

# Talk Less, Teach More

## 1. Benefits of active exercises

- More student engagement
- Increased collaboration
- Increased peer-learning
- Increased attendance

## 2. Types of active exercises (not a complete or definitive list)

- Discussion
- Writing
- Examples
- Problem-solving
- Games or role playing

## 3. Common questions

- Amount of time for exercises ?
- Group size ?
- Makeup of groups ?
- Assigned or self-grouped ?
- Same groups each meeting ?
- Drawing out introverted and shy students
- Ensuring everyone has a chance to speak up
- Present results to class, submit to prof, or unshared?

## 4. Challenges

- Timing the class is harder with active exercises
- The classroom infrastructure has a major affect
- Encouraging collaboration can be challenging
- Encouraging diversity of thinking
- Changing your habits
- Your interaction—deciding when to step in

## 5. Example exercises (illustrative from my classes)

- SWE 632—User Interface Design and Development  
[cs.gmu.edu/~offutt/classes/632/in-class/week3-eval1A.html](http://cs.gmu.edu/~offutt/classes/632/in-class/week3-eval1A.html)  
[cs.gmu.edu/~offutt/classes/632/in-class/week3-mentalModel.html](http://cs.gmu.edu/~offutt/classes/632/in-class/week3-mentalModel.html)
- SWE 637—Software Testing  
[cs.gmu.edu/~offutt/softwaretest/edition2/powerpoint/Ch07-1-2-overviewGraphCoverage-active.pptx](http://cs.gmu.edu/~offutt/softwaretest/edition2/powerpoint/Ch07-1-2-overviewGraphCoverage-active.pptx)
- SWE 205—Software Usability Analysis and Design  
[cs.gmu.edu/~offutt/classes/205/in-class/OOtM-Excise-example.html](http://cs.gmu.edu/~offutt/classes/205/in-class/OOtM-Excise-example.html)

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September 2016