

Engaging Learners in Large Classes Through Collaborative Learning

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Christine Rener
Director, Pew Faculty Teaching & Learning Center
Associate Professor of Chemistry
Grand Valley State University
renerc@gvsu.edu

Engaged Teaching and Learning

Process in which teachers and students interact and actively participate in learning that helps them reach their desired goals

Collaborative Learning

Students working together to make meaning, solve problems, analyze case study, practice skill, apply theories, etc.

Areas of Concern

- Individual accountability
- Group accountability
- Collaborative skill development
- Providing feedback & grading
- Covering material
- Crafting collaborative assignments
- Classroom mechanics: group formation, management

Your role(s)

Having a goal: anticipatory, connection to prior knowledge, class reading pre-class work comprehension, practice a skill, test understanding of class material - recall or application, learn content

Assigning meaningful, challenging tasks with crystal clear instructions, a time limit, monitoring of progress, accountability, feedback and closure

Establishing a classroom environment conducive to collaboration: trust, respect, encouragement

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Types of Activities

Active involvement on 1st day of class

- low-stakes discussion prompt
- exchange contact information with nearby students

Think-Pair-Share

- think: a minute or so to think and/or take notes
- pair: discuss with a peer (or two) nearby
- share: with another group or entire class
- ask for volunteers, call upon representatives, call by quadrant in room
- feedback from all groups via clickers, PollEverywhere.com, TodaysMeet.com, colored cards, collect written notes
- ConcepTests

Formal Structures

- assigning groups of 3-6
- Assigning roles: manager, recorder, reporter, summarizer, technician, spy, researcher, cheerleader
- Shared expectations of positive independence and the practice of a skill

Three-minute teamwork skill pointers:

Expectation calibration: try it first before asking the instructor for help

Practice active listening: "What I hear you saying is..."

Round-robin: Everyone speaks before answering the quiz question

Alternate roles: each team member takes leadership for a discrete part of the discussion

Read discussion notes aloud at the end of the class - did Recorder capture the main points?

Team management: pay close attention to the number of assigned problems as well as the clock, keep group on task

Encouragement: Choose a team cheerleader, this a really challenging problem today and we will need everyone's input

Communication outside of your comfort zone: go ask another group a question and report back

Role play: Imagine that I am a member of your team and I am not coming prepared, how would your team do?

Group work advice from classmates, collected at the end of the previous semester

Please consider the following advice offered by your fellow students in reflecting on their group work experiences in this class thus far:

Get started right away – the manager must take command

Stay on task – focus!

Fulfill your given roles

Participate; put away your cell phone

Admit when you don't understand

Be organized

Split up tasks; involve everyone

Get to know each other; ask each other for help

Get together outside of class

Go in a line and say what we think

Designate someone to bring their textbook

Remind each other about deadlines; encourage each other

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Individual Accountability

- Pre-class online quizzes
- Entry tickets
- Just-in-Time assignments

Group Accountability

- Collect group work at the end of class - carbonless notebooks
- Group quizzes - Immediate Feedback Assessment Technique (IF-AT) forms [<http://www.epsteineducation.com/>]

Peer- and Self-evaluations

Team Evaluation Example

For each item, score your team's performance as:

- 5 = stellar
- 4 = adequate
- 3 = needs some improvement
- 2 = needs significant improvement
- 1 = not very good

Sample Questions for Team Evaluations:

- Everyone came prepared.
- Everyone participated fully.
- We encouraged and helped each other.
- Everyone asked questions when they didn't understand.
- Everyone gave clear explanations to each other.
- Everyone contributes ideas.
- We listened to each other.
- No one person dominated.
- Everyone understood the material.
- We completed the assigned work.

Team Strength	Score
Everyone participated fully.	
We encouraged and helped each other.	
We listened to each other.	
We completed the assigned work.	
...	

Consider how you will take what you have learned from teamwork in this class into your next class that involves teamwork:

- What is the one thing that your team did really well that you will keep doing on future teams?
- What is the one thing that you would do differently on your next team?

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Self Evaluations

Please consider carefully your contributions to the class so far:

Participation

Excellent

I contribute to group and whole class discussions. I help the members of my group with the in-class exercises and take good notes. I look over the exercises and notes after class to make sure that I understand the material. I ask questions if I am confused and sometimes am willing to talk to the professor and/or my fellow students outside of class if I need help.

Average

I contribute to discussions most of the time. I work well with my group to complete the in-class exercises and I take notes. I am willing to work with the professor and/or my fellow students outside of class.

Needs Improvement

I rarely contribute and don't make an effort to help my group members. I don't always take notes and I don't spend much time outside of class going over the material.

Preparedness

Excellent

I always read the text to make sure that I understand the concepts. I take particular note of the figures and terms highlighted in bold in the text. I carry out the practice exercises in the chapter and complete the assigned problems at the end of the chapter.

Average

I sometimes read the text but do not complete the assigned problems. I try to check the Blackboard site often and have used the textbook's website for the study quizzes and tutorials.

Needs Improvement

I rarely look at the textbook, the Blackboard site, or the textbook's website.

Please assign yourself a grade:

6 pts	A	excellent, outstanding, above average
5 pts	B	good, solid work, average
4 pts	C	requiring some improvement
3 pts	D	requiring significant improvement

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RESOURCES

Millis, B. J. and P. G. Cottell, Jr. 1997. *Cooperative Learning for Higher Education Faculty*. Phoenix, AZ: Oryx Press.

Barkley, E. F., K. P. Cross, and C. H. Major. 2004. *Collaborative Learning Techniques: A Handbook for College Faculty*. San Francisco: Jossey-Bass.

Michaelsen, L. A. B. Knight and L. D. Fink. 2002. *Team-Based Learning: A Transformative Use of Small Groups*. Santa Barbara, CA: Praeger Publishers.

Ambrose, S.A., et al. *How Learning Works: Seven Research-Based Principles for Smart Teaching*, San Francisco: Jossey, Bass, 2010.

National Center for Academic Transformation: http://www.thencat.org/R2R/R2R_Planning_Resources.htm - Course redesign planning resources

Just In Time Teaching (JiT) <http://serc.carleton.edu/introgeo/justintime/index.html>

Cooperative Learning tutorial: <http://serc.carleton.edu/introgeo/cooperative/index.html>

Large Classes: A Teaching Guide, University of Maryland Center for Teaching Excellence
<http://www.cte.umd.edu/library/teachingLargeClass/guide/index.html>

Concept Tests for probing student understanding during lecture: <http://www.cmu.edu/teaching/assessment/assesslearning/concepTests.html>

Collaborative Activity Decision Matrix

TOPIC/FORMAT	Think-Pair	Think-Pair-Share with Another Pair	Think-Pair-Share with Entire Class (verbally, whiteboard, or via clickers)	Jigsaw (see below)
Prior knowledge (previous course; last week)				
Pre-class reading/assignment				
Introductory question to capture interest				
Real-life examples				
Question remaining from previous class period				
Application of principle after a mini-lecture				
Practice skill/calculation/problem-solving				
3-2-1 at start or end of class: 3 main points from reading/class discussion 2 remaining questions 1 concept application				

Other Considerations:

What will students submit before class?

What will students submit as they enter class "entrance ticket" ?

What will collaborative groups contribute verbally? What will collaborative groups submit in writing?

What will collaborative groups submit after class?

Pairs could be groups of three or four students.

Will pairs/groups remain the same throughout the semester?

Will pairs/groups be formed via student choice, randomly, by other criteria such as major, interest, ability?

Jigsaw: divide a problem/task into four parts; each group works on a different part; groups rearrange (bringing pieces of the jigsaw puzzle together) and report to each other on their part of the problem; students explore the entire picture through this interactive exercise

Essential components of a successful activity: crystal clear directions, time limit, instructor monitoring of progress, closure