A “Second Edition” as a Chance to Take Stock

<table>
<thead>
<tr>
<th>Some Things Have Changed Markedly</th>
<th>Some Things Have Changed Little</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much more student diversity in more schools &amp; classrooms</td>
<td>We still tend to teach as though all students of a given age or in a given classroom are essentially alike.</td>
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<tr>
<td>Technology is more common in classrooms, in more forms, provides more opportunities for teaching &amp; learning</td>
<td>Many of us are still “technology resistors,” or use technology in shallow ways.</td>
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<td>Standards, standardized testing, and teacher accountability dominate the educational landscape</td>
<td>We still gravitate toward “packaged” solutions to educational problems.</td>
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<td>More knowledge about how the brain learns and more research on impacts of varied approaches to teaching &amp; learning on student achievement</td>
<td>We are still view educational research as something relatively detached from educational practice.</td>
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<tr>
<td>Much more conversation about differentiation</td>
<td>We still have a strong preference for labeling and grouping students based on perceptions of their “ability” and teaching them accordingly.</td>
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A few areas in which my understanding has grown markedly since the 1st edition of the book...
Differentiation

**Differentiation**

is a teacher’s proactive response to learner needs

and guided by general principles of differentiation

shaped by mindset

A Negative Learning Environment

Quality Instruction

Directional Pathway

Accommodations

Strategies for Managing Behavior


teachers can differentiate through

according to students’

4 Dimensional Learning Environment

Readiness

Learning Profile

Affect/Environment

Content

Process

Product

Factors that impact the various layers include:

- Learning level
- Curricular demands based on student readiness
- Developmental demands based on age and stage
- Learning style and learning preferences
- Learning profile
- Other Environmental factors

Through a variety of instructional strategies such as

- Learning/Interest Centers
- RAFT...
- Graphic Organizers...
- Scaffolded Reading/Writing...
- Intelligence Preferences...
- Tiered Assignments...
- Learning Contracts...
- Menus...
- Tic-Tac-Toe...
- Choice of Activities...
- Independent Projects...
- Expression Options...
- Small Group Instruction...

etc.

A Supportive Learning Environment

Quality Curriculum

Leading Students & Managing Routines

Assessment that Informs Teaching and Learning

Instruction that Responds to Student Variance

 Success comes from being smart

• Genetics, environment determine what we can do

• Some kids are smart—some aren’t

• Teachers can’t overcome students’ profiles

 Success comes from effort

• With hard work, most students can do most things

• Teachers can overcome students’ profiles

• A key role of the teacher is to set high goals, provide high support, ensure student focus—to find the thing that makes school work for a student

The first and fundamental challenge for teachers is to embrace students as three-dimensional creatures, as distinct human beings with hearts and minds and skills and dreams and capacities of their own, as whole people much like ourselves.

This embrace is initially an act of faith—we must assume capacity even when it is not immediately apparent or visible. We must know to “the substance of things hoped for, the evidence of things not seen”—because we work most often where aggregating and grouping kids on the flimsiest of evidence is the prevailing common sense, where the toxic habit of labeling young people on the basis of their deficits is commonplace.


New York: Columbia University Press.

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A teacher needs a brain to break through the cotton wool smothering the mind, to break through the blizzard of labels to this specific child, trembling and whole, and to this one, and then to this one.

And a teacher needs a heart to fully grasp the importance of that gesture, to recognize in the deepest core of your being that every child is precious, each induplicable, the only one who will ever tread this earth—deserving of the best a teacher can give—respect, awe, reverence, commitment.


A study by John Hattie and Helen Timperley (2007) found that students engaged in a strong feedback loop showed a whopping 29-percentile gain in student achievement—nearly double that for traditional educational interventions.


Teacher-student relationships is one of the five most powerful strategies to support learning (John Hattie—a synthesis of over 800 meta-analyses on student achievement).

Teacher “emotional support” is the most powerful predictor of student achievement—accounting for as much as 16% variance among students whose teachers exhibit low emotional support compared to those whose teachers have high emotional support (CASTL study of classrooms K-12).

The two primary factors that distinguish top teachers from others are caring & classroom management (James Stronge—Qualities of Effective Teachers).
THE HALLMARK OF EFFECTIVE TEACHING

Environment, Curriculum, Assessment, Instruction & Leadership/Management Working Together

Three Pillars of Effective Differentiation

Philosophy

- Regarding diversity as normal & valuable
- Teaching & learning focused on a growth mindset
- Accepting responsibility for maximum progress for each learner
- Recognizing & removing barriers to equity of access to excellence for marginalized learners

Principles

- Environment as a catalyst for learning
- Environment as a foundation of quality curriculum
- Assessment to inform teaching & learning
- Instruction in response to student needs indicated by formative assessment

Practices

- Proactively planning to address readiness, interest, learning profile
- Instructional approaches based on student needs & nature of content
- Teaching Up
- Respectful Tasks
- Flexible Grouping
A few things I still find important in the 1st edition of the book...

**The Line of Logic**

**For Differentiating Instruction**

**Differentiating Content, Process, & Product**

- **Content (input)**: What we want students to know, understand, and be able to do.
- **Process (sense-making)**: How students come to "own" what they learn.
- **Practice**: How students gain practice in what they learn.
- **Product (output)**: How students show what they have learned.
- **Summative assessments**: How students demonstrate what they have learned.
A Few Examples of Differentiating Content, Process, & Product in Response to Readiness, Interest, & Learning Profile

**Differentiate WHAT?**
- Content
- Process
- Product
- Affect
- Learning Environment

**Differentiate HOW?**
- Student Readiness
- Student Interest
- Student Learning Profile

**Differentiate WHY?**
- Access to learning
- Motivation, engagement, relevance
- Efficiency of learning
- Appropriate challenge
- Opportunity to express learning

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**Vocabulary to Help in Planning Differentiation**

- **Howard Miller**
- **4th Grade Science**

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**The Human Digestive System (The KUDs) Students will:**

- **Know the names and functions (labels) of the major digestive system organs listed below, and include them in a song, story, or diagram.**
- **4th Grade Science**

<table>
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<th>Teeth</th>
<th>Salive</th>
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<td><strong>Epiglottis</strong> — The flap of cartilage that prevents food from entering the trachea and lungs.</td>
<td><strong>Cricothyroid (Palatine) Pharynx (the soft palate)</strong> — The contraction of these muscles regulates the size of the pharynx.</td>
<td><strong>Eosophagus</strong> — The long, narrow tube that carries food from the mouth to the stomach.</td>
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<td><strong>Esophagus</strong> — The long, narrow tube that carries food from the mouth to the stomach.</td>
<td><strong>Surface (in the mouth)</strong> — Where the moist tongue and teeth (incisors and canines) break food up</td>
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Kate’s diagram explaining how a cookie is digested

Emma writing a story about the digestion of broccoli

A group of students practicing their skit on the digestion of a slice of pizza
Using personalized math problems not only made it easier for students to understand what was being asked, but also helped boost the confidence of students who may have been intimidated by the subject.

A researcher at SMU surveyed 145 9th graders about their interests in areas such as sports, music, and movies. Then she randomly assigned them to take the linear equation unit either receiving standard word problems or one of four variations tailored to their interests.

Students who received personalized word problems solved them faster, more accurately, and with more confidence than students who received the standard questions, particularly when it came to translating the story scenarios into symbolic equations. Strongest gains were found for students who were struggling most before the personalization.


**Highlighted Texts**

- About 15% of a chapter—e.g.,
  - Introduction
  - Conclusion
  - Critical passages
  - Key graphics

- Intended for English language learners
- Also helpful for students:
  - with ADHD
  - with learning disabilities
  - who have difficulty making meaning
  - who are weak readers

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**Student Interest Impacts Algebra Performance**

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**Original Problem**

One method for estimating the cost of new home construction is based on the proposed square footage of the home. Locally, the average cost per square foot is estimated to be $46.50.

**Sports**

You are working at the ticket office for a college football team. Each ticket to the first home football game costs $46.50.

**Music**

You are helping to organize a concert where some local R&B artists will be performing. Each ticket to the concert costs $46.50.

**Art**

You have been working for the school yearbook, taking pictures and designing pages, and now it’s time for the school to sell the yearbooks for $46.50 each.

**Games**

You work for a Best Buy store that is selling the newest Rock Band game for $46.50.

SOURCE: Candace A. Walkington, Southern Methodist University

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A few things about differentiation
I believe even more strongly than 15 years ago…

From a pedagogical perspective, the most important question is always, “How does the young person experience this particular situation, relationship, or event?”


“The compelling nature of computer games is an excellent example of differentiating instruction to the students’ ZPD…

The most popular computer games take players through increasingly challenging levels. As skill improves, the next challenge motivates practice and persistence because the player feels challenge is achievable. Similar incremental, achievable challenges in the classroom, at the appropriate level for students’ (current) abilities, are motivating and build mastery by lowering the barrier, not the bar.”

"To reduce the stress of frustration and increase information processing memory at the higher cognitive level, we can encourage students by recognizing effort and providing opportunities for them to work at their achievable challenge level."


One of my undergraduate majors was Religious Studies. In one of his writings, he reminded me of some connections between the way we think about religions and the way I understand differentiation.

"It is always interesting to compare religions. We are interested in how the physical action of a religious ritual or practice lacks greater significance without belief. Likewise, the practices of a differentiated classroom lack greater significance if they are not in service of goals or outcomes of differentiation."

Many sociologists describe religion as a ‘life-orientational force.’ It affects the adherent in visible and invisible ways. It helps them make meaning of what they do in life. I would like to think that differentiation will orient my teaching practices in a similar manner.

Aaron Stiles, UVa, 2014

"Differentiation Professionalizes Teachers…"

A professional is someone who studies a common body of knowledge and then uses it in ways that are responsive to the needs of those they serve. For example:

- Physicians
- Architects
- Lawyers
- Designers
- Teachers

In truth, teaching resembles one of the teaching professions of our time. Unfortunately, when teaching is considered a profession, the public doesn’t see teachers as professionals. But we teach a common body of knowledge and then apply it to the needs of the young people we serve.

Differentiation calls on teachers to use the common body of educational wisdom to address the varied needs of learners. It requires us to be thinkers, creators, risk-takers, boundary-breakers, continual learners—operating from an ethical obligation. No canned curriculum, no pacing straight-jackets, no “rules first—kids later” approaches, no standardized instruction. See and teach individual human beings."
I often think of a line by James Garfield, who attended Williams College and studied with the famous president of Williams, Mark Hopkins. Garfield famously defined a college education as “Mark Hopkins on one end of a log and a student on the other.” That’s pretty much the bones of the thing: a good teacher, a student, and a log.”


Well, here it is: when faced with a room full of students, the ideal that Parini mentions conjures up an awful lot of logs in your room, to say nothing of one-to-one conversations.

For me, Differentiated Instruction laid out a way to replicate that ideal situation—without the bugbear of foolishly trying to develop an IEP for every student in the room. It was a way for me to get a grip on the only thing I ever believed about effective education: a caring, knowledgeable teacher welcoming a student into a conversation, a world, that offers something of value.

Bradley Blanchette High School Teacher Colchester High, Colchester, VT

It’s nice to believe that the world is simple and we can easily get high quality answers to our questions. We often oversimplify by creating add-water-and-stir solutions. The truth is that our reality is very complex and we don’t understand it well.

We need to spend more time helping people understand and deal with complexity and less time concocting dumbing-down mechanisms.

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We need to spend more time helping people understand and deal with complexity and less time concocting dumbing-down mechanisms.

The very least you can do in your life is figure out what you hope for.
And the most you can do is live inside that hope. Not admire it from a distance but live right in it, under its roof.

*Animal Dreams* by Barbara Kingsolver, 1997