

# The Art of Problem Solving Instruction

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This part of your training as a scholar is an essential aspect of your post-graduate experience.

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In this format, the discussions are livelier, interactive and more fun and fulfilling for the instructor, but more work is needed to prepare for them.

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- Every worked problem is an exposure of the *process* you use to analyze, deduce, and discover.

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Students aren't looking for an answer (even when they say they are). They are looking for understanding. Their real question lies inside their query.

**Your role is to answer this real question.**

# Things you should do:

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## Prepare for your sessions

- Know well what the current focus is of the lectures. Look for/resolve pitfalls.
- Have material ready to generate questions if needed.
- While fully prepared, be able and willing to “wing it”. Be reactive, while managing the class time well.
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## Engage the class

- Force students to take part in resolving their questions. Get them to own their work.
- Allow other students to take part in resolving questions.
- Listen and look for the cues of understanding; nodding heads, puzzled looks, the moment of perfect clarity, snoring?
- Challenge them to solve at the board, play “Stump the TA” with you, etc.

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**Keep in mind always: Queries are the start of conversations.**



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You'd be amazed how much one can learn by teaching.

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- If you do not care, they won't bother to.

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- Don't spend 40 minutes on one topic.
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And never go in cold!

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There is no need to perform or entertain as a teacher. Simply “lead the chatter” in this environment.