

Shaping Curriculum and Instruction to Maximize Learning for All

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“The fact that students differ may be inconvenient, but it is inescapable. Adapting to that diversity is the inevitable price of productivity, high standards, and fairness to kids.”

- Theodore Sizer, Brown University

“The biggest mistake of past centuries in teaching has been to treat all children as if they were variants of the same individual and thus to feel justified in teaching them all in the same way.”

-- Howard Gardner

Why Differentiation?

- ***The Humanistic reasons: What would you want for your child?***
- ***The practical reasons: Does it work?***

The Animal School

by George Reavis

Once upon a time the animals decided they must do something heroic to meet the problems of a “new world” so they organized a school. They had adopted an activity curriculum consisting of running, climbing, swimming and flying.. To make it easier to administer the curriculum, all the animals took all the subjects.

The duck was excellent in swimming. In fact, better than his instructor. But he made only passing grades in flying and was very poor in running. Since he was slow in running, he had to stay after school and also drop swimming in order to practice running. This was kept up until his webbed feet were badly worn and he was only average in swimming. But average was acceptable in school so nobody worried about that, except the duck.

The rabbit started at the top of the class in running but had a nervous breakdown because of so much makeup work in swimming.



The squirrel was excellent in climbing until he developed frustration in the flying class where his teacher made him start from the ground up instead of the treetop down. He also developed a “charlie horse” from overexertion and then got a C in climbing and D in running.



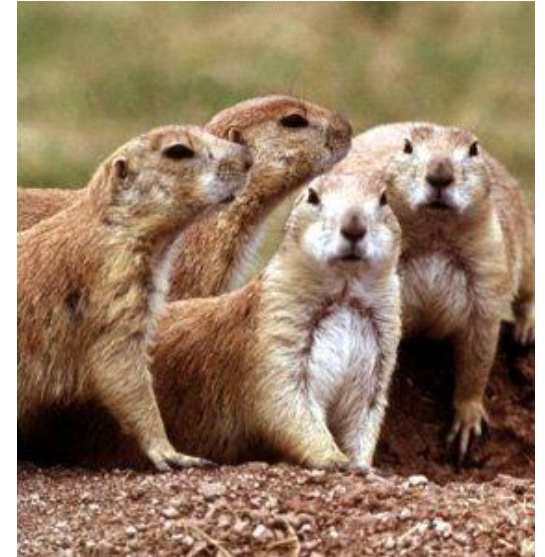
The eagle was a problem child and was disciplined severely. In the climbing class, he beat all the others to the top of the tree but insisted on using his own way to get there.



At the end of the year, an abnormal eel that could swim exceedingly well and also run, climb and fly a little had the highest average and was valedictorian.



The prairie dogs stayed out of school and fought the tax levy because the administration would not add digging and burrowing to the curriculum. They apprenticed their children to a badger and later joined the groundhogs and gophers to start a successful private school.



Does this fable have a moral?

Note: This story was written when George Reavis was the Assistant Superintendent of the Cincinnati Public Schools back in the 1940s! This content is in the public domain and free to copy, duplicate, and distribute.

The Practical Reason: Does it Work?

- ***Results in student learning from differentiation are difficult to separate out from other good practices.***
- ***However, there has long been research evidence that components of differentiation indeed correlate to student achievement.***

Does Differentiation Work?

- ***It is typically in place in quality districts that show student learning gains. However, there can be compounding factors.***
- ***Anecdotal studies***
- ***Tomlinson research review provides support for factors within differentiation. (Tomlinson et al 2003 Journal for the Education of the Gifted)***

Does Differentiation work?

A 2007 research study found a more direct link between differentiation and student achievement.

The level of differentiated instruction reported by 4th grade teachers was positively and significantly associated with student achievement in both reading and mathematics on high stakes state assessments when other factors were held constant.

Best recent evidence

- ***Goddard, Y. L., & Goddard, R. D. (2007, November). A statewide study of the effects of differentiated instruction on fourth grade students' mathematics and reading achievement. Paper presented at the University Council for Educational Administration annual conference, Washington, DC.***

And What is it Really?

Differentiation is the **recognition** of and **commitment** to plan for student differences. A differentiated classroom provides different avenues to acquire content, to process or make sense of information and ideas, and to develop products.

The Goals...

... of a differentiated classroom are to maximize student growth and to promote individual student success.

Basic Understandings

- The increasing diversity of students requires an alternative to the one-size-fits-all approach to heterogeneous classrooms.
- Educating **all** our students requires clear commitment to gifted and special education students, as well as those students whose performance is more “typical”.
- There should be no walls and no ceilings to learning.

Clearing Up Common Misunderstandings

Differentiation uses flexible grouping.

- Teachers implement flexible grouping strategies that cluster students by achievement in a particular subject area, interest, learning style, personal choice, and/or ability.
- **The key is flexible.** Teachers move students in and out of groups after assessing students' instructional needs.

Some Basic Principles

- ***We differentiate instruction when we use a variety of instructional techniques that enable us to meet the diverse learning needs of our students.***
- ***It is not the cumbersome technique of individualization. It can be thought of as grouped individualization.***

Differentiation is...

- ***Providing multiple assignments within each unit, tailored for students of different levels of readiness, interest, and/or learning style***
- ***Having high expectations for all students. Aim high and differentiate down as necessary.***

Differentiation is...

- ***Permitting students to opt out of material they can demonstrate they know and to progress at their own pace through new material.***

Differentiation is...

- ***Allowing students to choose, with the teacher's guidance, ways to learn and to demonstrate what they have learned.***
- ***(Keep in mind, it's with the teacher's guidance. The teacher has the final word!)***

Differentiation is...

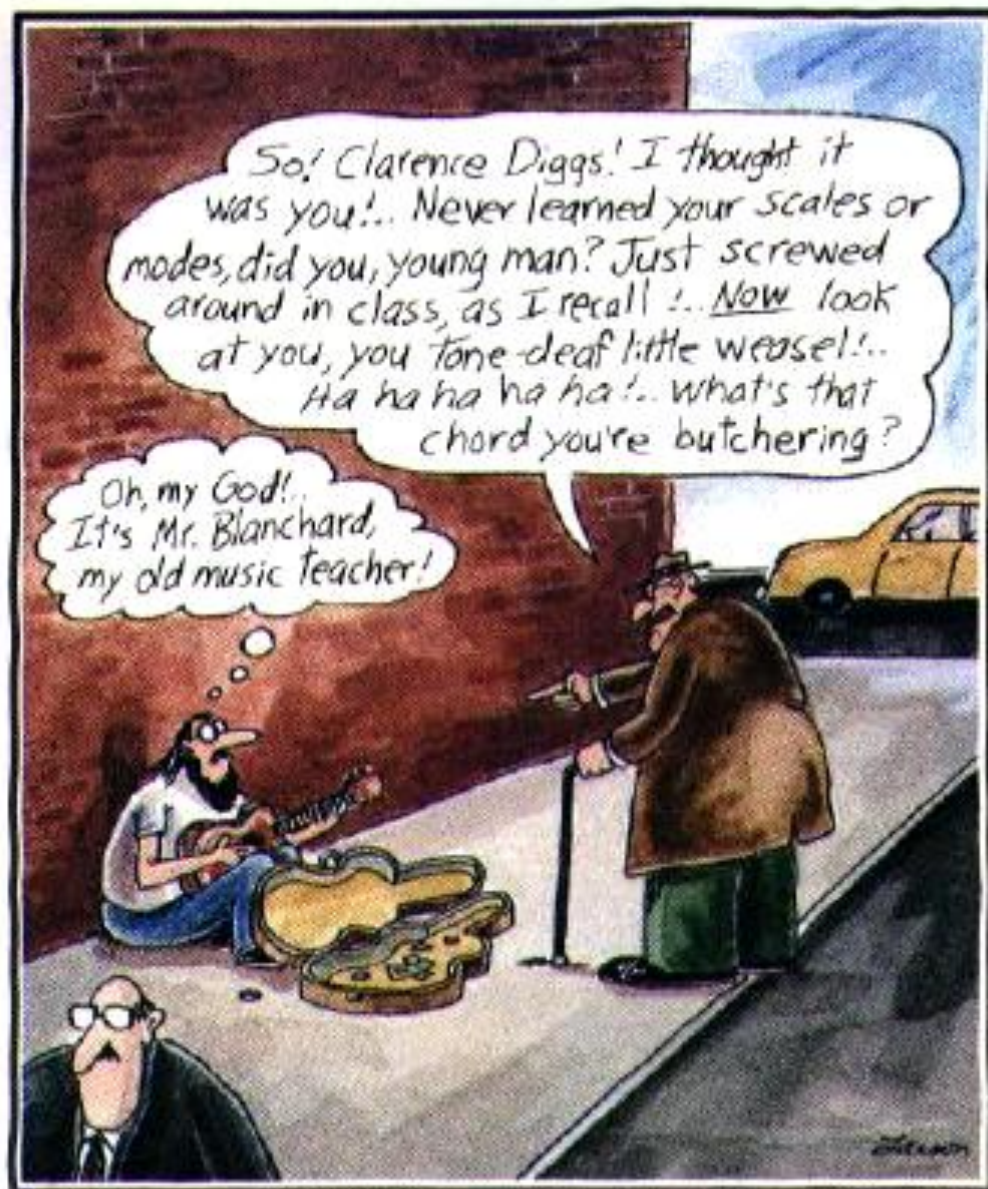
- ***Providing students with opportunities to explore topics in which they have strong interest and find personal meaning.***
- ***Implementing flexible grouping strategies that cluster students by achievement in a particular subject area, interest, learning style, personal choice, and/or ability.***

Differentiation isn't...

- ***Individualization. It isn't a different lesson plan for each student each day.***
- ***Giving all students the same work most of the time, even in achievement or ability grouped classes.***

Differentiation isn't...

- ***Assigning more math problems or more reading at the same level to high achieving students.***
- ***Focussing on student weaknesses and ignoring student strengths.***



So! Clarence Diggs! I thought it was you!.. Never learned your scales or modes, did you, young man? Just screwed around in class, as I recall !.. Now look at you, you tone-deaf little weasel!.. Ha ha ha ha ha!.. What's that chord you're butchering?

Oh, my God!.. It's Mr. Blanchard, my old music teacher!

Differentiation isn't...

- ***Requiring students to teach material that they have already mastered to others who have not yet obtained mastery.***
- ***Depending solely upon the differences in student response to whole class assignments to provide differentiation.***

Where to Start

***Rome wasn't
built in a day.
Begin with
areas with
which you are
the most
comfortable.***



The Equalizer

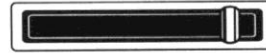
1. Foundational



Transformational

Information, Ideas, Materials, Applications

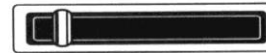
2. Concrete



Abstract

Representations, Ideas, Applications,
Materials

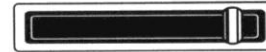
3. Simple



Complex

Resources, Research, Issues, Problems,
Skills, Goals

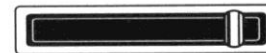
4. Few Facets



Many Facets

Disciplinary Connections, Directions,
Stages of Development

5. Smaller Leap



Greater Leap

Applications, Insight, Transfer

6. More Structured



More Open

Solutions, Decisions, Approaches

7. Clearly Defined
Problems



Fuzzy
Problems

Process, Research, Products

8. Less
Independence



Greater
Independence

Planning, Designing, Monitoring

9. Slower



Quicker

Pace of Study, Pace of Thought