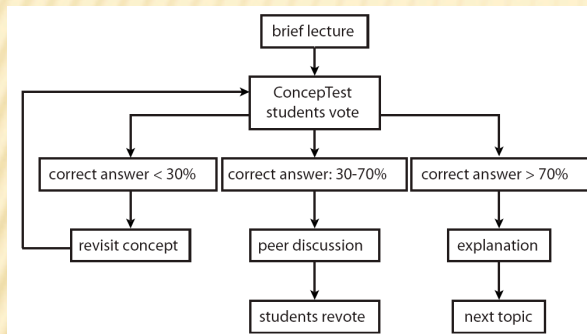


# WHEN TALKING IS BETTER THAN STAYING QUIET

N Lasry<sup>1,3,4</sup>, E Charles<sup>2</sup>, C Whittaker<sup>2</sup>, M Lautman<sup>1</sup>

## Peer Instruction



## Why Does it work?



Peer discussions!

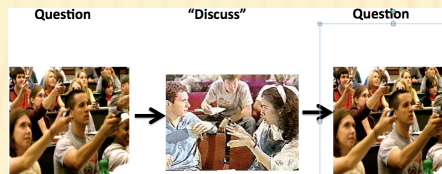
But how do we know?

What if only:

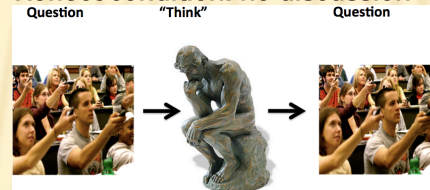
- more reflection?
- more time on task?
- The testing effect?

## Study Design

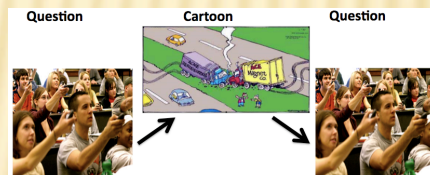
### Peer Instruction



### Reflect condition: no discussion



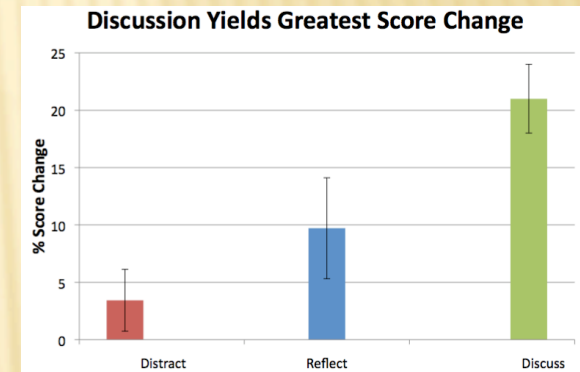
### Distract condition: no discussion



Same set of 9 ConceptTests given in 1<sup>st</sup> week of a mechanics course in three different groups. Group 3 was peer instruction, groups 1 and 2 had 1/2 of the ConceptTests presented with instructions to 'think about it for 1 minute' and then revote. The other 1/2 of the questions, students were distracted for 1 minute and then asked to revote.

	Group 1	Group 2	Group 3
Distract	1 <sup>st</sup> 1/2	2 <sup>nd</sup> 1/2	X
Reflect	2 <sup>nd</sup> 1/2	1 <sup>st</sup> 1/2	X
Discuss	X	X	100%

## Results



## Conclusion

- 1- All conditions show non-zero gains: even distract condition (so probable testing effect)
- 2- Reflection and time on task contribute to in class learning
- 3- Maximal added value to peer-led discussions. Peer-discussions are the way to go!

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