

*The Differentiated Classroom:  
Responding to the Needs of all Learners*  
A Look Back—and Ahead

ASCD Webinar  
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A “Second Edition” as a Chance to Take Stock

Some Things Have Changed Markedly	Some Things Have Changed Little
Much more student diversity in more schools & classrooms	We still tend to teach as though all students of a given age or in a given classroom are essentially alike
Technology is more common in classrooms, in more forms, provides more opportunities for teaching & learning	Many of us are still “technology resisters,” or use technology in shallow ways.
Standards, standardized testing, and teacher accountability dominate the educational landscape	We still gravitate toward “packaged” solutions to educational problems
More knowledge about how the brain learns and more research on impacts of varied approaches to teaching & learning on student achievement	We are still view educational research as something relatively detached from educational practice
Much more conversation about differentiation	We still have a strong preference for labeling and grouping students based on perceptions of their “ability” and teaching them accordingly.

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A few areas in which my understanding has grown markedly since the 1<sup>st</sup> edition of the book...




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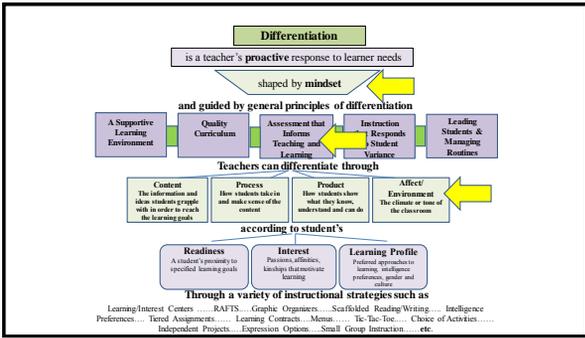
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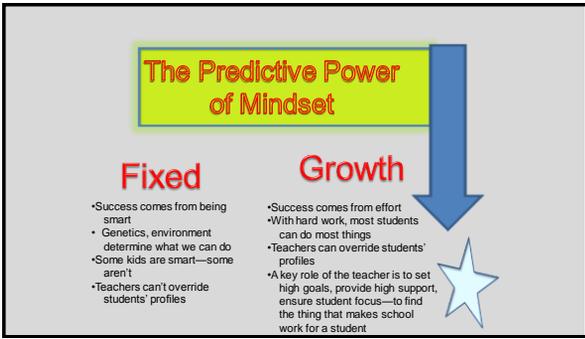
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The first and fundamental challenge for teachers is to embrace students as three-dimensional creatures, as distinct human beings with hearts and minds and skills and dreams and capacities of their own, as whole people much like ourselves.

This embrace is initially an act of faith—we must assume capacity even when it is not immediately apparent or visible. We must have 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 youngsters on the basis of their deficits is commonplace.



Ayes, W. (2010). *To teach: The journey of a teacher* (3rd Ed.). 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 indelible, the only one who will ever trod this earth—deserving of the best a teacher can give—respect, awe, reverence, commitment.



Ayres, W. (2010). *To teach: The journey of a teacher* (2<sup>nd</sup> Ed.). New York: Columbia University Press.

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*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.*

Alfonzo, Paige (May 9, 2014). Frictionless formative assessment using social media. Edutopia. Downloaded 5-9-14 from <http://www.edutopia.org/blog/frictionless-formative-assessment-social-media-paige-alfonzo>

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## Some Research Findings

For Your Consideration

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*).

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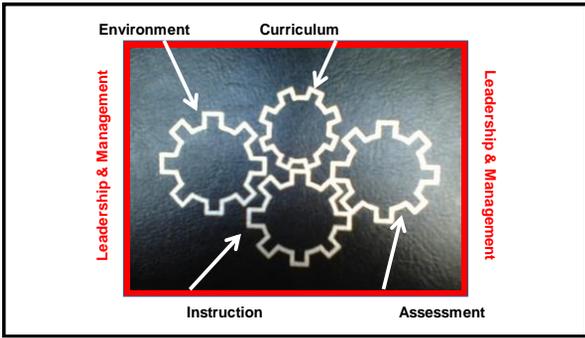
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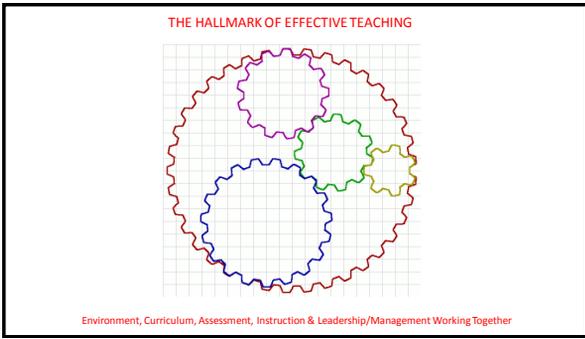
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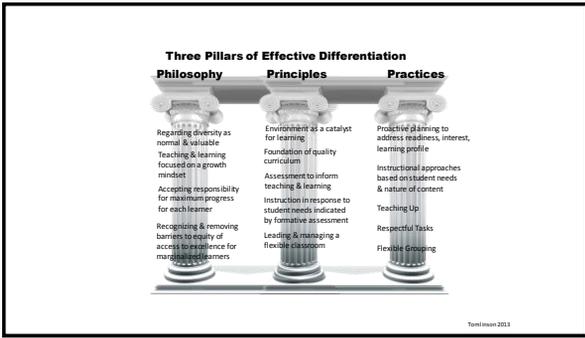
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**A few things I still find important  
in the 1<sup>st</sup> edition of the book...**




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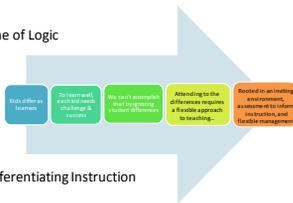
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The Line of Logic



For Differentiating Instruction

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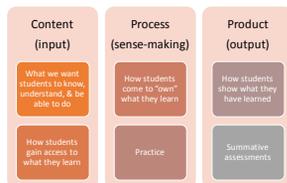
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### Differentiating Content, Process, & Product




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A Few Examples of Differentiating Content, Process, & Product in Response to Readiness, Interest, & Learning Profile

	Content	Process	Product
Readiness	<ul style="list-style-type: none"> <li>-Materials at different reading levels</li> <li>-Small group instruction</li> <li>-Graphic organizers to support note-taking</li> <li>-Contemporary Lecture</li> </ul>	<ul style="list-style-type: none"> <li>-Differentiated homework</li> <li>-Work at centers or stations based on students' points of entry</li> <li>-Tiered assignments</li> <li>-Learning contracts, menus</li> </ul>	<ul style="list-style-type: none"> <li>-Models of quality student work at different levels of sophistication</li> <li>-Graduated rubrics with personalized student targets</li> <li>-Materials at different levels of complexity</li> </ul>
Interest	<ul style="list-style-type: none"> <li>-Teacher examples related to student interest</li> <li>-Videos/media to increase relevance</li> </ul>	<ul style="list-style-type: none"> <li>-Student choice application of skills, ideas</li> <li>-Interest centers</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>-Independent studies</li> <li>-Orbitals</li> <li>-Student choice products with constant KUDs</li> </ul>
Learning Profile	<ul style="list-style-type: none"> <li>Teacher use of multi-media</li> <li>Student use of multi-media</li> <li>Emphasis on whole to part and part to whole</li> </ul>	<ul style="list-style-type: none"> <li>-Work alone, work with a partner options</li> <li>-Choice of modes of expression</li> <li>-Picturing writing</li> <li>-RAFT options</li> </ul>	<ul style="list-style-type: none"> <li>-Choice of modes of expression</li> <li>-Choice of media</li> <li>-Tiered approaches to organization (outline, storyboard, etc.) in planning</li> </ul>

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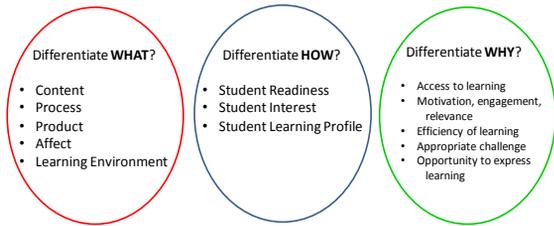
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Vocabulary to Help in Planning Differentiation




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The Human Digestive System (The KUDs) Students will: **4<sup>th</sup> Grade Science**

(U) Understand the big idea. In this case, that (a) the human digestive system is an example of a system; a collection of two or more parts that act together to affect the whole thing, and (b) that each part is related to the others in some way.

(K) Know the names and functions (jobs) of the major digestive system organs listed below, and include them in a song, story, skit, or diagram:

**Mouth, teeth, saliva**

**Epiglottis** -- The flap of cartilage that prevents food from entering the trachea and lungs.

**Esophagus** (Optional: Peristalsis, the contraction of muscles in/around the esophagus.)

**Stomach** -- Muscles mix and mash the food. Hydrochloric acid breaks food up.

**Small intestine** -- Place where most of the digestion and chemical change of food to simpler forms occurs.

**Villi** -- Finger-like projections that contain capillaries -- the sites in the small intestine where the broken-down (digested) food nutrients enter the blood stream.

**Large intestine** -- Where water is absorbed back into the body and the remaining indigestible food passes to the outside.

(D) Demonstrate their understanding using the correct structure and function vocabulary to show how a piece of food moves through and provides fuel for the human body -- from the time it enters the mouth to the time waste leaves the body.

Howard Miller

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Kate's diagram explaining how a cookie is digested

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Emma writing a story about the digestion of broccoli

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A group of students practicing their skit on the digestion of a slice of pizza

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## 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

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.



Sparks, S. (2012, Sept. 25). Studies find payoff in "personalizing" algebra. *Education Week*, 32(5), pp. 1, 14-15.

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## Interest-Based Differentiation Results in Math Achievement Gains

### 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...



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



van Manen, M. (1991). *The tact of teaching: Toward a pedagogy of thoughtfulness*.  
Albany, NY: State University of New York, p. 11.

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**Differentiating for Student Readiness**

“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.”

Wills, I. (2010). The current impact of neuroscience on teaching and learning. in D. Sousa (Ed.), *Mind, Brain, and Education*.  
Bloomington, IN: Solution Tree, pp. 44-66



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When a student feels undue stress, the brain sends that stress to the lower, involuntary, reactive brain that exists to protect the person. At that point, sensory input is focused on self-protection and is not available for higher cognitive processing required by learning.

“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.”



Wilks, J. (2016). The current impact of neuroscience on teaching and learning. In D. Sousa (Ed.), *Mind, Brain, and Education*. Bloomington, IN: Solution Tree, pp. 49.

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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 has a set of core doctrines (all students can achieve, etc.). It holds expectations of its adherents (instruction responds to student needs), and it provides a general roadmap for meeting those expectations (environment, curriculum, assessment, instruction, management). In religion, we might call these rituals or practices.

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 mission of differentiation.

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

Aaron Steiner, USA, 2014

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### “Differentiation Professionalizes Teachers...”

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

For example:  
Physicians  
Architects  
Lawyers  
Designers



Linda Darling Hammond, one of the leading educators of our times, argues that a key reason the public doesn't see teachers as professionals is that we study a common body of knowledge and then apply it alike to all 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.

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"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."

Jay Parini School Year Beginnings, Vermont Public Radio, Colchester, August 29, 2013. <http://www.VermontPublicRadio.org>



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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

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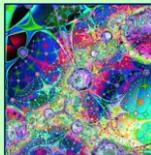
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It's nice to believe that the world is simple and we can easily get high quality answers to our questions. We often oversimplify by creating add-water-and-stir solutions. The truth is that our reality is very complex and we don't understand it well.



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

From Harvard Business Review. Cited in USAirways Magazine, Sept., 2011, p. 13.

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*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



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