



# Case Study: Pre-service Teacher Professional Development

## Quest X: Power of Questions in Classrooms

SEF Team members, who are designers, trainers, and certified teachers, were tasked with planning a training workshop for teacher trainees in May 2025 at Drishti Institute, a private institution offering teacher training. We had previously conducted workshops with these trainees and used previous classroom observations to finalize the strategy.

### Context:

Why? We had been to several classes of our trainees and had noticed a pattern - Teachers were asking 'yes/no' questions, children were listening and responding to the teacher, but these interactions were not informing the teaching and learning process.

### Guide and Strategy Used:

Student Engagement | Tier 2, Strategy 3:  
Using questioning to build understanding  
of new content

### Guide Sections Used:

Strategy benefits (why does it matter),  
Strategy description, and Literacy/numeracy  
lesson plans with strategy integration

### Format:

1-day training workshop 100+ teacher trainees

### Audience:

### Objectives of the training workshop:

1. Trainees will understand the role of effective questioning in enhancing student engagement and promoting deeper learning in the classroom.
2. Trainees will explore a framework to frame effective questions while introducing a new topic in class.
3. Trainees will explore teaching practices that foster a supportive learning environment for effective questioning in the classroom.
4. Trainees will apply the skill of framing open-ended questions to teach new concepts.

Audience: 100 + Pre-service Educators (Students pursuing their D.L.Ed course from a private educational institute).



### Design



Since implementing a decision tree in the form of a conversation would not have been possible for this large a group, classroom observation data was used to pick the strategy



Considering our audience, we came up with certain requirements for the training session. It would have to be broken down into detailed steps - the purpose of questioning, definitions of effective questions, exemplar lesson plans, and specific steps that trainees can follow to ask effective questions in their classes.



This was to ensure that trainees retained the information and on clarity on how to integrate the strategy into their lesson plans.

## Implementation

Here are some key ways in which we managed to meet all considerations while incorporating the guide:

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|  |   |
|--|---|
|  <p><b>Questions asked in Ms Laxmi's Class</b></p> <ul style="list-style-type: none"> <li>• "What is this shape?" (holds up triangle)</li> <li>• "Is this a square?"</li> <li>• "How many sides does this have?"</li> <li>• "Have you seen this shape before?"</li> </ul> | <p><b>Questions asked in Ms Suman's class</b></p> <ul style="list-style-type: none"> <li>• "What shapes do you notice around you in your home or school?"</li> <li>• "Why do you think this shape is called a triangle?"</li> <li>• "How is a square different from a rectangle?"</li> <li>• "What if this shape had one more side? What could it become?"</li> <li>• "Can two shapes look the same but be called different names? Why?" (Students begin sharing observations, discussing, explaining their thinking.)</li> </ul>  |
|--|---|

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**Quick tip to make Effective questions**



**QUEST**

- Q - Question that Engages** Starts with a question that invites curiosity and engagement (e.g., "What do you think causes a rainbow?")
- U - Understandable Language:** Uses easy vocabulary suited to students' age and level (e.g., "Can you describe what happens when...?")
- E - Encourages Elaboration:** : Goes beyond yes/no answers, encouraging students to explore and explain (e.g., "Why do you think this process happens this way?")
- S - Specific and Direct:** Focuses on a clear objective and relates directly to the learning goal (e.g., "How does this example show the idea of adaptation?")
- T - Tied to Experiences:** Makes connections to their experiences or the real world, ensuring relevance (e.g., "Where else have you seen something like this?")

The team invited trainees to participate in a role play to set the context for 2 key skills: asking effective questions and creating a safe culture that promotes questioning in the classroom. The QUEST framework was based on the elements of an effective question in the guide, created to enable retention among trainees. (Fig.1&2)

## Implementation

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| Strategy  | Why to Use It   | Simple teacher practices  |
|---|---|---|
| <b>A - Align with purpose</b>                               | Ensures questions support lesson goals and are not random               | <b>#Teacher Practice</b><br><ul style="list-style-type: none"> <li>- Plan ahead , think of different open ended and close ended questions you would like to ask.</li> <li>- Use " Bloom's taxonomy or Open ended questions stems to craft questions.</li> </ul>   |
| <b>S - Support a Safe Thinking Culture</b>                  | Shifts the classroom from answer-getting to idea-building               | <b># Teacher Practice</b><br><ul style="list-style-type: none"> <li>- Create opportunities for all students to answer, call students at random -only vocal students should not the opportunities</li> <li>- Normalize mistakes and listen &amp; acknowledge all answers.</li> <li>- Do not make the child free embarrassed or suprised in case of mistakes or while calling them randomly.</li> </ul> |
| <b>K - Keep a balance of open and close ended questions</b> | Engages different levels of thinking and learners                       | <b># Teacher Practice</b><br><ul style="list-style-type: none"> <li>- Ask open ended questions as a follow up to close ended.</li> <li>- Switch to close ended questions, if students struggle with open ended questions.</li> </ul>  |
| <b>I - Include thinking time</b>                            | Gives all students a chance to to process and formulate their responses | <b>#Teacher Practice</b><br><ul style="list-style-type: none"> <li>- Give thinking time of 30-40 seconds before taking answers</li> <li>- Use strategies like "wait time" or "turn and talk." to give students time to think and share.</li> </ul>  |
| <b>T - Tie to what students already know</b>                | Activates prior knowledge and brings relevance                          | <b># Teacher Practice</b><br><ul style="list-style-type: none"> <li>-Ask questions that connect to everyday life, prior lessons, or local examples. E.g., <i>Where have you seen this before?</i> or <i>Does this remind you of something?</i> <i>Do you see anything like this at home or in your neighbourhood?</i></li> </ul>  |

The 'ASK IT' framework based on the pointers in the guide to articulate clear steps to build a culture of questioning. (Fig.3)



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### Integrating questioning in a Lesson Plan

Go through the lesson plans

- Lesson 1 on Literacy
- Lesson 2 on Numeracy



**Que 1: What do you notice in planning section and Questioning section?**

**Que 2: What kind of questions are planned?**

Lastly, the lesson plan from the guide was shown as an exemplar to the trainees, who then engaged with it to understand the kind of questions that can be asked. (Fig. 5&6)

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### Integrating questions in a Lesson Plan

| LITERACY   | NUMERACY  |
|--|---|
| <p><b>Lesson objective</b> – Use letter sounds to show how words are similar and different.</p> <p><b>Planning</b></p> <ol style="list-style-type: none"> <li>1. Choose word pairs that sound similar but have a different consonant (for example, <i>sit</i> and <i>tip</i>, <i>pit</i> and <i>pin</i>, <i>met</i> and <i>net</i>, <i>mad</i> and <i>man</i>, <i>tin</i> and <i>tip</i>, <i>hit</i> and <i>fig</i>).</li> <li>2. Make a list of questions about the word pairs that you will ask students (see “Questioning” section below for examples).</li> <li>3. Ensure that you have enough different word sets to show students that this principle can be applied to many words.</li> </ol> <p><b>Questioning</b></p> <ol style="list-style-type: none"> <li>1. When asking the whole class a question, choosing students at random to answer can ensure that not only the most vocal students respond. However, it is important that students not feel surprised or embarrassed. To help them feel ready:                     <ul style="list-style-type: none"> <li>• Pose the question to the entire class.</li> <li>• Ask that all students think about the question for 20 seconds.</li> <li>• Ask all students to raise their hands (so they know someone will be called on).</li> <li>• Select a student to respond.</li> <li>• If asking multiple questions, make sure to call on students who are often less quick to respond to ensure that more timid students are not left out.</li> </ul> </li> <li>2. Ask questions such as the following:                     <ul style="list-style-type: none"> <li>• <i>How are these two words the same?</i></li> <li>• <i>Which letters make them the same?</i></li> <li>• <i>How are they different?</i></li> <li>• <i>Which sounds make these two words different?</i></li> </ul> </li> <li>3. Continue probing with questions to build students’ understanding of the skill.</li> </ol> | <p><b>Lesson objective</b> – Describe the attributes (characteristics) of various shapes.</p> <p><b>Planning</b></p> <ol style="list-style-type: none"> <li>1. Select simple recall and open-ended questions to use during the lesson (see “Questioning” section below for examples).</li> <li>2. Draw shapes on the chalkboard (or in the sand/dirt) in advance, or be prepared to draw these shapes during class.</li> </ol> <p><b>Questioning</b></p> <ol style="list-style-type: none"> <li>1. When asking the whole class a question, choosing students at random to answer can ensure that not only the most vocal students respond. However, it is important that students not feel surprised or embarrassed. To help them feel ready:                     <ul style="list-style-type: none"> <li>• Pose the question to the entire class.</li> <li>• Ask that all students think about the question for 20 seconds.</li> <li>• Ask all students to raise their hands (so they know someone will be called on).</li> <li>• Select a student to respond.</li> <li>• If asking multiple questions, make sure to call on students who are often less quick to respond to ensure that more timid students are not left out.</li> </ul> </li> <li>2. Ask questions such as the following:                     <ul style="list-style-type: none"> <li>• <i>What makes this shape a triangle?</i></li> <li>• <i>Is this shape a triangle? Why or why not?</i></li> <li>• Simplify the questions if students struggle. For example, reword an open-ended question to a recall question (<i>How many sides does a triangle have?</i>) and then ask the harder question again.</li> </ul> </li> <li>3. Continue probing with questions to build students’ understanding of the skill.</li> </ol> |

## User Experience



The session was highly interactive - participants were engaged throughout. The principal/head of Drishti Institute commented - ‘This was an extremely well-designed and engaging session. I can see the improvement in my students within the span of one workshop!’



Further, this turned out to be one of the most effective sessions so far across 3 institutes - participants scored an average of 87.86% on content understanding and 88.61% on confidence to execute.

We look forward to seeing the teacher trainees take the skill of ‘questioning to build understanding of new content’ to their students!



**Additional resources:**  
[Link to adapted Student Engagement Guide](#)