

Differentiation in the Math Classroom

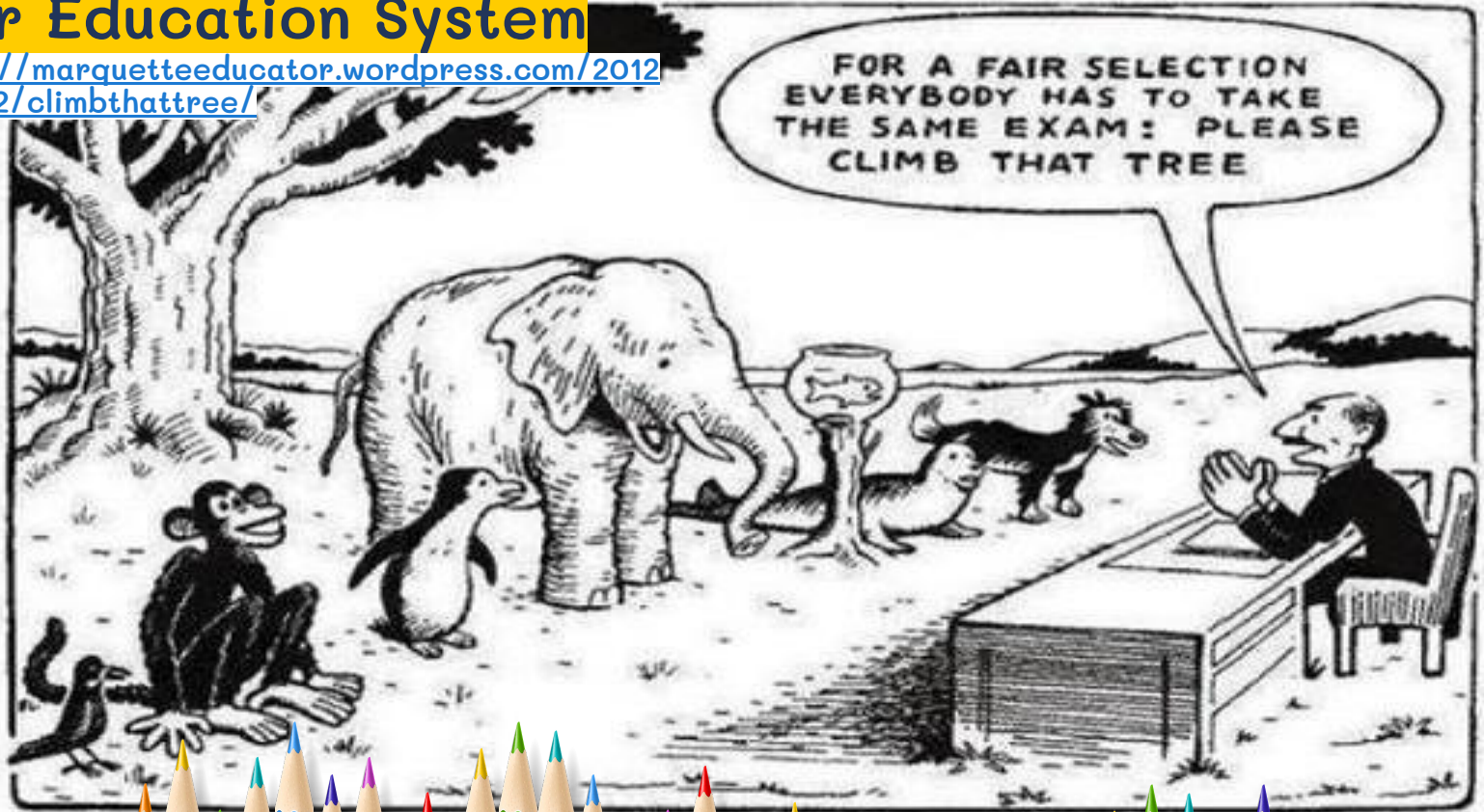
Stacey Knerr

K-12 Math Department Supervisor
Cumberland Valley School District
sknerr@cvschools.org



Our Education System

<https://marquetteeducator.wordpress.com/2012/07/12/climbthattree/>



Education System

Today's Learning Objectives...

- x What differentiation is and isn't.
- x Reasons why we differentiate?
- x Knowing the role of the teacher
- x Planning for differentiation: content, process and product.
- x Flexible groupings



What are we trying to achieve through differentiation?

- ✗ Increased student achievement
- ✗ Increased confidence in learning
- ✗ Engagement
- ✗ Self-directed learning behaviors

STRONG
NEVER
VE UP



Differentiation



Is a teacher's response to learner's needs



Respects the different learning needs of students and expects all students to experience success as learners.



Differentiation

Is a teacher's response to learner's needs

Respects the different learning needs of students and expects all students to experience success as learners.

Guided by the general principles of differentiation.

Quality
Curriculum

Ongoing
Assessment

Meaningful
Tasks

Flexible
Grouping

Expectations

Relationships



General Principles of Differentiation



Quality Curriculum

What do we want students to be able to know, understand, and do as a result of their learning? Relevance? Real-world?

Ongoing Assessment

Prior assessment for student interest and readiness. Ongoing formative assessment and feedback measuring progress. Summative to allow students to demonstrate what they have learned.

Meaningful Tasks

Challenging, interesting, and worth doing. May be adjusted for different readiness levels, interests, or learning preferences.

Flexible Grouping

Students work in a variety of arrangements. Small Groups/Partner/Individually/Whole Class

Expectations

All students should be working at a level of complexity that is just above their comfort level. By providing each students with reasonable levels of challenge and instructional scaffolding as needed students learn that hard work results in successful growth.

Relationships

Building a learning community where students feel safe, accepted, and supported.

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DIFFERENTIATED THROUGH

Content

Process

Product



Content

- ✗ Audio/Video
- ✗ Graphic Organizers
- ✗ Curriculum Compacting
- ✗ Highlighted Material
- ✗ Mini-lessons
- ✗ Varying/Supplementary Texts
- ✗ Visuals/Graphic Organizers
- ✗ Vocabulary Lists

Process

- ✗ Group Work
- ✗ Tiered Activities
- ✗ Manipulatives
- ✗ Varying length of time
- ✗ Strategies

Product

- ✗ Options (Choice Board)
- ✗ Rubrics
- ✗ Alone or groups
- ✗ Student Created Product





Learning Environment



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DIFFERENTIATED THROUGH

Content

Process

Product

The knowledge understanding and skills we want students to learn

How students come to understand or make sense of the content

How students demonstrate what they have come to know, understand, and are able to do after an extended period of learning



DIFFERENTIATE

Content

Process

Product

According to students

Readiness

Interest

Learning Profile



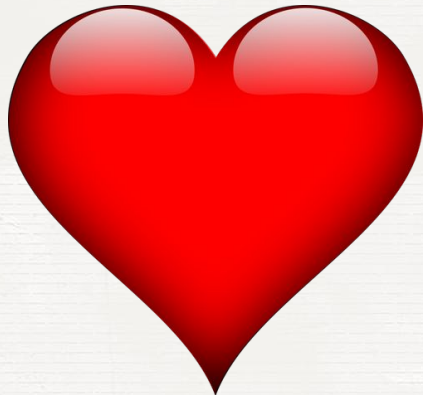


This is not new...just doing things better!

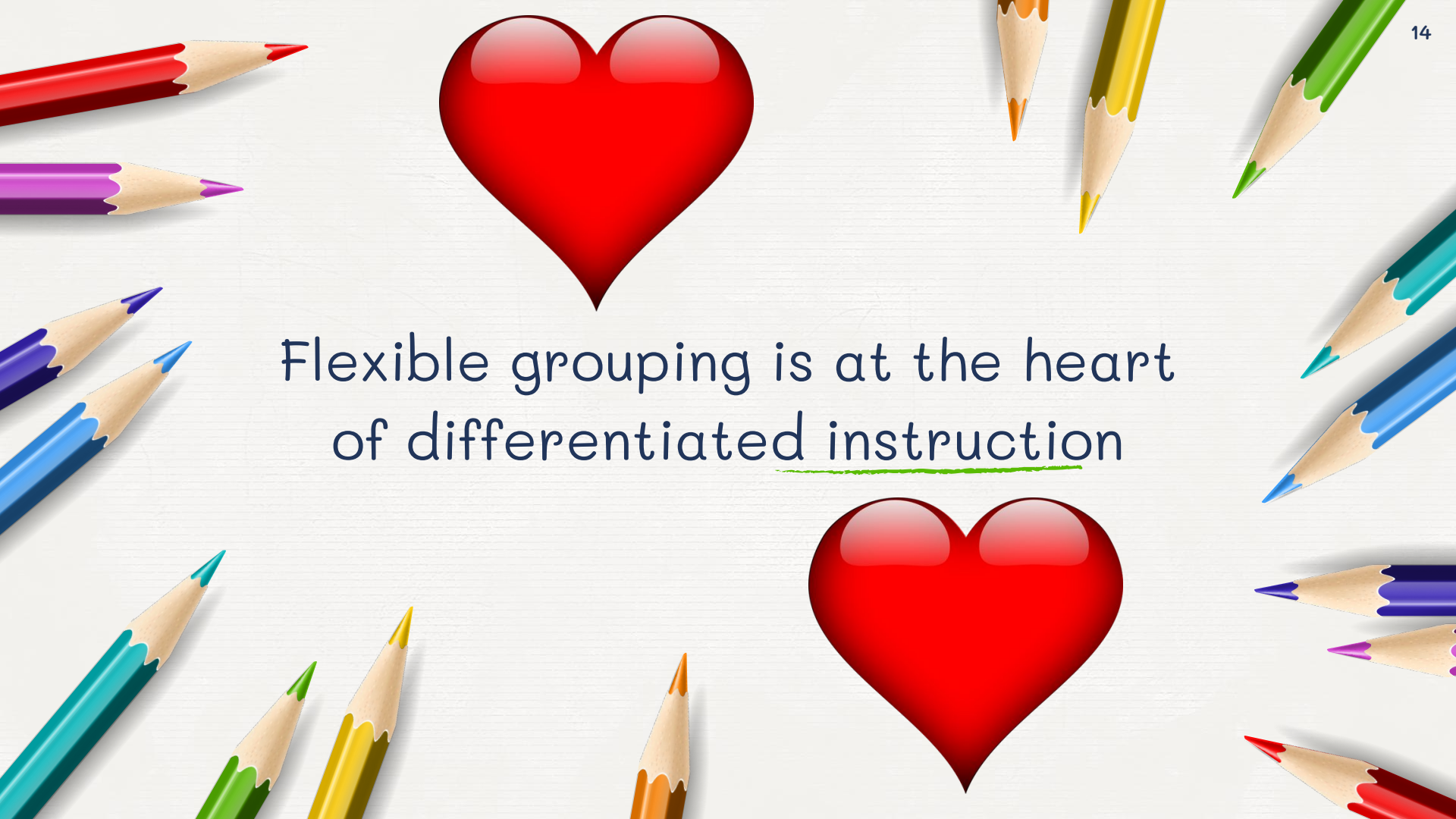


Differentiating instruction is doing what's fair for students. It's a collection of best practices strategically employed to maximize students' learning at every turn, including giving them the tools to handle anything that is undifferentiated. It requires us to do different things for different students some, or a lot, of the time. It's whatever works to advance the student if the regular classroom approach doesn't meet students' needs. It's highly effective teaching.

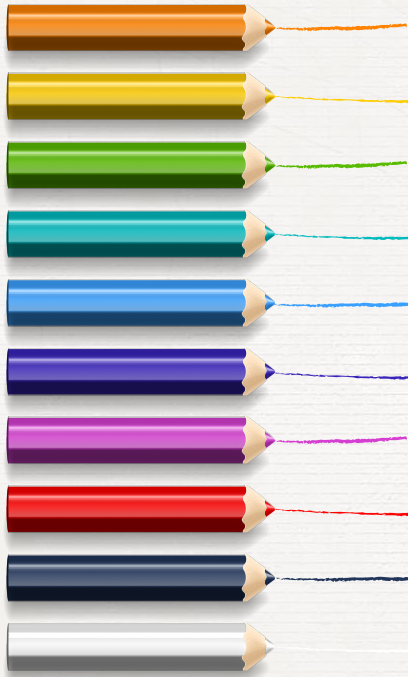




Flexible grouping is at the heart
of differentiated instruction



Extra resources



How to Differentiate in Mixed Ability Classrooms Carol Ann Tomlinson, ASCD 2001

How to Differentiate Instruction in Academically Diverse Classrooms 3rd Edition Carol Ann Tomlinson, ASCD 2017

<https://www.hmhco.com/blog/strategies-for-differentiated-math-instruction>

<https://www.ascd.org/el/articles/creating-a-differentiated-mathematics-classroom>



Thanks!

Any questions?

You can find me at:

@Cumberland Valley School District

sknerr@cvschools.org

Credits

Special thanks to all the people who made and released these awesome resources for free:

- ✗ Presentation template by [SlidesCarnival](#)
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