Rethinking differentiation –

Using teachers' time most effectively

Are we overemphasizing, overthinking, and overusing differentiation when a different approach can focus on learning, harness teacher teamwork, and reach all children without exhausting teachers?

By Kim Marshall

It's an article of faith that teachers should differentiate their instruction — that is, teach in ways that meet their students' individual needs. Every teacher-evaluation rubric includes the idea, and administrators often look for differentiation when they visit classrooms. But what exactly are they looking for? Do they know good differentiation when they see it? And given the work involved in meeting the needs of 20 to 30 students, when has a teacher differentiated enough? Researchers haven't given much guidance on these questions, and there's plenty of confusion and misunderstanding in schools. Let's see if we can unpack this important issue.

For starters, what is the problem to which differentiation is the solution? Clearly it's the fact that students walk into school with a wide range of differences in prior knowledge, vocabulary, reading proficiency, fluency in English, attitudes toward school, mindset about learning, tolerance of frustration and failure, learning-style preferences, special needs, and distracting things on their minds.

The differentiation challenge has been with us for some time — picture a one-room schoolhouse on the prairie with the teacher trying to meet the needs of students from age 6 to 16. With the advent of mass education, the trend has been toward more homogenous classrooms, with students sorted by age, by achievement, and by special needs. Nevertheless, most teachers today still face a wide range of student differences. Trying to keep a heterogeneous class on the same page — whether by lecturing, assigning the same 25 spelling words to all students, or having everyone read "Romeo and Juliet" — tends to be inefficient. All too often, higher-achieving students are bored and below-level students become increasingly frustrated. A teacher aiming for the middle is lucky if half the class achieves mastery, and as students move through the grades, achievement gaps of class, racial, and ethnic differences get wider.

From this perspective, differentiation would seem to be a moral imperative. Surely all teachers should assess students' individual needs and learning styles, customize instruction to those needs, and get students working at their Vygotsky sweet spot of difficulty. Carol Ann Tomlinson, the leading expert on the issue, puts it this way:

> Differentiation is effective attention to the learning needs of each student. The purpose of developing a differentiated classroom is to make sure there's opportunity and support for each student to learn essential knowledge and skills as effectively and efficiently as possible. The key is getting to know each student and orchestrating the learning environment, curriculum, assessments, and instruction so all students learn what's being taught (personal communication, 2016).

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Tomlinson and others go a step further, suggesting that teachers should differentiate by content (what's being taught), by process (how it's taught), and by product (how students are asked to demonstrate their learning).

The critique

The goals of differentiation are laudable, but in recent years, serious questions have been raised about its practicality and efficacy, among them: Can a teacher really tailor instruction for 20 to 30 different students? Does trying to do so exhaust teachers, pushing some out of the profession? Might gearing the curriculum to students' current levels replicate tracking under a different name? Does differentiated instruction spoon-feed students, undermining self-reliance and initiative? Does differentiation balkanize classrooms, depriving students of group cohesion, collective experiences, and interaction with their peers? And finally, has research demonstrated that differentiation is effective?

In a provocative 2010 article in *Education Week*, Mike Schmoker asserted there was no credible research evidence that differentiation works. In his view, the case for differentiation is based "largely on enthusiasm and a certain superficial logic" (p. 22). In classrooms he'd visited around the country, Schmoker described how differentiation:

> [S]eemed to complicate teachers' work, requiring them to procure and assemble multiple sets of materials. I saw frustrated teachers trying to provide materials that matched each student's or group's presumed ability level, interest, preferred 'modality,' and learning style. The attempt often devolved into a frantically assembled collection of worksheets, coloring exercises, and specious 'kinesthetic' activities . . . With so many groups to teach, instructors found it almost impossible to provide sustained, properly executed lessons for every child or group (p. 22).

What disturbed Schmoker most was seeing classrooms where differentiation was a vehicle for teachers to expect less of some students. "In English," he said, "creative students made things or drew pictures. Analytic students got to read and write" (2010, p. 22).

Responding to Schmoker's article, Tomlinson and David Sousa acknowledged that some teachers have taken the idea too far. Trying to customize worksheets and coloring exercises to students'

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Well-intentioned, kind-hearted, dedicated teachers often fall into the trap of dysfunctional rescuing – helping students too much.

supposed learning styles, they said, is "regrettable and damaging" (Tomlinson & Sousa, 2010, p. 28). Tomlinson and Sousa also agreed with Schmoker on the importance of clear objectives, high standards, and frequent checks for understanding followed by appropriate instructional adaptations. But they defended differentiation's track record, citing research evidence that students learn better when the work is at the right level of difficulty, personally relevant, and appropriately engaging.

This rejoinder hardly resolved the matter. John Hattie's comprehensive meta-analysis, *Visible Learning* (2008), ranks 138 classroom instructional variables and puts individualization (roughly synonymous with differentiation) 100th from the top — with an effect size of only 0.23. Cognitive psychologist Daniel Willingham debunks the idea of catering to students' individual learning styles (2005). And professional development guru Jon Saphier calls differentiation a "low-impact strategy" that's not the best target for professional development if other fundamentals aren't in place (personal communication, 2015). The debate continues, leaving many teachers and principals unsure about what's best for students.

Reframing the issue

Let's step back and analyze the challenge of teaching heterogeneous classrooms from a broader perspective. Consider these 12 instructional scenarios:

- A college professor gives a lecture to 700 students.
- A 6th-grade class discusses a bullying incident.
- A group of 2nd graders does an experiment with batteries and bulbs.
- First graders sprawl on a rug engrossed in books they chose.
- High school biology students work individually or in groups on a "layered" unit, choosing whether to do specific work for a C, additional work for a B, or higher-level work for an A.
- Eighth graders watch a film about the Holocaust.
- Seventh graders read the same article on climate change at five different reading levels using the web site NewsELA (https://newsela.com/).
- Fifth graders use a computer program that adapts the level of difficulty to their responses.
- A Reading Recovery teacher tutors a struggling 1st grader for 30 minutes a day.
- A middle school physical education class does stretching and aerobic exercises in unison.
- Kindergartners paint with watercolors with encouragement and feedback from the teacher.
- A docent at a city art museum teaches visiting 10th graders about a Renoir masterpiece.

How much differentiation is there in each scenario? Using the conventional definition, all the way from zero in the college lecture and physical education class to 100% with one-on-one tutoring and personalized computer programs.

But here's a different question: In each situation, what is the potential for learning? That depends on two things: What were students in each scenario supposed to be learning? And how well did the teacher handle instruction? Even one-on-one tutoring can be off-track on the curriculum and produce bored, confused, and alienated students. But handled skillfully, each scenario has the potential for high levels of appropriate learning. In the 6th-grade discussion, the key variables would be the teacher's skill at involving students, guiding the discussion, and listening. In the batteries-and-bulbs lesson, learning would depend on whether the teacher set up just the right experiment and then moved around the class observing and prompting. With one-on-one tutoring, we'd want to know the quality of the tutor-student relationship. And in the physical education class, we'd realize that aerobic warm-ups are helpful for all students but especially for those who are overweight or hyperactive.

A big takeaway from all this: Differentiation is just one of a number of factors in effective instruction. The problem with observing a class and asking, Is it differentiated? (or looking for any specific item on a checklist of good teaching) is that it runs the risk of missing the forest for the trees. Wouldn't it be better to ask two broader questions (tip of the hat to Rick DuFour):

- What are students supposed to be learning?
- Are all students mastering it?

Embedded in these questions are all the variables that research tells us will produce high levels of student learning: appropriate cognitive and noncognitive goals for the year, the curriculum unit, and the lesson; a positive classroom culture; instructional strategies that will best convey the content; the right balance of whole-class, small-group, individual, and digital experiences; frequent checking for understanding; a clear standard for mastery (usually 80%); effective use of assessment data to fine-tune teaching; and follow-up with students below mastery.

With this broad focus on learning intentions and student learning, teachers' work (and principals' support and evaluation of that work) falls logically into three phases:

- Unit and lesson planning;
- Delivery of instruction; and
- Follow-up with unsuccessful students.

Let's look at each one with an eye to a manageable teacher workload, teacher teamwork, and the orchestrating role of school leaders.

Phase #1: Planning units and lessons

A good curriculum unit plan — ideally crafted by a team of same-grade/same-subject teachers — has several key elements: relevant external standards; clarity on what students should ultimately know, be able to do, and understand; a preassessment that helps anticipate misconceptions and possible learning problems; essential questions to guide students to the key understandings; a lesson-by-lesson game plan of well-chosen learning experiences; on-the-spot and summative assessments; and a "hook" to grab students' interest at the outset. For unit planning, the Wiggins & McTighe *Understanding by Design* backward-planning protocol is widely used and admired.

There are many different ways to teach well; we want students to have a variety of learning situations. Differentiation is just one of a number of factors in effective instruction.

For lesson planning (ideally done the afternoon or evening before, building on the learning outcomes of the previous lesson and keeping the ultimate goals in sight), the most helpful conceptual tool is Universal Design for Learning. The essence of UDL is finding ways to make the content accessible to as many students as possible. A well-crafted lesson has clear goals; thoughtful task analysis; chunked learning; modalities appropriate to the content — A demonstration? Hands-on experiment? A lecture? A textbook passage? Group work? A film? A field trip? A visiting speaker? Internet research? — links to students' interests and experiences; novel experiences to spark long-term passions; thoughtful use of whole-class, small-group, and individual work; assessments to check for understanding; a Plan B if students don't get it; accommodations and modifications for students with special needs (including assistive technology if needed); and perhaps texts at different levels and student choice of projects and measures of learning.

Daniel Willingham (2005) says teachers need to find the right modality for the subject matter being taught. For example, lessons on atomic structure could include students building models of atoms and molecules with marshmallows and toothpicks; students studying the Civil War could work with maps and Matthew Brady photos and watch the film "Gettysburg." "All students learn more," Willingham writes, "when content drives the choice of modality" (2005, p. 31).

The planning phase is where teachers are in greatest danger of falling prey to overthinking, overworking, and burning out. But there are several ways to prevent that:

#1. Divide the work among same-grade or same-subject colleagues (principals play a key role in scheduling common planning time for team collaboration);

#2. Use efficient, well-thought-out templates to streamline unit and lesson planning;

#3. Tap into resources that are available in print and on the internet;

#4. Save and share good unit and lesson plans for future years; and

#5. Know when enough is enough — not letting the perfect be the enemy of the good.

Phase #2: Delivering instruction

Lessons are where the rubber meets the road, and a major factor in student success is a set of in-the-moment moves that effective teachers always have used, among them effective classroom management; knowing students well; being culturally sensitive; making the subject matter exciting; making it relevant; making it clear; taking advantage of visuals and props; involving students and getting them involved with each other; having a sense of humor; and nimbly using teachable moments.

But teaching well is not enough. As British assessment expert Dylan Wiliam says, "When a teacher teaches, no matter how well he or she might design a lesson, what a child learns is unpredictable. Children do not always learn what we teach. That is why the most important assessment does not happen at the end of learning — it happens during the learning when there is still time to do something with the information" (Rubin, 2011). Wiliam cites voluminous research proving that frequently checking for understanding and using students' responses to fix learning problems in real time is one of the most important factors in student achievement. Fortunately, there are lots of low-tech and high-tech ways to do this, among them dry-erase boards; whole-class response systems; asking probing questions (*What makes you say that?*); having students think, write, and pair-share; cruising around looking over students' shoulders and intervening (or not); getting students working on group projects that tap multiple skills; teaching students how to self-assess and improve their own work; organizing peer tutoring; and using a growing number of computer programs that personalize instruction.

The critical success factors are:

- Energetic and sensitive lesson execution (which is why it's so important that teachers arrive at school sharp and fresh, not exhausted from overpreparing the night before);
- Building students' ability to work independently and in groups, which is essential to the teacher being able to move around the classroom providing individual help;
- A classroom culture in which students are comfortable asking for help and helping each other;
- Checking for understanding and following up; and
- Resisting the urge to do too much for students and gradually releasing responsibility and pushing them to engage in productive struggle and do most of the intellectual heavy lifting.

A well-crafted lesson has clear goals; thoughtful task analysis; chunked learning; modalities appropriate to the content; links to students' interests and experiences; thoughtful use of whole-class, small-group, and individual work; assessments to check for understanding; and a Plan B if students don't get it.

Phase #3: Following up after instruction

No matter how well teachers plan and execute, some students won't achieve mastery by the end of a lesson or unit. This is the moment of truth — if the class moves on, unsuccessful students will be that much more confused and discouraged and fall further and further behind, widening the achievement gap. Teachers and teacher teams need the time and support to use data from exit tickets, quizzes, and unit or interim assessments to organize timely, focused interventions for those students. Examples include pullout, small-group after-school help, tutoring, Saturday school, and other venues to catch them up.

Looking at assessment data also is an opportunity for teachers to reflect on their methods and materials, learn from colleagues, and continuously fine-tune how they plan and teach. Team collaboration around student work — often called a Professional Learning Community (PLC) — is widely used around the country, but it's often not reaching its full potential. The critical success factors are:

#1. Carving out time to work with same-grade/same-subject colleagues (again, the principal's key role as scheduler-in-chief);

#2. Having prompt access to data from well-crafted common assessments that students took seriously;

#3. Analyzing what students had problems with and why;

#4. Organizing effective help for struggling students; and

#5. Honestly assessing teaching techniques in light of the results.

If these factors aren't in place, the PLC process can result in a cycle of repeated failure: The same students are unsuccessful each time, they sit through remediation that doesn't change results, and they become a permanent underclass of failure.

With a constant focus on student mastery, another issue deserves careful attention in all three phases: building students' self-reliance. Well-intentioned, dedicated teachers often fall into the trap of helping students too much. Among the most important life skills that students should take away from their K-12 years is the ability to self-assess, know their strengths and weaknesses, deal with difficulty and failure, and build a growth mindset. Student self-efficacy and independence should be prime considerations in planning, lesson execution, and follow-up so that students move through the grades becoming increasingly motivated, confident, and autonomous learners prepared to succeed in the wider world.

The focus on results

Every day, teachers face the challenge of reaching students with a wide range of abilities and needs. When those needs aren't met, the achievement gaps with which students enter school get wider and wider. Tomlinson is absolutely right that we need to know students, tune in to their unique learning needs, and orchestrate the learning environment, curriculum, instruction, and assessments so all students learn essential knowledge and skills. But as Tomlinson acknowledges, there is such a thing as too much differentiation, and as we saw in the scenarios above, differentiation is not always the best strategy. Too much emphasis on differentiation keeps supervisors from seeing the bigger picture of what's going on in classrooms, and it can lead teachers down an exhausting and largely unproductive rabbit hole of overthinking individualized instruction and not using a full repertoire of instructional strategies.

A more effective approach is for principals to keep everyone focused on those two big questions: What are students supposed to be learning? Are all students mastering it? Then supervisors, lead teachers, and other support staff can help teachers balance their energy and creativity across the three phases: frontloading success into every unit and lesson, pulling out all the stops during instruction, and following up afterward, refusing to let students fail. All of this is hard work, but it's *effective* work that will fuel teachers' energy, sense of professional efficacy, and long-term passion for the mission of preparing all students for life success. ■

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