Forming and Working in Groups

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On the Agenda

- Effective Groups (Inspired by Prof. Brian Bailey)
  - Why groups?
  - Stages of Group Development
  - Group Norms
  - Tools for Group Work

- Group Projects (Discussion)

On the Agenda

Grouping Brainstorming

Form a group of 2-3 people around you.

Take three minutes to answer the following:

- What was your *best* group experience?
- What do you like the most about group work?
- What techniques worked well for groups?

Take (another) three minutes to answer the following:

- What was your *wurst* group experience?
- What do you *dislike* the most about group work?

Did you introduce yourself?

- When you started to talk with those around you, did you **introduce** yourself first?
- Or did you just jump into the task?
- **Always introduce yourself *before* starting the task!**

Why Group?

- Exposure to *new* viewpoints from different fields and life experiences
- Improves creativity and overall work quality (4 eyes vs. 2 eyes)
- Constructive dialog and increased internal group motivation
- Personal accountability to the team
- Friendship
- Prepares you for a team-environment in the workplace or a research group.

Statistics **is** a group effort
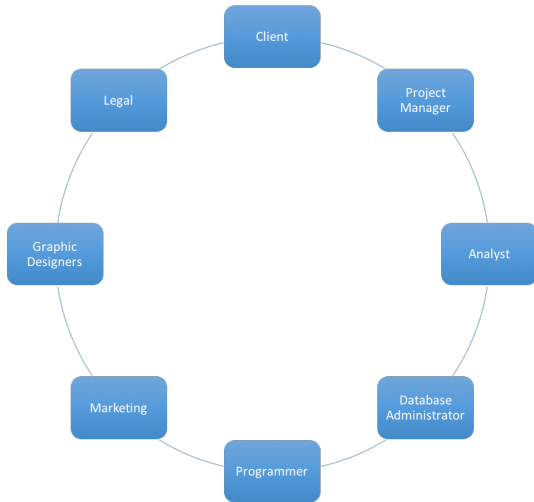
Stages of Group Development (Tuckman and Jensen 2010)

Forming (Honeymoon Stage)

- **Excitement**
  - New experiences and people

- **Eagerness**
  - Working on a common new task

- **High Expectations**
  - We will be able to get a good grade.
  - We can use *this*

- **Anxiety**
  - Will I fit in?
  - Am I able to contribute?

Forming (Honeymoon Stage)

Combat the **anxiety** with an ice-breaker activity:

- Try to come up with a team name
- Talk about the weather
- Fact or Fiction
    - Write 2 facts and 1 fictional item
    - The group guesses the fictional item.

Storming (Internal Strife)

- As you begin to work, group structure will form to ensure goals are met
  - Who is the leader? Who can write well? Who is able to program? And so on. . .

- Watch out for **conflict** due to group structure disagreements on roles and processes.
  - Form a consensus on different roles and processes.

- Some groups may skip this stage and jump to **norming**.

Norming (Resolution)

- Conflicts in **Storming** are resolved due to a formed consensus.
    - Team member idiosyncrasy are accepted or corrected.
- Team members begins focusing on the goal as group members take on their responsibilities.
- Overall, the team is ready to collaborate together toward a common goal.
    - Watch out for suppressing conflict by avoiding discussing controversial ideas!

Performing (Working)

- Team members work fluidly together to finish the common goals.
- Main stage of the group process
- Teams may stumble back to prior stages or never reach this stage.

Adjourning / Mourning (Finale)

- Completion of the common task and the end of the group
    - Anxiousness, Sadness, or Relief
- Reflect on how the group worked and channel it into the next group
- Congratulate team members on a job well down and note the individual contributions
- Finish any other administrative tasks
    - e.g. Write a peer review of each group member.

Tips for Group Work - Part 1

- **Work Hard**
    - Do your share and more to set both an example and communicate willingness

- **Include All Team Members in Group Activities**
    - Being left out *stinks* and its hard to get over.
    - Try to provide reasonable deadlines for time sensitive decisions.

- **Take Turns**
    - Cycle leadership, following, organization, note taker, and discussant roles.
    - Promotes an atmosphere of shared equity.

Tips for Group Work - Part 2

- **Constructive Dialog**
  - Focus on the **idea** and **not** the person proposing it.
  - Try to **extend**, **shape**, or **add** to a proposed idea

- **Data Driven Decisions**
  - Avoid "I don't like it" in favor of evidence.
  - Personal preferences are not evidence and are hard to articulate.

- **Focus on the Task**
  - Utilize your time appropriately by being prepared and ontime.

Tips for Group Work - Part 3

- **A Happy Group Makes for Happy Group Members**
  - Make a positive statement in the beginning
  - Bring something to the meeting (e.g. food, drinks, et cetera)

- **Move On**
  - Don't sweat not being able to agree
  - Take breaks and revisit the idea later.

- **Avoid Assigning Blame**
  - Suggest ideas to fix problems
  - Try to understand the other persons viewpoint

- **Deliverables**
  - Figure out **who** is doing **what** task and **when** it will be done.

One last tip: Groups that sit together tend to do better!

To tool or not to tool...

- Tools can help with:
  - organizing, allocating, and tracking the work
  - tracking discussions, issues, and decisions
  - versioning code and documents
  - collaborative programming and editing

- Tools are... well.. tools
  - no substitution for an actual human
  - some tools may work well and some may not

Next up: *Some* **Recommendations.**

Shared Storage

- **Create a shared space to store all your materials**
  - CITES Wiki
  - Dropbox (2.5 gigs)
  - BoxSync (50 gigs)
  - Google Drive (Unlimited Storage!!!)

- Centralize files with a good file structure to avoid, "Where is XYZ? Can you send it to me?"

Shared editing

- **Group Document Editing**
  - Google Docs
  - ShareLaTeX (1 Collaborator + Supports Knitr)
  - Overleaf (1 gig + unlimited collaborators)
  - MS Word's Track Document Changes

- Allows for *simultaneous* or parallel contributions. Avoid wasting resources!

Shared *Persistent* Discussion Environment

- **Use a discussion board**
  - Google Groups
  - Illinois Mailing Lists
  - Create Outlook Groups

- Facilitate *long* exchanges without having to remember lots of e-mails

Shared Process View Tool

- **Use a Versioning Tool**
  - git
  - svn

- See *who* did *what* and *when*

Shared *Chat* Envrionment

- **Remote Communications Tools**
  - Skype
  - Google Hangouts
  - Slack
  - HipChat

- Helps avoid the *awkward*: "Can I have your number scenario?

Summary of Group Work

- In the industry and academia, working in groups is the standard.
  - **Avoid being a lone wolf**
- Provided tips and tricks to working in a group
- Emphasized **tool** usage.

References

Tuckman, Bruce W., and Mary Ann C. Jensen. 2010. "Stages of Small-Group Development Revisited." *Group Facilitation: A Research & Applications Journal* 10: 43–48.