Project/problem based learning

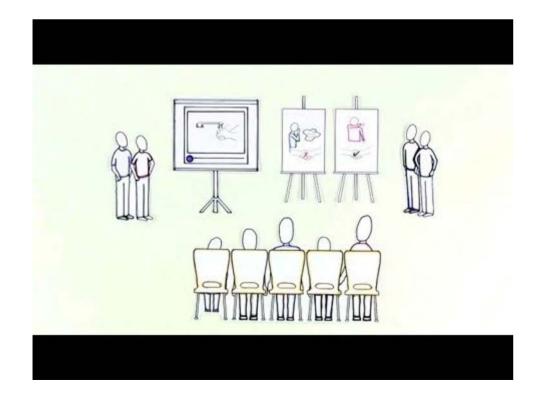
Managing group work using best practices

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What is project based learning?

An assignment with an extended project at its heart!



- Designing and/or creating a tangible product, performance or event
- 1. **Solving** a real-world **problem** (may be simulated or fully authentic)
- 1. Investigating a topic or issue to develop an answer to an openended question

Gold Standard PBL

Seven Essential Project Design Elements



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Benefits of group work

Break complex tasks into parts and steps

Plan and manage time

Refine understanding through discussion and explanation

Give and receive feedback on performance



Benefits of group work

Challenge assumptions

Develop stronger communication skills

Tackle more complex problems than they could on their own.

Delegate roles and responsibilities.

Share diverse perspectives.



Benefits of group work

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



Setting groups up for success

1. Create interdependency

If collaboration is your goal, you need to structure group work so team members are dependent on one another. You could:

- Assign roles to team members (remember to rotate)
- Make sure the project is sufficiently complex, so each member's knowledge/skills are required
- Limit resources, so students must strategize and work together

2. Devote time to teamwork skills

Not every student will know how to work in a team! They need to know things like how to delegate, reach consensus, resolve conflicts, explain their ideas, listen to alternatives, etc... You can help by:

- Set interim deadlines and break the project into steps/stages
- Model the process for them (how would you approach it)
- Establish ground rules (use team contracts)
- Emphasize the importance of teamwork skills
- Address negative preconceptions about group work

3. Build in individual accountability

You'll want to gauge whether individual students have met your criteria. You might consider:

- Having a quiz based on the materials of the group project
- Base part of the grade on the group product and part on an individual submission

Assessing group work

1. Assess individual, as well as group, skills

If you've built in individual accountability, you can assess individual students' mastery of the material

2. Make your grading criteria very clear

This is important for all assignments, but especially so for group work. You might consider:

- Using a rubric (you can even have students participate in its creation)
- Determining in advance what percentage of the grade will be for the group product and what will be for any individual component
- Thinking about how you will divide the grade between assessment of the product and assessment of the process

3. Assess process and product

Make developing teamwork skills part of your learning objectives and assess students' progress towards those goals. You can do this through:

- team evaluations: each member of the team evaluates the dynamics of the team as a whole.
- peer evaluations: each team member evaluates the contributions of his/her teammates.
- self-evaluations: each team member documents and evaluates his own contributions to the team.

Sources

Buttendorf, Kelsey. "Keys to Creating a Project Based Learning (PBL) Curriculum", PPT presentation, 2020.

<u>Gold Standard PBL: Essential Project Design Elements</u>, Buck Institute for Education, 2015

Oakley, Barbara. "It takes two to tango: How 'good' students enable problematic behavior in teams", *Journal of Student Centered Learning*, vol., issue 1, Fall 2002, pp. 19-27.