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Tools for Teaching: Enhancing student learning.

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Recall more easily with framework.
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Learn in chunks or pieces.
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Need (all learners) practice, feedback, review.
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Need (all learners) practice, feedback, review.
Aided by social interactions and discourse.
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Need (all learners) practice, feedback, review.

Aided by social interactions and discourse.

Affected by their motivation.
So you should...

Review background, prerequisite information, and take care to dispel common misconceptions.

Make clear what you expect them to know.

Emphasize fundamental concepts and principles.

Break down material into manageable chunks.

Ask students to demonstrate mastery by answering questions or showing what they learned.

Give feedback.

Provide opportunities for students to generalize.
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Give advice on how to study/learn

- Divide material to be studied. (Start right away, do parts.)
- Organize information.
- Students should generate questions about the material.
- Form a study group. A real study group.
- Practice by making mental pictures. Give examples. (Calculus: the infinitesimal view. Hash table versus dictionary.)
- Seek help.
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Let’s watch a video to see what students are like. See Video.
Discussion.

Anything surprise you?
Discussion.

Anything surprise you?

Did the students learn?
Discussion.

Anything suprise you?
Did the students learn?
Did they think they learned?
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Anything surprise you?

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Did they learn more from the video they liked?
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Did identifying a misconception help?
Discussion.

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Did identifying a misconception help?

Did it make them happy?

Why were they unhappy?

Was it perhaps due to the effort?

Learning is hard.

Do you think this learning rate is typical?

Is this self evaluation of learning is typical?

Point is you may know better what they learn than they do. Be gentle, but be confident.

Is this just for science, or is there something here in computer science?
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