

What have you found interesting or exciting?

Multiple choice taxonomy will change how we write questions
It's hard to write good multiple choice questions
Confusion about what not to do
→ All of the above is used so often
Recent ACS exams use none of above & all of above are used less often

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What have you found interesting or exciting?

Assessing student understanding is important. Not valuable to trick or confuse students
Partial credit for excluding some?
Yes, some of us use this approach.
Justin - multiple true/false
Used as technique in MCAT prep
Partial credit on scratch offs

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What have you found interesting or exciting?

People realize they DO use active learning already, now that we discussed it
Classroom Assessment Techniques,
especially Jigsaw
Technology barriers are lower than anticipated
OpenStax!!

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What have you found interesting or exciting?

How do students FEEL about their learning?
Effect size of different interventions
Metacognition - important for student careers
Backward Design & Learning Objectives
Hands-on with Tools - LiveScribe, Doceri,
Explain Everything

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What have you found interesting or exciting?

Jigsaw to use with peer tutors
Seeing examples of how people use approaches in class.
Penguins - making it easier to tell students they are wrong
Videos can be 7 minutes, not 50 minutes!!
Difference between iPad & iPad Pro in video quality

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What have you found interesting or exciting?

Stumbling block - preparing mini-lectures based on responses to warm-up responses.

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

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Low stakes for groupwork can
lower barriers
Promoting metacognition can help
diminish student anxiety

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Incrementally work toward
flipping
Appreciated being ACTIVE

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Student generated test questions
Synthesis game
aromatic rings
points for intermolecular rxns
Concept maps - in each unit, showing
connections between concepts
Clickers!! Go low tech if there are
technical difficulties

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Mechanism questions in clickers
Other kinds of clicker Q's
Bloom's Taxonomy - maybe first day of class
Connecting learning outcomes with Bloom's
Transparency with students will help their metacognition

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

300 person lecture hall w/ chairs that don't move → makes group work more challenging
Bunch students in clusters
Train TAs for CATs in recitation

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Low

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Students take turns doing parts of problems. Instructor chooses first student. Then student chooses next one. ^{multiple} Choice with mud. Evaluate what we've done in past to tweak. Share clicker Q's w/ colleagues to lower barrier.

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Pay attention to learning objectives
Muddiest points, Pick 3 from
end of previous class meeting.
Need a technological S

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Considering all that we have discussed in the workshop thus far, what would you like to try to implement in your courses?

Incremental change is easier to
implement. There's less time commitment
First day of class is active
You're setting a precedent for the
Semester.

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What hurdles do you anticipate?

Colleague buy-in → communicate what you are doing and WHY

If active learning is well implemented, students come to prefer it.

Student anxiety when solving problems on board.

→ Phone a friend!

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What hurdles do you anticipate?

Students balk at the amount of time/work done outside of class.

Student efforts are structured to facilitate their success.

Exam question about time spent outside of class, Correlation between time/effort and success,

Interacting with peers & instructor along with instant feedback

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What hurdles do you anticipate?

Comparison with other courses
How does this influence their grades? →
Students are worried.

Student buy-in

Professional implications

Keep up with your own assessment

Document student outcomes

Become involved in community

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What hurdles do you anticipate?

How can you get the money?

Faculty Development Grants

CTL, deans → ask them for \$

Development office

Educational Supplements

for NSF research grants

Poll Everywhere (since Turning Point
went to subscription model)

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