Meta Activity: Team Roles

Decide who will be what role for today; we will rotate the roles each week. If you have only three people, one should have two roles. If you have five people, two may share the same role.

Manager:
Presenter:
Recorder:
Reflector:

Questions (15 min) Start time:

1. What is the difference between **bold** and *italics* on the role cards?

2. Manager: invite each person to explain their role to the team. Recorder: take notes of the discussion by writing down key phrases next to the table above.

3. What responsibilities do two or more roles have in common?

4. For each role, give an example of how someone observing your team would know that a person is <u>not</u> doing their job well.

- Manager:
- Presenter:
- Recorder:
- Reflector:

Meta Activity: Group vs Team

Throughout the course, you will need to examine and process information, ask and answer questions, construct your own understanding, and develop new problem-solving skills.

Questions (8 min) **Start time:**

1. What are some advantages to working in groups/teams?

2. What are some disadvantages to working in groups/teams?

3. Based on the images above, what is the difference between a group and a team? Come up with a precise answer.

4. How can working as a team help you accomplish the tasks described above? Give at least two specific examples.

Meta Activity: Team Disruptions

Common disruptions to learning in teams include: talking about topics that are off-task, teammates answering questions on their own, entire teams working alone, limited or no communication between teammates, arguing or being disrespectful, rushing to complete the activity, not being an active teammate, not coming to a consensus about an answer, writing incomplete answers or explanations, ignoring ideas from one or more teammates.

Questions (10 min) Start time:

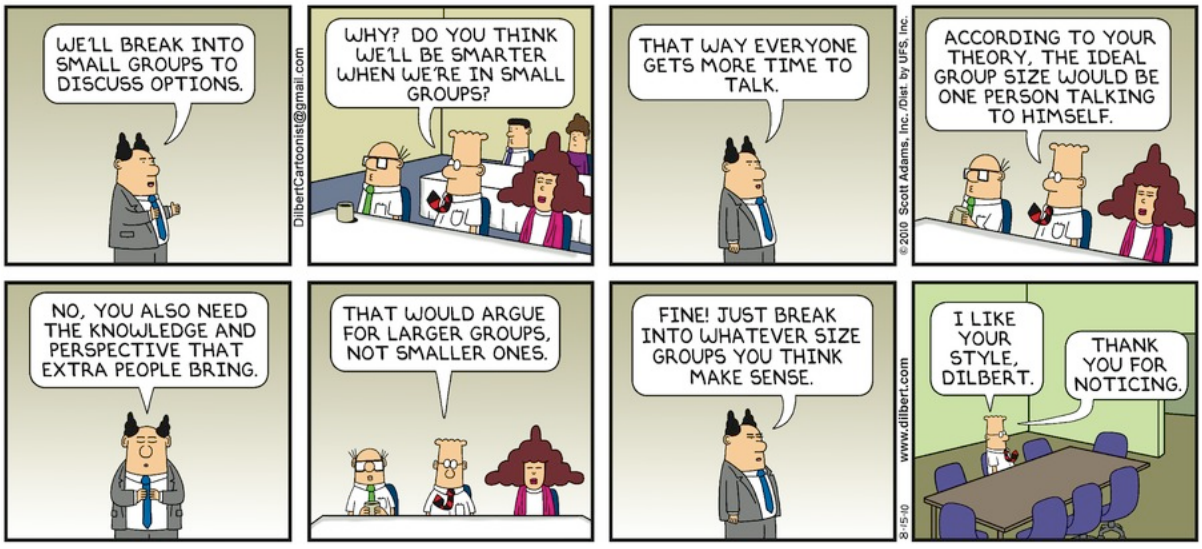
1. Pick four of the disruptions listed above. For each one, find something from the role cards that could help improve the team's success. Use a different role for each disruption.

a) Manager:

b) Presenter:

c) Recorder:

d) Reflector:



Dilbert by Scott Adams. © Andrews McMeel Syndication. http://dilbert.com/strip/2010-08-15

Meta Activity: What Employers Want

The following data is from the *Job Outlook 2019* survey by the National Association of Colleges and Employers (NACE). A total of 172 organizations responded to the survey.

Attributes Employers Seek on a Candidate's Resume

Attribute	% of respondents
Ability to work in a team	78.7%
Analytical/quantitative skills	71.9%
Communication skills (verbal)	67.4%
Communication skills (written)	82.0%
Detail-oriented	59.6%
Initiative	74.2%
Leadership	67.4%
Problem-solving skills	80.9%
Strong work ethic	70.8%
Technical skills	59.6%

Source: https://www.naceweb.org/talent-acquisition/candidate-selection/

Questions (10 min) Start time:

1. What are the top three attributes that employers look for on a resume?
   - #1:
   - #2:
   - #3:

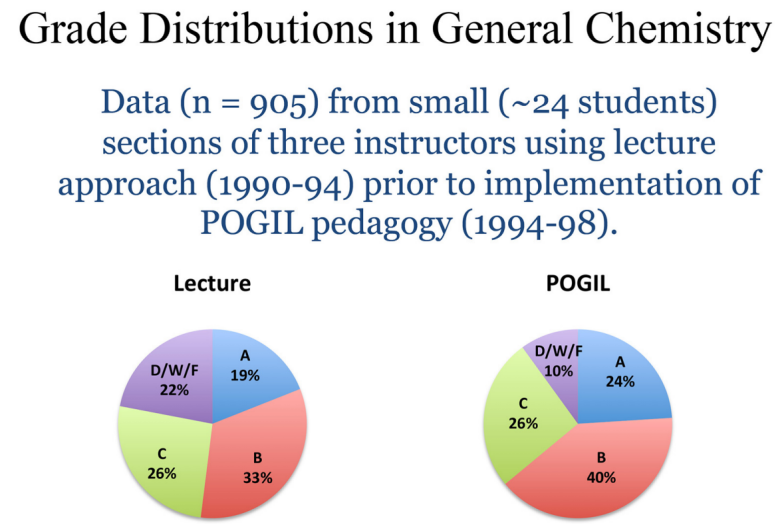
2. Describe the process your team used to answer to the previous question.

3. How is communication (written and verbal) related to problem solving and teamwork?

4. How does the team-based learning approach in this class help you develop these skills?

Meta Activity: POGIL Research 1

Process-Oriented Guided Inquiry Learning (see pogil.org) is a student-centered, group-learning instructional strategy and philosophy developed through research on how students learn best. The following figure is from a peer-reviewed research article about POGIL:



Farrell, J.J., Moog, R.S., & Spencer, J.N. (1999). A Guided Inquiry Chemistry Course. *Journal of Chemical Education, 76*, 570–574.

Questions (7.5 min) Start time:

1. Based on the figure above:

a) How many years were considered?

b) How many instructors were involved?

c) How many students were involved?

2. Which grade categories improved after the instructors switched to POGIL?

3. What does the research suggest about POGIL's impact on student success?

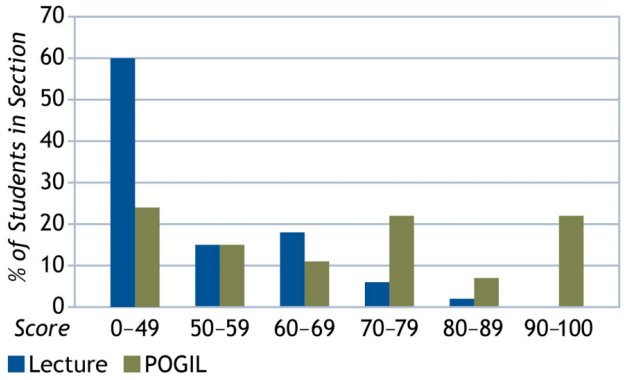
Meta Activity: POGIL Research 2

Many research studies have been conducted about POGIL. In the following example, students were given an unannounced quiz on the first day of class (based on the previous semester). About half of them had been taught in lecture sections, and half in POGIL sections.

Performance on Organic Chemistry 2
Unannounced First Day Pre-Quiz

All students passed Organic Chemistry 1 at this institution during the previous semester

All sections of Organic Chemistry 1 had more than 150 students.



Ruder, S.M., & Hunnicutt, S.S. (2008). POGIL in Chemistry Courses at a Large Urban University: A Case Study. In R.S. Moog, & J.N. Spencer (Eds.), *Process-Oriented Guided Inquiry Learning: ACS Symposium Series 994* (pp. 133–147). Washington, D.C.: American Chemical Society.

Questions (7.5 min) Start time:

1. How large were the classes in the previous semester?

2. About what percentage of the …

a) Lecture students scored below 60?

b) Lecture students scored above 80?

c) POGIL students scored below 60?

d) POGIL students scored above 80?

3. What does the research suggest about students' retention of knowledge?