Module 10

Developing 21st Century Approaches

Description: In 21st century classrooms, teachers typically spend 90 percent of their time facilitating learning and 10 percent of their time providing direct instruction. The objective of this module is to have you develop strategies for promoting the skills of listening and speaking, giving directions, observing and monitoring, questioning, encouraging, and intervening. You will also gain a better understanding of the process of accepting change.

Pair and Share: Reflecting on Module 9

Share your answers to the Take-Home Exercise: Reflecting on Module 9 with a colleague and the whole group as directed. Record any new and good ideas on the lines that follow.

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Exercise 1: Facilitating Learning

Facilitating learning involves many skills, including listening and speaking, giving directions, questioning, observing and monitoring, encouraging, and intervening. Teachers must learn these skills. Students must also develop these skills, since they too are working with others.

Listening and Speaking Skills

To promote listening and speaking skills with students, teachers should consider doing and saying the following:

To Do	To Say
Model desired behaviors	*I hear better when I look at the person speaking.*
Reinforce desired behaviors by pointing them out	*I use a loud voice so everyone can hear.*
Remind students to use good listening skills	*Now Arturo and Graciella will share. You will have an easier time hearing what they are saying if you look at them.*
Guide students on what they should do if they cannot hear	*Raise your hand to let someone know that you cannot hear what he or she is saying.*
Restate what a student has said to clarify when needed	*Joseph, you said a drawing program would be the best tool. Rema wants to know why you think so.*
Respond in ways that are neither positive nor negative	*Dana shared one idea. Who wants to share another idea?*
Encourage students to elaborate further	*What else would you like to add?*
Include all the students	*Who else wants to ask a question?*
Alert students when changing direction	*Let us explore another solution.*

Giving Directions Skills

Teachers who have good skills for giving directions

- are clear in their intentions and think through their instructions

- wait and ensure that students are quiet before giving directions

- provide directions orally and in writing

- share directions a few steps at a time so as to not confuse or overwhelm students

- model the expected steps for students

- check for understanding to ensure that students know what is expected from them

Observing and Monitoring Skills

Good teachers

- always know what students are doing

- move around the room and listen to students' conversations

- take or record notes

- ask questions

- make decisions about when to intervene

- recognize that each student is special

Questioning Skills

Questioning can be an effective way to extend thinking. To grow and learn, we question. Questioning allows us to make sense of what is around us. Questioning also leads to the ability to create solutions, make decisions, and plan successfully.

Effective questioning strategies include the following:

- Using language that everyone can understand

- Asking questions that have more than one correct answer

- Replacing questions that can be answered with a Yes/No or one-word answer with questions that ask *How…?, Why…?, or Which…?*

- Encouraging sharing of answers with a partner or small group prior to the larger group

- Calling on students randomly and allowing students to call on other students to respond

- Listening actively to what students are saying

- Avoiding the temptation to interrupt or correct immediately

- Withholding judgments and responding in a nonevaluative manner

- Redirecting incorrect answers

- Having one student summarize the idea of another

- Asking follow-ups such as, *Why? Can you tell me more? What is another example?*

- Inviting students to "unpack their thinking" and share how they arrived at an answer

- Letting students develop their own questions to ask others

Step 1

What are some other effective questioning strategies? As answers are shared, record good ideas on the lines that follow.

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Step 2

Work with a partner. Identify two or three effective questions that appear in the content from an earlier module. Write the questions, where they are found, and why they are effective.

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Step 3

Search for a question from an earlier module that you think could be improved. Write the question, where it is found, and why you think it could be improved.

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Step 4

Now rewrite the question to make it more effective.

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Step 5

How has your change made the question more effective?

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As part of good questioning skills, teachers provide _think time_ or _wait time_. Think time (or wait time) is the time between a teacher's question and a student's response. It is also the time between a student's response and the teacher's or next student's response.

Research indicates that most teachers provide only one second of think time when at least three to five seconds are preferred. The benefits of allowing for think time include increased levels of:

- Responses from a greater number of students

- Listening among students

- Accurate and confident responses

Encouraging Skills

Good teachers build relationships with students and recognize the ways in which each student is special. This knowledge often results in a natural tendency to give praise to students. However, good teachers focus on encouragement rather than praise.

Praise advances the notion that work has no value unless it receives praise. In contrast, encouragement conveys respect and belief in students' abilities, and recognizes efforts rather than achievements. Other differences between praise and encouragement can be found in the following table.

Praise	Encouragement
Stresses how other people feel	Stresses students contributions, skills, and areas of improvement
Often focuses on _I…_ statements, such as _I am so proud of you!_	Often focuses on _You…_ statements, such as _You handled that very well!_
Cultivates selfishness	Cultivates self interest
Promotes fear of failure	Promotes acceptance of being imperfect
Advances dependency	Advances self sufficiency
Comes with judgment	Comes without judgment

Some strategies to encourage students include:

- Being positive: *You worked a long time on that.*

- Focusing on strengths: *You used details in your drawings.*

- Encouraging students to strive for improvement: *Since you are not satisfied, what else can you do?*

- Being specific in identifying desirable behavior: *Thank you for being patient!*

- Encouraging effort: *Look at the progress you have made!*

Intervening Skills

Teachers who are effective facilitators carefully monitor students and make decisions about when to intervene.

Teachers intervene to

- provide feedback during project work

- provide confirmation with rationale

- ensure two-way communication

- enable a congenial relation to develop

- improve processes

- ensure fairness

- help clarify

- refocus

- assist in conflicts

- remind groups of ground rules

Teachers consider the following before intervening:

- What to say

- How to say it

- When to say it

- Who to say it to

- Why they should say it

This page presents several situations in which intervening skills are required of teachers. Identify two or three feedback starters or statements for each situation. Be prepared to share your answers.

Each group will be assigned to a situation. Groups will report out.

1. When you agree with a student... (Example: *Good point!)*

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2. When you disagree with a student... (Example: *There may be some other ideas to consider.)*

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3. When you need to encourage a discouraged student... (Example: *Let us solve it together.)*

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4. When you want to express empathy... (Example: *It sounds so frustrating.)*

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5. When you suggest a change... (Example: *Check that you have done all the tasks listed in the Review It section.)*

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Exercise 2: Accepting Change

Now you and a partner will participate in an exercise about change. Listen to learn more about the exercise.

Change is a natural phenomenon, whether one likes it or not. However desirable change may be, it disrupts the normal state of affairs. Disruption is an essential element of growth. Look at the following table. Think about the various stages of change.

Stage of Change	Description of Stage
Awareness	People have had contact with the change. They know about it generally, without much detail.
People must learn about change before they accept it.	
Acceptance	People understand the details and have the opportunity to ask questions and toy with what the change will mean to them.
DECISION POINT: People resist or accept the change.	
Preparation	People are actively involved in deciding on and designing both the changes and the new behaviors that will be required.
Implementation	Change is actualized.
Adoption	After experiencing the change, people adopt it and are skilled enough in new behaviors not to need coaching for routine functions.
People accept and commit to the change.	

Excerpt from the *Handbook of Human Performance Technology*.

Exercise 3: Promoting Key Skills

Technology literacy, critical thinking, and collaboration are three broad areas of core skills that should be developed in 21st century classrooms. However, the question of how to teach 21st century skills is best answered by describing the characteristics of learning environments in which students can develop these skills. Effective learning environments for promoting 21st century skills often include the following core elements, all of which are also features of the Intel® Teach Getting Started Course.[3]

▪ **Thematic instruction:** In thematic instruction, a set of exercises or activities focuses on a big idea or broad concept. A theme allows for the application of a wide variety of skills and the deepening, integration, and development of new knowledge.

What could be considered the theme of the exercises or activities featured in Getting Started?

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▪ **Relevance:** Content that is relevant to the context of students' lives leads students to deeper engagement and deeper thinking. Relevance is enhanced by instruction that helps students draw connections between what they are learning and how they can put the knowledge to use, especially in developing solutions to challenges facing them or their communities.

In what ways has the content featured in Getting Started been relevant to you?

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▪ **Active exploration:** Students are better prepared to acquire and remember new information, strategies, or skills once they have spent time exploring a challenge or problem for themselves—that is, without receiving explicit directions or answers at the outset of a lesson.

What opportunities for active exploration have been afforded to you in Getting Started?

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Developing 21st Century Approaches

- **Choice and autonomy:** An environment that supports the development of 21st century skills provides students with a measure of choice in the activities they undertake, the strategies and tools they use, and the creative aspects of their plans, projects, or designs.

  What opportunities for choice and autonomy have been afforded to you in Getting Started?

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- **Cycles of creation:** Students' ability to use technology effectively, think critically, and collaborate meaningfully with others takes place best in a cycle of generating and improving their work—a cycle in which students plan, execute, revise, reflect on, and share their insights about the product or solution they are developing.

  What cycles of creation have you experienced in Getting Started?

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- **Authentic feedback:** In 21st century learning environments, students work on activities or projects that have no single, specific answers. Instead, students must assess their own work in relation to how well it serves the purposes for which it was intended. Feedback from teachers and peers helps students improve their work and develop their own critical perspective on it. Learning to give useful feedback to others also develops a student's critical thinking and collaboration capacity.

  What opportunities for authentic feedback occur in Getting Started?

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▪ **Teacher as facilitator:** Rather than serving exclusively as an expert who provides information, the 21st century teacher facilitates students' own research, development and application of skills, and creation of original work products. The teacher as facilitator helps students actively build on their own strengths and incorporate their own interests into their work.

What examples of teacher as facilitator can be found in Getting Started?

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[3]The characteristics of 21st century learning environments described in this section are from SRI International's *Review of Evaluation Findings for the Intel® Learn Program*, available at http://ctl.sri.com/projects/displayProject.jsp?Nick=intellearn. Used with permission.

Take-Home Exercise: Reflecting on Module 10

Reflect on the exercises, activities, skills, and approaches addressed in this module. Record your answers to the following questions and be prepared to share your answers at the beginning of the next module.

1. Which facilitation skills are you most interested in using with your students? How might the approaches support student learning?

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2. Which 21st century, student-centered approaches might you accept or resist? Why? What additional information or experiences might you require before deciding? People must learn about change before they accept it.

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3. As you consider the list of core elements identified in Exercise 3, which key skills could you promote in your classroom? How might you do this?

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Module 10 Summary

Step 1

What did you accomplish in this module? List your ideas and those of others as directed on the lines that follow.

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Step 2

What key points are addressed in this module? List your ideas and those of others as directed on the lines that follow.

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Step 3

Ask any questions and share any comments. Learn about and prepare for Module 11: Planning and Doing Your Action Plan.