

Differentiated Instruction: A Primer

By Sarah D. Sparks

How can a teacher keep a reading class of 25 on the same page when four students have dyslexia, three students are learning English as a second language, two others read three grade levels ahead, and the rest have widely disparate interests and degrees of enthusiasm about reading?

What is Differentiated Instruction?

“Differentiated instruction”—the process of identifying students’ individual learning strengths, needs, and interests and adapting lessons to match them—has become a popular approach to helping diverse students learn together. But the field of education is filled with varied and often conflicting definitions of what the practice looks like, and critics argue it requires too much training and additional work for teachers to be implemented consistently and effectively.

Differentiation has much in common with many other instructional models: It has been compared to response-to-intervention models, as teachers vary their approach to the same material with different students in the same classroom; data-driven instruction, as individual students are frequently assessed or otherwise monitored, with instruction tweaked in response; and scaffolding, as assignments are intended to be structured to help students of different ability and interest levels meet the same goals.

Federal education laws and regulations do not generally set out requirements for how schools and teachers should “differentiate” instruction. However, in its **2010 National Education Technology Plan**, the U.S. Department of Education lays out a framework that places differentiated teaching under the larger umbrella of “personalized learning,” instruction tailored to students’ individual learning needs, preferences, and interests. This framework assumes that all students in a heterogeneous classroom will have the same learning goals, but:

- **“Individualization”** tailors instruction by *time*. A teacher may break the material into smaller steps and allow students to master these steps at different paces; skipping topics they can prove they have mastered, while getting more help on those that prove difficult. This model has been used in iterations as far back as the late Robert Glaser’s Individually Prescribed Instruction in the 1970s, an approach which pairs diagnostic tests with objectives for mastery that is intended to help students progress through material at their own pace.
- **“Differentiation”** tailors instruction by *presentation*. A teacher may vary the method and assignments covering the material to adjust to students’ strengths, needs, and interests. For example, a teacher may allow an introverted student to write an essay on a historical topic while a more outgoing student gives an oral presentation on the same subject.

That distinction is accepted by some, though far from all, in the field.

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Differentiated Instruction Definition
: the process of identifying students’ individual learning strengths, needs, and interests and adapting lessons to match them

The ambiguity has led to widespread confusion and debate over what differentiated instruction looks like in practice, and how its effectiveness can be evaluated.

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For example, a 2005 study for the National Research Center on Gifted and Talented, which **tracked implementation of "differentiation" over three years**, found that the "vast majority" of teachers never moved beyond traditional direct lectures and seat work for students.

"Results suggest that differentiation of instruction and assessment are complex endeavors requiring extended time and concentrated effort to master," the authors conclude. "Add to this complexity current realities of school such as large class sizes, limited resource materials, lack of planning time, lack of structures in place to allow collaboration with colleagues, and ever-increasing numbers of teacher responsibilities, and the tasks become even more daunting."

Evolution of the Concept

Differentiated instruction as a concept evolved in part from instructional methods advocated for gifted students and in part as an alternative to academic "tracking," or separating students of different ability levels into groups or classes. In the 1983 book, *Individual Differences and the Common Curriculum*, Thomas S. Popkewitz discusses differentiation in the context of "Individually Guided Education, ... a management plan for pacing children through a standardized, objective-based curriculum" that would include small-group work, team teaching, objective-based testing, and monitoring of student progress.

Carol Ann Tomlinson, a co-director of the Institutes on Academic Diversity at the Curry School of Education at the University of Virginia, and the author of *The Differentiated Classroom: Responding to the Needs of All Learners*, 2nd Edition (ASCD, 2014) and *Assessment and Student Success in a Differentiated Classroom* (ASCD, 2013) argues that differentiation is, at its base, not an approach but a basic tenet of good instruction, in which a teacher develops relationships with his or her students and presents materials and assignments in ways that respond to the student's interests and needs.

Differentiated Instruction Strategies

In theory—though critics allege not in practice—differentiation does not involve creating separate lesson plans for individual students for a given unit.

Ms. Tomlinson **argues that differentiation requires more than creating options** for assignments or presenting content both graphically and with hands-on projects, for example. Rather, to differentiate a unit on Rome, a teacher might consider both specific terms and overarching themes and concepts she wants students to learn, and offer a series of individual and group assignments of various levels of complexity to build those concepts and allow students to demonstrate their understanding in multiple ways, such as journal entries, oral presentations, creating costumes, and so on. In different parts of a unit students may be working with students who share their interests or have different ones, and with students who are at the same or different ability levels.

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During the 1990s, teachers were also encouraged to present material differently according to a student's "learning style"—for example, visual, auditory, or kinesthetic. But while there have been studies that show students remember more when the same material is presented and reinforced in multiple ways, recent research reviews **have found no evidence that individual students** can be categorized as learning best through a single type of presentation.

Rick Wormeli, an education consultant and the author of *Fair Isn't Always Equal: Assessment and Grading in the Differentiated Classroom*, instead suggests in a 2011 essay in the journal *Middle Ground* **that teachers differentiate based on "learner profiles"**: "A learner profile is a set of observations about a student that includes any factor that affects his or her learning, including family dynamics, transiency rate, physical health, emotional health, comfort with technology, leadership qualities, personal interests, and so much more."

Impacts of Technology

Differentiated and personalized instructional models have also evolved with technological advances, which make it easier to develop and monitor education plans for dozens of students at the same time. The influence of differentiation on school-level programs can be seen in "early warning systems" and student "dashboards" that aim to track individual student performance in real time, as well as initiatives in some schools to develop and monitor individualized learning plans with the student, his or her teachers, and parents.

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Advocates of hybrid education models, **such as the "flipped classroom"**—in which students watch lectures and read material at home and perform practice that would normally be homework during class time—have suggested this could help teachers differentiate by recording and archiving different lectures that students could watch and rewatch as needed, and providing more one-on-one time during class.

Professional Development

By any account, differentiation is considered a complex approach to implement, requiring extensive and ongoing professional development for teachers and administrators.

In the 2005 longitudinal study that found no consistent implementation of differentiation, researchers noted that "many aspects of differentiation of instruction and assessment (e.g., assigning different work to different students, promoting greater student independence in the classroom) challenged teachers' beliefs about fairness, about equity, and about how classrooms should be organized to allow students to learn most effectively. As a result, for most teachers, learning to differentiate entailed more than simply learning new practices. It required teachers to confront and dismantle their existing, persistent beliefs about teaching and learning, beliefs that were in large part shared and reinforced by other teachers, principals, parents, the community, and even students."

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In the 2009 book, *Professional Development for Differentiating Instruction*, Cindy A. Strickland notes that most schools do not provide sufficient training for new and experienced teachers in differentiating instruction.

Ms. Tomlinson said that teachers can begin to differentiate instruction simply by learning more about their students and trying to tailor their teaching as much as they find feasible. "Every significant endeavor seems too hard if we look only at the expert's product. ... The success of all these 'seasoned' people stemmed largely from three factors: They started down a path. They wanted to do better. They kept working toward their goal."

Including students of disparate abilities and interests also requires the teacher to rethink expectations for all students: "If a teacher uses flexible grouping lesson by lesson and does not assume a student has prior knowledge because he is a 'higher' student but really assesses and groups, based on need sometimes and other times by interest, the students will get what they need," Melinda L. Fattig, a nationally recognized educator and a co-author of the 2008 book *Co-Teaching in the Differentiated Classroom*, told *Teacher* magazine that year.

Critiques

In practice, differentiation is such a broad and multifaceted approach that it has proven difficult to implement properly or study empirically, critics say.

In a **2010 report by the research group McREL**, author Bryan Goodwin notes that “to date, no empirical evidence exists to confirm that the total package (e.g., conducting ongoing assessments of student abilities, identifying appropriate content based on those abilities, using flexible grouping arrangements for students, and varying how students can demonstrate proficiency in their learning) has a positive impact on student achievement.” He adds: “One reason for this lack of evidence may simply be that no large-scale, scientific study of differentiated instruction has been conducted.” However, Mr. Goodwin pointed to the 2009 book *Visible Learning*, which synthesized studies of more than 600 models of personalizing learning based on student interests and prior performance, and found them not much better than general classroom instruction for improving students’ academic performance.

Both in planning time and instructional time, differentiation takes longer than using a single lesson plan for a given topic, and many teachers attempting to differentiate have reported feeling overwhelmed and unable to reach each student equally.

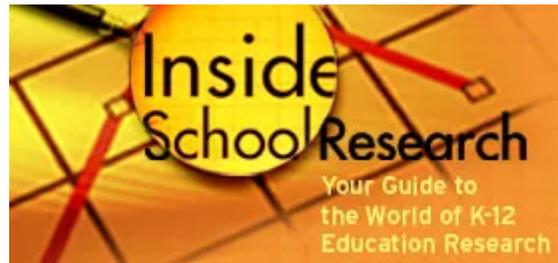
In a **2010 Education Week Commentary essay**, Michael J. Schmoker, the author of the 2006 book, *Results NOW: How We Can Achieve Unprecedented Improvements in Teaching and Learning*, says attempts to differentiate instruction frustrated teachers and “seemed to complicate teachers’ work, requiring them to procure and assemble multiple sets of materials” leading to “dumbed-down” teaching.

Likewise, some advocates of gifted education, such as James R. Delisle, **have argued that advanced students still are not challenged enough** in a differentiated environment, which may vary in the presentation of material but not necessarily in the pace of instruction. He argues that “differentiation in practice is harder to implement in a heterogeneous classroom than it is to juggle with one arm tied behind your back.”

“There is no one book, video, presenter, or website that will show everyone how to differentiate instruction. Let’s stop looking for it. One size rarely fits all. Our classrooms are too diverse and our communities too important for such simplistic notions,” Mr. Wormeli **said in an interview with Education Week blogger Larry Ferlazzo**.

“Instead, let’s realize what differentiation really is: highly effective teaching, which is complex and interwoven; no one element defining it.”

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