An Introduction and Overview of the Parallel Curriculum Model

Carol L. Tieso, Ph.D.
Gifted Education
The College of William and Mary
clties@wm.edu
http://people.wm.edu/~clties/

What are the ten components of a comprehensive curriculum unit, lesson, or task?

- Content
- Assessment
- Introduction
- Teaching Strategies
- Learning Activities
- Grouping Strategies
- Products
- Resources
- Extension Activities
- Modification
  (Ascending Levels of Intellectual Demand)
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Ascending Levels of Intellectual Demand Take Into Consideration Students’ ………

- Cognitive abilities
- Prior knowledge
- Schema
- Opportunities to learn
- Learning rate
- Developmental differences
- Levels of abstraction

Ascending Levels of Intellectual Demand

- Vary the depth
- Adjust the abstraction
- Change the complexity
- Make contexts and examples more or less novel or familiar
- Adjust the pace
- Use more/less advanced materials and text
- Provide more/less scaffolding
- Provide frequent/intermittent feedback
- Provide/let students infer related strategies
- Provide more/fewer examples
- Be more/less explicit/inductive
- Provide simpler/more complex problems and applications
- Vary the sophistication level
- Provide lengthier/briefer texts
- Provide more/less text support
- Require more/less independence or collaboration
- Require more/less
The Core Curriculum: Definition

The Core Curriculum addresses the **core concepts, principles, and skills of a discipline**. It is designed to help students understand essential, discipline-based content through the use of **representative topics**, **inductive teaching**, and **analytic learning activities**.

Examples of Conceptual Knowledge

- Planet
- Constellation
- State Capitals
- Government
- Nutrition
- Transportation
- Conflict
- Horizon
- Symmetry
- Balance
- Irony
- Emergency
- Science Fiction
- Addition
- Octagon
- Force
- Gravity
- Precipitation
What makes a principle a principle?

- Explains a relationship
- Explains how things work
- Explains why something is important
- Axiom, proverb, rule
- Truth, law, rule
- Generalization
- Reasons
- Influences
- If/then (air pressure and storms)
- So what?
- Cause/effect (location, location, location)
- Part/whole
- More/less (supply and demand)
- Simple/complex
- Now/then

Core Concepts

Core Principles

Core Skills

Overarching Concept

Representative Topic

Overarching Discipline(s)

Standards
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Shelby County Schools
January 9, 2008

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A District Example

Change

Dinosaurs
Grade 1

Paleontology
Herpetology
Ornithology
Ecology
Botany
Physiology

Standards

Species
Adaptation
Evolution
Extinction
Function

Structure (form)
Herbivore
Survival
Carnivore
Dinosaur

Adaptation is essential to survival.
Species are interdependent.
Form follows function.
Living things may become extinct

Pattern finding
Observation
Notetaking
Classifying
Categorizing
Comparing and contrasting
Making inferences

Adaptation is essential to survival.
Species are interdependent.
Form follows function.
Living things may become extinct

Be very careful if you choose to reverse the process or if you select activities and resources without first considering core concepts, principles, and appropriate representative topics. You could end up with a fragmented, ineffective design plan.

Make a diorama
Learn a dinosaur song
Count dinosaur shapes

Learn their names
Write a story
Count dinosaur shapes

Learn their weight
Learn their height
Learn their habitat

Art
Reading
Math
Writing
Music
Social Studies
Science
Technology

Dinosaurs
The Curriculum of Connections: Definition

The Curriculum of Connections is a plan that includes guidelines and procedures to help students connect overarching concepts, principles, and skills within and across disciplines, time periods, cultures, places, and/or events.

What kind of connections are we talking about?

• Connections across time, events, topics, disciplines, cultures, and perspectives
• Connections to self, other texts, and other people
• Understanding of intra and interdisciplinary macroconcepts
• Understanding of intradisciplinary generalizations
• Understanding of interdisciplinary themes
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A Connections Example...
Grade 11 AP History

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Civil Rights – Lincoln and L.B. Johnson comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Comparative essay – defend a thesis statement</td>
</tr>
<tr>
<td>Introduction</td>
<td>Role of the historian</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Conferencing</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>Notetaking, comparing and contrasting, point of view, evidence analysis</td>
</tr>
<tr>
<td>Resources</td>
<td>Multiple biographies,</td>
</tr>
<tr>
<td>Products</td>
<td>Notecards, graphic organizers, thesis</td>
</tr>
<tr>
<td>Grouping</td>
<td>Individual and partners</td>
</tr>
<tr>
<td>Extensions</td>
<td>Publication opportunities</td>
</tr>
<tr>
<td>Ascending Levels</td>
<td>Additional leaders</td>
</tr>
</tbody>
</table>

The Curriculum of Practice: Definition

The Curriculum of Practice includes a set of guidelines and procedures to help students understand, use, generalize, and transfer essential knowledge, understandings, and skills in a field to authentic questions, practices, and problems. This parallel is designed to help students function with increasing skill and competency as a researcher, creator, producer, problem solver, or practitioner in a field.
What is meant by the Curriculum of Practice?

- Real world applications
- Practitioner
- Problem solver
- Researcher
- Creator
- Producer

A Practice Example…
Grade 4 Meteorology

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>How accurate are weather forecasts?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Weather predictions</td>
</tr>
<tr>
<td>Introduction</td>
<td>James Spann – guest speaker</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Inductive – controlled experiment</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>Collecting data, analyzing data, finding patterns, making predictions, judging accuracy, making inferences</td>
</tr>
<tr>
<td>Resources</td>
<td>4th and 5th day forecasts from radio, TV, newspaper, and weather instruments</td>
</tr>
<tr>
<td>Products</td>
<td>Graphs, charts, predictions</td>
</tr>
<tr>
<td>Grouping</td>
<td>Small group</td>
</tr>
<tr>
<td>Extensions</td>
<td>2 and 3 day forecasts</td>
</tr>
<tr>
<td>Ascending Levels</td>
<td>Various regions of the country</td>
</tr>
</tbody>
</table>
The Curriculum of Identity: Definition

The Curriculum of Identity is a set of guidelines and procedures to assist students in reflecting upon the relationship between the skills and ideas in a discipline and their own lives, personal growth, and development. This parallel is designed to help students explore and participate in a discipline or field as it relates to their own interests, goals, and strengths, both now and in the future.

The Identity Parallel

- Emphasizes the role of the individual within a content area
- Provides opportunities for self exploration
- Supports an individual’s search for affinity, affiliation, and knowledge of self
- Offers a sequential plan to address increasing levels of interest and commitment to a field
An Identity Example…
Grade 10 Math

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Personal development – enhanced attitudes toward mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Attitudes survey, learner profile, reflective journal</td>
</tr>
<tr>
<td>Introduction</td>
<td>Math professor and former students as guest speakers- math phobia</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Independent reading, conferencing, small group discussion, Socratic questioning, contract</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>Reading, comparing and contrasting, point of view,</td>
</tr>
<tr>
<td>Resources</td>
<td>Billions and Billions, Contact</td>
</tr>
<tr>
<td>Products</td>
<td>Reader Response</td>
</tr>
<tr>
<td>Grouping</td>
<td>Individual</td>
</tr>
<tr>
<td>Extensions</td>
<td>A Brief History of Time, Math Curse</td>
</tr>
<tr>
<td>Ascending Levels</td>
<td>Math review course</td>
</tr>
</tbody>
</table>

Problem-Based Learning Scenarios

- You have been hired by Arnold Schwarzeneggar to run his political campaign for governor of Virginia. Since you have so little time until the October 7 special election to prepare your candidate on the issues, you have decided to survey a random sample of citizens from around the state. Design a political questionnaire, with descriptions of the major issues, that will inform your candidate on the temperature of the body politic. Find an appropriate sample, generate a visual representation, and present your findings to Arnold’s campaign staff. Help your candidate place himself on the political spectrum and define his ideology. Can your candidate win the White House someday? Why/not?
Problem-Based Learning Scenarios

- You have been hired by Arnold Schwarzenegger to run his political campaign for governor of Virginia. Since you have so little time until the October 7 special election to prepare your candidate on the issues, you have decided to survey a sample of your neighbors. Design a questionnaire (5-10 questions), with descriptions of the major issues (such as education, gun control, jobs, terrorism, etc.) (3-4 sentences for each issue), that will inform Arnold about what your neighbors believe are the most important issues for Virginia. Find an appropriate sample (10-20 people), generate a visual representation (pie, line, bar graph, or chart), and present your findings (3-4 major ideas) to Arnold’s campaign staff (poster, chart, video, or oral report, or Powerpoint presentation). Help Arnold decide where he belongs on the political spectrum from Fascist to Anarchist (hint: he’s probably NOT on the ends!).
The Civil War: A PBL Example

- The year is 1865. President Lincoln has been assassinated and President Johnson has convened a special committee to look into who was to blame for five years of brutal civil war. He has asked you to sit on the committee and present your findings (based on your personal experiences) to the committee and the entire Congress.

Grades 4-8 Clouds of Civil War

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Social studies programs should include experiences that provide for the study of how people create and change structures of power, authority, and governance (NCSS, 2004).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>PBL: The Civil War: Who’s to Blame?</td>
</tr>
<tr>
<td>Introduction</td>
<td>Ask students if they’re familiar with the story of The Three Little Pigs; solicit ideas</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Socratic Seminar; Discussion</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>Determining Point of View; Determining Fact and Opinion</td>
</tr>
<tr>
<td>Resources</td>
<td>The True Story of the 3 Little Pigs; primary documents on point of view</td>
</tr>
<tr>
<td>Products</td>
<td>Photo essay, political cartoon, diary entry</td>
</tr>
<tr>
<td>Grouping</td>
<td>Whole group, Small group based on choice</td>
</tr>
<tr>
<td>Extensions</td>
<td>Read primary sources based on role chosen</td>
</tr>
<tr>
<td>Ascending Levels</td>
<td>Editorial on who has caused all wars.</td>
</tr>
</tbody>
</table>
### Personal Development: The Civil War

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>1) The Civil War, (2) Personal development – enhanced attitudes toward the work of historians and war correspondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Learner profile, longitudinal rubric, reflective journal</td>
</tr>
<tr>
<td>Introduction</td>
<td>1) Audio tape, and (2) Guest speakers, historian and journalist</td>
</tr>
<tr>
<td>Teaching Methods</td>
<td>Socratic questioning, visualization, conferencing</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>Reading, comparing and contrasting, simulations</td>
</tr>
<tr>
<td>Resources</td>
<td>Community members, biographies, photographs</td>
</tr>
<tr>
<td>Products</td>
<td>Reflective response, war reenactment, debate, etc.</td>
</tr>
<tr>
<td>Grouping</td>
<td>Individual, small group, whole group</td>
</tr>
<tr>
<td>Extensions</td>
<td>Further reading, video viewing, etc.</td>
</tr>
<tr>
<td>Ascending Levels</td>
<td>Readability of resources, historians across time and cultures, famous and “not so famous” historians</td>
</tr>
</tbody>
</table>

### Talent Development: History

<table>
<thead>
<tr>
<th>Has no response; dislikes</th>
<th>Asks questions</th>
<th>Likes to look at historical things</th>
<th>Chooses projects with an historical slant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Chooses classes about history</td>
<td>Seeks out friends who love history</td>
<td>Thinks about being an historian</td>
<td>Makes plans for professional growth</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Enjoys finding unanswered historical questions</td>
<td>Affinity</td>
<td>Collaborative research</td>
<td>Self-actualization</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>
**Forwarding Talent Development in History**

1. Find an entrée through the student's current interests
2. Read books, etc., about historical people and events
3. Investigate local and historical sites
4. Enlist the support of the library media specialist to get additional resources
5. Provide extension activities on projects that the student enjoys
6. Discuss the discipline with the student; explore course offerings; select appropriate courses
7. Engage the support of local resources
8. Locate shadowing and internship experiences
9. Locate a mentor; help the student become involved as a member in related organizations
10. Support student's intense work; locate experts, policy professionals to give the student feedback
11. Locate grants and fellowships
12. Nurture the student's research; encourage publishing

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**Egyptology**

- Discuss the ethical argument in favor and opposed to dealing in antiquities.
- Who owns relics? Conduct a formal debate with regard to this statement: The explorers who found Titanic own its relics.
- Create an original product that illustrates the similarities and differences between the ancient Egyptian and modern-day American cultures.

Dorothy Moore (2004)
How might I manage or deliver PCM activities?

- Contracts
- Centers
- Agendas
- Independent Study
- Homework
- Options
- Alternatives
- Choices

One Last Thought...

“Instruction is good only when it precedes ahead of development, when it awakens and rouses to life those functions which are in the process of maturing...it is in this way that instruction plays an extremely important role in development.”

- Vygotsky, 1956