

Questioning Strategies to Support Young Learners

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Time Frame 120 minutes (one 2-hour session)

Essential Question(s)

How can we use questioning techniques to create an environment for differentiated learning?

Summary

This session focuses on using strategies and questioning techniques that will actively engage young students in the learning process.

Learning Goals

- Examine and revise questioning techniques to create an environment for differentiated learning.
- Implement questioning strategies that help students ask more thought-provoking questions.

Standards

InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0 (Model Core Teaching Standards)

5.ek.e: The teacher understands critical thinking processes and knows how to help learners develop high level questioning skills to promote their independent learning.
8.p.g: The teacher engages all learners in developing higher order questioning skills and metacognitive processes.

Attachments

- Blooms Taxonomy Handout—Questioning Strategies to Support Young Learners.png
- Creating Open Questions—Questioning Strategies to Support Young Learners.docx
- Creating Open Questions—Questioning Strategies to Support Young Learners.pdf
- Presentation Slides—Questioning Strategies to Support Young Learners.pptx
- What So What Now What—Questioning Strategies to Support Young Learners.docx
- What So What Now What—Questioning Strategies to Support Young Learners.pdf
- Yes and No Questions for Young Students—Questioning Strategies to Support Young Learners.docx
- Yes and No Questions for Young Students—Questioning Strategies to Support Young Learners.pdf

Materials

- Presentation Slides (attached)
- Yes and No Questions for Young Students handout (attached; one per participant)
- Creating Open Questions handout (attached; one per participant)
- Bloom's Taxonomy image handout (attached; one per participant)
- What? So What? Now What? handout (attached)

Engage

Begin by displaying **slide 2.** Read the title, introduce yourself, and welcome participants.

Display **slide 3** and ask your participants to answer the question, *"Would you let Goldilocks into your house?"* Once they have finished, ask them, *"What kind of information can we learn by asking this question, even though the responses are only 'yes,' or 'no'?"* After your participants have responded, follow up with, *"Where can this question take the class?"*

Move to **slide 4** and read the essential question, *"How can we use questioning techniques to create an environment for differentiated learning?"* Ask participants to think about how different questioning techniques can help us meet the needs of all of our students.

Go to **slide 5** to share the learning objectives. Explain to participants that the class today will help them examine and revise teacher-posed questions, and also explore how to help young students generate more thoughtful questions.

Explore

Show **slide 6** and ask your participants, *"What makes a question effective?"* Ask them to share their responses.

Move to **slide 7** to show some examples of what other teachers have said when asked what makes a question effective. Notice that they are probably very similar to what your participants said. Share that teachers often have a good idea of what an effective question sounds like.

Explain that the goal of this session is to become more intentional about the questions we ask and how we ask them. Ask your participants to think about how many questions you have asked them thus far—likely more than ten!—during the presentation, introductions, and exchanges of information. In a normal school day, teachers ask a lot of questions.

Explain that most of the questions we ask are not for assessment purposes, but rather are to guide students toward new concepts, or to encourage them to think more deeply about what they are learning or experiencing.

Display **slide 8**. Explain that there are many different types of questions that elicit different responses. Tell participants that today, they will focus on several different categories of questions; specifically, types of questions that can be used to differentiate instruction. Ask participants to look at the difference between open and closed questions. You can explain that generally, most questions fall into the categories of "open questions" or "closed questions."

Move to **slide 9** and tell participants that it is an example of a math question one might see on an assessment or classroom assignment. Ask the participants, *"Is there anything wrong with this question?"* The answer is "No." Explain that sometimes you just need to know if students can categorize or differentiate certain types of shapes and figures. These types of questions are fine and necessary to assess what students have learned, but asking them to repeatedly answer this type of question when they have proven that they know the information can be a problem.

Ask participants to think for a moment about what a student needs to know to answer this question. Here, you can remind participants of the characteristics of an effective question by asking the following:

- Does it require more than just remembering a fact or reproducing a skill?
- Is there more than one acceptable answer?
- Does it encourage reasoning?

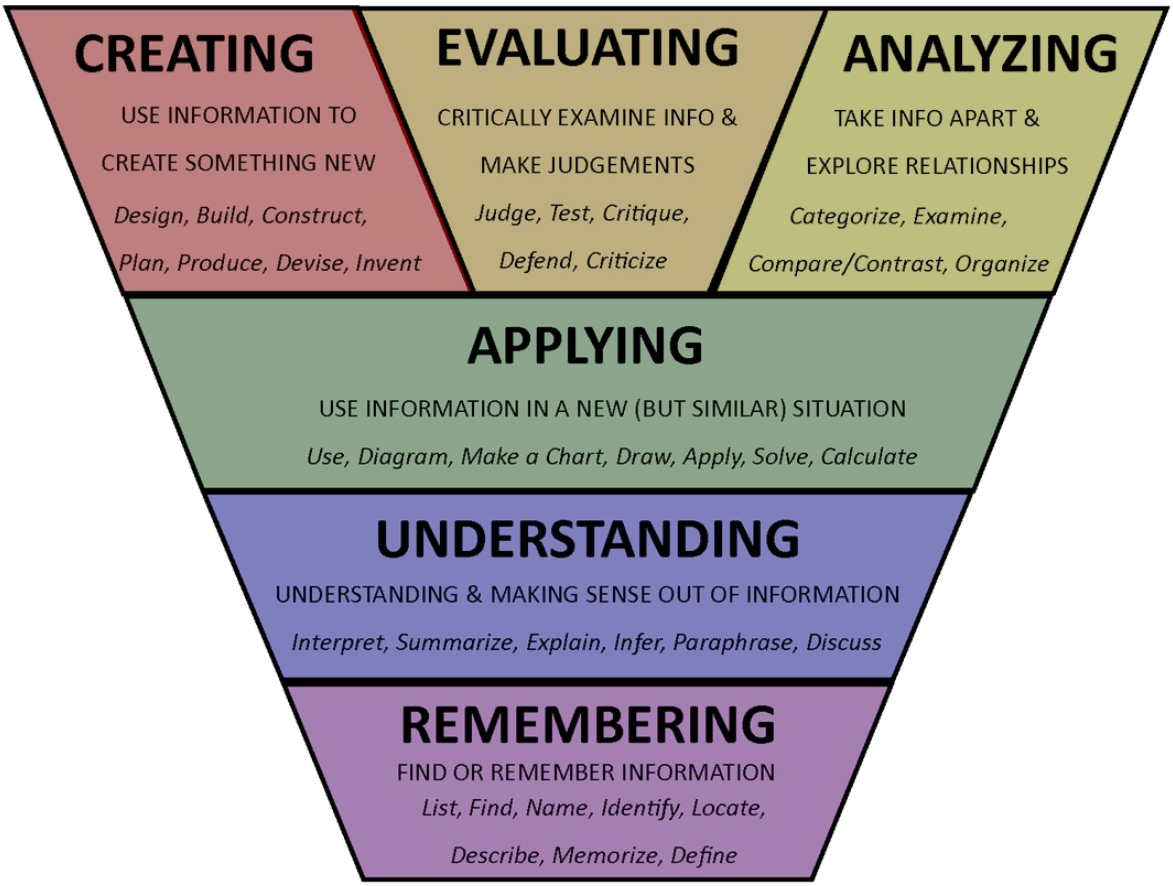
Now, display **slide 10.** Ask participants to compare this question to the previous one. Explain that in this case, all of the shapes are triangles and we assume that students already know that when we ask the question. Instruct your participants to think for a moment about what a student needs to know to answer this question and, once again, remind them of the characteristics of an effective question by asking:

- Does it require more than remembering a fact or reproducing a skill?
- Is there more than one acceptable answer?
- Does it encourage reasoning?
- Can a student learn something from trying to answer this question?

Continue by explaining that this question requires students to think about the properties of triangles rather than just recognizing it as a shape with three sides. It lets them tell you about specific properties each triangle has that not only distinguish it from other shapes, but also from other types of triangles. Students can say that all triangles are closed figures with three sides but they can vary depending on side length and angle size. This helps them to further refine and increase the complexity of their concept of a triangle. In this case, changing the question changed the type of thinking that students have to do.

Move to **slide 11** to show an image of Bloom's Taxonomy of Educational Objectives. Ask your participants to access their **Bloom's Taxonomy** handout. Tell participants to use the handout and the slide as references while you ask them the following questions.

- Where on Bloom's Taxonomy would the first question, "Which shape is a triangle?" fall?
- Where on Bloom's Taxonomy would the second question, "What makes these shapes triangles?" fall?
- What type of information could you get from your students by asking these questions?



Explain

Open and Closed Questions

Show **slide 12** and read the title, then move to **slide 13.** Your participants will probably be familiar with the idea of closed and open questions. Explain that, generally, most questions can be considered either closed or open. Take a few moments to read the closed and open questions on the slide as a group to see what the main differences are between them. After reading through the questions, discuss what students have to do in order to answer the two different types of questions. Ask the following guiding questions:

- Are closed questions bad?
- Do open questions meet more of the criteria we spoke about when we learned what makes a question effective?
- Should you always start with a closed question, or can you start with an open question?

Display **slide 14** and ask, "What do these types of questions offer students?" Allow participants to discuss and read the slide. Following are some additional ideas if needed.

Additional Possible Answers

Closed questions:

- Can be answered with a single word or short phrase.
- Can be answered with yes or no.
- Answers to these questions contain facts, not opinions or feelings.

Open questions:

- Asked with the intention of getting to know the opinions and ideas of the respondent.
- Require thinking and reflection.
- An answer is often descriptive and explanatory.
- Open questions can also help with vocabulary (as opposed to asking for definitions of vocabulary words, which is a closed task).

It is important to note that questions don't always have to come from teachers. Some of the most powerful questions are those that students ask themselves.

Display **slide 15** and ask your participants where closed and open questions would fall on Bloom's Taxonomy.

Move to **slide 16** to introduce a K20 strategy that gets students asking their own questions called I Notice, I Wonder. This strategy allows students to discuss or write about things they notice and wonder about a topic. At first, participants will only see the picture displayed on the slide.

Click to show the first question, "What do you notice about this image?" Give participants time to share the things they notice.

Click on the slide for the second and third questions, "What do you wonder about this picture? What questions do you have about it?" Have participants type or discuss a few questions they have, or questions that students seeing the same image might have.

Ask your participants, "Is this an open or closed question?"

Parallel Questions

Introduce parallel questions by moving to **slide 17.** Explain that parallel questions are "parallel" in that they are close enough in context that they can be discussed simultaneously. Move to **slide 18** to continue discussing parallel questions. Using the examples on the slides, explain that often, we use parallel questions in contexts with numbers—for example, by presenting students with two questions such as:

1. An object has a length of 5 paper clips. What might it be?
2. An object has a length greater than 5 paper clips. What might it be?

Continue that the questions are similar, share the same "big idea," and are designed to meet the needs of students at different levels.

Share another example of math-related parallel questions:

1. Would a clock ever say 6:63? Explain your thinking.
2. Would a clock ever say 2:03? Explain your thinking.

Ask participants to share what the differences are between each set of questions in the examples, and ask them to discuss how they might use parallel questions in their classrooms. Explain that sometimes teachers should allow the students to choose which of the parallel questions they want to answer, and other times it is best if the teacher assigns certain questions.

Probing Questions

Read the title on **slide 19** and explain that we often think of probing questions in science contexts, but probing questions can and should be used in every content area.

Display **slide 20** and share the K20 strategy Not Like the Others, which challenges students to identify similarities and differences among a group of words or pictures. Explain that when we use this strategy, it is important to remember that students' answers must include their reasoning. Ask participants, "Which one is not like the others? Which one does not belong?" Tell your participants to think about the kinds of questions they are asking themselves, and what kind of questions students would be asking, too.

Be intentional about asking probing questions while on this slide.

Possible Participant Responses

Which one is not like the others?

- The apple because it is the only round one.
- The apple because it is the only one not in a bunch or group.
- The apple because there is only one of it.
- The bok choy because it is the only vegetable.
- The bok choy because it's the only one not sweet.
- The bok choy because it is the only one with leaves.
- The grapes because it is the only one without any green.

Show **slide 21,** which has another example. It is not necessary to discuss this one as a group; show it to the group and share a great website that has many pictures like this, Which One Doesn't Belong?

Display **slide 22** and read through the information and benefits of probing questions. Click to show examples of some probing questions.

Move to **slide 23** to introduce another strategy called Squiggles. Explain that this is a strategy in which we will use probing questions, and that can help students learn to ask probing questions, as well.

Ask participants to draw a picture using one of the squiggle pictures on the slide. Give participants a few minutes to draw and then click on the slide so that the text "Write a word about your picture" appears. Click again for the next prompt, "Write a sentence about your picture." Give participants a moment to write.

Ask for a volunteer to share their drawing, word, and the sentence they wrote using one of the squiggles. Then ask the other participants to write down a question about the volunteer's drawing. After they are finished writing, ask the following guiding questions:

- What kinds of questions did you write?
- Could students pass their drawings around and write questions about one another's pictures?

Show **slide 24,** where two kindergarteners' squiggle drawings will appear. Click on the slide to show the statements and the questions. Explain that Squiggles give students the opportunity to write probing questions for themselves and others. This is a great tool for young children, who don't always know how to ask thoughtful questions. Ask your participants the following guiding questions:

- How can you use this activity to differentiate learning for your students?
- How can this activity be used to help students learn to ask and write their own questions?

Let participants share their opinions.

Move to **slide 25** to show Bloom's Taxonomy again, and ask participants where parallel and probing questions fall on the chart.

Extend

Show **slide 26** and introduce the next section of the session, in which participants will examine some questions and tasks, and find ways to make them more effective. Ask them to share their responses in the chat box.

Display **slide 27** and ask participants to share how they might change this closed question to an open question.

Possible Participant Answers

- In what ways can you make 25 cents?
- What coins can you use to make 25 cents?

Remind participants to write their answers in the chat box.

Show **slide 28** and ask your participants to write a parallel question or task to "Choose a number between 1 and 10. Show that number in as many ways as you can." Remind participants that the parallel task or question that they write does not necessarily have to be easier. They should write their answers in the chat.

Possible Participant Answers

- Choose a number between 10 and 30. Show that number in as many ways as you can.
- Choose a number between 1 and 5. Show that number as many ways as you can.

Next, move to **slide 29** and ask your participants to share some probing questions they could include with the closed question.

Possible Participant Answers

- Why don't all apple trees produce the same kind of apples?
- What happens if you pick a red apple when it is still green?
- Are green apples just not ripe apples?
- Are red apples better than green apples?
- How can we find out?
- What might be different if all apples were green?
- How do you think an apple tree knows what color apple to make?

Move to **slide 30** to share the strategies that the participants used today while learning about effective questioning. Invite your participants to choose one that they could try next week with their students.

Finish with **slide 31** by sharing some resources that could help participants begin working with the different types of questioning strategies.

Evaluate

Move to **slide 32** containing a red picture from a *Pete the Cat* book. Ask participants to look at the entire page and imagine how they would ask their students to do the same. Maybe they would sweep a finger across the page and ask what students think about it by prompting, "This whole page is about..."

Click the slide and a green picture from a *Pete the Cat* book will pop up. Now ask participants to focus on small parts of the picture, dividing it into several areas. Tell them to imagine themselves prompting students by asking, "What is this part about? What do you think this part is about?"

Ask the following guiding questions:

- How can this strategy be used to differentiate for content or ability?
- Is this a parallel task? Are these parallel questions?
- Are these open or closed questions?

Introduce participants to the What? So What? Now What? instructional strategy. Distribute the **What? So What? Now What?** handout. In the “What?” column, participants can write about what we have been doing in this session. In the “So What?” column, ask participants to reflect on why what they have been doing is important. In the “Now What?” column, they can write about how they will use these questioning strategies in their classrooms.

Resources

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