Accelerated and Enhanced Instruction: Differentiation for Highly Capable Students

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Chapter 28A.185.020 RCW

• (1) The legislature finds that, for highly capable students, **access to accelerated learning and enhanced instruction is access to a basic education**. There are multiple definitions of highly capable, from intellectual to academic to artistic.
Shift in Thinking

FROM Program Centered TO Student Centered
Shift in thinking

**FROM** considered a separate program not integrated into the regular classroom

**TO** an integrated range of services as a part of the student’s basic education K-12
Gifted kids are gifted every day, all day.
WAC 392-170-035 Definition
Students who are highly capable.

• As used in this chapter, highly capable students are students who perform or show potential for performing at significantly advanced academic levels when compared with others of their age, experiences, or environments.

• Outstanding abilities are seen within students' general intellectual aptitudes, specific academic abilities, and/or creative productivities within a specific domain.
Universal Options
Options provided to all students through core curriculum, differentiated instruction, progress monitoring.
Enhance success and reduce barriers for vast majority of students.

Selected Options
Supplemental options provided for small groups who meet benchmarks early or quickly to increase likelihood of continued progress.

Targeted Options
Individually designed interventions for students who have a high likelihood of academic failure.

Selected Options
Supplemental options provided for small groups who have not met benchmarks to reduce the potential of long term failure.

Targeted Options
Individually designed interventions for students who exceed expectations and need extensions or acceleration.

1-2% of Students:
-3

10-15% of Students:
-2

70-80% of Students:
-1

0

+1

+2

+3

Mean = 0
Deviations + or -
3 Minute Pause

• Turn to the person next to you and discuss your reaction to the information in the presentation so far.
Differentiation

A teaching *philosophy* where teachers strive to meet the needs of their students by *intentionally planning* the curriculum and/or instruction based on student interests, learning profile, readiness levels and/or affect.

-Tomlinson
Governing Rules

- Ongoing assessment of students
- Using the assessments to design effective instruction for learner differences
- Use of a variety of effective teaching strategies
- Flexibility

—Tomlinson
Differentiation for Gifted and Talented Students

21st Century Skills

Creativity
Critical Thinking
Collaboration
Communication

Acceleration
Complexity
Depth

Kaplan
Key Points

• Ongoing assessment
• Flexible grouping
• Compacting
• Acceleration
• Independent study
What is Accelerated Learning?

“Progress through an educational program at rates faster or at ages younger than conventional.”

A Nation Deceived

- Institute for Research and Policy on Acceleration, The Ohio State University
Types of Acceleration

**Full Grade**
- Early entrance
  - K, 1, MS, HS, College
- Grade skipping
- Continuous progress
- Self-paced instruction
- Early graduation

**Partial Grade**
- Subject-based acceleration
- Combined or multiage classrooms
- Curriculum compacting
- Telescoping the curriculum
- Mentoring
- Advanced Placement
- Extracurricular programs
- Credit by examination
- Dual/concurrent enrollment
- Correspondence courses

Another Way of Classifying

- Early Entrance
- Grade Skipping
- Subject-based Acceleration
- Advanced Experiences
3 Minute Pause

• Turn to the person next to you and discuss your reaction to the information in the presentation so far.
What is enhanced instruction?
Enhanced Instruction

Complexity

Depth

Novelty
## Positive Effects of grouping for gifted students

<table>
<thead>
<tr>
<th>Approach</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth beyond the regular academic year</td>
</tr>
<tr>
<td></td>
<td>$E =$ Elementary and $S =$Secondary</td>
</tr>
<tr>
<td>Full time ability grouping</td>
<td>$.49 ( E ) and $.33 ( S )</td>
</tr>
<tr>
<td>Within class ability grouping</td>
<td>$.34 ( E and S )</td>
</tr>
<tr>
<td>Regrouping for specific instruction</td>
<td>$.34 ( E ) and $.79 ( S )</td>
</tr>
<tr>
<td>Cluster grouping</td>
<td>$.59 ( E ) and $.44 ( S )</td>
</tr>
<tr>
<td>Multiage classroom</td>
<td>$.49 ( E ) and $.46 ( S )</td>
</tr>
<tr>
<td>Like ability cooperative groups</td>
<td>$.28 ( E and S )</td>
</tr>
<tr>
<td>Mixed ability grouping</td>
<td>0</td>
</tr>
</tbody>
</table>

Rogers, K (October 2011). Presentation at the Washington Association for Educators of the Talented and Gifted conference.
Differentiation for Highly Capable Students

- Early Entrance or Exit
  - University-Based Program
  - Mentorships
  - Apprenticeships • Internships
  - Grade Telescoping
  - Concurrent (Dual) Enrollment

- More
  - Self-Contained Gifted Classrooms
  - Special Schools • Magnet Schools
  - Advanced Placement • International Baccalaureate
  - College-in-the-Schools
  - Cluster Grouping
    - Single-Subject Acceleration • Pull-Out or Part-Time Classes
  - Compacting • Differentiated Instruction • Enrichment • Independent Study
  - Extracurricular Programs • Academic Competitions • Summer Classes

Center for Gifted Education, Whitworth University, 2013
Alternate Work

Study Guide Method

AMERICAN WARS STUDY GUIDE

BE PREPARED TO:

1. Discuss the political, social, and economic causes of the war.
2. Explain the basis of the economy for both sides before the war began.

 CHECKPOINT: [00 / 00 / 00]: Assessment for 1–2

3. Give the meanings of all designated vocabulary words.
4. Show on a map the disputed territory before the war began, at its midpoint, and at its end.
5. Recite from memory an important speech from this particular war period on a war-related topic. Be able to explain its background and significance.

 CHECKPOINT: [00 / 00 / 00]: Assessment for 1–5

6. Describe typical battle conditions experienced by soldiers and commanders. Include information about commonly used battle tactics.
7. Narrate a first-person biographical sketch of a person connected to the war effort.
8. Write a newspaper account of a non-battlefield event related to the war.
9. Describe the peace plan—its location, components, and effects.
10. Summarize the implications of this war in today’s time period. Hypothesize how history would have turned out differently if the other side had won. Make predictions for the decade following the war as well as for the present time.
# Alternate Work: Extension Menu

## AMERICAN WARS EXTENSIONS MENU

<table>
<thead>
<tr>
<th>Student Choice</th>
<th>Student Choice</th>
<th>Student Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present a detailed biography of an important person during the time of this conflict. Include evidence of this person's influence during the war period.</td>
<td>Research the patriotic music used by both sides in the war. Point out similarities and differences. Describe how music influences patriotism in civilians and soldiers. Compare the patriotic music of this war to that of other wars.</td>
<td>Locate information about the medical practices used on the battlefield and in field hospitals during this war. Include biographical information about famous medical people of that time.</td>
</tr>
<tr>
<td>Discover how military people communicated with each other and with their commander-in-chief during this war. Focus on events in which poorly understood or poorly delivered communications influenced the outcome of a military effort.</td>
<td>Investigate battles in which creative or uncommonly used tactics were employed. OR design strategies that you think would have led to more victories and fewer casualties. Be sure to use only the technology available during that time period.</td>
<td>Choose 25 keywords from this unit. Create a directory. Investigate other types of wars: between families, wars between countries to solve their</td>
</tr>
</tbody>
</table>
Menus

• Reading Menu  Electricity Menu
Choose Your Challenge Project

**Project Template**

- Student Choice
- Enrichment
- Depth, Complexity, Novelty
- Research skills
# Thinking Skills

<table>
<thead>
<tr>
<th>Creative Thinking</th>
<th>Critical Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fluency</td>
<td>• Knowledge</td>
</tr>
<tr>
<td>• Flexibility</td>
<td>• Comprehension</td>
</tr>
<tr>
<td>• Originality</td>
<td>• Application</td>
</tr>
<tr>
<td>• Elaboration</td>
<td>• Analysis</td>
</tr>
<tr>
<td>• Risk taking</td>
<td>• Evaluation</td>
</tr>
<tr>
<td>• Complexity</td>
<td>• Synthesis</td>
</tr>
<tr>
<td>• Curiosity</td>
<td></td>
</tr>
<tr>
<td>• Imagination</td>
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</tr>
</tbody>
</table>
Wheel of Reasoning

- Question at Issue
- Purpose
- Evidence/Data
- Assumptions
- Point of View
- Concepts
- Implications/Consequences
- Inferences
Global Warming

**Objective:** Help students understand global warming and its effects on human beings.

**Standards:**

a. Climate patterns are changing in our area and around the world.

b. Some scientists think a greenhouse effect is responsible for the changes.

c. Other scientists think the changes are simply a repeat of previous global patterns.

d. Some Internet sites can be helpful and reliable information
1. Read *An Inconvenient Truth* adapted for children.
2. Analyze and discuss based on the Wheel of Reasoning.
3. Read the Internet article on wnd.com Al Gore’s Global Warming Debunked by Kids.
4. Analyze and discuss based on the Wheel of Reasoning.
# Wheel of Reasoning

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question at Issue</strong></td>
<td>What is the reason for climate change?</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td><em>Describe climate change as a result of global warming</em></td>
</tr>
<tr>
<td><strong>Evidence/Data</strong></td>
<td>Pictures, data, stats</td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td><em>The author believes the scientific data is valid and global warming is the cause</em></td>
</tr>
<tr>
<td><strong>Point of View</strong></td>
<td>Politician, social reform</td>
</tr>
<tr>
<td><strong>Concepts</strong></td>
<td>Greenhouse effect, ozone depletion, sustainability- subscribed to by some members in the science community</td>
</tr>
<tr>
<td><strong>Implications/Consequences</strong></td>
<td>What if they are wrong? Recycling and new technologies may cause more damage or we may need to be planning for natural events.</td>
</tr>
<tr>
<td><strong>Inferences</strong></td>
<td><em>There is a compelling argument for global warming, but more research is needed</em></td>
</tr>
</tbody>
</table>
The Lesson

• Review visualizing and inferring with the students.
• Read the poem “Speech Class” by Jim Daniels.
• Introduce the class to a Double-Entry Journal with the columns labeled “What I Read” and “What I inferred” on the other half of the page. Demonstrate how to fill out the two columns with evidence from the poem.
• Read the poem “October Saturday” by Bobbi Katz and provide a copy to the students. Ask partners to complete a Double-Entry Journal page for the poem.

Lesson idea based on the work of C. McCulloch and the Making Meaning curriculum
CCSS.ELA-Literacy.RL.5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

Learning Targets: Students will utilize re-reading and visualization skills to infer the meaning of the text.

Expectations for Student Work/Performance:
• Infers meaning from text
• Inference is substantiated with an explanation
<table>
<thead>
<tr>
<th>Learning Target</th>
<th>Approaching Standard Scaffold, Re-teach</th>
<th>Meeting Standard</th>
<th>Exceeding Standard Acceleration, Enrichment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link all tiers to the same core concept and/or skills</td>
<td>Students will utilize re-reading and visualization skills to infer the meaning of the text.</td>
<td>Students will utilize re-reading and visualization skills to infer the meaning of the text.</td>
<td></td>
</tr>
<tr>
<td>Content Catalyst</td>
<td>Using</td>
<td>Using</td>
<td>Using</td>
</tr>
<tr>
<td>How will students access the content? What materials will you use that are appropriately challenging?</td>
<td>The poem “Eraser and the School Clock” by Gary Soto</td>
<td>A self-selected or written poem or The poem “Eraser and the School Clock” by Gary Soto</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td>Students will</td>
<td>Students will</td>
<td>Students will</td>
</tr>
<tr>
<td>Are there different ways the lesson activity can be run (multiple intelligences, choices, etc.)? Is scaffolding needed?</td>
<td>Work with the teacher to identify a line of poetry, determine its meaning and provide examples of how its meaning was derived.</td>
<td>Work in pairs to identify the meaning of lines of poetry and justify it with examples with in the poem and with text to text, text to self, and/or text to world connections</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>And demonstrate understanding by</td>
<td>And demonstrate understanding by</td>
<td>And demonstrate understanding by</td>
</tr>
<tr>
<td>How can students demonstrate their understanding best?</td>
<td>Small group discussion of findings</td>
<td>Small group discussion of findings</td>
<td></td>
</tr>
<tr>
<td>Whole Class Sharing</td>
<td>Whole class discussion of the connection between visualization and inference with examples</td>
<td>Whole class discussion of the connection between visualization and inference with examples</td>
<td></td>
</tr>
</tbody>
</table>
The Lesson

• Students have been working on problem solving strategies with one operation for weeks

• Students were asked to do the following with the story problem:

**Word Problem:** Underline important information, box question, circle key words, note operation

**Solution:** draw a picture of the problem, label the picture, write the correct answer in a complete sentence, explain what was done to solve

*Bonus points* were given for writing the number sentence to solve the problem
Planning for Differentiation

Modified from New Teacher Center at the University of California, Santa Cruz (2004). Analysis of student work. The Regents of the University of California.

Learning Targets: Accurately solving word problems with one operation; Identification of important information in the word problem; Representing the solution in a variety of ways

Expectations for Student Work/Performance

*One point each:*

- **Word Problem:** Underline important information, box question, circle key words, note operation
- **Solution:** draw a picture of the problem, label the picture, write the correct answer in a complete sentence, explain what was done to solve
<table>
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<th>Meeting Standard</th>
<th>Exceeding Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected to RL.12.4: Students will demonstrate an understanding of connotation and the implied relationship between words.</td>
<td>Connected to RL.12.4: Students will demonstrate an understanding of connotation and the implied relationship between words.</td>
<td>Connected to RL.12.4: Students will demonstrate a sophisticated understanding of connotation and the impact that an implied relationship between words has upon an author’s themes.</td>
<td></td>
</tr>
<tr>
<td>Content Catalyst</td>
<td>Word cards with key vocabulary</td>
<td>Word cards with key vocabulary</td>
<td>Word cards with key vocabulary</td>
</tr>
<tr>
<td>Process</td>
<td>Group related words together and explain the connections</td>
<td>Cluster related words, name the cluster themes and explain</td>
<td>Cluster related words, name its motif, and explain connection to the text</td>
</tr>
<tr>
<td>Product</td>
<td>Graphic organizer</td>
<td>Graphic organizer</td>
<td>Graphic organizer</td>
</tr>
</tbody>
</table>
Differentiation SCAMPER for Students that are Gifted

- **Substitute**...basic curriculum with more challenging
- **Combine**...learning with creativity and innovation
- **Adapt**...lessons for acceleration and high performance
- **Modify**...learning for greater depth and complexity
- **Put to other use**...compacting for better use of time
- **Eliminate**...mastered contest/skills for advancement
- **Reverse/Rearrange**...curriculum for original thinking

Heacox, 2012
Now What?

Strategies

• Flexible grouping
• Compacting
• Menus
• Thinking like a disciplinarian
• Wheel of Reasoning
• Depth and complexity
• Think Trix
• Tiered assignments

Questions to Answer

• What did you learn?
• What will you use?
• What do you need to implement the strategies?
• Next steps...
References and Resources


