# Strategies for Cooperative Learning: Helping Students Develop Teamwork Skills

Amber Genau, Cynthia Lo, Kristina Wagstrom, Wujie Zhang December 2, 2013

### Felder and Brent Summary

#### Definition

- Producing a product of some sort:
  - o a set of problem solutions
  - a laboratory or project report
  - the design of a product or a process

#### under conditions that satisfy five criteria

- 1. positive interdependence
- 2. individual accountability
- 3. face-to-face interaction for at least part of the work
- 4. appropriate use of interpersonal skills
- 5. regular self-assessment of team functioning

# Advantages over traditional learning

- Greater learning
  - Higher academic achievement
  - Better high-level reasoning and critical thinking skills
  - Deeper understanding of learned material
- Superior development of communication and teamwork skills
  - Leadership
  - Project management
  - Conflict resolution

### Effects on "weaker" students

- Working individually
  - o They are likely to give up when they get stuck
  - They may tend to delay completing assignments or skip them altogether.
- Working cooperatively
  - o They keep going.
    - Greater intrinsic motivation to learn and achieve
    - Greater persistence through graduation
    - Lower levels of anxiety and stress
    - More positive attitudes toward subject areas
    - Higher self-esteem
  - They know that others are counting on them, so they are motivated to do the work in a timely manner.
    - Greater time on task and less disruptive behavior in class
  - However, they complain about being discounted or ignored in group sessions.

### Effects on "stronger" students

- Working cooperatively
  - They are faced with the task of explaining and clarifying material to weaker students, so they often find gaps in their own understanding and fill them in.
    - Greater ability to view situations from others' perspectives
    - More positive and supportive relationships with peers
  - However, they complain about begin held back by their slower teammates, and build resentment when some team members fail to pull their weight.

#### Suggested Strategies

Developing Teamwork Skills

# Establish team policies and expectations

- Have teams generate and sign a list of policies and expectations:
  - Individual preparation
  - Team roles, expectations, and policies
  - Rewards and sanctions
- Have them sign the list and make copies for themselves and you.
- Questions:
  - o Do students really take these seriously?

### Keep groups intact for at least a month

- It takes at least that long for the teams to encounter problems.
- Learning to work through the problems is an important part of teamwork skill development.
- Questions:
  - Can the students decide in groups to remove members, who are not sufficiently contributing to the team work?

#### Provide for periodic selfassessment of team functioning

- Plus/Delta team reflection
  - Every 2–4 weeks, have teams respond in writing to questions such as:
    - What are we doing well as a team?
      - o How well are we meeting our goals and expectations?
    - Is there one thing about the team that you would like to see improved?
    - Are there any common concerns?
    - What (if anything) will we do differently next time?
  - o Peer ratings

#### Real-life example

 Intermediate deadlines (e.g., selected journal paper due to instructor, group presentation, critical review) scheduled weekly for Wujie's Biopolymers class

# Give students tools for managing conflict

- Adopt problem-based learning approach:
  - o Start the course normally.
  - Let the interpersonal problems start to surface naturally.
  - o Equip the students with strategies for dealing with them.
- Caution them that dealing with conflicts quickly and rationally can avoid later serious problems that are almost certain to arise if they attempt to ignore the conflicts.
- Introduce them to active listening:
  - Students on one side of a dispute make their case without interruptions, then students on the other side have to repeat it to the initial group's satisfaction,
  - o The second side then makes its case uninterrupted, and the first side has to repeat it to the second side's satisfaction.
  - The students then brainstorm strategies and work out a solution. Once the students have articulated their opponents' cases, the solution frequently comes very easily.

### Use crisis clinics to equip students to deal with difficult team members

- Students brainstorm and then prioritize possible group responses to specified offending behaviors.
- Teams leave armed with several excellent strategies for dealing with the problem.
- Problem students in the class are on notice that their team members are likely to be ready for them in the future, which may induce them to change their ways.

#### Questions:

- o What if problem students persist in their ways?
- What if this induces even stronger students to drop the class and avoid conflicts?

### Concluding remarks

### Avoiding discouragement

- Aren't we paying tuition for the professor to teach them and not to teach themselves?
- Isn't it unfair that they're carrying their team by themselves?
  - One of their team members rarely shows up for meetings and is never prepared or is racist or sexist or just plain nasty.
  - Their team is falling apart.
- Are we essentially "teaching to the mean" and forcing high-achieving students to put aside academic achievement for societal good?

#### Real-life example: Team 4

- Scheduling time to meet was challenging
  - Thanksgiving holidays limited participant availability
- Responsiveness to e-mail scheduling efforts varied among participants
  - Unfamiliarity with new group resulted in limited feelings of accountability
  - Some participants did not respond at all, while others felt pressure to complete all aspects of assignment
- Suggestions for future cooperative assignments
  - Agree on meeting times during VCP sessions (voice-to-voice)
  - Designate roles beforehand