An Introduction and Overview of the Parallel Curriculum Model: Promise and Process
Our Advance Organizer

• Definition of Curriculum
• Introduction to the Parallel Curriculum Model
• Orientation to “Ascending Levels of Intellectual Demand”
• Overview of the Four “Parallels”
• Definitions and Exemplary Characteristics of the Ten Components
The Elephant in the Room: What does qualitatively differentiated curriculum really look like?
Who has addressed this question in the past?

- William James
- Alfred North Whitehead
- John Dewey
- Hilda Taba
- Ralph Tyler
- Benjamin Bloom
- Jerome Bruner
- Leta Hollingsworth
- Virgil Ward
- Philip Phenix
- LTI Curriculum Principles
The Rationale for an Evolving Conception of Curriculum to Develop Expertise or

“Why do we need to think differently about curriculum than we have in the past?”

- A Changing Society Can Change Students
- Changing Views of Intelligence and Giftedness
- The Need to Explore Similarities and Differences in Curriculum for All Learners and for Gifted Learners
- A Need to Honor the Past by Building to the Future
Which Statements Reflect Your Beliefs About Curriculum?

- Curriculum should guide students in mastering key information, ideas, and the fundamental skills of the discipline.
- Curriculum should help students grapple with complex and ambiguous issues and problems.
- Curriculum should move students from a novice to an expert level of performance in the disciplines.
- Curriculum should provide students opportunities for original work in the disciplines.
- Curriculum should help students encounter, accept, and ultimately embrace challenge in learning.
- Curriculum should prepare students for a world in which knowledge expands and changes at a dizzying pace.
- Curriculum should help students determine constants in the past and in themselves while helping them prepare for a changing world.
- Curriculum should help students develop a sense of themselves as well as their possibilities in the world in which they live.
- Curriculum should be compelling and satisfying enough to encourage students to persist in developing their capacities.
Theoretical Underpinnings of the Parallel Curriculum Model

Curriculum design should.....

- Respect the unique characteristics of the learner;
- Be organized around the structure of knowledge;
- Reflect content selection and procedures that will help maximize the transfer of knowledge, understanding, and skill;
- Select content (representative topics) that best represent the essential structure of the discipline; and
- Place a premium on the development of process skills, the appropriate use of methodology within content fields, and consider goals or outcomes in terms of concrete and abstract products.
Effective Curriculum for All Learners

- Has a clear focus on the essential facts, understandings, and skills that professionals in that discipline value most
- Provide opportunities for students to develop in-depth understanding
- Is organized to ensure that all student tasks are aligned with the goals of in-depth understanding
- Is coherent (organized, unified, sensible) to the student
- Is mentally and affectively engaging to the learner
- Recognizes and supports the need of each learner to make sense of ideas and information, reconstructing older understandings with new ones
- Is joyful-or at least satisfying
- Provides choices for the learner
- Allows meaningful collaboration
Effective Curriculum for All Learners

- Is focused on products (sometimes students make or do) that matter to students
- Connects with students’ lives and worlds
- Is fresh and surprising
- Seems real, purposeful, useful to students
- Is rich
- Deals with profound ideas
- Calls on students to use what they learn in interesting and important ways
- Aids students in developing a fruitful consciousness of their thinking
- Helps learners monitor and adapt their ways of working to ensure competent approaches to problem solving
- Involves students in setting goals for their learning and assessing their progress toward those goals
- Stretches the student
Ascending levels of intellectual demand is the process that escalates one or more facets of the curriculum in order to match a learner’s profile and provide appropriate challenge and pacing. Prior knowledge and opportunities, existing scheme, and cognitive abilities are major attributes of a learner’s profile. Teachers reconfigure one or more curriculum components in order to ensure that students are working in their zone of optimal development.
Ascending Levels of Intellectual Demand Take Into Consideration Students’ ...

- Cognitive abilities
- Prior knowledge
- Schema
- Opportunities to learn
- Learning rate
- Developmental differences
- Levels of abstraction
Why Provide Ascending Levels of Intellectual Demand?

• To honor differences among students
• To address varying levels of prior knowledge, varying opportunities, and cognitive abilities
• To ensure optimal levels of academic achievement
• To support continuous learning
• To ensure intrinsic motivation
• To provide appropriate levels of challenge
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
- Infer concepts from applications and problem solving
- 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 evidence
- Ask for/provide analogies
- Teach to concepts before/after examples
- Teach principles before/after examples or concepts
Guiding Questions that Support the Ascending Levels of Intellectual Demand

• What are the powerful differences among my students’ levels of prior knowledge, cognitive ability, and rates of learning?
• Which students require greater or lesser degrees of depth, abstraction, and sophistication with regard to this unit, lesson, or task?
• How might I design lessons and activities that provide varied levels of scaffolding, support, and challenge?
• Which content, teaching or learning activities, resources or products support varying levels of prior knowledge and cognitive ability within this unit, lesson, or task?
• How might I assess students’ growth when many of them possess varying levels of abstraction and prior knowledge?
What is the Parallel Curriculum Model?

The Parallel Curriculum Model is a set of four interrelated designs that can be used singly, or in combination, to create or revise existing curriculum units, lessons, or tasks. Each of the four parallels offers a unique approach for organizing content, teaching, and learning that is closely aligned to the special purpose of each parallel.
Why Four Parallels?

• Qualitatively differentiated curriculum isn’t achieved by doing only one thing or one kind of thing.
• Students are different.
• Students have different needs at different times in their lives.
• Parallels can be used singly or in combination.
So, how does PCM provide qualitatively differentiated curriculum?

Opportunities to learn the **core knowledge** (enduring facts, concepts, principles, and skills) **within a discipline**

Opportunities to transfer and **apply knowledge** using the tools and methods of the scholar, researcher, and practitioner

Opportunities to learn about the numerous **relationships and connections** that exist across topics, disciplines, events, time, and cultures

Opportunities for students to develop **intrapersonal qualities and develop their affinities** within and across disciplines
The Parallel Curriculum: Four Facets of Qualitatively Differentiated Curriculum

- **Core**: The essential nature of a discipline
- **Connections**: The relationships among knowledge
- **Practice**: The applications of facts, concepts, principles, skills, and methods as scholars, researchers, developers, or practitioners
- **Identity**: Developing students’ interests and expertise, strengths, values, and character
What are the purposes for the Parallel Curriculum Model?

- Provides teachers with a comprehensive framework with which they can design, evaluate, and revise existing curriculum
- Improves the quality of the curriculum units, lessons, and tasks
- Enhances the alignment among the general, gifted, and special education curricula
- Increases the authenticity and power of the knowledge students acquire and their related learning activities
- Provides opportunities for continuous professional, intellectual, and personal growth
- Offers teachers the flexibility to achieve multiple purposes
- Reinforces the need to think deeply about learners and content knowledge
- Uses high quality curriculum as a catalyst for observing and developing abilities in learners
- Allows flexibility to address varying needs and interests of learners
Your Questions and Concerns
What is curriculum?

Curriculum is a design PLAN that fosters the purposeful, proactive organization, management and assessment of interactions among the teacher, the learners, and the content knowledge we want students to acquire.
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)
# Key Components of Comprehensive Curriculum

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<td>Content (Standards)</td>
<td>Content is what we want students to know, understand, and do as a result of our curriculum and instruction. Standards are broad statements about what grade-level students should know and be able to do.</td>
<td>Exemplary standards incorporate “big ideas,” enduring understandings, and skills of a discipline. Additionally, they provide clarity, power, and authenticity for teachers and students.</td>
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<td>Assessments</td>
<td>Assessments are varied tools and techniques teachers use to determine the extent to which students have mastery of learning goals.</td>
<td>Well-designed assessments are diagnostic, aligned with the learning goals, and provide a high ceiling, as well as a low baseline, to ensure that all students’ learning can be measured. They are used before, during, and after instruction. High-quality assessments inform instruction.</td>
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<td>Introductory Activities</td>
<td>An introduction sets the stage for a unit. Components may include: (1) a focusing question, (2) a needs assessment to determine students’ prior knowledge, interests, and learning preferences (3) a teaser or “hook” to motivate students’ (4) information about the relevance of the goals and unit expectations, (5) information about expectations for students, and (6) consideration of students’ interests in or experiences that connect with the unit topic.</td>
<td>A high quality introduction will include all six elements, as well as an advance organizer that provides students with information that they can use to help assess their acquisition of the unit’s learning goals.</td>
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<td>Teaching Strategies</td>
<td>Teaching strategies are methods teachers use to introduce, explain, demonstrate, model, coach, guide, transfer, or assess in the classroom.</td>
<td>Beneficial teaching methods are closely aligned to learning goals, varied, promote student involvement, and provide support, feedback, and scaffolding for learners.</td>
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## Selected Teaching Strategies

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<td>Lecture</td>
<td>A deductive strategy that consists of a carefully sequenced, illustrated oral presentation of content that is delivered to small and large groups of students; an oral presentation interspersed with opportunities for reflection, clarification, and sense making.</td>
<td>Effective, short-term acquisition of new content knowledge</td>
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<td>Drill and Recitation</td>
<td>A teaching strategy that helps students memorize and recall information with accuracy and speed.</td>
<td>Accuracy and speed in student’s recall of factual-level information</td>
</tr>
<tr>
<td>Direct Instruction</td>
<td>A method of teaching that consists of a teacher’s systematic explanation of a new concept or skill followed by guided practice under a teacher’s guidance.</td>
<td>Efficient and equitable knowledge acquisition</td>
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<td><strong>Concept Attainment</strong></td>
<td>A method teachers use to help students understand the essential attributes of a category or concept; to achieve this goal, the teacher systematically leads students through a controlled discussion during which students compare and contrast characteristics of examples and non-examples of the category or concept.</td>
<td>Acquisition of new categories, concepts, and macro concepts (e.g., vegetable, adjective, tragic hero, compromise)</td>
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<td><strong>Socratic Questioning</strong></td>
<td>An instructional strategy in which the teacher poses a carefully constructed sequence of questions to students to help them improve their position on an issue; can be used as a technique to bridge students’ current level of understanding with new knowledge that students need to acquire.</td>
<td>Acquisition of content related to social issues; enhanced ability to think issues through logically</td>
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<td><strong>Simulation</strong></td>
<td>An inductive teaching method in which students assume roles of people engaged in complex, real-life situations.</td>
<td>Increased likelihood that concepts and principles induced from the simulation will be transferred and applied to the real world</td>
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<td>Inquiry-Based Instruction</td>
<td>An inductive teaching strategy in which the teacher poses a task, problem, or intriguing situation, while students explore the situation across small changes in the data set, and generate insights about the problem and/or solutions.</td>
<td>Increased self-awareness; awareness of different points of view; enhanced curiosity; increased understanding of concepts and principles; enhanced ability to solve problems</td>
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<td>Problem-Solving and Problem-Based Learning</td>
<td>An inductive teaching method in which the teacher presents an ill-structured, novel, and complex problem for students to investigate and solve collaboratively with teacher guidance and coaching.</td>
<td>Acquisition of new knowledge, concepts, and principles; enhanced problem-solving ability</td>
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<td>Independent Study</td>
<td>An instructional strategy in which the teacher encourages individuals or small groups of students to explore self-selected areas of study.</td>
<td>Enhanced motivation, content area knowledge, and methodological skills</td>
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<td>Learning Activities</td>
<td>A unit’s learning activities are those cognitive experiences that help students perceive, process, rehearse, store, and transfer knowledge, understanding, and skills.</td>
<td>Effective learning activities are aligned with the learning goals and efficiently foster cognitive engagement (i.e., analysis, critical, practical, and creative thinking) integrated with the learning goal.</td>
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<td>Grouping Strategies</td>
<td>Assessments are varied tools and techniques teachers use to determine the extent to which students have mastery of learning goals.</td>
<td>Well-designed grouping strategies are aligned with the learning goals. Effective grouping strategies are varied and change frequently to accommodate students’ interests, questions, learning preferences, prior knowledge, or learning rate and zone of proximal development. Group membership changes frequently based upon learning goals and assessment of student learning.</td>
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<td><strong>Products</strong></td>
<td>Products are performances or work samples created by students that provide evidence of student understanding and learning. Products can represent daily or short-term student learning, or can provide longer-term culminating evidence of student knowledge, understanding, and skill. High-quality products often double as assessment tools.</td>
<td>Powerful products are authentic, equitable, respectful, efficient, aligned to standards and diagnostic.</td>
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<td>Resources</td>
<td>Resources are materials that support learning during the teaching and learning activities. These resources will be varied to accommodate student differences, learning preferences, and interests. Resources should include print and non print sources, and human resources.</td>
<td>Exemplary resources are varied in format and link closely to the learning goals, students’ reading and comprehension levels, and learning preferences.</td>
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<td>Extension Activities</td>
<td>Extension activities are preplanned or serendipitous experiences that emerge from learning goals and students’ interests.</td>
<td>Powerful extension activities provide for student choice. They relate in some way to the content/standards, are open-ended, authentic, and generate excitement for and investment in learning.</td>
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<td>Modifications for Learner Need (Ascending the Level of Intellectual Demand)</td>
<td>Teachers can enhance learning by optimizing the match between the curriculum and students’ unique learning needs. One kind of modification represented in the Parallel Curriculum Model is referred to as “Ascending Levels of Intellectual Demand.”</td>
<td>Well-designed modification strategies are closely aligned with the learning goals and students’ interests, questions, preferred learning modes, product preferences, prior knowledge and/or learning rate.</td>
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