2016). A repair kit for grading: 15 fixes for broken grades (2nd ed.). Boston: Pearson.

- Office of Special Education & Rehabilitative Services. (2015, December). 37th annual report to Congress on the implementation of the Individuals with Disabilities Education Act: Parts b & c. Washington, DC: U.S. Department of Education. Retrieved from http://www2.ed.gov/about/reports/annual/osep/2015/parts-b-c/37th-arc-for-idea.pdf.
- Olson, K., & Lawrence-Lightfoot, S. (2009). Wounded by school: Recapturing the joy in learning and standing up to old school culture. New York: Teachers College Press.
- Ornstein, R., & Thompson, R. (1984). The amazing brain. Boston: Houghton Mifflin.
- Paschler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2010). Learning styles: Concepts and evidence. Psychological Science in the Public Interest, 9, 105–119.
- Paterson, K. (1981). The gates of excellence: On reading and writing books for children. New York: Elsevier/Nelson Books.
- Piaget, J. (1978). Success and understanding. Cambridge, MA: Harvard University Press.
- Prentis, P. (2016, January). Anxiety in the classroom: Another learning disability? AMLE Newsletter. Retrieved from http://www.amle.org/BrowsebyTopic/WhatsNew/WNDet/TabId/270/ArtMID/888/ArticleID/579/Anxiety-in-the-Classroom%e2%80%94Another-Learning-Disability.aspx
- Riener, C., & Willingham, D. (2010, September/October). The myth of learning styles. *Change*. Retrieved from http://www.changemag.org/archives/back%20issues/september-october%20 2010/the-myth-of-learning-full.html
- Sousa, D. (2011). How the brain learns (4th ed.). Thousand Oaks, CA: Corwin.
- Sousa, D., & Tomlinson, C. (2011). Differentiation & the brain: How neuroscience supports the learner-friendly classroom. Bloomington, IN: Solution Tree.
- Sternberg, R. (1985). Beyond IQ: A triarchic theory of human intelligence. New York: Cambridge University Press.
- Sternberg, R., Torff, B., & Grigorenko, E. (1998). Teaching triarchically improves student achievement. *Journal of Educational Psychology*, 90, 374–384.
- Stevenson, C. (1992). Teaching ten to fourteen year olds. New York: Longman.
- Storti, C. (1999). Figuring foreigners out. Yarmouth, MA: Intercultural Press.
- Stronge, J. (2007). Qualities of effective teachers (2nd ed.). Alexandria, VA: ASCD.
- Sullivan, M. (1993). A meta-analysis of experimental research studies based on the Dunn and Dunn learning styles model and its relationship to academic achievement and performance. *Dissertation Abstracts International*, 54-08A.
- Tannen, D. (2013). You just don't understand: Women & men in conversation. New York: Harper Collins.
- Tomlinson, C. (1993). Independent study: A flexible tool for encouraging personal and academic growth in middle school learners. *Middle School Journal*, 25(1), 55–59.
- Tomlinson, C., & Imbeau, M. (2010). Leading and managing a differentiated classroom. Alexandria, VA: ASCD.
- Tomlinson, C., & Moon, T. (2013). Assessment & student success in a differentiated classroom. Alexandria, VA: ASCD.
- Vygotsky, L. (1986). Thought and language (A. Kozulin, Ed. & Trans.). Cambridge, MA: MIT Press. (Original work published 1934.)
- Walkington, C, Milan, S., & Howell, E. (2014). What makes ideas stick? The Mathematics Teacher, 108(4), 272–279.
- Watanabe, M. (2012). "Heterogenius" classrooms—Behind the scenes: Detracking math & science—A look at groupwork in action. New York: Teachers College Press.
- Wiggins, G. (1998). Educative assessment: Designing assessment to inform and improve student performance. San Francisco: Jossey-Bass.
- Wiggins, G., & McTighe, J. (2005). *Understanding by design* (Expanded 2nd ed.). Alexandria, VA: ASCD.

- Wiliam, D. (2011). Embedded formative assessment. Bloomington, IN: Solution Tree.
- Williams, K., & Williams, C. (2011). Five key ingredients for improving student motivation. Research in Higher Education Journal, 11. Retrieved from http://scholarsarchive.library.albany.edu/cgi/viewcontent.cgi?article=1000&context=math_fac_scholar
- Willis, J. (2006). Research-based strategies to ignite student learning. Alexandria, VA: ASCD.
- Willis, J. (2007). Brain-friendly strategies to ignite student learning: Insights from a neurologist and classroom teacher. Alexandria, VA: ASCD.
- Wolfe, P. (2010). Brain matters: Translating research into classroom practice (2nd ed.). Alexandria, VA: ASCD.

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Tomlinson is currently William Clay Parrish Jr. Professor and Chair of Educational Leadership, Foundations, and Policy at the University of Virginia's Curry School of Education, where she is also co-director of the university's Institutes on Academic Diversity. She works with both graduate and undergraduate students, particularly in the areas of curriculum and differentiated instruction. She was named Outstanding Professor at Curry in 2004 and received an All-University Teaching Award in 2008. In 2015, Education Week's Edu-Scholar Public Rankings placed Tomlinson 16th on its list of the United States' most influential higher education faculty members in terms of shaping dialogue about education and 4th in the field of educational psychology.

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