The questions of active learning

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TURNING technologies

Contemporary versus traditional?

What proportion of the time are your students actively thinking during your (lecture theatre) teaching?

A. <10%

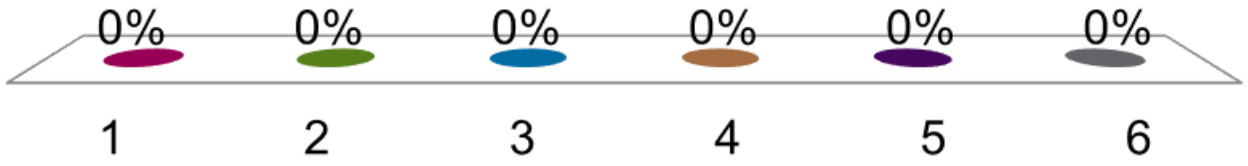
B. 10–30%

C. 30–50%

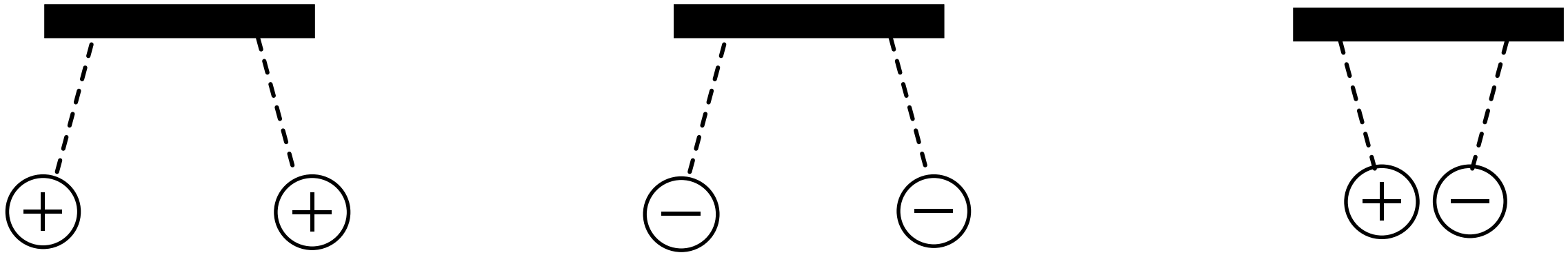
D. 50–70%

E. 70–90%

F. >90%



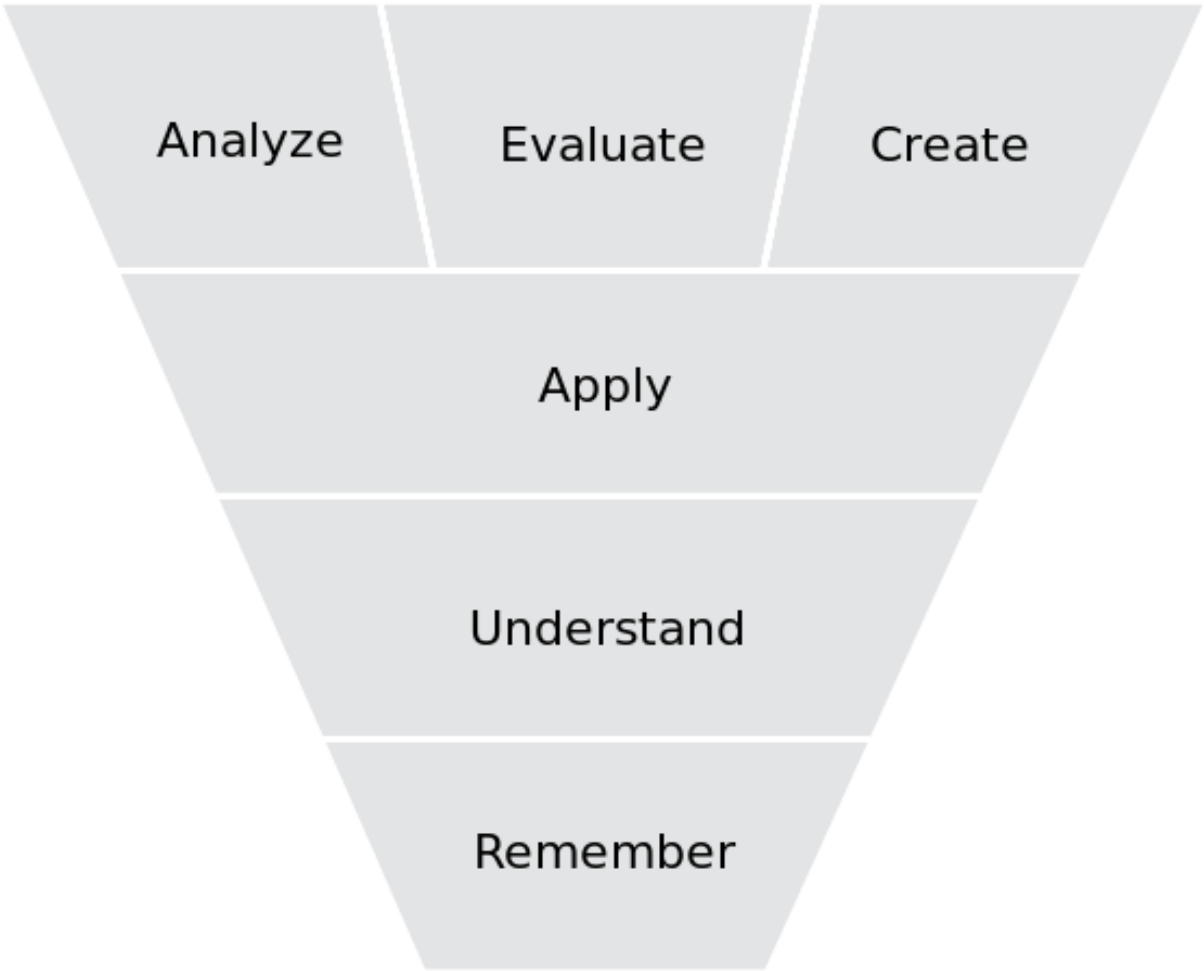
Opposites attract, like repels like



Which is favourable?

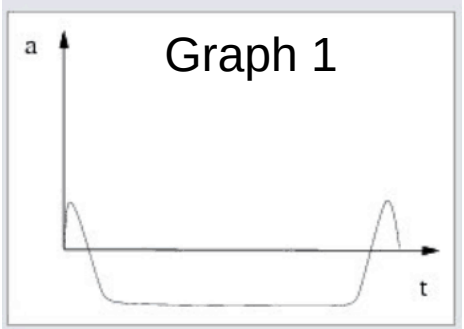
A. $Li \rightarrow Li^{+} + e^{-}$
B. $Li^{+} + e^{-} \rightarrow Li$
C. $Li^{+} \rightarrow Li^{2+} + e^{-}$
D. $Li^{-} + e^{-} \rightarrow Li^{2-}$

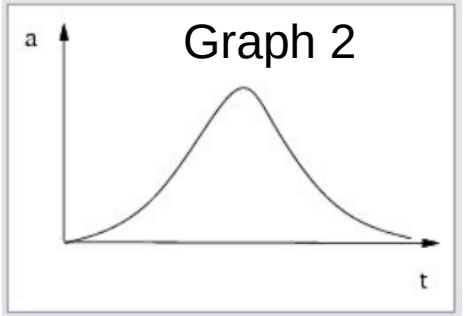
The importance of the question

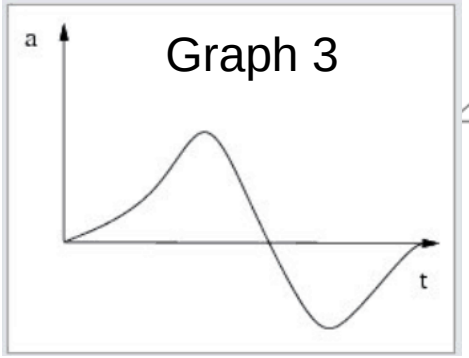


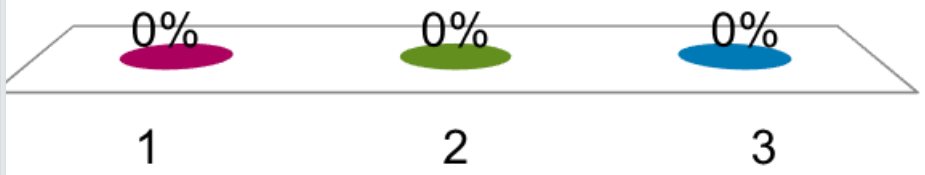
A ball initially at rest in the hand, is thrown upwards, comes back down and is caught.
Which of the following represents a plausible graph of vertical acceleration against time?

1. **Graph 1**
2. **Graph 2**
3. **Graph 3**







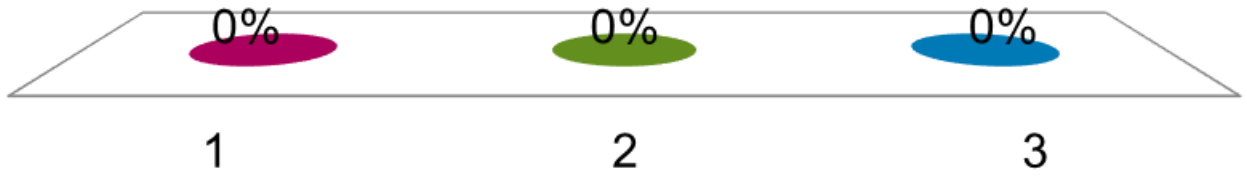


Which one of the three little pigs built the most environmentally sustainable house?

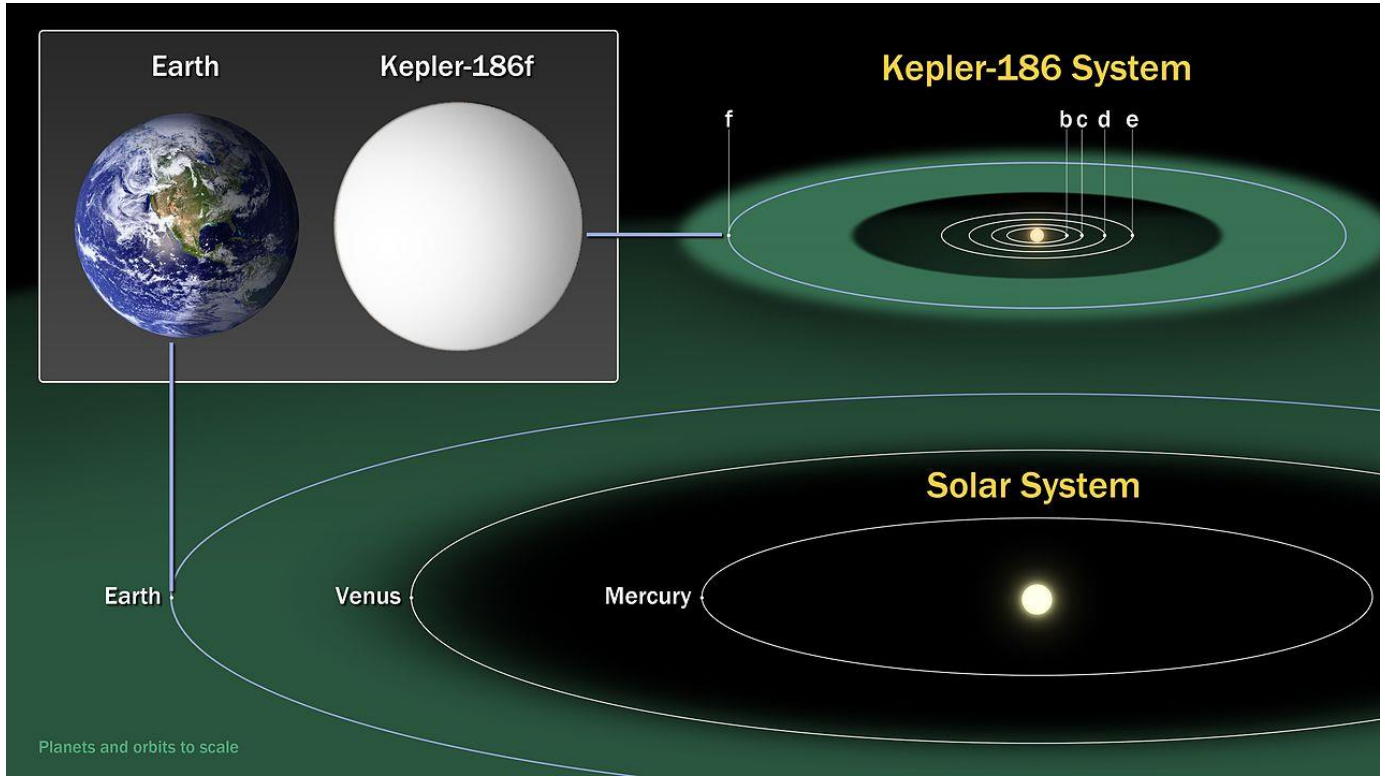
A. First little pig (straw)

B. Second little pig (wood)

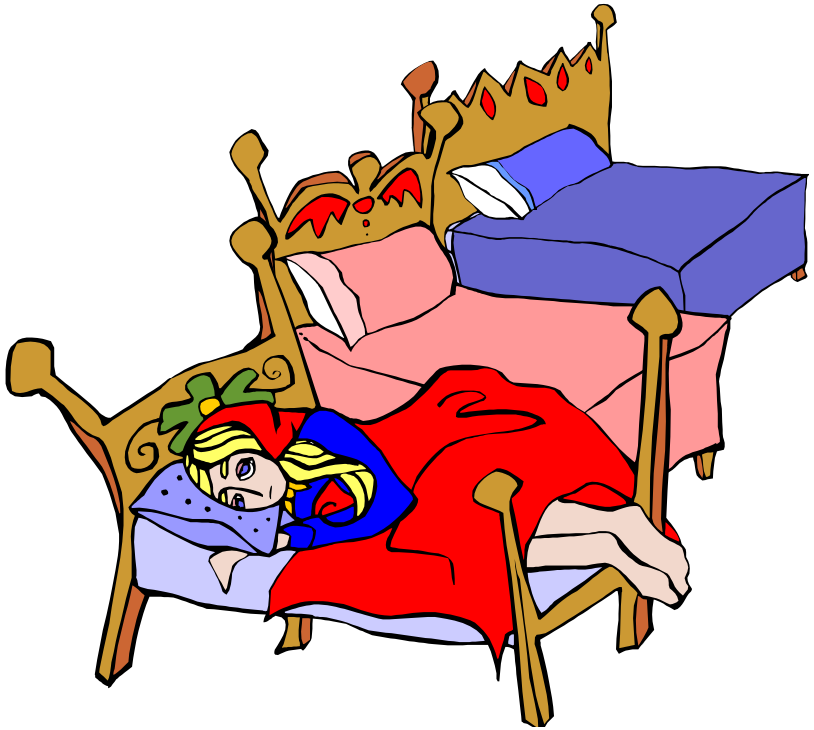
C. Third little pig (brick)



The Goldilocks Zone

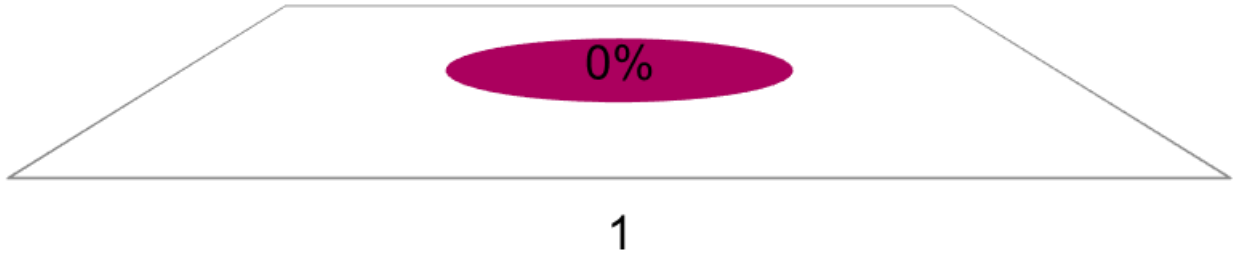


Who is best placed to determine the Goldilocks Zone?



When you lose fat due to exercise how does it exit the body?

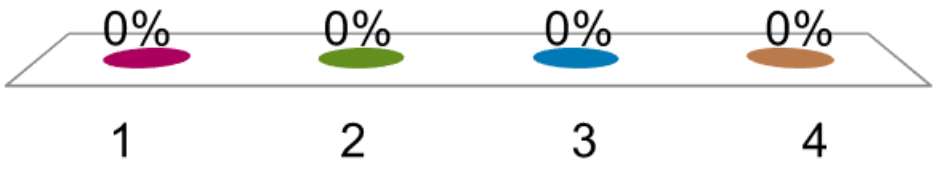
Rank	Responses
1	
2	
3	
4	
5	
6	



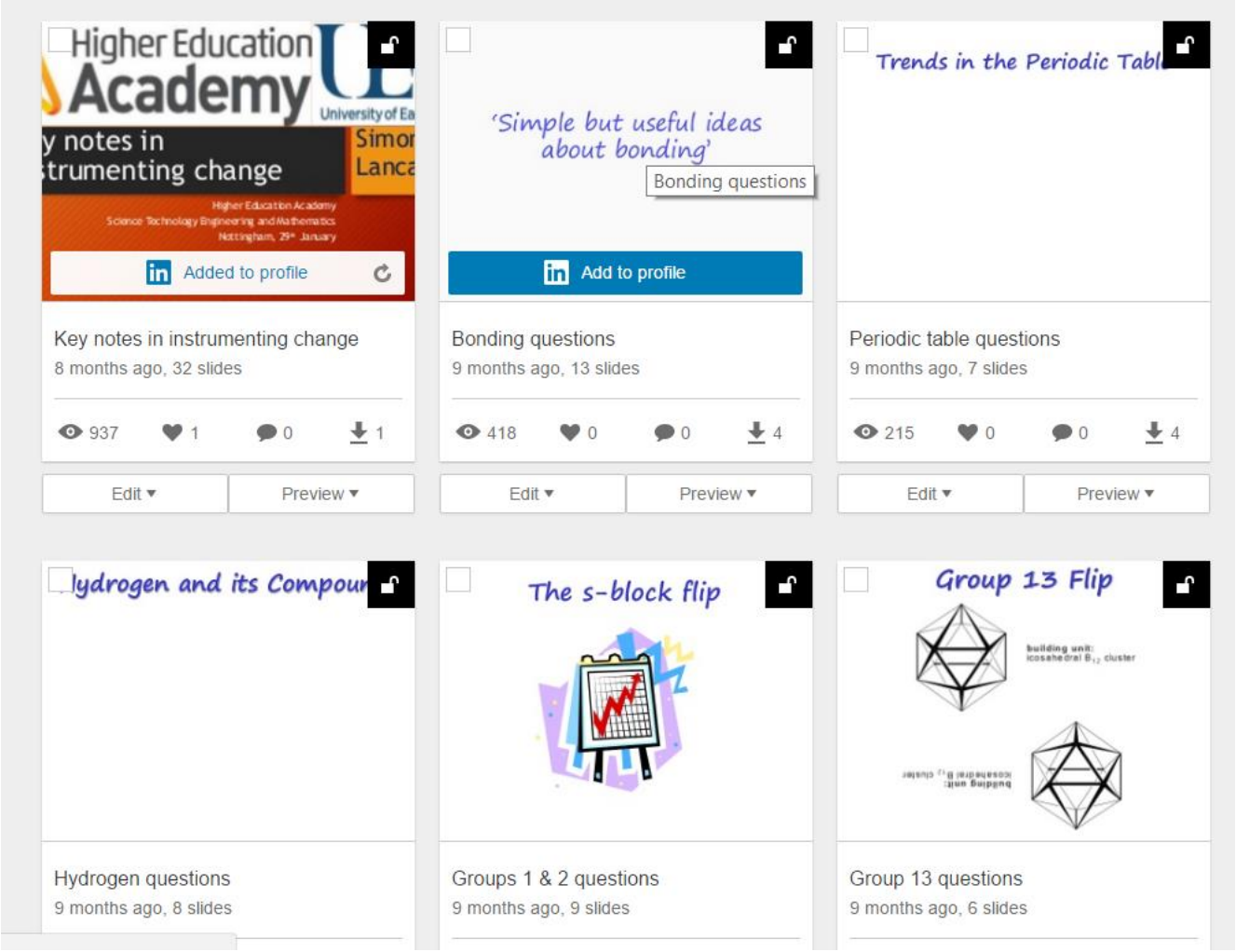
When you lose fat due to exercise how does it exit the body?

When you lose fat due to exercise how does it exit the body?

1. Defecation
2. Urination
3. Perspiration
4. Exhalation



Open Educational Practice: Share Your Questions



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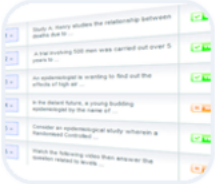
PeerWise supports students in the creation, sharing, evaluation and discussion of assessment questions.

What is PeerWise?

Students use PeerWise to create and to explain their understanding of course related assessment questions, and to answer and discuss questions created by their peers.

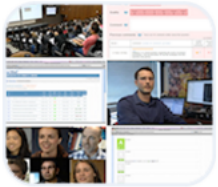
Any subject

PeerWise is used in a wide range of subjects, including Anthropology, Biology, Chemistry, Computer Science, Physics, Population Health, Pharmacology, Medicine, and many more...



Free and easy to use

PeerWise is free and very easy to use. Students are presented with a simple, intuitive interface and instructors can easily view student content and monitor participation.



Find out more

Want to get started? View student and instructor guides, watch screencasts of PeerWise in action, and hear what students and instructors think in the Information about PeerWise section.

"I just wanted to say thank you for PeerWise! We've just finished using it in a class with 400 very diverse students and the outcome was excellent. The students loved the site and using it vastly improved their understanding of the material covered in class. The only down side was complaints from other staff members that students were not attending to their work in other subjects because they were 'playing' with PeerWise on their mobile devices. Oh, and now we are getting complaints from students who want to know why we aren't using Peerwise in all of our subjects. Great work! "

Dr. Pauleen Bennett
Associate Professor of Psychology
La Trobe University, Australia

"As well as using PeerWise with my own students in Physics, in my role as Dean of Learning and Teaching I am able to promote effective tools such as PeerWise to take forward the aims of our learning and teaching enhancement strategy. All too often such strategies have grand visions and wise words that leave academic staff at the coalface wondering "All very well, but what can I actually do with my students to deliver this?" PeerWise represents an effective, easy to use tool that instructors can readily appreciate the educational benefits of using."

Prof. Simon Bates
Professor of Physics
University of British Columbia, Canada

"PeerWise is a terrific tool for encouraging students to "own their own learning" in a sharing and supportive environment. Posing good, thoughtful questions with supporting explanations is an excellent application of critical thinking skills.

Similarly, answering questions and offering comments offers opportunities to improve one's communication and self-reflection abilities. MAKING multiple-choice tests requires a much higher level of understanding then simply TAKING them!"

Dr. Mark White
Associate Professor of Commerce
University of Virginia, USA

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University of East Anglia

4* evidence

Active learning increases student performance in science, engineering, and mathematics

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Author Affiliations

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Significance

The President's Council of Advisors on Science and Technology has called for a 33% increase in the number of science, technology, engineering, and mathematics (STEM) bachelor's degrees completed per year and recommended adoption of empirically validated teaching practices as critical to achieving that goal. The studies analyzed here document that active learning leads to increases in examination performance that would raise average grades by a half a letter, and that failure rates under traditional lecturing increase by 55% over the rates observed under active learning. The analysis supports theory claiming that calls to increase the number of students receiving STEM degrees could be answered, at least in part, by abandoning traditional lecturing in favor of active learning.