CHAP. 25 - TEAMWORK

TEAMWORK CAN BE LEARNED
⇒ NEEDS DEVELOPMENT OF A SKILLSET.
(OUR FOCUS TODAY)

25.1: Groups

What is a group?
⇒ set of people
⇒ common goal

Different backgrounds
1) Education
2) Race/Ethnic
3) Sex
4) Experience

How to make the group work effectively?
⇒ Group does better than any individual working alone.
WHAT MAKES AN EFFECTIVE GROUP:

1) TASK DIFFERENTIATION
2) WORK ENVIRONMENT
3) COORDINATION

TASK DIFFERENTIATION:

→ EACH MEMBER DOES DIFFERENT TASK

Why not have each member do the task, then pick the best?

→ inefficient
→ may pick wrong solution

HEURISTIC
→ EACH JOB SHOULD BE DONE BY THE GROUP MEMBER WHO CAN DO IT BEST.

NOT ALWAYS POSSIBLE, SO...
* HEURISTIC

Each group member should contribute equally to the group outcome.

* HEURISTIC

The overall group outcome should be the best it can be.

Overrides previous:

⇒ People will do more than their share

⇒ Training important

⇒ Backups (quick fix)

⇒ Broad skill set (better, life long learning)

Work environment:

Best: Safe (job security)

Supportive (and self-aware)

Challenging

Anxiety
ALL GROUP MEMBERS NEED TO FOSTER A GOOD ATOMSPHERE.

HEURISTICS FOR IMPROVING WORK ENVIRONMENT

1) Communicate (don't keep shortfalls to self)
2) Constructive (in and out)
3) Assume (-) feedback is meant to help
4) (+) reinforce other group members
5) Give due credit (ref journal articles)
6) Thank group members for taking risks.
7) The group fails
8) Avoid competition in group
9) Focus competition outside group
10) Offer assistance on non-work problems
11) The group needs support (not individuals)
12) Cover for group members immediately
COORDINATION:

→ BREAK PROJECT INTO COMPONENTS
→ ASSIGN PARTS
→ COMMUNICATE RESULTS
→ ASSEMBLE RESULTS INTO FINAL PACKAGE

→ NEED TO BE FLEXIBLE

→ REASSIGN WHEN NECESSARY
→ IF COMMUNICATION NOT WORKING, CHANGE TECHNIQUE.

HEURISTICS:

1) KNOW WHAT EVERYONE IS RESPONSIBLE FOR
2) SHARE INFORMATION
3) LOOK FOR HOLES
4) LOOK FOR GAPS AND MAKEUP
5) ROLE-PLAY CLIENT/GROUP INTERACTION
6) BE CLEAR ON UNDERSTANDING
7) ASSIGNMENTS VIEWED AS CONTRIBUTION, NOT PART
8) BE FLEXIBLE
GROUP ASSESSMENT (TOWARD IMPROVEMENT)

3) SHORT
3) DO FREQUENTLY
   3) SMALL PROJECT
       START, MIDDLE, END
   3) LARGE PROJECT
       EVERY WEEK
3) DISCUSS RESULTS
3) ADDRESS PROBLEMS IMMEDIATELY

ORGANIZATIONAL BEHAVIORS & STRATEGIES

FRICITION: (DEAL WITH IMMEDIATELY)

1) UNEQUAL WORK DISTRIBUTION
   LOWER EFFICIENCY
   STRESS
   SHARE WITH GROUP (NO Factions)
2) Low Motivation, Low Morale
   ⇒ Don't feel their work important
   ⇒ Don't care about success of group
   ⇒ Overwhelmed by pressure (in/out)

Group needs to fix:
   ⇒ Identify cause
   ⇒ Resolution

Giving due credit helps

3) Disagreement with Group Decisions
   ⇒ Air opinions
   ⇒ How will options advance project
   ⇒ Equal options - leader decides
      ⇒ Then move on
   ⇒ Explain how decision made
      (Respectful disagreement)

4) Overlap & Gaps in Work Assignments
   ⇒ Do your job
   ⇒ Fill in for others
   ⇒ Large gaps ⇒ Reassign work
5) UNCOMFORTABLE GROUP INTERACTIONS
   ⇒ TRUST
   ⇒ RESPECT
   ⇒ RESPONSIBILITY
   (GET FACULTY HELP WHEN REALLY BAD)
6) ASSIGNING BLAME
   ⇒ THE GROUP IS RESPONSIBLE
7) DISENGAGEMENT
   ⇒ MAKE PEOPLE FEEL IMPORTANT
   ⇒ INTERACTION WITH GROUP IMPORTANT

LEADERSHIP:

⇒ HAVE TO HAVE A LEADER!
⇒ FOCUS DISCUSSION
⇒ STRUCTURE GROUP
⇒ PACE GROUP MEMBERS
⇒ MAKE DECISIONS
   ⇒ ADVANCE GROUP
   ⇒ ACCEPTABLE TO GROUP MEMBERS
ORGANIZATION:

⇒ SMALL GROUP
  LEADER + EVERYONE ELSE

⇒ LARGE GROUP
  SUB-GROUPS
  FOCUS ON FLEXIBILITY + CAPABILITY

CHOOSING GROUP MEMBERS:

⇒ COMPETENT
  ⇒ GENERAL FIELD (Chemist, Eng)
  ⇒ TECHNICAL EXPERTISE (Catalysis, Separation)

⇒ PROCESS (GROUP) SKILLS
  ⇒ MYERS-BRIGGS
  ⇒ RESPECT
  ⇒ FLEXIBLE

ROLES & RESPONSIBILITIES:

UNDERSTAND WHAT EVERYONE IS
SUPPOSED TO BE DOING.
Mobile Truth, Group Think, Mob Effect

Going with the Flow

Not Asking Why

Can lead to Consensus on Work

That is Wrong.

Group Evolution:

I: Forming

1) Choose Members (often external)
2) Get to know each other
   a) Technical
   b) Working style
   c) Contact information
3) Identify leader
4) Mission identification
II. Storming

1) Disagreements
2) Feel each other out (PC version)
3) Question mission
4) Question leader
5) Recognize this behavior
6) Move beyond.

III. Norming

1) Rules & procedures established
2) Disagreement accepted, but move on
3) Individual roles & tasks assigned
4) Prepare GANTT Chart

IV. Performing

1) Tasks performed on time
2) General agreement
3) Project proceeds to conclusion
TEAMS + TEAMWORK

The ultimate group!

⇒ MORALE
⇒ TASK PERFORMANCE

TEAM BUILDING:

1) Follow 4 stages of group development
2) Find Common ground
3) Find value in each member's contribution
4) Create a team identity
5) Appreciate Diversity
6) Accept criticism as constructive
7) Present criticism as constructive
8) Work on teamwork
9) Joke & show concern (stress relief)
10) Include those falling out of team
11) Strive for decisions best for team
12) Have concern for development of other team members
How do you know you're in a team?

1. Concern for each other
2. Leaving no one behind
3. Constructive criticism
4. Convene, not voting.
5. Trust (share info freely)
6. Sacrifice
7. Leadership (outside contact)
8. Automatic compromise (not negotiate)
9. Doing more than expected
10. Time on task (efficient)

**IN CLASS (25.2,3)**

**HW #1: 25.4 Due Monday**
(Based on Sep. Design Project)