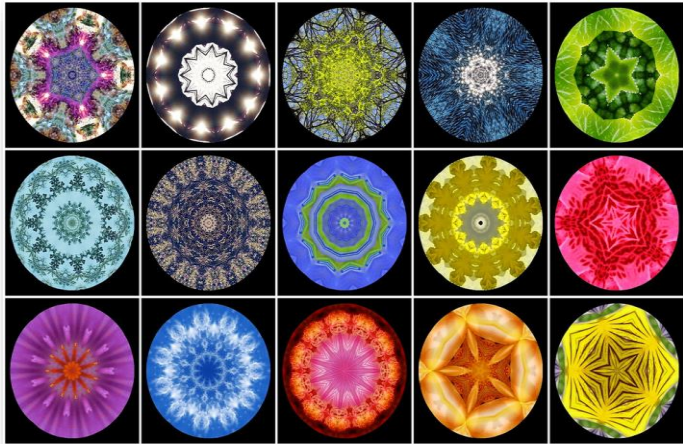


Differentiating Instruction: What, Why, & How



DI Asia Conference, 2018
Singapore
September 6-7, 2018

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Who's Coming to School these Days?

Students learning a 2nd language

Students with learning challenges

Students from low-income backgrounds

Advanced learners

Students with health issues

Students with emotional challenges

Students from varied races or cultures

Students whose families move often

Students for whom home is unhealthy

In spite of the great & growing variety of students in our classrooms...



...and abundant evidence that schools do not serve all students well...

We still teach as though



all students of a given age are
essentially alike!

We live in a time when...

- separating students by race, class, language, ability seems like the wrong course for a world which is both blurring borders and often imprisoned by borders,
- people expect to have access to personalization—and often do,
- we can't afford a citizenry that is not fully educated with the goal of helping each individual reach his/her capacity.



In Fact, Indications are that:

Most teachers are aware of students' learning differences.

Most teachers feel it is beneficial to address those differences in instructional planning and delivery.

Few teachers do those things systematically.

Of those who do, most differentiate "reactively," improvisationally, and/or by assigning students more work if they are advanced and less work if they are struggling.

In schools where differentiation is implemented consistently and with fidelity, student outcomes are strong across groups.

So What is Differentiation?

Definition from the National Center on Accessing the General Curriculum

To differentiate instruction is to recognize students' varying background knowledge, readiness, language, [culture], preferences in learning and interests; and to react responsively.

Differentiated instruction is a process of teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting student where he or she is, and assisting in the learning process.

National Center on Accessing the General Curriculum cited in Hall, Strangman, & Meyer (2011). Differentiated instruction and implications for UDL implementation. Retrieved from National Center on Accessing the General Curriculum: <http://aim.cast.org/learn/historyarchive/backgroundpapers/differentiated>



DIFFERENTIATION IS THINKING ABOUT AND RESPONDING TO THE
VARIED NEEDS OF STUDENTS IN A PARTICULAR CLASSROOM



TO MAXIMIZE THEIR LEARNING AND DEVELOPMENT

Differentiation is
a sequence of common sense decisions
made by teachers
with a student-first orientation.

Adam Hoppe
UVa Preservice Teacher

The Common Sense of Differentiation

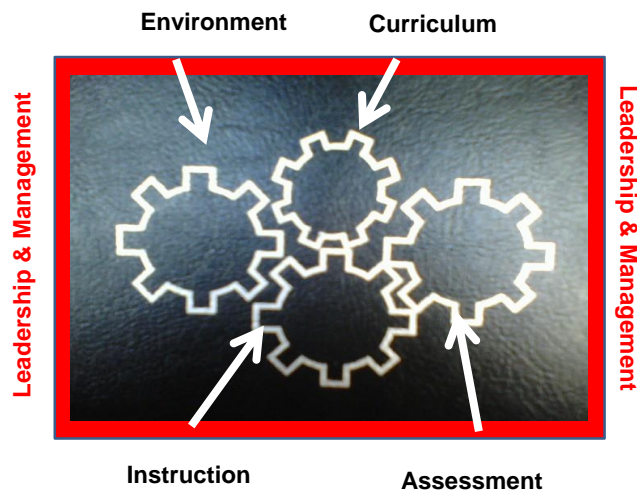
Ensuring an environment that actively supports students in the work of learning (mindset, connections, community),

Absolute clarity about a powerful learning destination (KUDs, engagement, understanding),

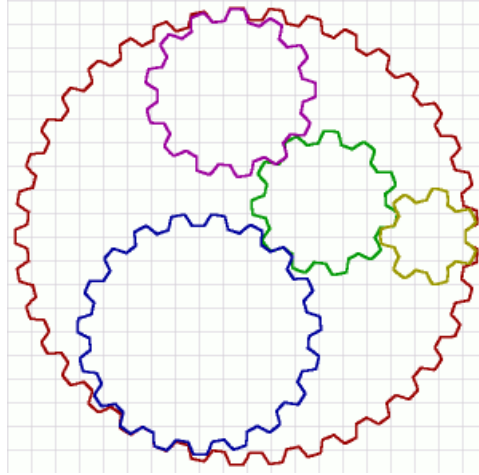
Persistently knowing where students are in relation to the destination all along the way (formative assessment for and as instruction),

Adjusting teaching to make sure each student arrives at the destination and, when possible, moves beyond it (addressing readiness, interest, learning profile),

Effective leadership & management of flexible classroom routines.

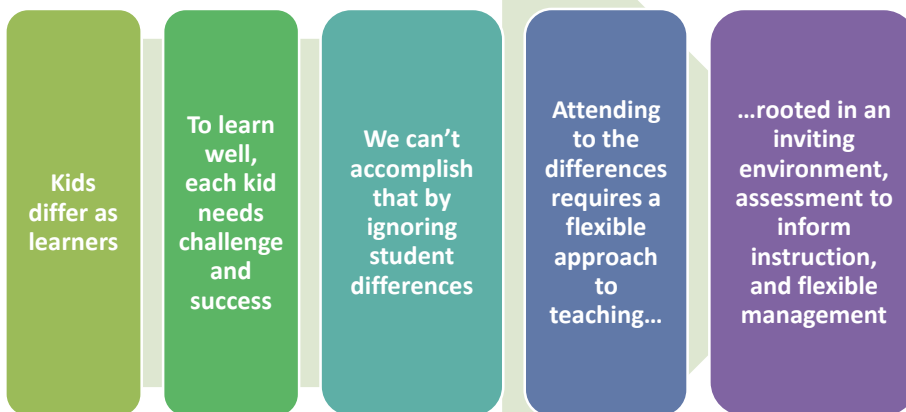


THE HALLMARK OF EFFECTIVE TEACHING



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

The Line of Logic . . .



For Differentiating Instruction

12

1

An Invitational Learning Environment

- Growth mindset
- Teacher-student connections
- Community

Everyone brings something important to the success of the team...



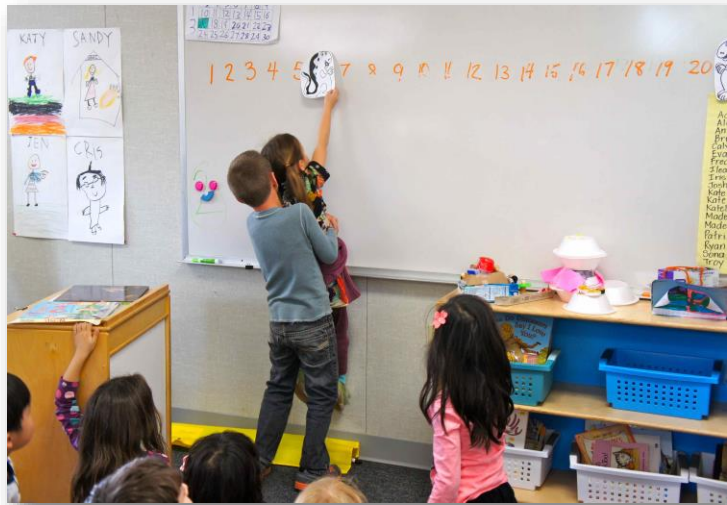
Research Findings

“An average student with a teacher whose teacher-student interactions scored 1 standard deviation below the mean in Emotional Support would, on average, place in the 41st percentile in end-of-year tests.

The same student with a teacher whose interactions scored 1 standard deviation above the mean in Emotional Support would, on average, place in the 59th percentile in end-of-year tests.”



Allen, J., Gregory, A., Mikami, J., Hamra, B., & Pianta, R. Predicting Adolescent Achievement with the CLASS-5 Observation Tool. A CASTL Research Brief. University of Virginia, Curry School of Education



Cris Lozon's kindergarten students doing "monster math"

“Best day ever!”

2

A Quality Curriculum that Focuses & Energizes Learning

- Clear, comprehensive learning goals (KUDs)*
- A plan to engage learners
- Focus on understanding
- “Teaching Up”

**KUD is the abbreviation for what students should Know, Understand, & be able to Do as the result of a segment of learning*

Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).

Grade 7 Literature

Know

Elements of fiction (plot, setting, character, theme)
Analysis, evidence, interaction, supporting a position

Understand

Elements in our lives affect us and affect one another.

The people we associate with help shape us—and we help shape them.

Time of day, weather, where we are, the music we hear all impact our mood, thoughts, and actions.

The “themes” of our lives that most strongly represent who we are and what we stand for shape our thoughts, lives, and actions.

Authors use the elements of fiction in purposeful ways to guide readers’ thinking.

Stories are representations of life and in that way, act like our lives do.

Each element in a story shapes every other element in the story.

Do

Recognize the elements in a story.

Analyze how the elements interact—and why.

Provide evidence from the story to support your explanation.

		Whole Class	Differentiated
		Early Learning Sequence in the "Interaction of Elements in Fiction" Unit	Discussion on elements in our lives and how they interact.
Introduction to unit. Review of elements of literature using matching exercise in which some students have cards w/ element names, some have definitions, some have examples from stories students have read in common. Discussion of things we analyze in our daily lives and how we go about it—create a set of steps in analysis.			
	Students work in quads or triads to analyze a story to identify story elements and analyze how they work together. Group size, story choice, and graphic organizer used to guide work will vary based on pre-assessment results. Teacher will meet with small groups throughout the class period.		
Whole class review of theme, proposing themes in lives of famous people, analyzing how they arrived at those themes.	Practice with themes in brief "stories" –Stories vary in mode, complexity, support. Varied organizers. Identify and support your conclusion—Identify and show how the elements contribute to a theme.		
	Identify and demonstrate how the elements contribute Develop a story in which elements interact to point to a theme—Varied directions, organizers, supports, modes of expression.		

An Early Summative Performance Task in the Interaction of Elements Unit

Develop a 50-word story from your life as a way to show how authors use elements in a story or drama to guide readers' thinking around a theme. Your work must include two parts: (1) the brief story you tell, and (2) your explanation of how you used the elements of fiction to shape a message around a theme.

50-Word Story

The story—while no more than 50 words—must include a plot/storyline, characters, setting, theme interacting in a coherent way to evoke an important idea in readers. The story may be written, animated, or in the form of a word & image collage. Your explanation must include a clear reflection about how you developed your story using the elements of fiction. Include drafts and an explanation of why your drafts evolved as they did to ensure you used the elements well in supporting your theme.

On the pier, fishing with my dad, the sun and salt made me powerful.

I reeled in my line with a swagger, a sardine-like fish on the end.

My runt brother caught a monster.

My dad took his picture.

I got a sunburn.

Big brother dethroned again.



My first two drafts were way too long. My idea wasn't clear enough to me so I had to think some more.

I chose a sunny day with salt air because that always makes me feel strong, but sometimes that can go to your head and sun can burn you. I think that happens when we feel like we are such a big deal that we don't have to pay attention to the rules of nature.

My little brother was a good protagonist. I should be able to win pretty much any contest with him because I am older and wiser. Mostly, though, he wins because he's little and cute and get's everybody's attention. But sometimes, like in this story, he wins because I get too full of myself, and it's kind of like nature burns me to keep me in my place.



3

Persistent use of Formative Assessment to Inform Teaching & Learning

- Tightly aligned with KUDs
- Focus on understanding
- Of and for learning
- Emphasis on feedback vs. grading

My Favorite No



Based on this strategy, what does Ms. Acala see as the purpose of formative assessment?

Would she be interested in giving students a grade for their index card answers? Why or why not?

Based on what you see in the early part of this whole-class lesson, what might Ms. Acala want/need to do next (or later) in the lesson?

<https://www.teachingchannel.org/videos/class-warm-up-routine>

6min Gr8 math

Effective Formative Assessment

Black and Wiliam (1998) proposed that effective formative assessment involves:

- teachers making adjustments to teaching and learning in response to assessment evidence;
- students receiving feedback about their learning with advice on what they can do to improve; and
- students' participation in the process through self-assessment.

They concluded that the student learning gains triggered by formative assessment were among the largest ever reported for educational interventions.



Heritage, M. (2010). Formative assessment & next generation assessment systems: Are we losing an opportunity. A paper prepared for the Council of Chief State School Officers, p. 2.



Instruction that Addresses Students' Varied Readiness Levels, Interests, & Approaches to Learning

- Guided by formative assessment
- Tightly linked with KUDs
- Emphasis on understanding
- Flexible grouping
- Respectful tasks
- "Teaching Up"



A Few High School Supports —including in advanced subjects

- Study Squads
- Physics Posse
- Collaborative Exam
- Lunch Hours
- Flipped Sessions

“In my kindergarten class, I introduce technology during small group rotations. The day begins with mini-lessons for the whole class, introducing new content and reviewing different skills.

After this, we break off into small group station work. The small groups enable me to differentiate instruction and better meet the needs of individual students...

This model has been very effective for my students. They are more engaged with activities and take ownership of their learning. Working alongside peers also strengthens communication and social skills.

The mix of teacher instruction and high quality digital content has brought together the best of both worlds.” Tracey Dunn



ASCD Smartbrief (6-24-15) http://smartblogs.com/education/2015/06/23/tech-tip-technology-supports-differentiated-instruction-in-the-elementary-classroom/?utm_source=brief

Tracey Dunn's Kindergarten Station Rotation

Teacher meets with students based on individual/small group needs (e.g. reading intervention, extension, vocab. development, introducing new apps/processes)

Station 1
Teacher-Guided
Instruction

Station 2
Independent/
Peer Practice

Students work independently, in pairs, or small groups on reinforcing skills via "paper" games or games on iPad

Students use iPads with apps such as Lexia, , MobyMax, Raz-Kids to focus on specific skills development—or with apps such as Educreations or Book Creator to develop projects

Station 3
iPads

Station 4
Writing Wall or
or iPads

Students use a Plexiglass "writing wall" or technology to reinforce writing skills, (e.g., letters, numbers, number words, sentence copying, or writing ideas

Tracey Dunn is a kindergarten teacher at Hopkins Elementary in Mentor, Ohio

An Example of Differentiation based on Student Readiness Middle School Social Studies

"Teaching Up"

Readiness	Teaching Up
<p>Readiness is a student's proximity to specified learning goals.</p> <p>It is not a synonym for ability or capacity.</p> <p>It should be variable across goals, not fixed or seen as fixed.</p> <p>It is one student characteristic on the basis of which teachers differentiate.</p> <p>It is determined based largely on pre-assessment, on-going (formative assessment, & teacher observation.</p>	<p>Teaching Up is a response to readiness differences. It is based on the assumption that the vast majority of students should have access to the richest curriculum a school can offer.</p> <p>It also works from the premise that students get smarter when we teach them like they're smart.</p> <p>A teacher begins planning for advanced students and differentiates by providing scaffolding that enables other students to work successfully toward those complex goals.</p>

Plan first for your most advanced learners, then scaffold others so they can access the same core assignment.

What Does it Mean to Teach Up?



EVERYONE'S TASKS:

- Clear KUDs
- Require careful thought
- Focus on understanding
- Problems to solve/Issues to address
- Use key knowledge & skills to explore, or extend understandings
- Authentic
- Require support, explanation, application, evaluation, transfer
- Criteria at or above "meets expectations"
- Require metacognition, reflection, planning, evaluation

Plan first for high-end challenge, then scaffold to support a broad range of students in accessing the complexity

New World Explorers

KNOW

- Key biographical information on two "New World Explorers"
- Key contributions of the two explorers

UNDERSTAND

- Exploration involves
 - risk
 - costs and benefits
 - success and failure

Do

- Use resource materials to illustrate & support ideas

An example of "teaching up"



New World Explorers



Using a teacher-provided list of resources and list of product options, show how 2 key explorers took chances, experienced success and failure, and brought about both positive and negative change. Provide proof/evidence.

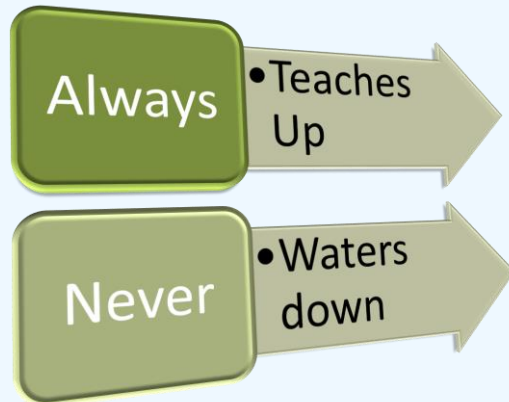
Using reliable and defensible research, develop a way to show how New World Explorers were paradoxes. Include and go beyond the unit principles.

If Version 1 of the task is too demanding for students with more complex learning challenges, consider:

Providing resource boxes with appropriate materials,
Having students meet in start-up groups with the teacher to plan,
Enabling the student to use his/her first language,
Using brainstorming or think-tank groups prior to beginning work,
Providing graphic organizers with prompts to guide gathering and synthesizing information,
Giving directions one step at a time,
Having students check in with the teacher after each step,
Having students who need planning assistance create a timeline/checklist for completing their work,
Writing the directions with more basic vocabulary,
Writing the directions in bulleted form,
Providing a model of straightforward, competent student work,
Providing a summary of ideas in the student's first language to support comprehension,
Providing a list of key vocabulary with clear explanations,
Using "experts of the day" to answer questions,
Etc.



Defensible Differentiation:



Students do not simply store knowledge they hear; each student learns in a particular, personal way. Each child gives personal shape to his or her understanding and to the way that he or she comes to understand things.

The teacher may be teaching a class of 35 students; but it is always important to remember that all learning is ultimately an individual process.



Adapted slightly from van Manen, M. (1991). *The tact of teaching: Toward a pedagogy of thoughtfulness*. Albany, NY: State University of New York, p. 77.



Leading Students & Managing Routines

- Teacher-student partnerships
- Balance of predictability & elasticity (an “orderly-flexible classroom”)
- Careful planning to build student agency



Leadership

- Has a vision for something good
- Has the capacity to share the vision & enlist others in it
- Builds a team for achieving the vision
- Renews commitment to the vision
- Celebrates successes
- ABOUT PEOPLE

First be a leader



Management

- Plans schedules
- Handles details
- Prepares materials
- Arranges furniture
- Orchestrates movement
- Practices routines
- Troubleshoots
- ABOUT MECHANICS

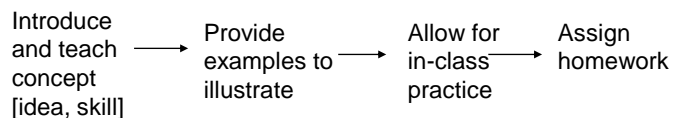
Then be a manager

Kinds of Learning Environments



Relevant Research for School Decisions • Academic Challenge for the children of Poverty
Educational Research Service, Arlington, VA. p. 11

SAMPLE ROUTINE

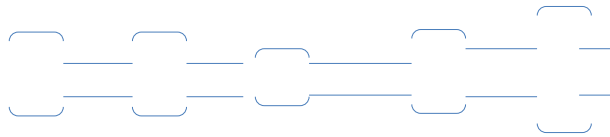


What subjects does this look like?

What students might experience the most success within the structure of this routine?

What students might experience the least success within the structure of this routine?

A flexible learning environment includes opportunities to focus on individual needs and opportunities for group conversation and collaboration.



Teaching and learning in a differentiated classroom form a rhythm of “breaking apart” and “coming together.”
Goals that are specific to individuals or small groups are best achieved in times of breaking apart.
Goals that are shared by the class as a whole are best achieved in times of coming together.



Much (but not all) differentiation occurs when students take the off-ramps.

This Metaphor Might Help...

As you plan, think about what everyone MUST do in common.

Everyone stays on the main highway.

Then, think about points in that unit where you know students are likely to encounter difficulties—or need additional challenge—or might benefit from exploring an interest-based aspect of the topic.

**Build in exit ramps for those times.
Later, you'll be comfortable creating spur-of-the-moment exit ramps, too.**

A foundational premise of differentiation is that the successful teacher sees students individually, and not as “a batch.”

Every one of them brings far more to the table of learning than they are aware of, or than I am aware of.

Every one of them needs me in profound and personal ways.

Every one of them needs me differently.

I cannot contribute significantly to their success
by seeing them alike,
by greeting them alike,
by teaching them alike.

Good teaching is a profoundly
personal endeavor.



We live in a time when...

- ❑ we lose the attention and motivation of too many students who feel school is not for them
- ❑ we can see the cost of a less than fully and thoughtfully educated citizenry on the news every day.
- ❑ we contribute to our own peril if we don't plan proactively to provide the highest quality education to every student that we know how to provide to any student.

