DIFFERENTIATED INSTRUCTION

Dyslexia Summer Institute
July 31, 2013
What is Differentiated Instruction?
Differentiated instruction is a teaching philosophy based on the premise that teachers should adapt instruction to student differences.

Rather than marching students through the curriculum lockstep, teachers should modify their instruction to meet students’ varying readiness levels, learning preferences, and interests.

Therefore, the teacher proactively plans a variety of ways to ‘get at’ and express learning.”

Carol Ann Tomlinson
Educators are challenged to teach all kinds of learners to high standards, yet a single classroom may include students who struggle to learn for any number of reasons, such as...

http://www.cast.org/research/udl/index.html
“It means teachers *proactively* plan varied approaches to *what* students need to learn, *how* they will learn it, and/or how they will *show what they have learned* in order to increase the likelihood that each student will learn as much as he or she can, as efficiently as possible.”
Why Differentiate?

- English language barriers
- Dyslexia
- Sensory/physical disabilities
- Learning disability
- High Achieving
- Gifted and Talented
- Lack of interest or engagement
One Size Doesn’t Fit All
Differentiation Responsive Teaching

Effective with all students

Students thrive

Data is powerful

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**BEST PRACTICES: UNIVERSAL DESIGN**

*Multiple means of representation:* To give learners various ways of acquiring information and knowledge.

*Multiple means of engagement:* To tap into learners’ interests, offer appropriate challenges and increase motivation.

*Multiple means of action and expression:* To provide learners alternatives for demonstrating what they know.
Assessment drives instruction. (Assessment information helps the teacher map next steps for varied learners and the class as a whole.)

Assessment occurs consistently as the unit begins, throughout the unit and as the unit ends.

Teachers assess student readiness, interest and learning profile.
Assessment is part of “teaching for success.”

Assessment information helps students chart and contribute to their own growth.

Assessment is more focused on personal growth than on peer competition.

Assessment information is more useful to the teacher than grades.
HOW DO I ASSESS IN A DIFFERENTIATED CLASSROOM

- You can assess the following: completion of tasks, ability to work with and listen to others, participation levels, respects self and others, ability to discuss, explain, make connections, debate, support opinions, infer, reason, re-tell, describe, report, predict etc.
Reform must come from within, not from without.

WE, are the Agents of Change... nothing can change unless we change ourselves and our ways of teaching

James Gibbons
THEORY OF MULTIPLE INTELLIGENCES

Dr. Howard Gardner
Multiple Intelligences Inventory

Howard Gardener’s Multiple Intelligences Inventory

Concept to Classroom
http://www.thirteen.org/edonline/concept2class/mi/index.html

How Are You Smart
http://literacyworks.org/mi/assessment/findyourstrengths.html

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Differentiate by Students’ Learning Style & Challenge Levels

- **Learning Style:** How We Think and Learn
  - Variety: Multiple Intelligences
    - Howard Gardner

- **Challenge Levels (readiness):** Rigor, Relevance & Complexity
  - Challenge! **NOT** more.
  - Blooms Taxonomy: 6 Levels of Thinking
    - Challenge Levels
CHOICE: CHALLENGE & LEARNING STYLE:

- Bloom’s Taxonomy & Gardner’s M.I.
  - Content + Process + Product = learning experience
    - **Content** = what are students learning about?
    - **Process** = what level of thinking is required?
    - **Product** = how will the results of learning be represented/assessed?

- Ex: **Compare and contrast** a scene in a novel with the movie version of the same scene by presenting your ideas in a storyboard of words and pictures.
DIFFERENTIATION STRATEGIES
DIFFERENTIATION STRATEGIES: PART I

- Pre Assessment
- Curriculum Compacting
- Learning Contracts
INSTRUCTIONAL STRATEGIES

- Repeat/write directions
- Model/demonstrate
- Engage Students
  - Interactive activities
  - Vary response modes
  - Use movement and music
- Work in small groups or pairs
- Address learning styles & modalities
INSTRUCTIONAL STRATEGIES

Techniques for Scaffolding

- Modeling
- Peer Support
- Flexible Grouping
PRIOR KNOWLEDGE/READINESS: The Value of Pre-Assessment...

- Textbook Pretest
- Student/Teacher Conference - as short as a 5 minute talk
- K-N-W Chart - What do I Know, Need to know & Want to know
- Journal - Write what you know about...
- List - If I say ... What does it make you think of?
- Concept Map...
- Student Reflection
I’ve mapped out the concepts I’ve already grasped to save you time.
Modify and/or streamline regular curriculum to:

- eliminate repetition of previously mastered material
- upgrade the challenge level of the regular curriculum
- determine student “readiness”
- provide time for enrichment and/or acceleration activities
EIGHT COMPACTING STEPS (STUDENT READINESS)

1. Identify objectives Create pretest
2. Identify students to Pretest
3. Administer Pretest
4. Eliminate content in areas of mastery
5. Streamline instruction Offer enrichment or acceleration activities Keep records of progress
Learning Contracts

A written agreement between the student and the teacher which includes opportunities for the student to work relatively independently on primarily teacher-directed material.

**The student has:**
- Some freedom in acquiring skills and understandings
- Responsibility for learning independently
- Guidelines for completing work
- Guidelines for appropriate behavior
- Expectations tailored to readiness level
DIFFERENTIATION STRATEGIES: PART II

- Differentiation by Interest, Projects, Presentations, Performance, & Flexible Grouping
Flexible Grouping

“A hallmark of an effective differentiated classroom....is the use of flexible grouping, which accommodates students who are strong in some areas and weaker in others.

~Carol Tomlinson

Three Types of Groups:
I. Flexible (readiness, learning style…)
II. Ability/Aptitude
III. Cooperative
Flexible Grouping

Students are part of many different groups (and also work alone) based on the match of the task to student readiness, interest, or learning style.

Teachers may create skills based or interest based groups that are heterogeneous or homogeneous in readiness level. Sometimes students select work groups, and sometimes teachers select them. Sometimes student group assignments are purposeful and sometimes random.
DIFFERENTIATION STRATEGIES: PART III

• Tiered Activities
• Choice: Tic Tac Toe
• Questioning & Discussion
Tiered Instruction features:

- Whole group introduction and initial instruction
- Identification of developmental differences
- Ladder Analogy (bottom – up; challenge/complexity)
- Increase or Decrease the:
  - Abstraction/Challenge Levels (ie. application, analysis & synthesis)
  - Extent of Support
  - Complexity of:
    - outcomes
    - resources (reading levels, types of text [on-line, magazine, etc...], based on prior-knowledge levels)
    - processes (way in which students obtain information)
    - products (M.I. products)
Objective: In their study of dinosaurs, the students will be able to research and identify various theories of dinosaur extinction.

Task 1 - After researching and identifying various theories of dinosaur extinction, students will be able to create their own theory and draw a picture or diagram illustrating that theory.

Task 2 - After researching and identifying various theories of dinosaur extinction, students will be able to create a visual representation of their theory (i.e. diorama, timeline, or three dimensional model).

Task 3 - After researching and identifying various theories of dinosaur extinction, students will be able to create a visual representation of their theory and defend their theory during a class debate.
CHOICE

- Use as a choice of required products
- Code to identify challenge levels or learning style
- Warm-up/Cool-down activities
- Pure “choice” time
- Alternatives for students
- Project Menu Cards
  - Tic Tac Toe
Write a 5-7 minute persuasive speech arguing your position on the issue you have selected. Drawing from your research, select supports that best present your position, taking care to acknowledge and refute the opposing point of view. Present the speech to the class or videotape. Include a series of visuals such as graphs, charts, or tables that present information that supports your position. You may use a combination of these types of visuals.

This assignment may replace any of the above.

Create a radio script in which two people with opposing viewpoints argue the issue you have researched. Include evidence for each side, making sure to incorporate expert opinions, facts, and statistics that support both sides of the issue. Attribute your sources in the course of the script.

Select a community issue about which you feel very strongly. Using print and non-print sources, find out as much as you can about the issue. Create a works cited page of all the sources you use to research this issue. Create and turn in a series of index cards with all of your notes and sources.

Design a series of visuals such as line or bar graphs, pie charts, or tables showing information related to the issue you have selected. You may use a combination of these types of visuals. Be sure to label them clearly. Keep in mind that the way information is presented can be a powerful persuasive tool.

- Create a public service announcement related to the issue you have selected. Use persuasive strategies such as appeals to logic, ethics, or emotion as you design your PSA to convince people of the rightness of your position.
- Design a series of visuals such as line or bar graphs, pie charts, or tables showing the information related to the issue you have selected. You may use a combination of these types of visuals. Be sure to label them clearly.
- Create a public service announcement related to the issue you have selected. Use persuasive strategies such as appeals to logic, ethics, or emotion as you design your PSA to convince people of the rightness of your position.
- Sketch a political cartoon to express your opinion about the issue you have selected. Give your cartoon an ironic caption.
# TIC-TAC-TOE Choice Board

## For a Book Report

<table>
<thead>
<tr>
<th>Draw a picture of the main character.</th>
<th>Perform a play that shows the conclusion of a story.</th>
<th>Write a song about one of the main events.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Write a poem about two main events in the story.</td>
<td>Make a poster that shows the order of events in the story.</td>
<td>Dress up as your favorite character and perform a speech telling who you are.</td>
</tr>
<tr>
<td>Create a Venn diagram comparing and contrasting the introduction to the closing.</td>
<td>Write two paragraphs about the main character.</td>
<td>Write two paragraphs about the setting.</td>
</tr>
</tbody>
</table>
To demonstrate what I have learned about ________________, I want to

- Write a report
- Put on a demonstration
- Set up an experiment
- Develop a computer presentation
- Build a model
- Design a mural
- Write a song
- Make a movie
- Create a graphic organizer or diagram
- Other ____________________

This will be a good way to demonstrate understanding of this concept because

__________________________________________________________________________

To do this project, I will need help with

__________________________________________________________________________

My Action Plan is __________________________________________________________

The criteria/rubric which will be used to assess my final product is __________

__________________________________________________________________________

My project will be completed by this date _____________________________________________________________________

Student signature: ________________________________ Date __/__/__
Teacher signature: ________________________________ Date __/__/__
1. **Describe It**  
   Look at the subject closely (perhaps with your senses in mind).

2. **Compare It**  
   What is it similar to? What is it different from?

3. **Associate It**  

4. **Analyze It**  
   Tell how it is made. If you can’t really know, use your imagination.

5. **Apply It**  
   Tell what you can do with it. How can it be used?

6. **Argue for It or Against It**  
   Take a stand. Use any kind of reasoning you want—logical, silly, anywhere in between.
IDEAS FOR CUBING IN MATH...

- **Describe:** how you would solve___________
- **Analyze:** how this problem helps us use mathematical thinking and problem solving.
- **Compare or Contrast:** this problem to one on p.____
- **Demonstrate:** how a professional (or just a regular person) could apply this kind of problem to their work or life.
- **Change:** one or more numbers (elements, signs) in the problem. Give a rule for what that change does.
- **Create:** an interesting and challenging word problem from the number problem. (Show us how to solve it too)
- **Diagram or Illustrate:** the solution to the problem. Interpret the visual so we understand.
Begin Slowly – Just Begin!

Low-Prep Differentiation
Choices of books
Homework options
Use of reading buddies
Varied journal Prompts
Orbitals
Varied pacing with anchor options
Student-teaching goal setting
Work alone / together
Whole-to-part and part-to-whole explorations
Flexible seating
Varied computer programs
Design-A-Day
Varied Supplementary materials
Options for varied modes of expression
Varying scaffolding on same organizer
Let’s Make a Deal projects
Computer mentors
Think-Pair-Share by readiness, interest, learning profile
Use of collaboration, independence, and cooperation
Open-ended activities
Mini-workshops to reteach or extend skills
Jigsaw
Negotiated Criteria
Explorations by interests
Games to practice mastery of information
Multiple levels of questions

High-Prep Differentiation
Tiered activities and labs
Tiered products
Independent studies
Multiple texts
Alternative assessments
Learning contracts
4-MAT
Multiple-intelligence options
Compacting
Spelling by readiness
Entry Points
Varying organizers
Lectures coupled with graphic organizers
Community mentorships
Interest groups
Tiered centers
Interest centers
Personal agendas
Literature Circles
Stations
Complex Instruction
Group Investigation
Tape-recorded materials
Teams, Games, and Tournaments
Choice Boards
Think-Tac-Toe
Simulations
Problem-Based Learning
Graduated Rubrics
Flexible reading formats
Student-centered writing formats
**Management Suggestions**

- Explain the activity and the procedures with the whole class

- Make expectations clear – develop ground rules for:
  - Behavior
  - Performance

- Use tasks that require time and thinking – this is not an extension of the “seat-work” concept

- Provide clear instructions, materials, responsibilities, check points, and expectations (rubrics)
"I have no answers, only questions."

~Socrates, c. 300 B.C.

University of Nebraska-Lincoln Study: of questions teachers ask approximately:

- 60% require only recall of facts
- 20% require students to think
- 20% are procedural in nature

Resource:

Appendix B: Differentiating Classroom Discussion (Heacox, pgs. 150 & 152); how would you use this resource during instruction?
Open Ended Questions

- have no “right” answer
- can be discussed and debated
- provoke and sustain student inquiry
- raise other important questions
- address the conceptual or philosophical foundations of a discipline
- stimulate vital, ongoing reflection of big ideas and assumptions
“Summer’s over kids! Now, all you round pegs get back into your square holes!”
The biggest mistake we have made in 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 the same subjects in the same ways.

~Howard Gardner
A RAFT is a differentiated activity designed to address diverse interest or abilities.

In a RAFT activity, participants assume a role and develop a product on a selected topic for a specific audience.

Role, Audience, Format, Topic
<table>
<thead>
<tr>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student who never speaks up in class.</td>
<td>Sarcastic, Yet Popular Teacher.</td>
<td>Anonymous Letter</td>
<td>What I Really Think About You</td>
</tr>
<tr>
<td>Mean Girl</td>
<td>Unpopular Students</td>
<td>How to Manual</td>
<td>How to Win Friends and Influence People</td>
</tr>
<tr>
<td>Student in detention.</td>
<td>Teacher Who Insists “Rules are Rules”</td>
<td>Confession</td>
<td>Why I Insist on Chewing Gum in Your Class</td>
</tr>
<tr>
<td>Underachieving student with three zeros in the grade book.</td>
<td>Over Achieving Honor Student</td>
<td>Secret Love Letter</td>
<td>We’re Not as Different as You Think</td>
</tr>
<tr>
<td>Mrs. Smith’s 3rd Grade Students</td>
<td>Mrs. Smith</td>
<td>Top Ten List</td>
<td>Things We Enjoy More Than Stickers</td>
</tr>
</tbody>
</table>

Essential Question: How do students respond to external motivators?
<table>
<thead>
<tr>
<th>Role</th>
<th>Audience</th>
<th>Format</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Problem</td>
<td>Students</td>
<td>Directions</td>
<td>How to Get to Know Me</td>
</tr>
<tr>
<td>Semicolon</td>
<td>Students</td>
<td>Diary Entry</td>
<td>If You Really Knew Where I Belong</td>
</tr>
<tr>
<td>Rain Drop</td>
<td>Future Rain Drops</td>
<td>Advice Column</td>
<td>The Beauty of Cycles</td>
</tr>
</tbody>
</table>

(Tomlinson, 2010)
Practical Advice

Theories about giftedness are terrific. But what do you do when you actually have an academically talented child in your class? We asked three gifted experts to provide practical, day-to-day advice on how to deal with gifted students.

First, Minna Gross discusses how to identify gifted students in “Is That a Gifted Child in the Second Row?” Sally Reis tackles “Social-Emotional Issues” with gifted students beginning on page 3. Joan Peterson explores whether gifted boys and gifted girls are different in “The Gender Issue” which starts on page 4.

IS THAT A GIFTED CHILD IN THE SECOND ROW?

CTD Talent Editor: Do you have a highly gifted child in your classroom? How would a teacher know? What should s/he do if s/he does?

Differentiation in the Classroom

What’s the most successful way to teach gifted students? Of course there is no one agreed upon answer to that question but certainly differentiation is one option. So we asked three gifted experts, Sandra Kapriel, Carol Ann Tomlinson and Joan Laglier, to talk to us about how differentiation works. (Biographies of these interviewees are at the end of the article.)

CTD Talent editor: How would you define differentiation? What does it “look like” in a classroom? What observable evidence should be present to indicate that it is going on? How does one evaluate whether differentiation is truly in place and working for students?
"If the child is not learning the way you are teaching, then you must teach in the way the child learns".

Rita Dunn
GERMAN COAST GUARD
Universal Design Resources

- http://www.washington.edu/doit/CUDE/

- https://www.washington.edu/doit/Faculty/Strategies/Universal/


- http://www.udlcenter.org/aboutudl/udlguidelines

RTI RESOURCES

- http://www.bestevidence.org/
- http://www.unl.edu/csi/study.shtml
- http://www.fcr.org/FCRRReports/reportslist.htm
- http://www.interventioncentral.org/
- http://www.studentprogress.org/
- http://www.projectachieve.info/
- http://www.joewitt.org/
- http://www.tea.state.tx.us/bestprac/
- http://www.texasreading.org/utcrla/
- http://www.teachertube.com/
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