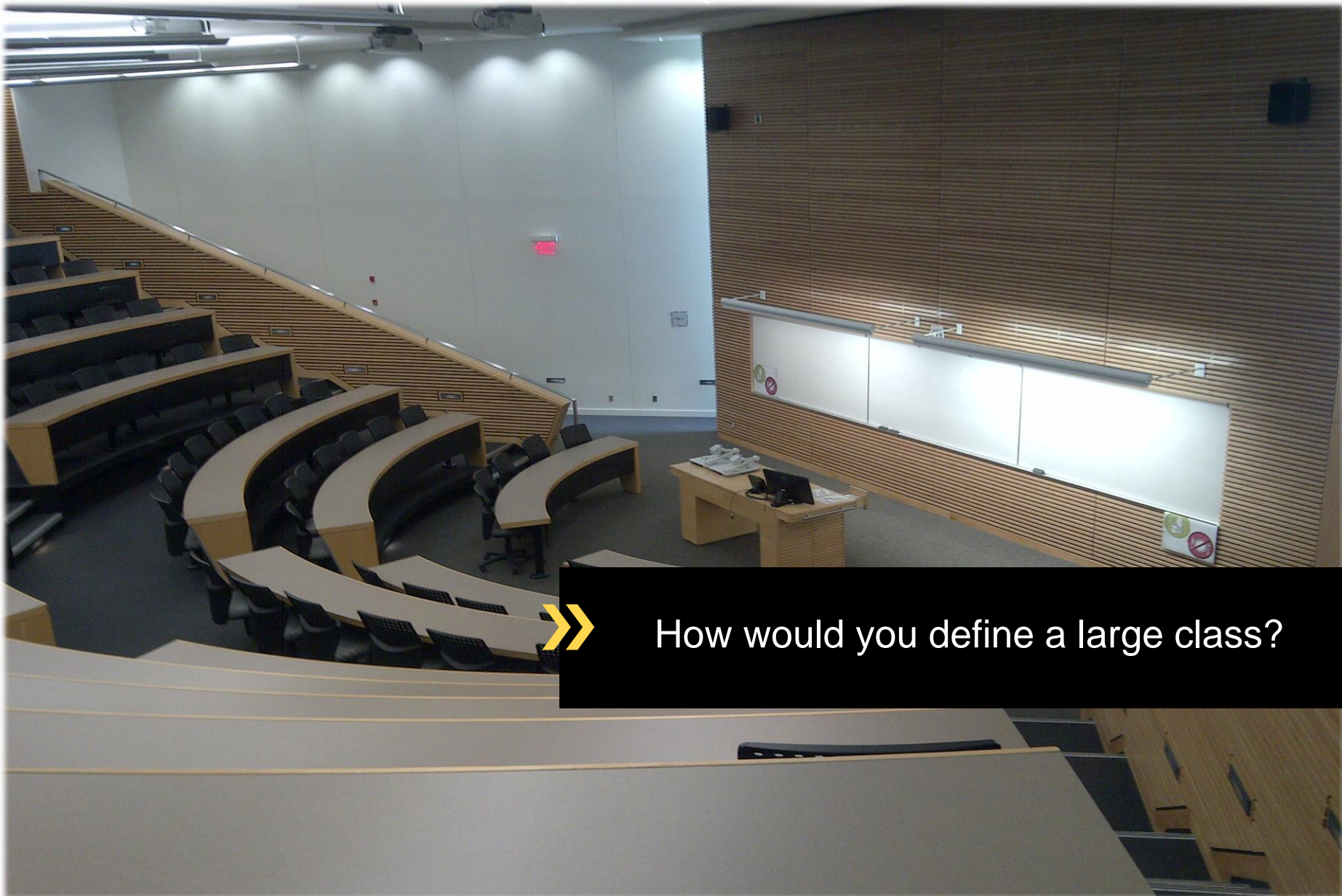


# Active Learning in Large Classes: Behind the scenes

Veronica Brown  
Centre for Teaching Excellence  
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How would you define a large class?

» In six words, describe a large class. Share with your neighbor. If you like, share with the group.



# PLAN FOR THE SESSION

- Briefly introduce active learning
- Share design elements to consider
- Review Waterloo examples
- Reflect on transfer to your course



# WHY THE SIX-WORD MEMOIR?



# WHAT IS ACTIVE LEARNING?

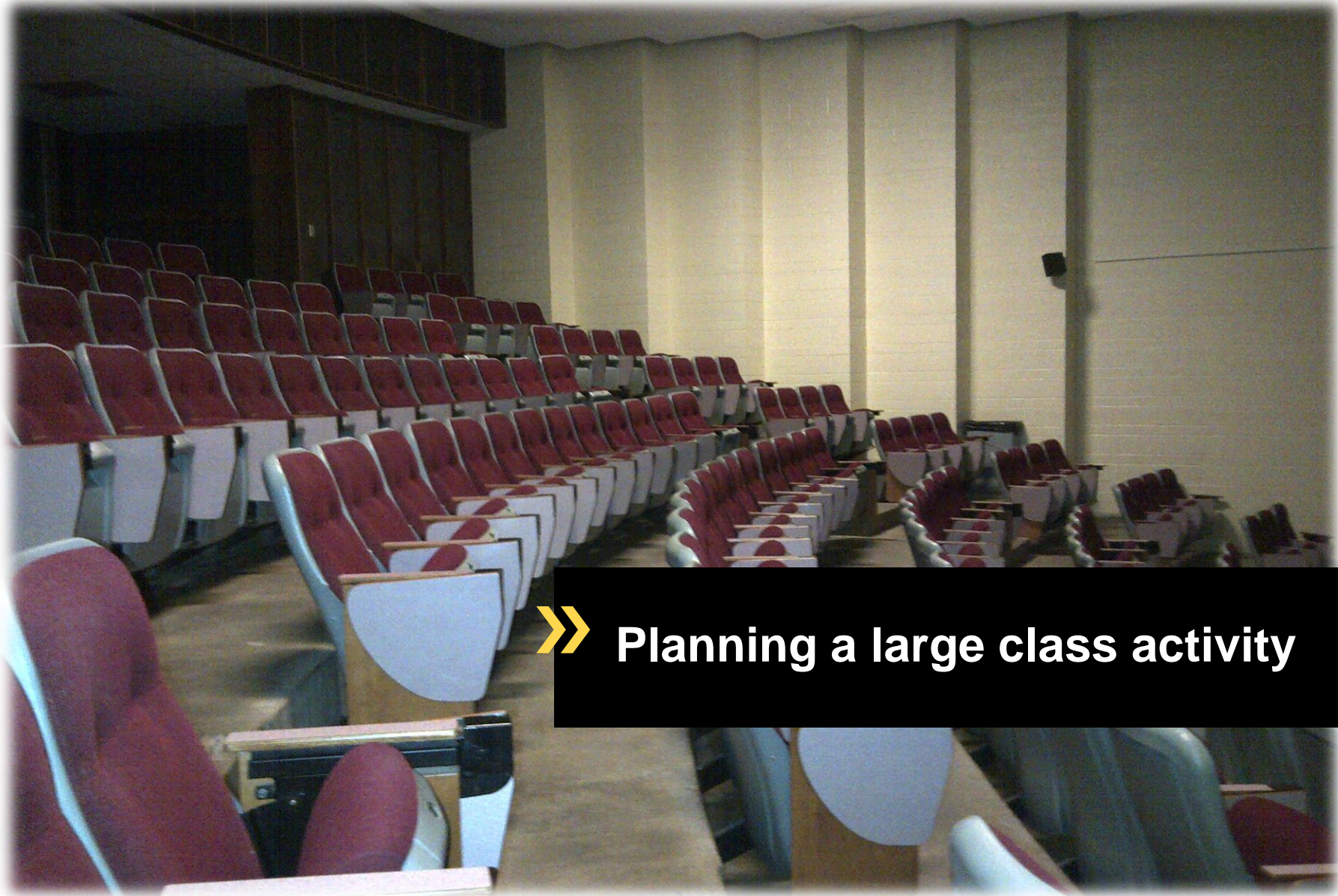
- Students actively engage in the instruction
  - » Interaction with the instructor, peers and/or the content (Moore, 1989)
- Supports the social side of learning (Silberman, 1996)
- Encourages active experimentation (Kolb, 1984)



# EXAMPLES FOR LARGE CLASSES

- Team-based learning
- Team debates
- Flipped classrooms
- Clickers/Twitter/Other Technologies
- Think-Pair-Share





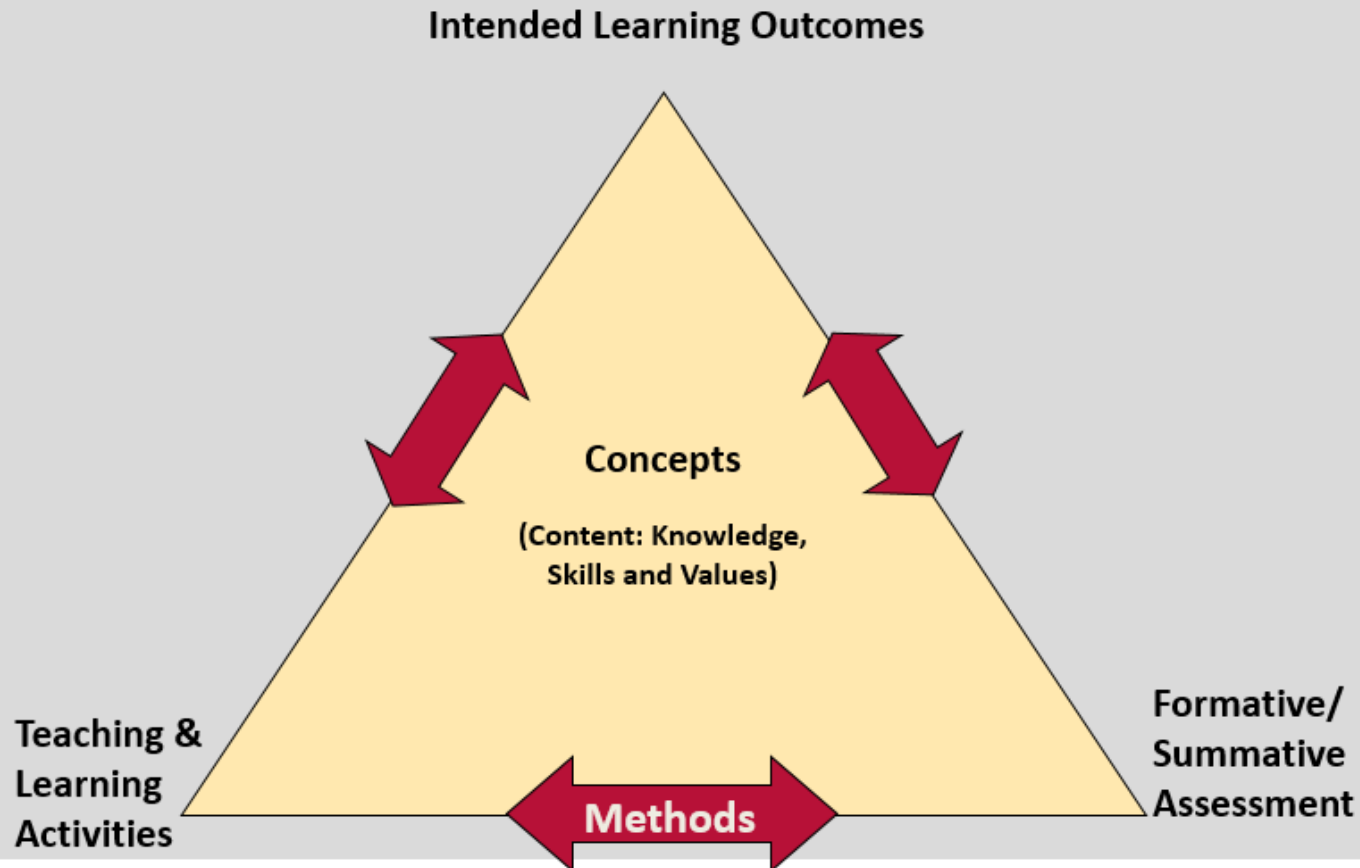
»» **Planning a large class activity**

»» **Alignment, Context, Roles, Support**



# ALIGNMENT

Relate the activity to course outcomes



» Source: Ellis (2007)

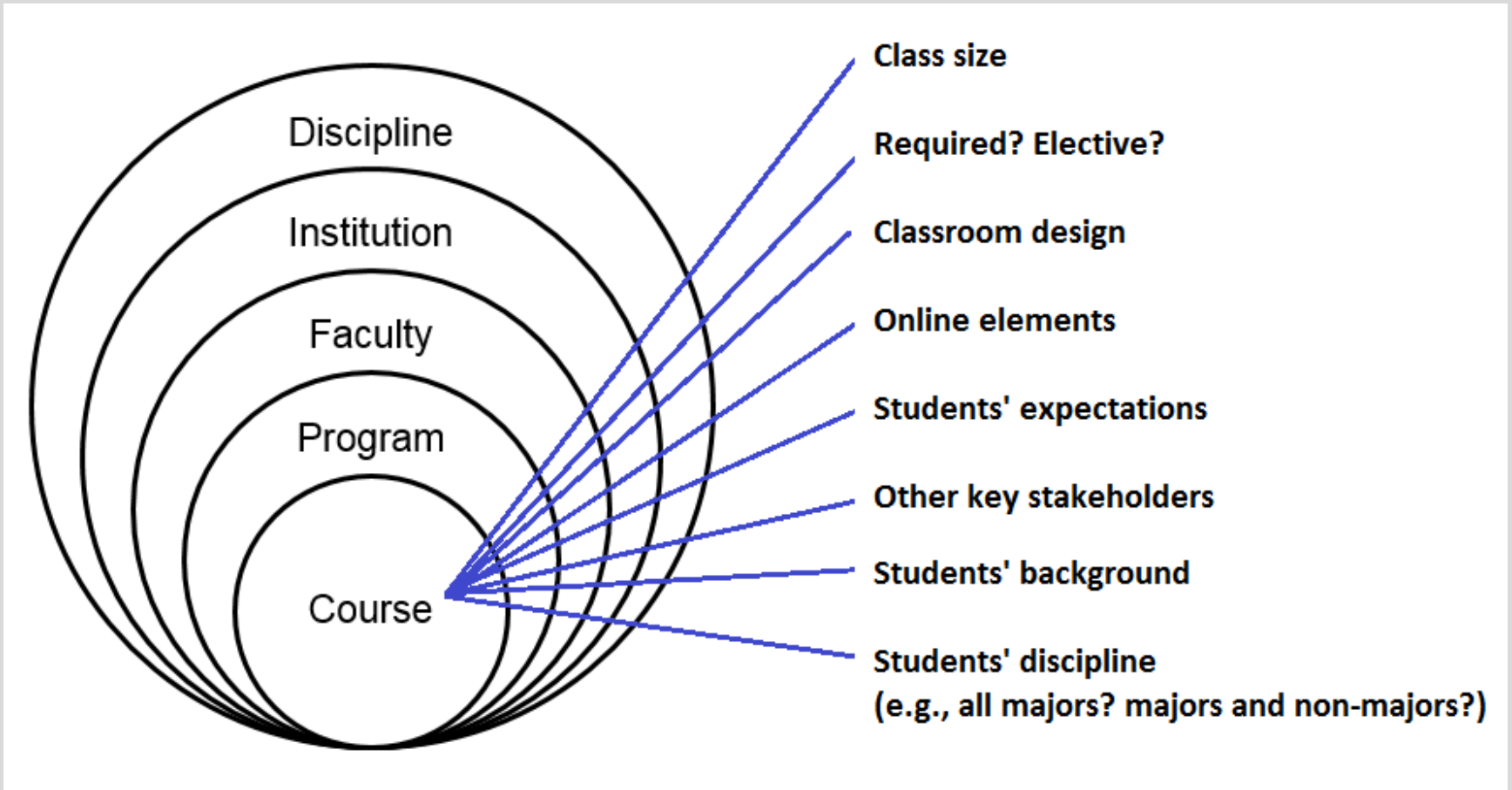


# ALIGNMENT EXAMPLE

- Optometry Course (Case Analysis)
  - » Focus on developing critical thinking and teamwork skills – essential in health education
- Team-based learning  
(<http://www.teambasedlearning.org/>)
  - » Accountability
  - » Preparedness
  - » Feedback

# CONTEXT

## Factors that influence activity's design



# CONTEXT EXAMPLE

- WatPD Program
- Context
  - » Required and elective courses for co-op students
  - » Students on work terms all over the world
    - Some with unreliable internet access
  - » Some courses 1000+ students
    - 1,677 students in PD 2 Winter 2015
  - » Various level of engagement
  - » Students from all six faculties

# ROLES

Tasks of the various people involved



# ROLES EXAMPLE

- Team Projects in STAT 231
  - » **2** Instructors
  - » **461** Students
  - » **14.5** Teaching Assistants, **1** Head Teaching Assistant
- TA Role
  - » Each TA assigned ~8 teams
  - » Met 4 times with each time during term
  - » Head TA responsible for scheduling teams and TAs

# SUPPORT

## Resources needed and their availability



Image Source:

» <http://independence.cherrycreekschools.org/PublishingImages/Staff%20Pages%20Clip%20Art/Support%20Staff.jpg>

# SUPPORT EXAMPLE

- Members of the course team
  - » Instructors
  - » Teaching Assistants
  - » Instructional Apprentices
  - » Instructional Support Coordinators
  - » Co-op students
  - » Undergraduate part-time markers
  - » Undergraduate TAs
  - » WEEF TAs
  - » Grad student TA coordinator

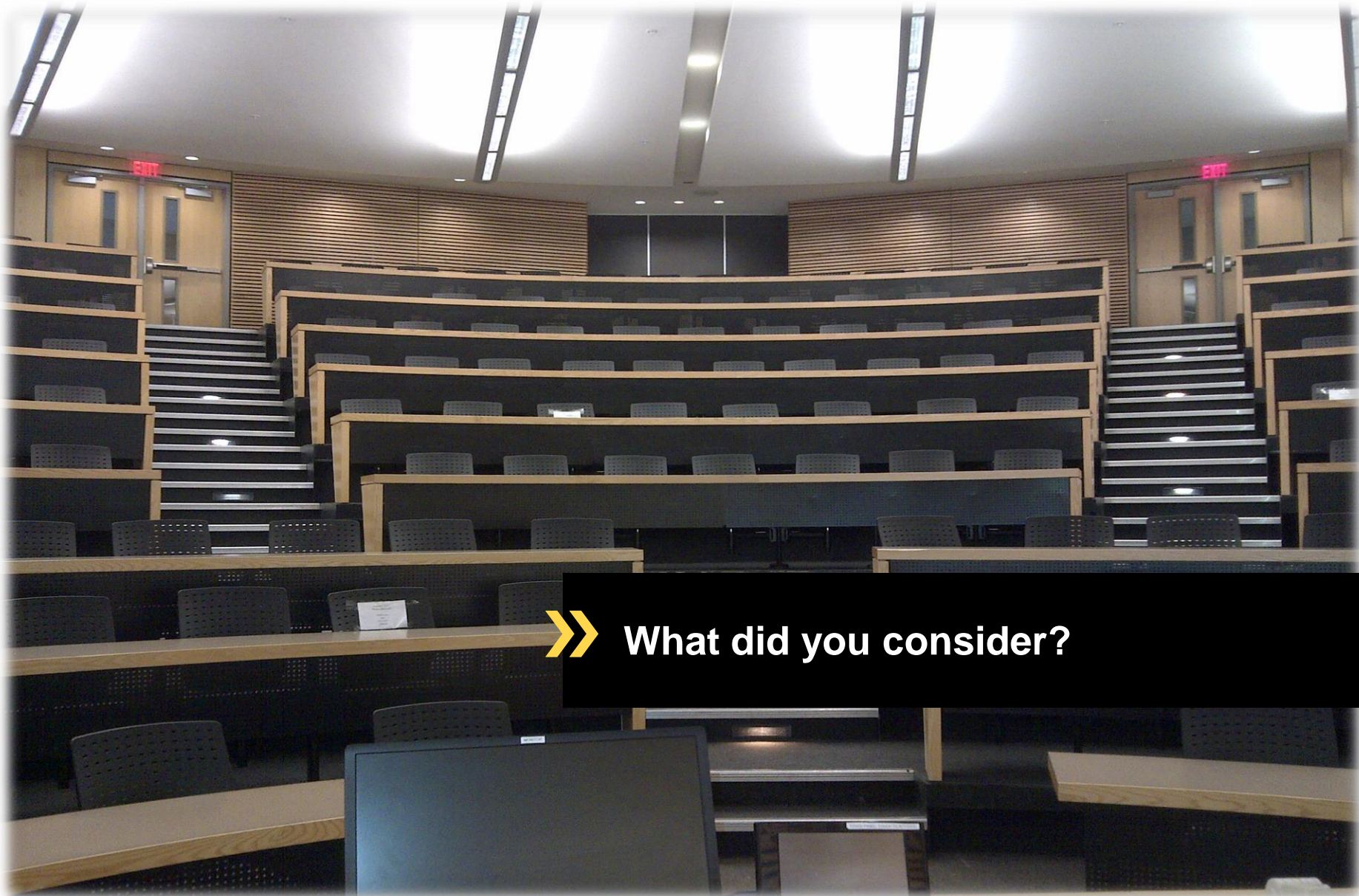
# LET'S TRY IT!

Applying the framework to your course

**What would you need to consider to add a group project to your course?**







»» What did you consider?

»» Alignment, Context, Roles, Support

# BEFORE YOU GO

- What is one insight you gained from the session?
- What one idea could you apply to your teaching?
- *These questions will be asked throughout the day at the conference!*



# QUESTIONS?

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# SUGGESTED RESOURCES

All are available through TUG library system

- Barkley, E. F., Howell Major, C., & Cross, K. P. (2014). *Collaborative learning techniques : a handbook for college faculty* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass
- Millis, B. J. (ed.). (2010) *Cooperative learning in higher education : across the disciplines, across the academy*. Sterling, Va: Stylus.
- Centre for Teaching Excellence Tip Sheets on Learning Activities  
<https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/learning-activities>
- *Active Learning in Higher Education*  
Published By: SAGE Publications  
ISSN: 14697874



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- Hrynychak, P. (2012). Team-based Learning. Presentation at the 4<sup>th</sup> Annual Opportunities and New Directions (OND) Conference, Waterloo, ON. Slides available online: <https://uwaterloo.ca/centre-for-teaching-excellence/sites/ca.centre-for-teaching-excellence/files/uploads/files/OND%202012%20-%202014.pdf>
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Moore, M. G. (1989). Editorial: Three Types of interaction. *American Journal of Distance Education*, 3(2), 1-6.
- Silberman, M. (1996). *Active learning : 101 strategies to teach any subject*. Boston : Allyn and Bacon.
- Struthers, C. & McLeish, D. (2013). Team Projects in an Introductory Course in Statistics. Presentation at the 5th Annual Opportunities and New Directions (OND) Conference, Waterloo, ON. Slides available online: <https://uwaterloo.ca/centre-for-teaching-excellence/sites/ca.centre-for-teaching-excellence/files/uploads/files/103%20a%20.pdf>

