

## Questioning in Teaching

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## Lesson outline

- Why use questions
- Types of questions
- Forms of questions
- Methods of asking questions
- Distribution of questions
- Precautions in asking questions
- Tactics of handling questions
- Adopting Blooms Taxonomy in question

## Why Use Questions?

- To **clarify** need and prove why the lesson is to be learnt
- To ensure **participation** and **active involvement** in lessons
- To **draw attention** of learners and break monotony of lecturing
- To **develop** knowledge and understanding, ideas and thoughts

## Why Use Questions?

- To strengthen **reasoning ability**, and insight of the learners
- To start a discussion, **argument** etc. to prompt a debate
- To **clarify a difficult issue** or to change affective behavior
- To pace lesson and moderate student behavior

## Why Use Questions?

- To **motivate and control** class
- To **increase self confidence** and morale of the learners
- To **establish relationship** between teacher and learner
- To provide opportunities for feedback on presentation
- To **assess and evaluate** student learning and revise if needed

## Why Ask Questions?

Questions allow us to :

- ... access information
- ... analyze information
- ... draw sound conclusions

*Good questions stimulate thinking and creativity*

*"The ability to think - to be a lifelong seeker and integrator of new knowledge - is based on the ability to ask and consider important questions."*

## Types of Questions

Five basic types:

- 1. Factual** - lowest level of cognitive or affective processes
- 2. Convergent** - levels of comprehension, application, analysis
- 3. Divergent** - levels to analyze, evaluate or synthesize  
- may be aided by higher levels of affective functions

## Types of Questions

**1. Factual** - Mainly Remembering (Recall)

**2. Convergent**

Lower level Convergent (*Who, what, where, when*)  
Example: "According to our study of plant physiology, what conditions are required for photosynthesis to occur?"

Higher level Convergent (*Why, how and in what ways*)  
Example: "In what way do plant cells differ from animal cells?"

## Types of Questions

### 3. Divergent

Lower level Divergent (*How could... , What are some possible consequences... , Imagine...*)

Example: "How might life be different if peace was declared in the middle east?"

Higher level Divergent (*Defend, Judge, Predict, If... then, Can you create, What is your opinion...*)

Example: "Suppose you are the Leader of this institute. How would you devise a plan to increase the retention rate of minority first-year students?"

## Types of Questions

**4. Evaluative** - analyzed or synthesized information and/or affective levels frequently in comparative frameworks.

- a. Compare and contrast ----- for ---
- b. What are the similarities and differences between ----- and -----?
- c. Why and how might the concept of ----related to the

**5. Combinations** - questions that blend any combination of the above.

## Questions for Critical Thinking

<b>1. Questions for clarification</b>	<ul style="list-style-type: none"> <li>• Why do you say that?</li> <li>• How does this relate to our discussion?</li> <li>• Are you going to include -----in your process/ composition?</li> </ul>
<b>2. Questions that probe assumptions</b>	<ul style="list-style-type: none"> <li>• What could you/we assume instead?</li> <li>• How can you verify or disapprove that assumption?</li> <li>• Why are you leaving out examples of ----- making --?</li> </ul>
<b>3. Questions that probe reasons and evidence</b>	<ul style="list-style-type: none"> <li>• What would be an example?</li> <li>• What is...analogous or similar to?</li> <li>• Where in the piece do you hear this? Why:?</li> </ul>

## Questions for Critical Thinking (Cont.--)

<b>4. Questions about viewpoints and perspectives</b>	<ul style="list-style-type: none"> <li>• What would be an alternative?</li> <li>• What is another way to look at it?</li> <li>• Would you explain why it is necessary or beneficial, and who benefits?</li> <li>• Why is this best?</li> <li>• What are the strengths and weaknesses of...?</li> <li>• How are...and ...similar?</li> <li>• What is a counter argument for...?</li> </ul>
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## Questions for Critical Thinking (Cont.--)

### 5. Questions that probe implications and consequences

- What generalizations can you make?
- What are the consequences of that assumption?
- What are you implying?
- How does...affect...?
- How does...tie in with what we learned before?
- What would happen if....?

### 6. Questions about the question

- What was the point of this question?
- Why do you think I asked this question?
- What does...mean?
- How does...apply to everyday life?

## Forms of Questions

- **Open** : several possible answers
- **Closed** : one answer (right or wrong)
- **Subjective** : personal opinions
- **Objective** : requires a factual answer

## Methods of Asking by Teacher

**Overhead** : Any one can answer

**Directed** : Name-pause-question (NPQ)  
: Question-pause-name (QPN)  
: Name-question (NQ)

**Rhetorical** : Are often humorous and don't require an answer. 'If you set out to fail and then succeed have you failed or succeeded?'

Used to get people to think and are used to promote thought. Politicians, lecturers, priests and others may use rhetorical questions when addressing large audiences to help keep attention.

## Methods of Answering Students' Questions

- ❖ **Answer directly**
- ❖ **Reverse the question**
- ❖ **Distribute among others to share**
- ❖ **Relay questions** : sequencing content  
: sequencing among others

## Distribution of Questions

1. *Involve maximum members in question-answer*
2. *Distribute evenly among person dimension (male-female, ....)*
3. *Distribute evenly along content dimension (at each stage .....*)
4. *Distribute evenly along space dimension (left-right .....*)
5. *Distribute evenly along time dimension (beginning, middle ..)*

## Precautions in Using Questions

### **Asking students**

- : Do you understand ?*
- : Is that clear ?*
- : Any questions ?*
- : OK ?*

**Asking students to raise their hands if they do not understand**

## Techniques for Successful Questioning

1. **Phrasing:** teacher communicates the question so that the students understand the response expectation (ie: no run-on questions).
2. **Adaptation:** teacher adapts the question being asked to fit the language and ability level of the students.
3. **Sequencing:** teacher asks the questions in a patterned order indicating a purposeful questioning strategy.

## Techniques for Successful Questioning

4. **Balance:** teacher asks both convergent and divergent questions and balances the time between the two types. The teacher uses questions at an appropriate level or levels to achieve the objectives of the lesson.
5. **Participation:** teacher uses questions to stimulate a wide range of student participation, encouraging responses from volunteering and non-volunteering students, redirects initially asked questions to other students.

## Techniques for Successful Questioning

**6. Probing:** teacher probes initial student answers, and encourages students to complete, clarify, expand or support their answers.

**7. Wait Time (Think Time):** teacher pauses three to five seconds after asking a question to allow students time to think. The teacher also pauses after students' initial responses to questions in class.

**8. Student Questions:** teacher requires students to generate questions of their own.

## Precautions in Using Questions

- *Very long or complex, and very difficult*
- *Double negative in a single sentence*
- *Two questions in a single sentence*
- *Not to give time to think and answer*
- *Not to keep time for students' questions*

## Precautions in Using Questions

- *Being too formal and stiff*
- *No appreciation for correct answer*
- *Never discount or put down a person for asking questions*

## Tactics of Handling Questions

### **I: Students Asking Questions**

- *Repeat the question, paraphrasing it*
- *Redirect the question*
- *Ask probing questions*
- *Promote a discussion among the students*

## Tactics of Handling Questions

### II: Answering Questions

- *Directly answer the question*
- *Postpone answering the question*
- *Discourage inappropriate questions*
- *Admit when you do not know an answer*

## Tactics of Handling Questions

### III: Asking Questions

- *Ask open-ended, not just close-ended questions*
- *Ask divergent as well as convergent questions*

## Tactics of Handling Questions

### IV: Pauses and Silence

- *Wait, pauses and silence are not inappropriate class behaviours*
- *Wait, give the students time to think (QPN or NPQ)*
- *Wait, or you will establish an undesirable norm*

## Tactics of Handling Questions

### V: Creating an Accepting Atmosphere

- *Ask for questions*
- *Answer questions*
- *Answer students questions adequately*
- *Listen to the question, or to any student comments*
- *Do not put down the students*

## Question Based on Bloom's Taxonomy

As teachers we tend to ask questions in the "**knowledge**" category **80% to 90%** of the time. Use other levels.

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create