

PD Support Materials

Interacting With Peers

Directions for Using the Overview Slideshow

Each Instructional Strategy Guide contains an overview slideshow that sets the context for the evidence-based practices that are presented in Teach with Tech and illustrated in the Lesson in Action. It also identifies ways to differentiate instruction based on the Universal Design for Learning (UDL) principles. Discussion questions are embedded in each slideshow.

PD Goals

- ▶ To set a context for delving into Teach with Tech and the Lesson in Action
- ▶ To elicit prior knowledge and build background knowledge

PD Materials

- ▶ The slideshow within the Instructional Strategy Guide
- ▶ Discussion questions (embedded within the slideshow and provided as a handout below)

PD Activity

- ▶ Ask teachers to review the slideshow (either before or during the session)
- ▶ Elicit conversation using discussion questions
- ▶ As a follow up, share key ideas

See the PD Facilitator Guide for related activities to support ongoing professional learning.

Discussion Questions for the Interacting With Peers in Math Slideshow

DISCUSSION QUESTIONS

1. What are some ways in which peer interaction differs from teacher-student interaction?
2. How does the use of peer interaction connect with the Common Core State Standards Math Practices?
3. How do you ensure struggling students succeed in interacting with peers?

DISCUSSION QUESTIONS

1. How do you help students understand what's expected when interacting with each other?
2. How have you used technology to provide differentiated instruction for your struggling students?
3. How have your students used technology for interacting with peers?

DISCUSSION QUESTIONS

1. Which situations are more appropriate for one-on-one interactions, and which for group discussion?
2. What structures and strategies have you used to guide peer interaction?
3. How do you assess students' interactions with peers?

Directions for Using Teach With Tech

Each Instructional Strategy Guide contains a Teach with Tech section, which presents suggestions for differentiating evidence-based practices and personalizing instruction using a range of technology tools.

PD Goals

- ▶ To examine and discuss evidence-based practices in terms of:
 - What they are and how they can be used to differentiate instruction
 - How technology tools can be integrated to further meet the needs of struggling students
 - To generate additional instructional strategies based on the needs of your students and the technology tools that are available in your school

PD Materials

- ▶ Teach with Tech (which is located within the Instructional Strategy Guide). This can be:
 - Distributed as a handout
 - Projected onto a large screen
 - Viewed on laptops, tablets, and other devices
- ▶ A companion chart (below), titled ***Differentiate the Strategy***. The chart is divided into three columns:
 - The left-hand column, “Evidence-Based Practices,” which is divided into three sections (one for each of the three evidence-based practice headings)
 - The middle column, “PowerUp Suggested Strategies,” which lists the strategies presented within PowerUp
 - The right-hand column, “Differentiating Instruction with Technology,” which has been left blank so that it can be used to record ideas brainstormed by the group of teachers in your school

PD Activity

- ▶ Review Teach with Tech (contained within the Instructional Strategy Guide)
 - Review the strategies under each of the three evidence-based practice headings:
 - Discuss how relevant they are to your students’ needs
 - Compare them with current classroom practices
 - Identify new ideas that could be implemented
 - Discuss the accompanying Quick Views
 - Explore and discuss the identified UDL Guidelines
- ▶ Introduce the companion chart titled ***Differentiate the Strategy***
 - Collaboratively (in small groups or pairs) brainstorm ideas to include in the right hand column (“Differentiating Instruction with Technology”) by:
 - Exploring possible technology tools available in the school
 - Sharing ideas
 - Identify what it would take to implement these ideas in the classroom

See the PD Facilitator Guide for related activities to support ongoing professional learning.

Differentiate the Strategy: Interacting With Peers in Math

Evidence-based Practice	PowerUp Suggested Strategies	Differentiating Instruction with Technology
Provide Clear Explanations	Develop a list of class norms for interaction and post them on the class website or a blog. Elicit input by asking students to identify how they want their classmates to respond to both their correct and incorrect ideas.	
	Give your students a structure for tutoring classmates. Provide tools (e.g., a class blog or website) so that students can record, track, and share.	
	Provide structures for student interactions that allow all students to have a voice. Techniques such as Think-Pair-Share or Turn and Talk ensure that all students have their own time to think about the mathematics and to articulate their thoughts.	
Give Students Strategies and Models	Use multiple structures and techniques for feedback and student discussions. This provides options for students who are less comfortable with some techniques. It also encourages students to think about interacting in different circumstances (e.g., one on one, as part of a group, when agreeing, when disagreeing).	
	Encourage students to help each other by giving clues or hints or asking questions, rather than simply providing answers. Sometimes it is effective for students to present their own ideas rather than assuming that their peers hold the same idea. Students can make use of physical manipulatives or virtual tools to create alternative representations that support their ideas.	
	When a student provides a solution and a peer accepts that solution without question, ask the peer if she or he needs any clarification. If not, ask the peer to explain the solution back to the original student.	
Provide Ongoing Formative Assessment	Listen to students' conversations with peers. Note whether they ask questions for clarification or prompt a classmate to reconsider a proposed solution. Listen for statements that add to the mathematics conversation. Return to certain conversations to verify that a student has corrected any misunderstandings.	
	Remind students (as needed) that you want them to be able to talk about math with each other, and not just with you. If they need a less subtle hint, explicitly direct them to address their peers.	
	Consider each student's needs and learning styles when you decide which actions to take to move students closer to learning goals. Whatever actions you take, give students time to ask you questions, share their thinking, and respond to the feedback you provide.	

Directions for Using the Lesson in Action

Every Instructional Strategy Guide includes one or more Lessons in Action. Each lesson provides a classroom example of the relevant evidence-based practice. The example illustrates how a teacher aligns instruction with the Common Core State Standards, differentiates instruction to meet the needs of her diverse students, uses technology to personalize learning, and engages in formative assessment.

PD Goals

- ▶ To analyze the Lesson in Action and reflect on current teaching practice
- ▶ To provide teachers with a foundation for their own lesson planning

PD Materials

- ▶ The Lesson in Action you selected from the Instructional Strategy Guide, which can be:
 - Distributed as a handout
 - Projected onto a large screen
 - Viewed on laptops, tablets, and other devices
- ▶ The companion handout (titled **Scavenger Hunt**), which can also be distributed as a handout, projected onto a large screen, or viewed on devices

PD Activity

- ▶ Analyze and discuss the Lesson in Action
- ▶ Use the **Scavenger Hunt** handout to discuss how the teacher is:
 - Aligning the lesson with the Common Core State Standards
 - Employing the strategies suggested in Teach with Tech
 - Using technology to support struggling students
 - Personalizing instruction through differentiation
 - Translating UDL principles into action
- ▶ Compare the Lesson in Action with current practice in your school and classrooms
- ▶ Identify the new ideas the Lesson in Action offers for using:
 - Evidence-based practices
 - Differentiated instruction and UDL
 - Technology tools
- ▶ Use the Lesson at a Glance for lesson planning:
 - Discuss the sequence of the instructional steps: What? Why? How?
 - Discuss how the instructional steps can be used as a basis for lesson planning
 - Create a modified lesson plan to meet student needs by working individually or in collaboration

See the PD Facilitator Guide for related activities to support ongoing professional learning.

Scavenger Hunt



Within the Lesson in Action, can you find an example of how the teacher...

1. Aligns instruction to meet the Common Core State Standards?
2. Uses one of the Teach with Tech suggested practices?
3. Uses technology to support struggling students?
4. Personalizes instruction through differentiation?
5. Translates UDL principles into action?

If you can't find an example, what would you have done?