

GROUP WORK: TEACHERS SHOULD KNOW

Study Skills – Group Work

There are several benefits in working in groups inside and outside the classroom, students happen to be more productive, creative, and motivated than individuals on their own.

Students engaged in group work, or cooperative learning, show increased individual achievement compared to students working alone. Johnson et al. (2014) determined that students learning in a collaborative situation had greater knowledge acquisition, retention of material, and higher-order problem solving and reasoning abilities than students working alone. There are several reasons for this difference. Students' interactions and discussions with others allow the group to construct new knowledge, place it within a conceptual framework of existing knowledge, and then refine and assess what they know and do not know. This group dialogue helps them make sense of what they are learning and what they still need to understand or learn (Ambrose et al. 2010; Eberlein et al. 2008). In addition, groups can tackle more complex problems than individuals can and thus have the potential to gain more expertise and become more engaged in a discipline (Qin et al 1995; Kuh 2007). Group work creates more opportunities for critical thinking and can promote student learning and achievement.

Properly structured, group projects can reinforce skills that are relevant to both group and individual work, including the ability to:

- Break complex tasks into parts and steps
- Plan and manage time
- Refine understanding through discussion and explanation

- Give and receive feedback on performance
- Challenge assumptions
- Develop stronger communication skills.

Group projects can also help students develop skills specific to collaborative efforts, allowing students to:

- Tackle more complex problems than they could on their own.
- Delegate roles and responsibilities.
- Share diverse perspectives.
- Pool knowledge and skills.
- Hold one another (and be held) accountable.
- Receive social support and encouragement to take risks.
- Develop new approaches to resolving differences.
- Establish a shared identity with other group members.
- Find effective peers to emulate.
- Develop their own voice and perspectives in relation to peers.

While the potential learning benefits of group work are significant, simply assigning group work is no guarantee that these goals will be achieved. In fact, group projects can – and often do – backfire badly when they are not designed, supervised, and assessed in a way that promotes meaningful teamwork and deep collaboration.

CHALLENGES

Despite the benefits there are some challenges to face when working in a group for

both teachers and students. The most common ones are coordination, motivation and intellectual costs.

Coordination costs represent time and energy that group work consumes that individual work does not, including the time it takes to coordinate schedules, arrange meetings, meet, correspond, make decisions collectively, integrate the contributions of group members, etc. The time spent on each of these tasks may not be great, but together they are significant.

Coordination costs can't be eliminated, nor should they be: after all, coordinating the efforts of multiple team members is an important skill. However, if coordination costs are excessive or are not factored into the structure of group assignments, groups tend to miss deadlines, their work is poorly integrated, motivation suffers, and creativity declines.

- *Group size:* The more people in the group, the more schedules to accommodate, parts to delegate, opinions to consider, pieces to integrate, etc. Smaller groups have lower coordination costs.
- *Task interdependence:* Tasks in which group members are highly reliant on one another at all stages tend to have higher coordination costs than tasks that allow students to “divide and conquer”, though they may not satisfy the same collaborative goals.
- *Heterogeneity:* Heterogeneity of group members tends to raises coordination costs, especially if there are language issues to contend with, cultural differences to bridge, and disparate skills to integrate. However, since diversity of perspectives is one of the principle advantages of groups, this should not necessarily be avoided.

Strategies: To help reduce or mitigate coordination costs:

- Keep groups small.
- Designate specific time for group meetings.
- Use group resumes or skills inventories to help teams delegate subtasks.
- Assign roles (e.g., group leader, scheduler) or encourage students to do so.
- Point students to digital tools that facilitate remote and/or asynchronous meetings.

- Warn students about time-consuming stages and tasks.
- Actively build communication and conflict resolution skills.
- Designate time in the project schedule for the group to integrate parts.

Motivation costs refers to the adverse effect on student motivation of working in groups, which often involves one or more of these phenomena:

- *Free riding* occurs when one or more group members leave most or all of the work to a few, more diligent, members. Free riding – if not addressed proactively – tends to erode the long-term motivation of hard-working students.
- *Social loafing* describes the tendency of group members to exert less effort than they can or should because of the reduced sense of accountability (think of how many people don't bother to vote, figuring that someone else will do it.) Social loafing lowers group productivity.
- *Conflict* within groups can erode morale and cause members to withdraw. It can be subtle or pronounced, and can (but isn't always) the cause and result of free riding. Conflict – if not effectively addressed – can leave group members with a deeply jaundiced view of teams.

Strategies: To address both pre-existing and potential motivation problems:

1. Explain why working in groups is worth the frustration.
2. Establish clear expectations for group members, by setting ground rules and/or using team contracts.
3. Increase individual accountability by combining group assessments with individual assessments.
4. Teach conflict-resolution skills and reinforce them by role-playing responses to hypothetical team conflict scenarios.
5. Assess group processes via periodic process reports, self-evaluations, and peer evaluations.

Intellectual costs refer to characteristics of group behavior that can reduce creativity and productivity. These include:

- *Groupthink*: the tendency of groups to conform to a perceived majority view.
- *Escalation of commitment*: the tendency of groups to become more committed to their plans and strategies – even ineffective ones – over time.
- *Transparency illusion*: the tendency of group members to believe their thoughts, attitudes and reasons are more obvious to others than is actually the case.
- *Common information effect*: the tendency of groups to focus on information all members share and ignore unique information, however relevant.

Strategies: To reduce intellectual costs and increase the creativity and productivity of groups:

1. Precede group brainstorming with a period of individual brainstorming (sometimes called “nominal group technique”). This forestalls groupthink and helps the group generate and consider more different ideas.
2. Encourage group members to reflect on and highlight their contributions in periodic self-evaluations.
3. Create structured opportunities at the halfway point of projects to allow students to reevaluate and revise their strategies and approaches.
4. Assign roles to group members that reduce conformity and push the group intellectually (devil’s advocate, doubter, the Fool).

References

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