



Differentiate in 3D: *Meet Middle School Students' Readiness, Interest, and Learning Preference Needs*

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Workshop Driving Questions

- ❑ What is differentiation? What's its relationship to equity?
- ❑ How can we discover student needs – both as a group and as individuals?
- ❑ How can teachers differentiate for student readiness, interest, and learning preference?

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SO....



...what IS
Differentiation,
really???

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Responding to *Evidence* from Assessment

Assessment: Students were given 3 word problems and asked to set up and solve each.

Evidence from Results: Some students "got it" by setting up and solving all 3 correctly. Some students made errors in either set-up or in solving. Some students made many errors in set-up and solving.

Task for Pattern 1

You solved all of these equations correctly. Now make up 3 equations for others to solve: 1 that is harder than those you just solved, 1 that is at about the same level, and 1 that is easier.

Task for Pattern 2

[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

Task for Pattern 3

The highlighted portions of each equation show where you made errors. Determine what those errors were & fix them.

*Adapted from William (2011). *Embedded Formative Assessment*

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Patterns in *Readiness*

Assessment: Students were given 3 word problems and asked to set up and solve each.

Patterns

Pattern 1: “Got it” (set-up and solved all 3 correctly)

Pattern 2: “Made *Some* Errors” (in either set-up or in solving)

Pattern 3: “Made *Many* Errors” (in set-up and solving)

Task for Pattern 1

You solved all of these equations correctly. Now make up 3 equations for others to solve: 1 that is harder than those you just solved, 1 that is at about the same level, and 1 that is easier.

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[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

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*Adapted from William (2011). *Embedded Formative Assessment*

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Giving “Best Fit” Tasks

“Got it”

(set-up and solved all 3 correctly)



Task 1

You solved all of these equations correctly. Now make up 3 equations for others to solve: 1 that is harder than those you just solved, 1 that is at about the same level, and 1 that is easier.

“Made *Some* Errors”

(in either set-up or in solving)



Task 2

[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

“Made *Many* Errors”

(in set-up and solving)



Task 3

The highlighted portions of each equation show where you made errors. Determine what those errors were & fix them.

*Adapted from William (2011). *Embedded Formative Assessment*

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Patterns in *Interest*

Polygons – Sarah Hagan and Kelly Freehill

Role	Audience	Format	Topic
A square	A rectangle	A love song	What they have in common and why they should be together
A trapezoid	A kite	A letter	Why they feel left out of the parallelogram family
An irregular polygon	A rectangular polygon	A persuasive essay	Convincing the audience to become a rebel in the polygon world
A quadrilateral	A triangle	A how-to guide	How to become a quadrilateral

From Doubet & Hockett (2015)

Differentiation in the Middle and High School: Strategies to Engage All Learners. Alexandria, VA: ASCD.

Patterns in *Learning Preference*

Algebra – Nanci Smith

Understanding Goals:

- All forms of equations of lines represent the same line.
- Given an equation of a line in one form, any other form can be generated.

Knowledge Goal:

- Forms of the equations of lines: *general, standard, point-slope, vertical, and horizontal*.

Skill Goals:

- Find other forms of equations of lines given one form.
- Find the strengths, weaknesses, and applications of each form of equation.

Analytical	Practical	Creative
Compare and contrast the various forms of equations and lines. Create a flow chart, a table, or any other product to express your ideas to the class. Label all parts of your chart or table to make relationships clear. Be sure to consider the advantages and disadvantages of each form and represent these in your product.	Decide how and when each form of the equation of a line should be used. When is it best to use which form (discuss data in terms of real-world scenarios)? What are the strengths and weaknesses of each form? Find a clear and authentic way to present your conclusions to the class.	Put each form of the equation of a line on trial. Prosecutors should try to convince the jury that a form is not needed, while the defense should defend its usefulness. Enact your trial with group members playing various forms of the equations, the prosecuting attorneys, and the defense attorneys. The rest of the class will be the jury, and the teacher will be the judge.

From Doubet & Hockett (2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Talk with an Elbow Partner

What ideas were affirming?
Which were challenging?
What ideas would you add?



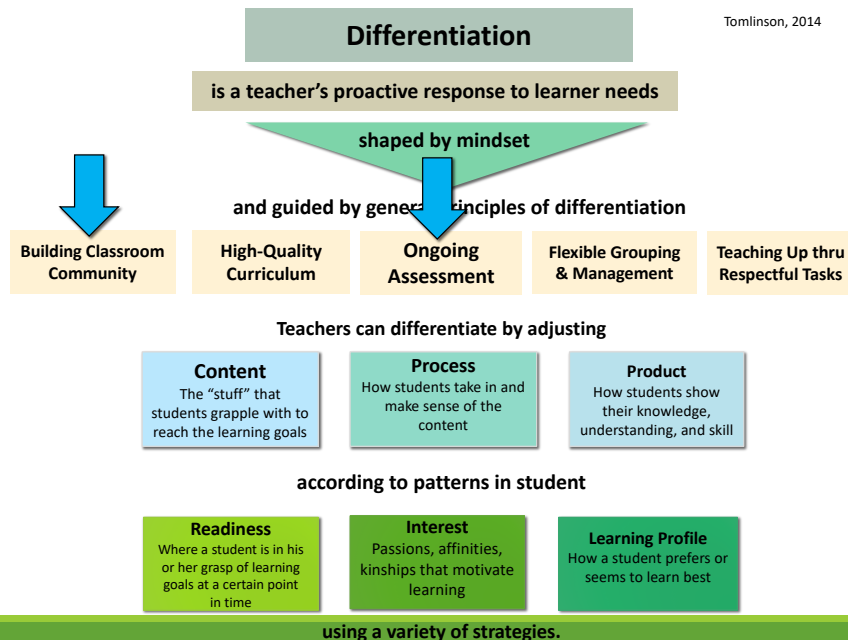
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Workshop Driving Questions

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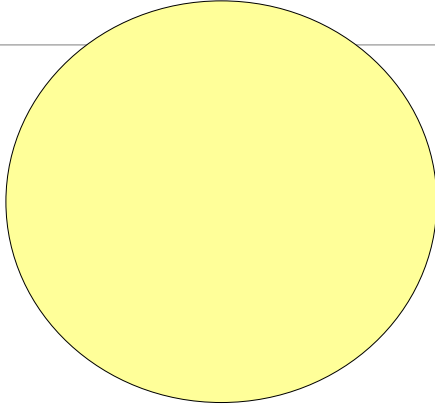
Community = Differentiation's Affective Foundation



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Interest Pre-Assessment

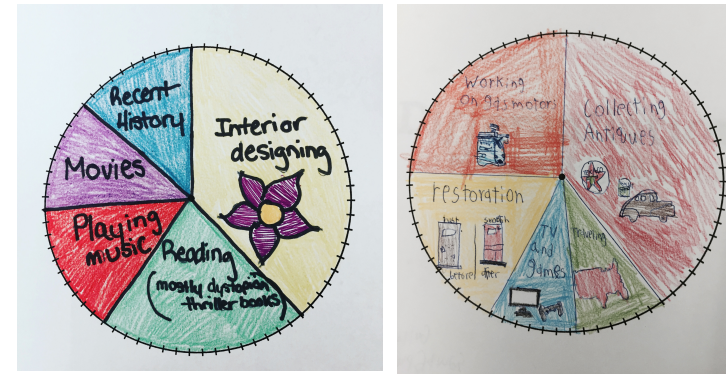


Design a Pie Chart to show what you're interested in. Make at least 5 sections; represent your interests in decimals, fractions, and percents.

From Doubet & Hockett (July, 2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

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Pie Charts to be used later to introduce Percentages and Probability



JFHMS – 7th Grade

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Pie Charts using Paper Plates – Also a Pre-Assessment on Percentages in 6th Grade



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Community is not just about Teacher and Student; rather, it's about Students and their Peers

BUILDING COMMUNITY

Fast Facts!

Ali Curwin

- (1) Use the index cards to provide the following information about yourself:

4-(i⁴) words to describe you

2+ (2-3)+4 of your favorite activities outside of school

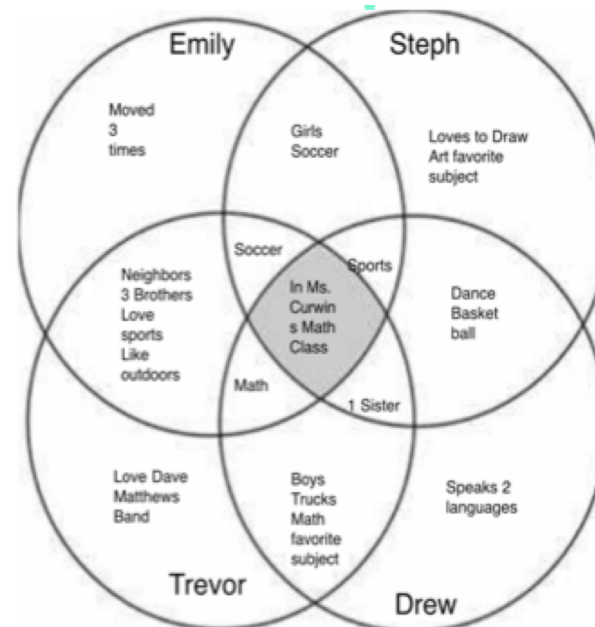
300 x 10⁻² of your favorite books

8⁰+ 1 things you plan to do after high school

- (2) Next, in your quad, compare your answers the number solutions for each prompt. Make any necessary revisions.
 (3) As a group, create a four-way Venn Diagram that depicts the similarities and differences among you. (Remember that your cards are a “hands-on” tool!)

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Ali Curwin

Inventory Questions

ATTENDANCE QUESTIONS

Attendance Questions (answered aloud rather than in writing):

- Use a simple question for efficiency (e.g., *Dogs or cats? Ice cream or cake? TV or video games? Favorite food? Favorite game?*).
- Use a more complex question if it holds the potential to serve as a lesson “hook” (e.g., *Who's the person you most admire?* or introduce a discussion of heroes in stories or *How do you like to spend your free time?* to generate a data set).

INDIVIDUAL QUESTIONS

1. If you were a contestant on a “survival” reality show and were allowed to bring only one item with you to the island, what would you bring and why?
2. If you could invite three people—living or dead—to your house for dinner, whom would you invite and why?
3. What do you wish your teacher knew?

From Doubet & Hockett, *Differentiation in the Elementary Grades* (2017) and *Differentiation in Middle and High School* (2015)

The “Line Up”



Directions:

- I will call up a small group of participants.
- You will line up in alphabetical order according to your last name. You'll need to talk to each other and help each other in order to be able to do this.
- I will give you further directions once you are lined up.

From Doubet & Hockett, *Differentiation in the Elementary Grades* (2017) and *Differentiation in Middle and High School* (2015)

Interaction = Differentiation's Social Foundation



The Implications

“There’s no such thing as a neutral learning environment – for every kid, it’s either positive or negative

~David Sousa – Brain Researcher

Talk with an Elbow Partner

What ideas do you like? Which might you use? How might you adapt them to better suit your classroom?



Workshop Driving Questions

- ☐ What is differentiation? What’s its relationship to equity?
- ☐ **How can we discover student needs – both as a group and as individuals?**
- ☐ **How can teachers differentiate for student readiness, interest, and learning preference?**

Differentiation

Tomlinson, 2014

is a teacher's proactive response to learner needs

shaped by mindset

and guided by general principles of differentiation

Building Classroom
Community

High-Quality
Curriculum

Ongoing
Assessment

Flexible Grouping
& Management

Teaching Up thru
Respectful Tasks

Teachers can differentiate by adjusting

Content

The "stuff" that
students grapple with to
reach the learning goals

Process

How students take in and
make sense of the
content

Product

How students show
their knowledge,
understanding, and skill

according to patterns in student

Readiness

Where a student is in his
or her grasp of learning
goals at a certain point
in time

Interest

Passions, affinities,
kinships that motivate
learning

Learning Profile

How a student prefers or
seems to learn best

using a variety of strategies.

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3 Kinds of Patterns

Readiness

Where a student
"is" in his or her
grasp of learning
goals at a certain
point in time



Interest

Passions,
affinities, and
kinships that
motivate learning



Learning Preference

How a student
prefers or seems
to learn best



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Readiness v. Ability

READINESS

"where" a student is in his
or her grasp of learning
goals at a certain point in
time.

varies from lesson to
lesson and skill to skill

best gauged by *recently-
gathered* evidence that is
relevant to the learning
goals

ABILITY

a proclamation about a
student's overall capacity as
a learner or human being

often treated static or fixed
across subjects, skills, or
time

usually inferred from
standardized test scores

Involves or implies
comparisons to other
students

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Formative Assessment and Readiness

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Proactive, Not Reactive

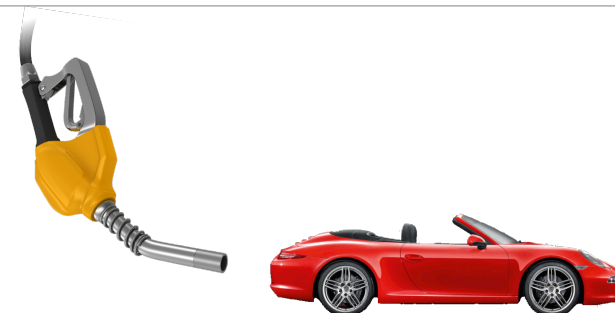
"Differentiation is the recognition, articulation, and commitment to **plan** for student differences."

Carol Tomlinson

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Ongoing Classroom Assessment



Fuel for effective teaching & learning

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Strategy: Show Your Cards

- Students create cards labeled with their own words for how they "feel" at different levels of confidence.
- Teacher prompts students to use cards in response to questions/prompts at pivotal points in a lesson for a quick visual of students' self-assessment.
- All students, regardless of card color, need to be ready to explain their thinking if/when called upon.



As shown in the classroom of Steven English

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Quick Self-Assessment Checks

Response Cards on Desks (red/yellow/green)



Thumbs up, Thumbs down, Thumbs sideways



How many bars do you have (as in cell phone signal)?



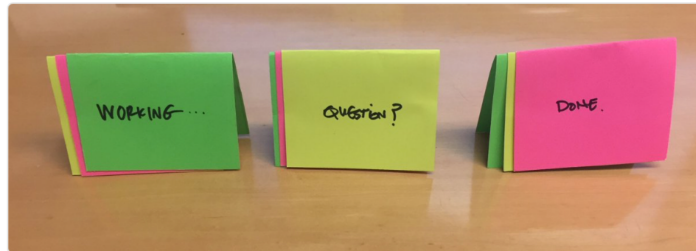
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ASD Nest NYU Metro
@asdnestnyu

Following

Terrific, very doable strategies for "Promoting Student Autonomy" buff.ly/2zUJcoa via @jahockett @kjdoublet #asd #udl #edchat #spedchat



6:54 AM - 27 Nov 2017

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Strategy: Stoplight Method

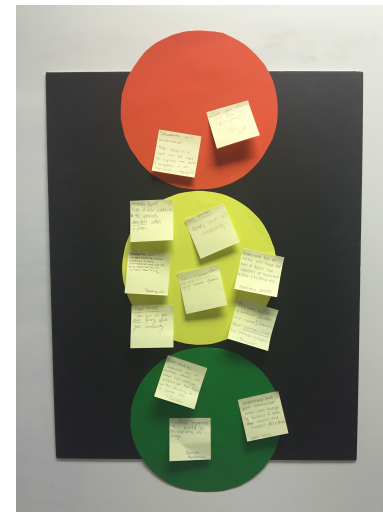
Students respond to a content-based question and then place their response on the color that reflects how "sure" they are.

Examples: *What was the author of the article trying to "get" the reader to understand?* | *What were the independent and dependent variables in today's experiment?*

Red: "I'm not at all sure of my answer."

Yellow: "I am a little unsure of my answer."

Green: "I am very sure my answer is correct."



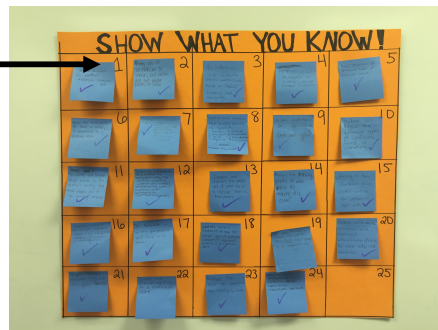
Adapted from Sarah Brown Wessling

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Strategy: Show What You Know

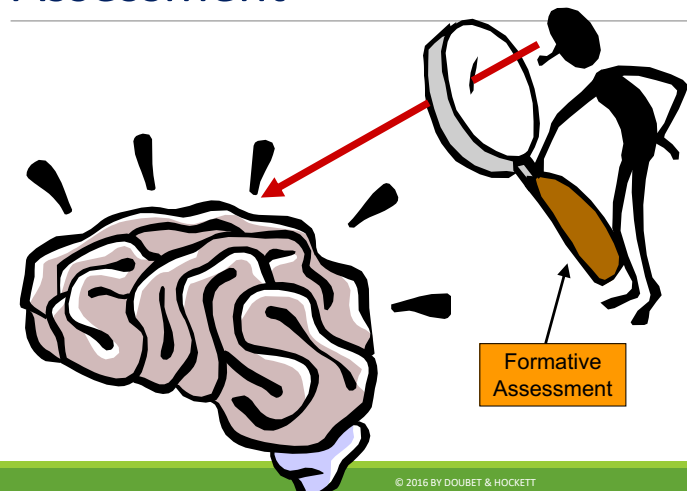
Each student is assigned a number.

Students place their sticky note responses in the box with their number.

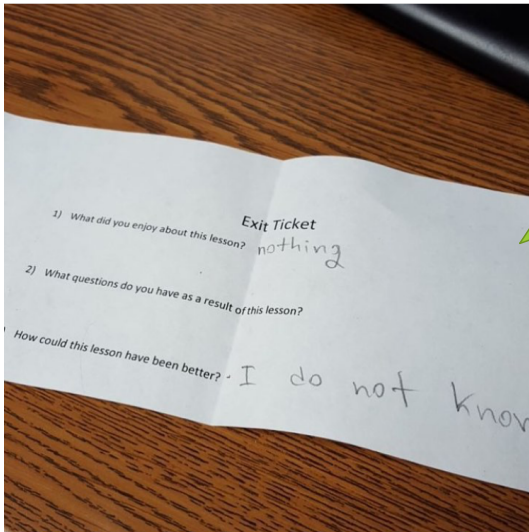


From *Differentiation in the Elementary Grades* (Doubet & Hockett, 2017, ASCD)

ULTIMATE Goal of Formative Assessment



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But simply using an Exit Slip does not guarantee success....

Rather, it's about the questions we ask ON the exit slips!



...

SAMPLE "Customize-able" PROMPT

MISUNDERSTANDINGS

- One misunderstanding someone might have about **[e.g., how to solve this problem]** is _____
- Here's what I might say to that person to help them better understand the "truth":

From Doughty & Hockett (July, 2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Be Sure to...

What should someone "be sure to do" when [solving the kind of problem we have been working on this week]?

He/she should be sure to...

...because...

From Doughty & Hockett (July, 2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Name: _____ Date: _____



What was the point of today's lesson?



What's all "squared away" for you?



What from today's lesson can't you quite wrap your head around yet?

Rebecca Yaple – Norfolk, VA

From Doughty & Hockett (July, 2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Linear Equations

3: Provide **three** ways in which we can solve a system of linear equations.

2: Write **two** questions you have about solving systems of linear equations.

1: Solve this one system of equations using the method of your choice. Then, explain why or why not another method would also work.

$$x - y = 11$$

$$2x + y = 19$$

Jennifer Monk

From Doubet & Hockett (2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Systems of Equations

Solve this system of equations using any of the three methods we have studied:

$$\circ 16x - 10y = 10$$

$$\circ -8x - 6 = 6$$

Indicate which method you used and explain WHY you chose that method.

What is one way that this system of equations could be used in the real world?"

Jennifer Monk

From Doubet & Hockett (July, 2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Congruence

Definition	Attributes of Congruent Figures
Draw and Explain 2 Examples:	Draw and Explain 2 Non-Examples:

From Doubet & Hockett (2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Talk with an Elbow Partner

What ideas do you like? Which might you use? How might you adapt them to better suit your classroom?



Workshop Driving Questions

- ❑ What is differentiation? What's its relationship to equity?
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Assess, Then What?

We'll watch five videos of classrooms that show teachers formatively assessing and then “doing something” with the results.

The examples differ in “prep time” required from the teacher.



Classroom 1: My Favorite “No”

What does this teacher do to check for individual understanding?

Does her approach yield usable results?

What techniques will you “borrow”? What techniques do you question?



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



My Favorite “No!”



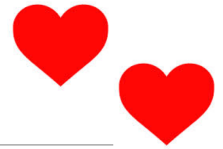
- Teacher poses an opening question (OR an exit question from the previous day OR student responses posted to a discussion board the night before, etc.)
- Teacher chooses a common and critical error in student work to highlight
- Teacher rewrites the response/error (in her own handwriting) at the beginning of class and explains to students that it's her “Favorite No” because 1) it highlights a key learning point that many students confuse, and 2) it features some “good math” along with the mistake
- The teacher leads the class in discussion of what's been done correctly in the problem, and then moves to an error analysis
- All students complete a similar problem to show that they can avoid the mistake, or “favorite no,” in their future work.

What if they are in different places...?



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My Favorite “No-s”



- Form small groups according to the patterns of common errors students are making
- Give them a sample of student work to examine, evaluate, and correct
- Provide a way of each group checking their accuracy (answer key, a recording – audio or visual)
- Ask each individual student to solve a new problem or problems (to make sure they can correct their errors independently)

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Classroom 2: Error Analysis


- What might you have students examine in order to analyze work for misconceptions, errors, etc.
- How could you adapt this strategy to respond to differences in student readiness?



<https://www.teachingchannel.org/videos/students-learn-from-mistakes-ccssmdc>

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Students' Task Directions



You are the teacher and have to assess this work.

- What do you like about Ava's work?
- What method did she use? Is it clear? Is it accurate? Is it efficient?
- What errors did Ava make?
- How might her work be improved?

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Classroom 3: Stations

- In this clip you will see a teacher and co-teacher addressing **readiness** needs by pulling small groups.
- How do students seem to feel about working with the teachers? What management techniques make this possible?



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Adjusting Tasks for Student Readiness

Greater Leap from what is familiar	←→	Smaller Leap from what is familiar
More Expert-Like	←→	More Novice-Like
More Abstract	←→	More Concrete
Multiple Facets	←→	Fewer Facets
"Fuzzy"/Open Problems or Tasks	←→	Well-Defined Problems or Tasks
Loosely-Structured Process	←→	Highly-Structured Process

Adapted from Tomlinson's "Equalizer", 2015

Adjusting Math Tasks for Student Readiness

? ←→ ?

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Task for Pattern 2

[This #] of the equations that you solved are incorrect. Find the incorrect solutions and fix them

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The highlighted portions of each equation show where you made errors. Determine what those errors were & fix them.

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Talk with an Elbow Partner

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Differentiation

Tomlinson, 2014

is a teacher's proactive response to learner needs

shaped by mindset

and guided by general principles of differentiation

Building Classroom Community

High-Quality Curriculum

Ongoing Assessment

Flexible Grouping & Management

Teaching Up thru Respectful Tasks

Teachers can differentiate by adjusting

Content

The "stuff" that students grapple with to reach the learning goals

Process

How students take in and make sense of the content

Product

How students show their knowledge, understanding, and skill

according to **turns in student**

Readiness

Where a student is in his or her grasp of learning goals at a certain point in time

Interest

Passions, affinities, kinships that motivate learning

Learning Preference

How a student prefers or seems to learn best

using a variety of strategies.

3 Kinds of Patterns

Readiness

Where a student "is" in his or her grasp of learning goals at a certain point in time



Interest

Passions, affinities, and kinships that motivate learning



Learning Preference

How a student prefers or seems to learn best



Interest and Learning Preference



PROVIDING STUDENTS WITH CHOICES TO DEMONSTRATE GRASP OF LEARNING GOALS (HOW-TO-S, TEMPLATES, AND EXAMPLES).

Giving Choices Increases

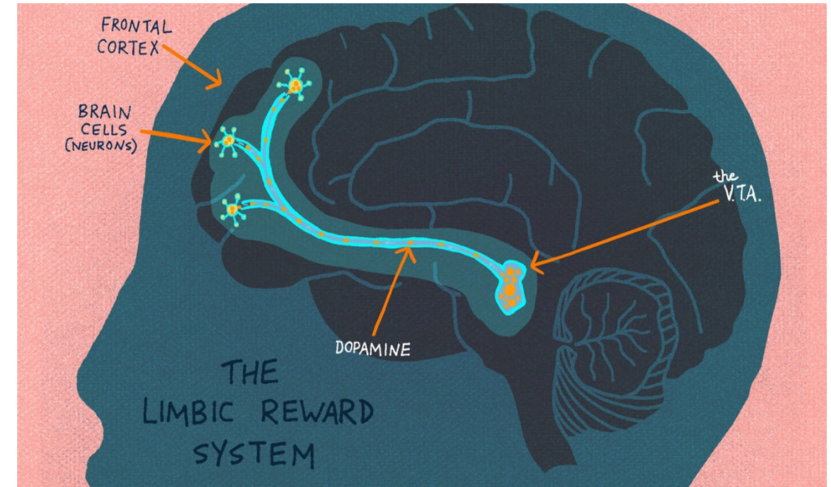


Motivation occurs when we have a kinship with . . . or Interest in . . . or passion for what we are attempting to learn.

Piaget, 1978

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Brain Research and Interest



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Exit Slips for Determining Interest

Rank and Relate

1. Rank the following [topics, people, events] that we've studied in order of how interesting they are to you (5= most interesting; 1 = least interesting)
2. How are the topics that you ranked #1 and #5 related or connected to each other

Rank and Relate

1. As we continue our lesson tomorrow, would you rather learn about _____ by
 - Watching _____?
 - Reading _____?
 - Listening to _____?

This Just In!

1. Restate the most interesting thing you have learned this week as either a news headline or a billboard sign.
2. Explain what made this interesting to you.

What is Making Things Click?

1. What happens in this class that helps you learn (for example, strategies, the way ideas are presented, your grouping configurations, etc.)?
2. What's one thing I (your teacher) could do to improve [this class, this unit, this topic] for you?

From Doubet & Hockett (2017). *Differentiation in the Elementary Grades: Strategies to Engage and Equip All Learners*. ASCD.

Two Kinds of Interest

PERSONAL INTEREST

- Interests of personal value that students bring to the classroom
- Developed over time
- Activated internally
- Beyond the teacher's control
- Arises in part from situational interest
- Important for "holding" students

SITUATIONAL INTEREST

- Interests that arise in or from a situation
- Spontaneous or "in-the-moment"
- Activated by the environment
- Within the teacher's control
- Precedes personal interest
- Important for "hooking" students

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Sometimes Choices are Low Prep



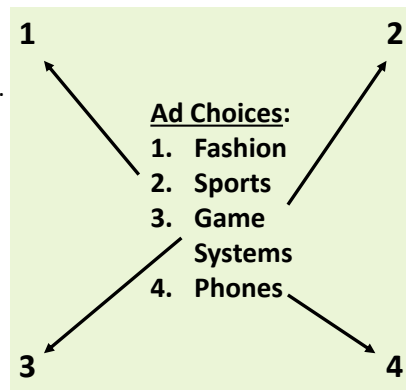
Interest Inquiry Groups

Interest Groups

- Students choose from the following ad options:
 - Fashion (clothing “club” subscriptions)
 - Sports (season tickets)
 - Game Systems
 - Phones
- In pairs or groups of 3 with others who chose same option, students analyze the ads - and fine print - to determine which is the better deal.

“4 - Corners” Strategy

- Use four general areas of interest to group students for work on tasks that directly relate to these areas of interest.
- Post each choice in a corner (or display choices from a screen), and ask students to report to their chosen corner.
- Students can subdivide into pairs or trios to keep groups manageable.
- Have materials or instructions waiting at each corner.



Adjusting Algebra Problems to Appeal to Student Interest

Interest	Problem Text
Traditional	<p>A sample of ten middle school students was asked to count the number of writing utensils that they own. Their responses are represented in the following set of numbers: 5, 4, 2, 10, 6, 14, 8, 5, 1, 8</p> <ul style="list-style-type: none"> What is average of the set numbers? What is the median of the set of numbers? Create a “five-number summary” of the data and display it in boxplot format What patterns do you see in the data?
Video Games	<p>A sample of ten middle school students that play video games was asked how many hours they spend playing each week. Their responses are represented in the following set of numbers: 5, 4, 2, 10, 6, 14, 8, 5, 1, 8 [same questions as traditional problem]</p>
Social Media	<p>A sample of ten middle school students that use Facebook was asked how many status updates they post each week. Their responses are represented in the following set of numbers: 5, 4, 2, 10, 6, 14, 8, 5, 1, 8 [same questions as traditional problem]</p>
Sports	<p>The girl’s basketball coach was frustrated with the amount of players fouling out. For the next five games, the coach kept a record of every time a player committed a foul. The numbers below represent each player’s total amount of fouls over a five-game period. 5, 4, 2, 10, 6, 14, 8, 5, 1, 8 [same questions as traditional problem]</p>

Bottom Line: Student Interests Matter

“...Student interests are anything but tangential to learning. They are conduits to motivation, relevance, and understanding. They even affect whether a struggling student will remain in school or become one of the increasing number of dropouts.

~Sousa and Tomlinson in *Differentiation and the Brain*

Some Choices take More Time to Prepare



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Book: pp. 216-222

Tri-Mind

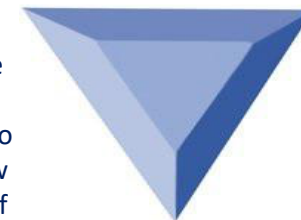


- A STRATEGY FOR DESIGNING INSTRUCTIONAL TASKS AND ASSESSMENTS THAT CONTAIN ANALYTICAL, PRACTICAL, AND CREATIVE ELEMENTS

Tri-Mind: Math Problem-Solving

Objective: Students will understand that skilled mathematicians can solve problems, explain how to solve problems, and model problems

Analytical
Solve the problem.
Then, give someone else step-by-step directions for how to solve it. Include how the person can tell if they're right.



Practical
Solve the problem.
Then, come up with a list of practical tips (Do's and Don'ts) for solving this kind of problem.

Creative
Solve the problem.
Then, come up with another problem like it for someone else to solve. Use different numbers and a different situation.

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Tri-Mind Example – Geometric Sequences

(Heather Waller)

Task Options (Choose One)		
Analytical	Practical	Creative
<ul style="list-style-type: none"> Present a step-by-step approach to identifying common differences/ratios and extending arithmetic/geometric sequences to at least seven terms for your classmates. Include examples with your steps. Include a defense of your approach that argues for its soundness Make sure to define the types of sequences and the terms common difference and common ratio. 	<ul style="list-style-type: none"> Think of some times you have used arithmetic and geometric sequences in your everyday life. Explain how you used these sequences and why it was helpful and important to use this process. Make sure to define the sequence types, identify the common difference/ratio for your sequences and what these terms mean, and extend the sequences to at least seven terms. 	<ul style="list-style-type: none"> Create a new arithmetic and geometric sequence that extends to at least seven terms. Come up with a context or story about where this sequence comes from or means. Design a visual to clarify the terms in your sequence. Make sure to define the types of sequences and common difference/ratio. Identify the common difference/ratio for your sequences.

From Carbaugh, E.M. & Doubet, K.J. (2016). *The differentiated flipped classroom*. Thousand Oaks, CA: Corwin Press. p.76.

Book: pp. 223-231



The PROFILER

- A FRAMEWORK FOR DEVELOPING ASSIGNMENT CHOICES GEARED TOWARD VARIOUS MULTIPLE INTELLIGENCE PREFERENCES REPRESENTED IN THE CLASSROOM.
- A WAY OF CONNECTING STUDENTS TO THE WORKING WORLD AS WELL AS WITH ROLES OR AUDIENCES FOR THEIR WORK.

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MS Profiler: Measures of Central Tendency

Songwriter: An educational website has hired you to 1) choose a popular tune that would appeal to middle schoolers and 2) create accompanying lyrics that would help students remember what mean, median, and mode are, and when it might be best to use each one (*Musical*)

Screenwriter: Write a humorous screenplay for a television learning channel in which the mean, median, and mode of set of data (as numbers) are discussing how and when they would be most useful. Your "characters" should engage in arguments about which measure of central tendency is the best and why (*Linguistic*)

Newspaper staff: Choose a set of data about your school (absenteeism, school lunch purchases, etc.) and create a series of graphs depicting the mean, median, and mode of the data to better illustrate the issue to students, teachers, admin, and parents. Your captions should explain what each MCT can and cannot depict (*Spatial*)

Blogger: Write an entry reflecting on your week and the decisions you made/conversations you had. Discuss when you had to use mean, median, and mode in order to make decisions or to help others do so. Be sure to discuss your thought process – how you knew when to use each mode – (*Intrapersonal*)

From Doubet & Hockett (2015). *Differentiation in Middle and High School: Strategies to Engage All Learners*. ASCD.

Book: p. 118-119

RAFT



- A STRATEGY FOR CREATING DIFFERENTIATED PERFORMANCE TASKS, ORIGINALLY DEVELOPED TO HELP TEACHERS THINK ABOUT AND PLAN FOR TEACHING DIFFERENT KINDS OF WRITING (SANTA, 1988; BUEHL, 2009).
- RAFT IS MOTIVATING BECAUSE IT GIVES STUDENTS *CHOICE*, APPEALS TO THEIR *INTERESTS* AND *LEARNING PROFILES*, AND CAN BE ADAPTED TO STUDENT READINESS LEVELS

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Equivalent Fractions

Developed with Teachers at Amistad Dual Language School – NYC

ROLE	AUDIENCE	FORMAT	TOPIC
1/4	1/8	Picture with captions	I don't care if you LOOK bigger, I AM bigger
1/2	2/4	Text Message	Can you believe we're twins?
1 3/5	8/5	Conversation	I think we're the same. Let's see...

From Doubet & Hockett (in press)
Differentiation in the Elementary Grades: Strategies to Engage and Equip All Learners. ASCD.

Algebra RAFT

Role	Audience	Format	Topic
Coefficient	Variable	Email	We belong together
Scale / Balance	Students	Advice column	Keep me in mind when solving an equation
Variable	Humans	Monologue	Please see all that I can be
Variable	Algebra students	Instruction manual	How and why to isolate me
Algebra	Public	Passionate plea	Why you really do need me!

Jann Leppien, MT, '09

Book: pp. 253-262



LEARNING MENUS

LEARNING MENUS OUTLINE A VARIETY OF INSTRUCTIONAL OPTIONS TARGETED TOWARD IMPORTANT LEARNING GOALS. STUDENTS SELECT AND COMPLETE THE ASSIGNMENT OPTIONS THAT MOST APPEAL TO THEM.

Last's delicious fractions restaurant menu

Appetizer



- **Bruschetta** - Whole class discussion about writing word problems for fraction division

Main (Complete both)



Side dishes (Choose two)



- **Sirloin Steak** - Lesson 8.5 writing word problems
- **Herb-encrusted breaded Fish** - Chapter 8 Review/Test
- **Green beans** - Dividing fractions worksheet
- **Lightly Roasted Asparagus** - Enrichment 8.5
- **Roasted Rosemary Potatoes** - [Khanacademy video](#) on dividing fractions
- **Whipped potatoes** - Pie picture worksheet (in pairs)
- **Tricolor Salad** - Standards practice 8.5



Dessert (Choose one)

- **Chocolate mouse** - Use Scratch to code a model for a dividing fractions problem
- **Ice cream Sundae** - Write a worksheet of dividing fractions problems based on food/sport/music
 - **Fruit salad** - Design a poster explaining how to divide fractions
 - **Pecan Pie** - Design a PowerPoint presentation explaining how to divide fractions.

From Doubet & Hockett, *Differentiation in the Elementary Grades* (2017)

One Student's Plea

"Please, please, please try to just shake it up sometimes. Give us a variety of work and activities and don't just stick to the same type of lesson everyday."

Annual Student Survey of Academic Experience, Authentic Education, Hopewell NJ

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Talk with an Elbow Partner

What ideas do you like? Which might you use? How might you adapt them to better suit your classroom?



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"Differentiation is making sure that the right students get the right learning tasks at the right time. Once you have a sense of what each student holds as 'given' or 'known' and what he or she needs in order to learn, differentiation is no longer an option; it is an obvious response."

Assessment as Learning: Using Classroom Assessment to Maximize Student Learning
Lorna M. Earl – Corwin Press, Inc. – 2003 – P.86-87

Many Featured Examples from...



All are available at

www.KristinaDoubet.com

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