Strategies for Differentiation: Curriculum Compacting, Tiered Assignments, Independent Projects
Welcome

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Board of Trustees
Distinguished Professor at
The University of Connecticut
Students in our classes are all so different…

Some have learning differences, and as Susan Baum explained, the bright/LD student is a child who exhibits remarkable talents or strengths in some areas and disabling weaknesses in others.

*Baum* (1991)
Learning Differences in Children

- Aptitude and Ability
- Achievement
- Academic background—poor preparation and limited exposure
- Cultural—second language acquisition, interaction style differences
- Affect (enthusiasm level and personality)
- Effort (effort vs. ability issues)
- Styles of learning style (visual, auditory, concrete, hands-on)
- Interests
- Product and processes
- Self-regulation and study skills
What is Differentiation?

Matching appropriately challenging curriculum and instruction with a student’s abilities, interests, and learning styles through a variety of instructional strategies and challenging curriculum.
But.................

- Is it happening?
- Even with good teachers?
- Or is differentiation too hard for most teachers to do well and consistently?
Too many teachers feel like this on a regular basis;

Differentiation is a Challenging Task.
Why aren’t you differentiating?
Purpose of Differentiation

1. Enhance learning match between student and curriculum;

2. Change depth or breadth of student learning;

3. Use varied learning strategies, groupings and management;

4. Enable all students to make continuous progress in all areas.
Teachers differentiate in five dimensions:

- Curriculum and content
- Process skills and instruction
- Classroom organization and management
- Student products
- Teacher (personal choices and preferences in how one teaches)
Renzulli’s Five Dimensions of Differentiation

- Content (Knowledge)
- Process (Pedagogy)
- Classroom Organization and Management
- Products (Expression Styles)

You, the teacher
Why Differentiate?

- Standard-based classrooms
- No Child Left Behind
- Student diversity in all areas
- New research on human learning
- Rapid societal and technological change
- The amount of repetitive content for some students
Various Strategies Used to Differentiate

- Curriculum Compacting
- Tiered Assignments
- Alternate Choice Assignments
- Enrichment
- Acceleration
- Using Higher Order Questions
- Grouping Options
- Independent Study and Research Studies
Why Not Let High Ability Students Start School in January?
The Curriculum Compacting Study

Sally M. Reis
Karen L. Westberg
Jonna Kulikowich
Florence Caillard
Thomas Hébert
Jonathan Plucker
Jeanne H. Purcell
John B. Rogers
Julianne M. Smist

The National Research Center on the Gifted and Talented
### INDIVIDUAL EDUCATIONAL PROGRAMMING GUIDE

**The Compactor**

<table>
<thead>
<tr>
<th>NAME ____________________________________</th>
<th>AGE _______</th>
<th>TEACHER(S) ____________________________________</th>
<th>Individual Conference Dates And Persons Participating in Planning Of IEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL ________________________________</td>
<td>GRADE ____</td>
<td>PARENT(S) ______________________________________</td>
<td>_________________________________</td>
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<table>
<thead>
<tr>
<th>CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING</th>
<th>PROCEDURES FOR COMPACTING BASIC MATERIAL</th>
<th>ACCELERATION AND/OR ENRICHMENT ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.</td>
<td>Describe activities that will be used to guarantee proficiency in basic curricular areas.</td>
<td>Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.</td>
</tr>
</tbody>
</table>

#### Name it.

- What material needs to be covered?

#### Prove it.

- Exactly what material is to be excluded?
- How will you prove mastery?

#### Change it.

- What enrichment and/or acceleration activities will be included?
- Independent Study
- Acceleration
- Mini-courses
- Honors Courses
- College Courses
- Mentorships
- Small Group Investigations
- Work Study

☐ Check here if additional information is recorded on the reverse side.
In this national study, we learned that:

Approximately 40-50% of traditional classroom material could be eliminated for academically talented students.
"First grade would be all right if it weren't for the 11 sequels."
Additional findings:

When teachers eliminated as much as 50% of the curriculum, no differences were found between treatment and control groups in most content areas.

In fact, students whose curriculum was compacted scored higher than control group students in some areas.

Classroom teachers can use differentiated instruction to enable all students to make continuous progress in learning.
Student Behaviors Suggesting that Compacting May Be Necessary

- Consistently finishes tasks quickly
- Finishes reading assignments first
- Appears bored during instruction time
- Brings in outside reading material
- Creates own puzzles, games, or diversions in class
- Consistently daydreams
- Uses vocabulary and verbal expression advance of grade level
Student Behaviors Suggesting that Compacting May Be Necessary

- Has consistently high performance in one or more academic areas
- Tests scores consistently excellent
- Asks questions that indicate advanced familiarity with material
- Is sought after by other students for assistance
- Expresses interest in pursuing alternate or advanced topics.
### CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING

Provide a brief description of basic material to be covered during this marking period and the assessment information or evidence that suggests the need for compacting.

### PROCEDURES FOR COMPACTING BASIC MATERIAL

Describe activities that will be used to guarantee proficiency in basic curricular areas.

### ACCELERATION AND/OR ENRICHMENT ACTIVITIES

Describe activities that will be used to provide advanced level learning experiences in each area of the regular curriculum.

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<td>Exactly what material is to be excluded?</td>
<td>What enrichment and/or acceleration activities will be included?</td>
</tr>
<tr>
<td>What evidence shows a need for compacting?</td>
<td>How will you prove mastery?</td>
<td>Independent Study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mini-courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>College Courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small Group Investigations</td>
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Goals of Compacting

- Create a challenging learning environment for all children!
- Define objectives and guarantee proficiency in basic curriculum.
- Find time for alternative learning activities based on advanced content and individual student interest.
## Individual Educational Programming Guide—The Compactor

<table>
<thead>
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<th>Name</th>
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<td>Grade</td>
<td>Parent(s)</td>
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</tbody>
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### Curriculum Areas to Be Considered for Compacting

### Procedures for Compacting Basic Materials

### Acceleration and/or Enrichment Activities
Types of Compacting

Basic Skills Compacting:
• Eliminates specific skills that students have already acquired.
• Spelling, mathematics, or grammar.
• Pre-testing is easier to accomplish.
• Mastery can be documented more easily /objectively.

Content Compacting
• Social studies, science, and literature
• Students may already know the objectives or may be able to read the material and master the objectives in a fraction of the time.
• More flexible–students can absorb the material at their own speed.
• Evaluation may be less formal– essays, interviews, or open ended tasks
## CURRICULUM AREAS TO BE CONSIDERED FOR COMPACTING

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### PROCEDURES FOR COMPACTING BASIC MATERIAL

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What material needs to be covered?

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Exactly what material is to be excluded?

### Change it.

What enrichment and/or acceleration activities will be included?

What evidence shows a need for compacting?

How will you prove mastery?

<table>
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<th>Independent Study</th>
<th>Acceleration</th>
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<td>Mini-courses</td>
<td>Honors Courses</td>
</tr>
<tr>
<td>College Courses</td>
<td>Mentorships</td>
</tr>
<tr>
<td>Small Group</td>
<td>Investigations</td>
</tr>
<tr>
<td></td>
<td>Work Study</td>
</tr>
</tbody>
</table>

Check here if additional information is recorded on the reverse side.
Column One:

• Identify the objectives in a given subject area.

• Eliminate instructional time for students who show mastery of the objectives.

• Streamline instruction of those objectives students have not yet mastered but are capable of mastering more quickly than classmates.

• Offer challenging alternatives for time provided by compacting.
• Individual or small group projects using contracts or management plans
• Interest or learning centers
• Opportunities for self-directed learning or decision making
• Mini-courses on research topics or other high interest areas
Replacement activities must be based on:

- The needs of the students
- Time
- Space
- Resources
- School policy
- Support personnel

Keep records of this process and the instructional options available to compacted students
How to get started:

**Start Small:** Start the compacting process by targeting a small group of students for whom compacting seems especially appropriate.

**Select One Content Area:** The targeted student has demonstrated previous mastery or curriculum strengths. Teachers have the most resources available to pretest for prior mastery and to enrich and accelerate the content.
How to get started:

**Experiment with Pretesting or Pre-assessment:**
- Try different methods of pretesting or assessment.
- Be flexible in accomplishing this by experimenting with different systems.
- Ask for assistance from other faculty members, aides, or volunteers.
- Decide in advance what score constitutes a pass.

**Compact by Topic:** Compact by unit, chapter, or topic rather than by time (marking period or quarter).

**Experiment:** Keep trying, reflecting on what has worked, and field testing new ideas.

One thing is clear. We don’t have the option of turning away from the future. No one gets to vote on whether technology is going to change our lives.

Bill Gates, The Road Ahead
**MY ENRICHMENT ACTIVITIES:**

Here are some enrichment activities that might interest you. Click any of the icons below to view the activities:

- Check this box to view only your favorites!

<table>
<thead>
<tr>
<th>Category</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Field Trips</td>
<td>105 Activities</td>
</tr>
<tr>
<td>Real Field Trips</td>
<td>448 Activities</td>
</tr>
<tr>
<td>Creativity Training</td>
<td>107 Activities</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>88 Activities</td>
</tr>
<tr>
<td>Projects &amp; Independent Study</td>
<td>211 Activities</td>
</tr>
<tr>
<td>Contests &amp; Competitions</td>
<td>36 Activities</td>
</tr>
<tr>
<td>Websites</td>
<td>195 Activities</td>
</tr>
<tr>
<td>Books (Fiction)</td>
<td>137 Activities</td>
</tr>
<tr>
<td>Books (Non-Fiction)</td>
<td>191 Activities</td>
</tr>
<tr>
<td>Books (How-To)</td>
<td>47 Activities</td>
</tr>
<tr>
<td>Summer Programs</td>
<td>37 Activities</td>
</tr>
<tr>
<td>On-Line Classes &amp; Activities</td>
<td>131 Activities</td>
</tr>
<tr>
<td>Research Sites</td>
<td>37 Activities</td>
</tr>
<tr>
<td>Videos &amp; DVDs</td>
<td>89 Activities</td>
</tr>
</tbody>
</table>
Ways to Differentiate Content:

Learning Centers

Acceleration

Independent or Group Type III Projects

Grouping

Renzulli Learning
Other Strategies for Differentiation

- Compacting

- Independent Study

- Tiered Assignments
  - Ensures that students with different learning needs work with the same essential ideas and use the same key skills but at different levels of:
    - complexity
    - abstractness
    - open-endedness
What can be tiered?

Assignments  Experiments
Activities    Materials
Homework     Assessments
Learning     Writing Prompts
Centers      Projects
Independent Projects

- Builds student interest
- Satisfies curiosity
- Planning and research skills at advanced levels
- Encourages independence
- Enables work with complex & abstract ideas
- Allows long-term and in-depth work on topics of interest
- Taps into high motivation
The Wizard Project Maker™ Step-by-Step Tool

Basic Info:
- Project: Everything about Einstein
- Names(s): Michelle Field
- Grade: 5
- Teacher: Ms. McShane
- School: Bear Brook Elementary

Dates:
- Start Date: 1/25/2006
- Completion Date: 3/28/2006
- Dates for Progress Meetings with My Teacher:
  - 2/14/2004
  - 3/10/2006

Save   Next-->
The Wizard Project Maker™ Step-by-Step Tool

**Project Description:** Write a brief description of the project, problem, topic, or interest area that you want to learn about and study. What do you hope to find out or learn.

**Interest Areas for this project**

- Architecture
- Arts (drawing & painting)
- Athletics/Sports/Fitness
- Business/Management
- Building Things (robots, models)
- Creative Writing
- Computers/Technology/Gaming
- Drama/Performing
- Foreign Languages
- Graphic Design/Animation
- Geography
- Helping in the Community
- History
- Journalism
- Music
- Photography/Video
- Reading/Literature
- Science
- Social Action

I want to learn everything there is to know about Albert Einstein.
Check the boxes below of all the ways you intend to get new information to complete your project and list the specific sources:

- Viewing TV, videos, films, etc. (which?)
- Interviewing people (who?)
- Observing/collecting data (what?)
- Surveying (who?)
- Taking a class or working with a mentor (specify)
- Attending a performance (specify)
- Other (specify)

List all materials and equipment needed:

**TASKS:** List in order

1. ___________________________________________  To be completed by: _______________________
2. ___________________________________________   _______________________
3. ___________________________________________   _______________________
4. ___________________________________________   _______________________
5. ___________________________________________   _______________________
6. ___________________________________________   _______________________
7. ___________________________________________   _______________________
8. ___________________________________________   _______________________
9. ___________________________________________   _______________________
10. ___________________________________________  _______________________
11. ___________________________________________  _______________________

I realize that it is my responsibility to have the appropriate resource materials to work with in class everyday.

_____________ Student Signature ___________________ Resource Teacher
Christmas

It looked like a merry Christmas after all. Jo awoke on this special morning to find a lovely crimson book of the story of Christmas. But, when the girls went downstairs, their dear Marmee had gone. Hannah, the cook, informed them that she had gone to help a poor family. When Marmee returned, the Marches celebrated by giving the poor family their breakfasts.

When the Marches arrived at the poor family's house how the big eyes stared and blue lips smiled. 'Ach, mein Gott! It is good angels come to us!' said the poor woman, crying for joy. 'Funny angels in hoods and mittens,' said Jo, and set them all laughing.

_Little Women, p. 26_

Anyone would be pleased to be served this lovely breakfast, even if it weren't Christmas.

**BUCKWHEAT CAKES**

<table>
<thead>
<tr>
<th>Ingredients:</th>
<th>Difficulty:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3 cup of fine bread crumbs</td>
<td><strong>☆☆☆</strong></td>
</tr>
<tr>
<td>2 cups of very hot milk (scalded)</td>
<td></td>
</tr>
<tr>
<td>1/2 tsp. of salt</td>
<td></td>
</tr>
<tr>
<td>1 tablespoon of molasses</td>
<td></td>
</tr>
<tr>
<td>1/4 yeast cake</td>
<td></td>
</tr>
<tr>
<td>1/2 cup of lukewarm water</td>
<td></td>
</tr>
<tr>
<td>Buckwheat flour</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring cup</td>
<td></td>
</tr>
<tr>
<td>Measuring spoons</td>
<td></td>
</tr>
<tr>
<td>Griddle or frying pan</td>
<td></td>
</tr>
<tr>
<td>Ladle</td>
<td></td>
</tr>
<tr>
<td>Spatula</td>
<td></td>
</tr>
</tbody>
</table>

Method:
1. Pour the milk over the bread crumbs.
2. Let them soak for thirty minutes.

Figure 74. Type III enrichment sample—Louisa May Alcott cookbook (continued).
Grouping for differentiation!

Flexible grouping within classrooms
Cluster grouping within and across classrooms
Separate classes for gifted and high achieving students

BUT: IT IS NOT THE GROUPING THAT MATTERS, IT IS WHAT HAPPENS WITHIN THE GROUPS!
What is Differentiation?

Matching appropriately challenging curriculum and instruction with a student’s abilities, interests, and learning styles through a variety of instructional strategies and challenging curriculum.
It Begins with Good Instruction

How will you start to differentiate?

Questions?
Extended Learning Opportunities

2012 Southwest Building Learning Communities
Curriculum and Technology Conference
June 19-22
Frisco, Texas

Registration information at http://txascd.org

CompassLearning White Paper on Differentiation
Written by Dr. Sally Reis and Dr. Joseph Renzulli

Available on the tab below the slides and also at
http://www.compasslearning.biz/forms/differentiation