K–16 Instruction & Technology Integration (ITI) Model Guide

GETTING SMART
Think. Learn. Innovate.

Dr. Philip Hickman, Columbus Municipal School District
in partnership with Getting Smart

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Overview

An often-overlooked piece of the personalization puzzle is the inclusion of an effective instructional model. While a tremendous amount of progress has been made to ensure that all students meet standards, have access to technology and are better prepared for life beyond school, particularly over the past 20 years, oftentimes teachers have to figure out how to get there on their own.

While there has been significant energy put toward ensuring that all students learn ("the why"), as well as toward providing technology-rich environments and identifying standards ("the what"), it is also important to equip professionals with strategies for instruction that leverage available technology ("the how").

Furthermore, students bring a diverse set of learning needs, interests and skills. They are more accustomed to technology than previous generations have been. As students and their communities have evolved, there is a greater need for the classroom to do so too.

An effective blended instructional model builds upon what works for teaching and learning, along with what doesn't (e.g., "drill and kill").

The Challenge

In the fall of 2016, 50.4 million students attended public primary and secondary schools.[1] The education landscape is shifting in many ways, and the "traditional student" is an idea of the past. For years, the U.S. Census Bureau forecasted a majority-minority population by 2043.

However, the future has arrived much sooner. For instance, non-white Latinos have already surpassed African-Americans as the largest minority in the country.[2] The National Center for Education Statistics reported that, for the first time, the total percentage of minority students is projected to be larger than the percentage of white students in public elementary classrooms.[3] But the achievement gap presents challenges for the demographic change, and it remains unclear whether educators are doing enough to prepare for them.

Taking into account students' specific learning needs and skills is nothing new. But in today's dynamic digital world, engaging students has gotten harder. Consider the growing everyday use of mobile technologies and apps that begins early in a child's development: 56 percent of children ages eight to twelve have a cell phone.[4]

For educators, it is no longer a question of **why** going digital is important, but **how** to integrate technology into every school and every classroom. Critical new capabilities for teachers include:

- Planning for and personalizing the learning process with technology in mind
- Adapting to new roles for teachers at different times–which includes moving away from "drill and kill" –yet also knowing that there's a time for direct instruction

High-Impact Approach: CMSD

Dr. Philip Hickman, Superintendent of Columbus Municipal School District (CMSD), sought to meet that challenge by designing the K–16 Instruction and Technology Integration model (or K–16 ITI). This model is transforming teaching and personalizing learning within and beyond the classrooms of CMSD.

In his first board meeting, Hickman rejected an expensive textbook adoption and made a commitment to #GoOpen. With savings from open educational resources, CMSD was able to invest in a digital learning ecosystem across the district: one-to-one with MacBooks in high schools, two-to-one with MacBooks in middle school and two-to-one with iPads in elementary.

"Plant a seed in the morning and be cutting grass by noon. That's my approach," said Hickman. "Children only have one shot at second grade."

CMSD serves 4,500 mostly low-income students, and is composed of five elementary magnet schools, each with a unique innovative focus: a new state-of-the-art middle school, an award-winning technology center and a comprehensive high school.

Dr. Hickman is working with leaders in his district to ensure that all students have personalized, technology-rich, high-quality learning opportunities.

The Model

The K–16 ITI model is an innovative, blended instructional model that personalizes instruction and technology for grades K–12 and at the college level. The model matches the appropriate entry point of instruction with the proper use of technology through a gradual release process across four phases. Designed to meet the individual needs of every student, the model provides an opportunity for students to build the skills necessary to compete in a global society.

In this guide, you'll read about a new strategic approach, complete with practical and easy-to-use tips that can guide instruction into the future while providing a strategic progression in which the teacher combines his or her professional experiences with student data to construct powerful learning experiences for all.

Be sure to check out the podcast with Dr. Hickman, Personalizing Learning through the ITI Model

Application of Research

Why a blended instructional model? According to Blended Learning Universe (an online repository for all things blended learning, including resources, programs and a network of schools), "Blended learning has the potential to break the century-old factory model of education" and unlock learning that is:

- **Customized.** Online learning offers individual data, timely feedback and flexible pathways.
- **Competency-based.** Control over pace means students advance based on mastery, not time.
- **Anytime, anywhere.** Technology opens up a world of opportunities and allows students to reach beyond the classroom.[5]

Research shows that it's working. Students in blended-learning classrooms scored 18 percent higher on spring 2015 reading tests and 7 percent higher in math than those in traditional classrooms.[6]

About This Guide

This guide was designed to outline, from start to finish, the roles and responsibilities of the teacher in a personalized, blended environment. This instructional model outlines four key phases of the instructional process:

- Teacher-Driven Instruction
- Group-Driven Instruction
- Independent Practice
- High-Impact Centers

For each phase, this guide outlines:

- The role of the teacher
- The role of technology
- Technology integration strategies
- Supporting research
- The learning format and role of the students

This structure elevates the role of the teacher and places teachers in the role of key decision-maker regarding when and how students will advance through the phases. This guide serves to overview each phase of the instructional process, while providing tips and research nuggets to support implementation.

The table below summarizes the process of **gradual release through the four phases of learning:**

Phase	Focus	Instruction Integration / Entry Points	Technology Integration
1	Introduce New Learning (Teacher-Driven)	I DO	Teacher Demonstration
2	Guided Practice (Group-Driven)	WE DO THEY DO	Group Discussion/Self-Assessment
3	Independent Practice (Student-Driven)	YOU DO	Independent Practice
4	High-Impact Centers (HICs)	I DO, WE DO, THEY DO, YOU DO	Technology Integration Will Vary by Center

Entry Points

The entry point is the point at which a teacher begins instruction. Entry points are determined by evaluating and aligning student data to instruction. There are four types of entry point:

- **I DO**–Teacher-driven
- **WE DO**–Group-driven (led by teacher)
- **THEY DO**–Group-driven (collaboration by students)
- **YOU DO**–Student-driven

Entry points are critical. They utilize knowledge of student performance levels to help the teacher understand the best way to start.

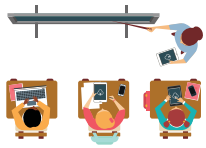
Instruction Integration

Technology Integration

Phase 1: Teacher-Driven

I DO

Teacher provides direct/group instruction around one concept to the entire class.



Teacher Demonstration

Teacher is the instructor and/or activator of technology. Technology is used to present information. Examples: Smartboards, PowerPoint, OERs, etc.

Phase 2: Group-Driven

WE DO

Teacher guides learning with technology while monitoring and correcting instruction around one concept.

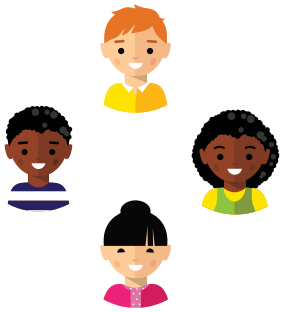
THEY DO

Teacher facilitates learning with technology. Differentiated group work creates one product for feedback.

Gradual Release of Educational Technology

Group Discussion/ Self-Assessment

Technology is used as a formative or informal assessment combined with supportive practice.



Phase 3: Student-Driven

YOU DO

Teacher reflects on the students' needs. Students independently demonstrate competency while the teacher observes and provides feedback.

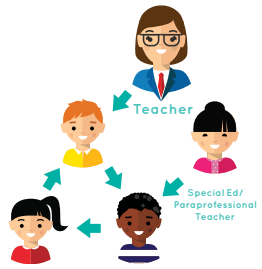
Independent Practice

Teacher reflects on use of technology. Technology is used independently by students for practice, exploration, research, personalized learning, etc.

High-Impact Centers

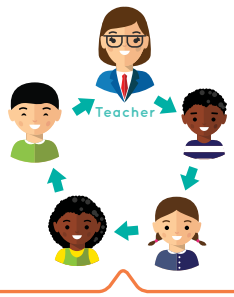
The individual student's level of understanding determines which of the four High-Impact Center (HIC) models the teacher will use. The teacher determines the HIC through assessment and releases or exits the students into one of the below models.

Co-Pilot



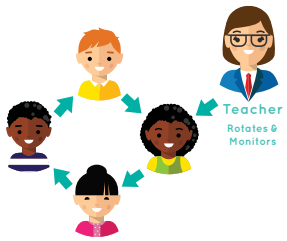
The teacher and the special education/ EEL teacher host a small group center. Students will rotate through their independent centers. In this HIC, groups are fluid to allow students to transition through the centers depending on their learning needs.

Chauffeur



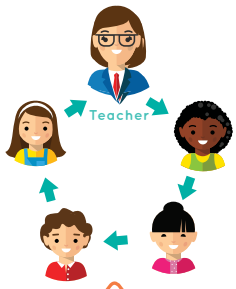
Students rotate through all of the centers. The teacher's differentiated center is a small group center designed to reteach aspects of the lesson for mastery, teach further concepts for enrichment and access overall learning. This will enable the teachers to remediate and correct errors.

Carpool



As the groups rotate through their independent centers, the teacher monitors and coaches learning while walking through all of the centers.

Caboose



The teacher will host a consistent, well-planned center with the same activity for all students. Students will then rotate through every center.

The "4 Cs" of Learning

Empower students to meaningfully engage and create using technology.

1 Communication

Sharing thoughts, questions, ideas and solutions

2 Collaboration

Working together to reach a goal; putting talent, expertise and smarts to work

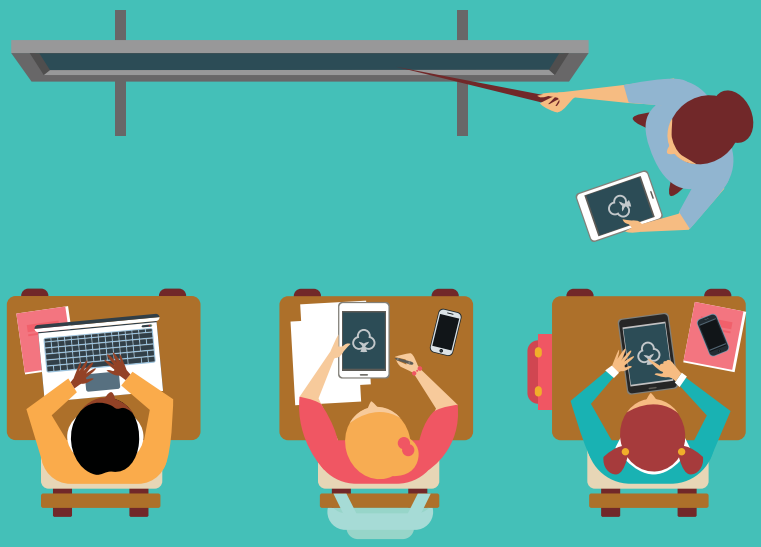
3 Critical Thinking

Looking at problems in a new way; linking learning across subjects and disciplines

4 Creativity

Trying new approaches to get things done equals innovation and invention

The Model



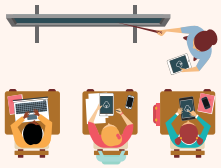
Phase 1: Teacher-Driven

I DO

Introduce New Learning

Provide direct instruction around one concept to the entire class or small groups.

Primary Role	Instructor
Key Actions	Model | Instruct | Activate | Monitor
Format	› Teacher to students › Student groups • Knees-to-teacher huddle • U-shape • Pods • Small groups and/or partner groups
Responsibilities	› Activate prior knowledge connections › Set purpose › Communicate procedures and expectations › Introduce content › Direct/provide explicit instruction to the level the standard demands › Emphasize formative assessment with immediate feedback › Monitor understanding



Technology Integration

Teacher Demonstration

Technology is used to present information and is activated by the teacher.

Examples:

- Smartboards
- PowerPoint
- Open Education Resources (OER)
- Internet Resources

Research Nugget

In John Hattie's book Visible Learning for Teachers (based on 15 years of research), he emphasizes the importance of teacher clarity as one of his top five teacher behaviors. He notes that this is particularly important when introducing concepts for a new unit of study. [7]

Phase 2: Group-Driven

WE DO

Guide Learning

Guide learning with technology while monitoring and correcting instruction around one concept.

Primary Role	Guide/Corrector
Key Actions	Guide | Facilitate | Question | Monitor | Adjust
Format	› Teacher to students › Students to teacher › Students to students › Student to student: pods, small groups, HICs and/or partners
Responsibilities	› Constantly monitor understanding › Constantly adjust instruction › Give immediate, frequent feedback › Guide students' utilization of technology › Emphasize: • Formative assessment with immediate feedback • Higher-order questioning: cycle through Bloom's order of questions › Guide instruction with collaboration, communication and critical thinking

Technology Integration

Group Discussion and/or Self-Assessment

There is a gradual release of students from teacher-guided instruction to the use of educational technology. Technology is used as a formative or informal assessment, combined with supportive practice.

Example:

› Smartboards with feedback and survey mechanisms

Research Nugget

Organizing students for effective small-group learning can lead to a gain of as much as 28 percentiles in measured student achievement.[8]

Furthermore, the What Works Clearinghouse (a service of the Institute of Education Sciences) underscores the importance of making data a part of the instructional process in their practice guide, *Using Student Achievement Data to Support Instructional Decision Making*.

Phase 2: Group-Driven (continued)

THEY DO

Guide Practice

Facilitate learning with technology. Differentiated group work creates one product for feedback.

Primary Role	Facilitator
Key Actions	Guide | Facilitate | Monitor | Provide feedback
Format	› Student to student: pods, small groups and/or centers
Responsibilities	› Assist students with accessing and using technology › Monitor understanding › Give immediate, frequent feedback › Emphasize: • Formative assessment with immediate feedback • Higher-order questioning: cycle through Bloom's order of questions • Use of the Four Cs

Research Nugget (continued)

Also included in the guide's recommendations are processes for students to reflect upon data about their own learning. Specific recommendations include prioritizing instructional time, targeting additional individual instruction for students who are struggling, identifying strengths and refining instructional methods.[9]

Phase 3: Independent Practice (Student-Driven)

YOU DO

Provide Feedback

Teacher reflects on students' needs. Students independently demonstrate competency while the teacher observes and provides feedback.

Primary Role	Reflector
Key Actions	Observe | Reflect
Format	› Independent practice ("Knees-to-teacher") › Small group (dependent on content)
Responsibilities	› Create meaningful assignments for reflection › Assist students with accessing and using technology › Ask, "To what degree did the student master the content?" › Guide students' self-reflection › Provide feedback after independent work

Technology Integration

Independent Practice

Technology is used independently by students for practice, exploration, research, personalized learning, etc.

Example:

› Students complete online learning modules available through a variety of OER and subscription sources or learning-management systems.

Research Nugget

According to the U.S. Department of Education, on average, classes with independent, student-driven online learning (e.g., blended models) produce stronger student-learning outcomes than classes with solely face-to-face instruction.[10]

Phase 4: High-Impact Centers and the Four Cs

Phase 4 is unique, in that it focuses on project-based learning and the real-world application and extension of knowledge.

The individual student's level of understanding determines which of the four High-Impact Center models below should be utilized. This can be determined through assessment of the best point at which to release or exit the students into one of the models.

Types of High-Impact Centers

There are four types of High-Impact Centers, each of which is outlined in detail on subsequent pages:

1. **Co-Pilot**
2. **Chauffeur**
3. **Carpool**
4. **Caboose**

The Four Cs of Learning

1. Communication: sharing thoughts, questions, ideas and solutions.

2. Collaboration: working together to reach a goal–putting talent, expertise and intelligence to work.

3. Critical Thinking: looking at problems in a new way–linking learning across subjects and disciplines.

4. Creativity: trying new approaches to get things done equals innovation and invention.

Why It Works

The Four Cs of learning draw from the best of what we know about personalized learning, blended learning and cooperative learning.

According to PBS LearningMedia research, 74% of teachers surveyed responded that using classroom technology motivates students to learn. Technology in the classroom allows students to take greater control of their education because tools like tablets and laptops encourage interactive, hands-on learning.[11]

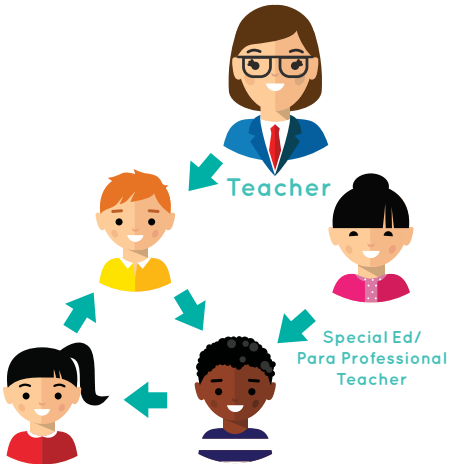
Along with improving academic learning, cooperative learning helps students engage in thoughtful discourse and examine different perspectives, and it has been proven to increase students' self-esteem, motivation and empathy.[12]

High-Impact Center

The lead teacher and another staff member–such as a Special Ed, ELL or Exceptional Ed teacher–each host a small group center.

Students rotate through the centers, but groups are fluid, so that students only attend centers that match their learning needs.

Co-Pilot



Entry Points	Teacher Actions	Student Actions
WE DO Groups record collaborations in one product, and share out for feedback	Lead small group center	Participate in centers
THEY DO Differentiated groups produce one product for feedback		

Why It Works

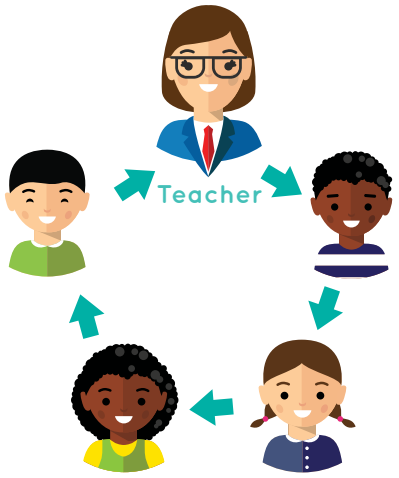
According to Blended University, an individual rotation model "allows students to rotate through stations, but on individual schedules set by a teacher or software algorithm. Unlike other rotation models, students do not necessarily rotate to every station; they rotate only to the activities scheduled on their playlists."

High-Impact Center

Teacher-led center with differentiated curriculum.

Students rotate through all of the centers. The teacher's differentiated center is a small group center designed to reteach aspects of the lesson for mastery, teach further concepts for enrichment and access overall learning. This will enable the teacher to remediate and correct errors.

Chauffeur



Entry Points

WE DO
Groups record collaborations in one product and share-out for feedback

THEY DO
Differentiated groups produce one product for feedback

YOU DO
Individual work, differentiated product, processing activities through rotations (e.g., technology, writing, creating, research) on each concept

Teacher Actions

Similar to I DO phase actions previously modeled.

- Understand performance level of students and plan accordingly
- Group students by level
- Build on skill deficits, (understand concept of remediating "to the standard" not "to the student")
- Explain each rotation's purpose, procedures and expectations
- Host a well-prepared, planned center based on students' performance level
- Understand that after assessing the rotations, it may be necessary to return to large group activities (I DO and/or WE DO)

Student Actions

- Rotate through all centers
- Understand procedures and expectations

Why It Works

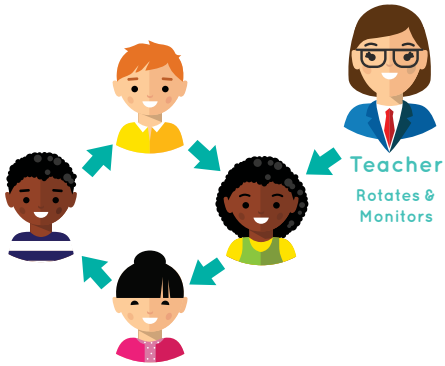
According to ASCD, differentiated instruction can enable students with a wide range of abilities–from gifted students to those with mild or even severe disabilities–to receive an appropriate education in inclusive classrooms." [13]

High-Impact Center

Independent centers with a floating teacher.

As the groups rotate through their independent centers, the teacher monitors and coaches learning.

Carpool



Entry Points

THEY DO

Differentiated groups produce one product for feedback, and aim for mastery

YOU DO

Individual work, differentiated product, processing activities through rotations (e.g., technology, writing, creating, research) on each concept

Teacher Actions

- Rotate among groups
- Spot-monitor thinking through interactions at centers
- Guide thinking by asking higher-level, inquiry-based questions
- Encourage mini-group discussions that connect to standards/learning targets

Understand:

- If the majority of students are not grasping concepts, return to large group (I DO and/or WE DO)
- If students in one center are not grasping concepts, coach center back through the I DO and/or WE DO
- If students from various centers are not grasping concepts, pull those students for I DO and/or WE DO (creates a new group and shifts to the Chauffeur HIC model)

Student Actions

- Rotate through all centers
- Understand procedures and expectations

Why It Works

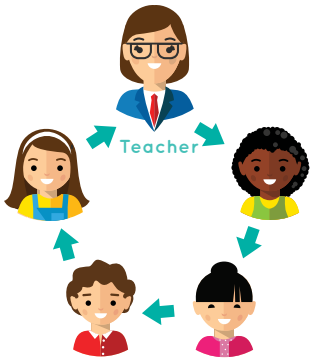
According to the U.S. Department of Education, on average, classes with online learning (whether taught completely online or blended) produce stronger student learning outcomes than classes with solely face-to-face instruction. [14]

High-Impact Center

Teacher-led center with the same curriculum for every student.

Teacher hosts a consistent, well-planned center with the same activity for all students. Students rotate through every center.

Caboose



Entry Points

I DO
Provide direct, explicit instruction around one concept

WE DO
Groups record collaborations in one product, and share out for feedback

THEY DO
Differentiated groups produce one product for feedback

YOU DO
Individual work, differentiated product, process activities through rotations (e.g., technology, writing, creating, research) on each concept

Teacher Actions

- Understand performance level of students and plan accordingly
- Build on skill deficits (understand concept of remediating "to the standard" not "to the student")
- Explain each rotation's purpose, procedures and expectations

Student Actions

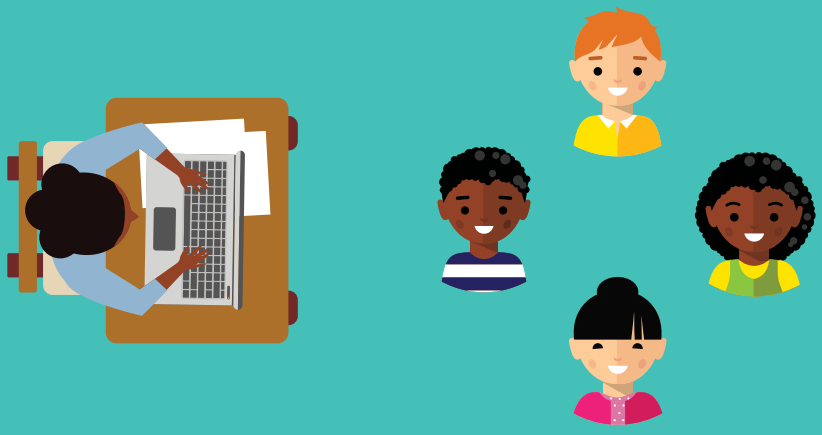
- Rotate through all centers
- Be aware of time constraints for center rotation

Why It Works

When learning (or re-learning) in cooperative groups, in addition to improving academic performance and cultivating more positive social behaviors, small-group learning has been found to:

- Lead to greater motivation toward learning
- Increase time on task
- Improve self-esteem [15]

Implementation



How to Determine and Apply Entry Points

One of the most important parts of the instructional process is deciding where to start. These tips will help you determine the best entry points:

1. **Define the planning and preparation needed for instruction in relation to the class as a whole, as well as for individual students**
   a. Understand the difference between planning and preparing
   b. Determine or access focus standards for planning and preparing
2. **Regularly review and interpret instructional data**
   a. Understand the difference between standards and objectives, learning targets, and/or "I can" statements
   b. Know and own the focus standards
   c. Access deconstructed standards
   d. Understand the state's test blueprint
   e. Develop or access plans for instruction
3. **Regularly review and analyze student data**
   a. Access and analyze available data, including:
      - Student portfolios
      - Student learning-style inventories
      - Adaptive data
      - Benchmark data
      - State-test data
   b. Determine student performance levels based on data
      - Are students performing above the standard, below it or on track?
   c. Designate three to four groups for performance-based instruction
4. **Use instructional and student data to determine when flexible or performance groups are needed throughout the day/week**
5. **Study and analyze the possible entry points (I DO, WE DO, THEY DO, YOU DO)**
6. **Use instructional and student data to determine the appropriate entry point based on the role the teacher needs to serve**
   a. Instructor/Activator (I DO)
   b. Guide/Corrector (WE DO)
   c. Facilitator (THEY DO)
   d. Reflector (YOU DO)
7. **Conduct mastery assessments**
   At each entry point, your plan should check on each individual student's understanding, so you can use your findings to respond to learning gaps. Examples include technology checks, exit tickets, checkpoints, structured peer conversations and communicating data to students
8. **Differentiate between instruction types or levels**
   Ask yourself, "Does my plan allow for a variety of instructional strategies, like flexible grouping and/or tiered instruction? Does it engage students in higher-order activities?"

Sample Lesson Plan

Week 10 Lesson Plans

(Refer to Notes Page at the front of your Unit Binder for explanations on terminology.)

LESSON 1 Days

Purpose:

-Introduce the new extended text

-Research the author and build background knowledge

-Begin the process of making a connection with the theme of the extended text from the first nine weeks

Focused Learning Targets:

RI.7.1.1 Analyze the explicit meaning of a text.

RI.7.1.2 Examine text and draw inferences from a given text.

RI.7.1.3 Accurately cite several pieces of textual evidence by stating page number or line number to support analysis of explicit meaning of the text and inferences drawn from the text.

RI.7.10.1 Comprehend texts by thinking about, talking about and responding to what I read.

RI.7.10.2 Read and comprehend literary nonfiction with increasing text complexity and proficiency.

RI.7.10.3 Read closer to the high end of the Lexile score (925-1185 with scaffolding).

It is recommended that teachers look ahead throughout the week at the various activities and plan accordingly for time. Students should continue to add to the folder/ notebook that was started for The Outsiders. Both novels explore similar themes.

Hook/Anticipatory Set:
TTW call students' attention to the fact that S. E. Hinton used her initials rather than her full name because she thought some readers might not choose to read the book if they thought the author was female. *The Outsiders* was written by a female author, but told from a teenage boy's point of view. The novel for this nine weeks is about a girl and her friends. Do you think it is important to read stories from both the male and female point of view? Why or why not? (Three-minute quick write–TTW collect the free writes and choose several to share with the class to get students' feedback.)

Whole Group/Direct Instruction (TTW Introduce New/Review):

- **Modeling Procedures:** TTW explain the directions/ expectations for group work and will model how she/he uses the Internet to search for important facts about a specific author or topic–for example, J. K. Rowling. TTW demonstrate how she/he uses specific word choices in the search box while researching a specific author. (This is also an opportunity to explain the difference between reliable and non-reliable sites for research information.)

  TTW also facilitate a discussion around what types of questions students should look to answer as they research the life and work of Sandra Cisneros. For example, how did her early life affect what she chose to write about, or what are some of the major themes in her work? The teacher and students will compile a list of the research questions to be asked and answered.

- **Review Strategy:** TTW remind students that their previous extended text (*The Outsiders*) dealt with the theme of identity and that this novel will allow readers to explore the same theme but from a female perspective and from the perspective of someone from a different culture. ("What Is Identity?" is attached.)

Informal/Formative Assessment:

- **Checking for Understanding Procedures/Strategies**
  TTW monitor students as they work in groups to prepare their presentations.

- **Student Feedback Procedures/Strategies**
  Students will receive feedback from peers and the teacher as they work in centers.

Supportive Practice (TTW Facilitate) Procedures:
Teacher modeling and facilitation of center work.

Independent/Individual Practice through High-Impact Centers/ Groups (TSW):
TSW rotate through the following centers as they research the three assigned topics as noted below–or students may be assigned to one of the centers in order to allow more time for a fully developed presentation on each topic.

Materials and Resources (include Lexile levels and digital resources):

Summary and Analysis of House on Mango Street at

http://www.sparknotes.com/lit/mangostreet/summary.html#U31T

"What Is Identity" (attached)

Sample Web Site

http://www.jkrowling.com/en_GB/#/about-jk-rowling

Suggested Questions for Author Interview (attached)

Chart paper and markers or laptops to compile key facts

Sample Lesson Plan (continued)

Week 10 Lesson Plans (continued)

(Refer to Notes Page at the front of your Unit Binder for explanations on terminology.)

W.7.7.1 Conduct short research projects to answer a question.

W.7.7.2 Use information from several sources.

TTW call upon each group to present their findings. Each group will use chart paper or their laptops to note the key facts found for each topic. Students may prepare a PowerPoint presentation or list key facts on the chart paper. Each member of the group should participate in the presentation.

NOTE: Teachers may adjust or even expand the center activities. If laptops are not available for each pair of students, students may make use of chart paper or posterboard. If students are given ample time to research and compile information, it may take two to three class periods to complete these tasks. Teachers have the freedom to make decisions based upon student readiness levels and time.

Procedures/Activities:

- **HIC/G 1-Technology**
  - **Objective(s):** Research a subject and present findings.
  - **Expectations:** TSW find key facts about Sandra Cisneros' life and work.
  - **Exemplar:** Teacher modeling and direct instruction.
  - **Self-evaluation method:** Peer discussion and feedback and teacher facilitation.
- **HIC/G 2**
  - **Objective(s):** Research a subject and present findings.
  - **Expectations:** TSW find key facts about realistic fiction and why it is important to read realistic fiction.
  - **Exemplar:** Teacher modeling and direct instruction.
  - **Self-evaluation method:** Peer discussion and feedback and teacher facilitation.
- **HIC/G 3**
  - **Objective(s):** Research a subject and present findings
  - **Expectations:** TSW find key information regarding Chicano literature and authors. They will learn who, beside Cisneros, are noted Chicano authors.
  - **Exemplar:** Teacher modeling and direct instruction.
  - **Self-evaluation method:** Peer discussion and feedback and teacher facilitation.

Closure: TSW complete a quick write on the following question: How does your name affect who you are? Be specific. This quick write will be an entry in the folder/notebook that students are compiling for this extended text.

How will you differentiate this lesson to ensure that all students, including students with disabilities, have access to and are able to engage appropriately in the lesson? (Answer in terms of content, process or product. Consider aspects of student diversity.)

This lesson varies in content and product, as all groups are researching the same topics.

Conclusion

To review, this model recognizes the important role of the teacher and follows a **gradual release** process as students gain independence through the learning process:

Phase 1 Introduce New Learning (teacher-driven, I DO)

Phase 2 Guided Practice (group-driven, WE DO)

Phase 3 Independent Practice (student-driven, YOU DO)

Phase 4 High-Impact Centers (project-driven, Four Cs)

The High-Impact Centers emphasize application of learning through the Four Cs:

- Communication
- Collaboration
- Critical Thinking
- Creativity

By creating a vision and a framework for teachers in CMSD and beyond, Dr. Hickman creates learning opportunities that authentically engage students and allow them to compete in a global society.

Endnotes

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