

What makes a group assignment successful?



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Centre of Expertise for Higher Education (University of Antwerp)

‘For this course, you’ll be doing a group assignment. You’ll be divided into groups and ...’ In no time, the entire lecture hall is grumbling and panicking. Meanwhile, you’re breaking out in a sweat yourself at the prospect of overseeing the group assignment. Does this sound familiar? Although students usually don’t like having to do group assignments, many studies on collaborative learning have shown that they can learn a lot from working together.

Indeed, under the right conditions, group assignments can be very instructive for both students and lecturers. Through group assignments, students can learn how to apply concepts, deepen their understanding of the subject matter through debate, recognise the diversity of opinions on a given topic, develop problem-solving skills, reflect on their learning, and generally engage cognitively with the learning content together with their fellow students (Hodges, 2017).

How can you, as a lecturer, make sure the conditions are ‘right’? In this Teaching Tip, we’ll take a look at the factors that can contribute to successful group assignments.

Design

In this Teaching Tip, a group assignment is defined as a sizeable task that requires students to work together as a team for a period not limited to one lecture (Johnson & Johnson, 2018, Felder & Brent, 2007). So this does not include short activities during lectures where students briefly discuss something in small groups. It’s a larger assignment that students have to work together on in order to achieve a certain result.

To determine whether a group assignment is appropriate for your programme component, start from the goals you have in mind for your teaching.

1. Start from your goals

Look at the final competences of your programme component and ask yourself whether group work would stimulate your students to engage in the learning activities needed to achieve these goals (Clement & Laga, 2006). Do

you want to activate critical thinking, problem-solving skills, social skills and/or team spirit? Is the focus not merely on the final product, but also on students learning to work together as a team, so they can develop their collaboration skills?

Group assignments are particularly appropriate for the following types of goals:

- Cognitive skills

Example: ‘Working in a group, students can develop and formulate creative and sustainable strategic solutions to the challenges of real organisations, based on their scientific knowledge.’

- Meta-cognitive skills

Example: ‘Students can reflect on how they have adapted or broadened their own frame of

reference by working with their peers for a group assignment.'

- Collaboration skills

Example: *'Students can work constructively as part of a team in a professional context, taking into account the diversity of academic and cultural backgrounds, views and opinions of all team members.'*

If your final competences are formulated clearly and you have come to the conclusion that a group assignment would be useful, it's best to be transparent about this with the students. Let them know that your decision to set a group assignment is deliberate and based on your desire to stimulate their learning. Being transparent about your objectives can lead to better student learning outcomes (Winkelmes, 2013).

2. Make the assignment group-worthy

To design a successful group assignment, first make sure it's group-worthy (Lotan, 2003). That means setting open, complex tasks that activate higher processing levels (applying, analysing, creating, assessing). Make sure the students can complete the assignment successfully thanks to, and not in spite of, the 'group aspect'. After all, setting tasks that could be carried out just as well individually would do little to motivate students to work together as a group.

Example of an open, complex task: *'The initial question for our project group was to formulate policy recommendations for the Flemish Minister for Education, teacher training programmes and schools/school groups.'* (Interdisciplinary project, Master of Training and Education Sciences, UAntwerp)

Ideally, in a group-worthy assignment, students are dependent on each other and need each other's expertise to complete the assignment successfully. However, this doesn't mean that the assignment can't be split up into smaller tasks, with each group member being individually accountable for a unique part (e.g. by assigning roles). After all, this creates a sense of ownership among students and also contributes to their motivation.

In addition, you can motivate students by choosing a realistic problem or situation they might actually encounter in their future careers. This will increase the relevance of the group assignment for the students. The

more motivated the students are, the more they will commit to completing the assignment successfully.

3. Group composition

Research suggests that groups of 4 to 5 students work most efficiently, as this encourages the involvement of every group member and prevents freeloading (Hodges, 2017; Davis, 2009; Vanthournout et al., 2009). Larger and more complex projects (e.g. drawing up a business plan) could possibly justify a slightly larger number of students.

Students usually prefer to choose their own teammates. This often creates homogeneous groups in terms of gender, field of study, prior knowledge, etc. However, this homogeneity doesn't always contribute to the learning objectives of the assignment (e.g. being able to deal with a variety of opinions in a critical, yet constructive manner). Self-selected groups also tend to be less critical of each other's ideas or work, which can limit the learning effect. So whenever students are allowed to choose their own teammates, it's advisable to at least encourage them to seek out diversity, because diverse groups have been shown to produce better final outcomes (Page, 2007). We recommend a hybrid approach, where students have to adhere to certain criteria when forming a group. For example, the group has to be a certain size, and must contain one student from each major/specialisation. This way, you involve the students in the design of the group assignment, while encouraging group heterogeneity.

You can also divide students into groups yourself, **based on certain criteria** that you've determined. To arrive at heterogeneous groups, you could, for instance, have students complete an initial assessment beforehand with a number of questions on how competent they already are in relation to the skills to be acquired (e.g. communication skills, analytical skills, technological skills, prior knowledge). In addition, you could also base yourself on existing information (e.g. how well students did in previous programme components). This way of working does require some more effort, and you need to be careful that your categorisation of students doesn't stigmatise them.

You can also choose to create **completely random** groups. This forces students to work together with people they may not know very well. However, a purely random composition tends to ignore certain social dynamics in the student population, which means you'll have to invest more time in building trust between students (see also: '7. Encourage collaboration and conflict management').

For more detailed information on grouping students together, be sure to check out these ECHO tips: [Heterogene groepen samenstellen](#) (2019, in Dutch) and [Dividing students for group work?](#) (2018).

4. Provide clear assignment instructions

The success of a group assignment also largely depends on the quality of the assignment instructions.

Communicate clearly what you want to achieve with the group assignment and explain why you specifically chose group work (see: '1. Start from your goals'). Students may have certain preconceptions about group work, so it's important to counter these by explaining how the design of your assignment is aimed at limiting the potential pitfalls of group work.

Examples of preconceptions:

'Smart students don't get enough credit for their work' – 'Unequal contributions from different team members lead to an unfair assessment' – 'Lazy students can hide from the lecturer' – 'Group work slows down the learning process because a lot of time is wasted organising things' (Livingstone & Lynch, 2000).

By paying attention to social elements when designing the assignment, negative experiences can be minimised (Vanthournout et al., 2009). For instance, you might consider putting some guidelines or agreements on paper, possibly even together with the students. You could have students record information about the group process in a log, and then perform random checks on these logs.

Starting from your goals, it's also best to convey the specific content-related assessment criteria you have in mind. Go over the method or roadmap to be followed and explain how you'll be guiding the students along the way. Discuss the formal requirements the final product must meet, and how and when it must be submitted (deadlines). Finally, mention who they can contact, and when, in case of any individual or group difficulties.

Guidance

5. The extent of your guidance

A key indicator to determine the level of guidance you should provide is your students' level of independence.

The graph below shows the amount of guidance a typical student needs when doing an assignment (Vanthournout et al., 2009). The lower the student's level of independence, the more guidance the student will need. For students in their first bachelor year, this may be their very first group assignment in higher education, so they'll need more guidance and direction. It can be useful to provide them with the necessary source material, for instance, and to create a setting that promotes interaction during class (e.g. by asking a few students for their opinion, asking everyone in turn).

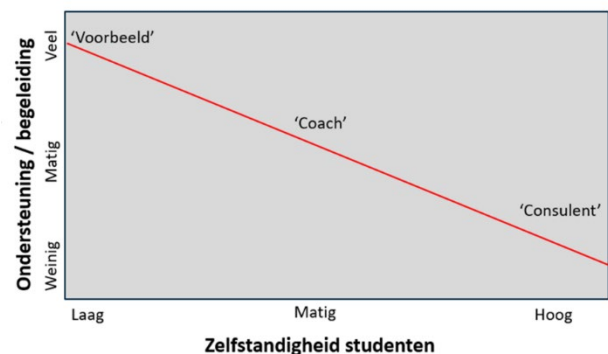


Figure 1. Guidance graph (Vanthournout et al., 2009, p. 145)

If your students are already somewhat independent, you should scale back your guidance and assume the role of coach, asking the students to really reflect on the problem.

If your students are highly independent, you can simply act as their 'consultant'. Third-year bachelor or master students who have already done group assignments in the past should have acquired the necessary collaboration skills (e.g. being able to deal with different ideas, dividing roles and responsibilities, communication skills), so they should no longer need guidance in that regard. You could allow master students to set their own assignment and collect sources entirely on their own. However, remain available for them to come by and ask for your opinion as an expert on the subject matter.

Aside from the level of independence, another factor that will determine how much guidance or support is needed is the complexity of the group assignment. If you've come up with a complex project involving multiple intertwined problems, it's important to provide more support than you would for a rather straightforward assignment.

6. Provide feedback and feedforward

In order to achieve the desired learning effect in students, it's important to give them regular feedback (how far have they progressed so far) and feedforward (what do they still

need to do to achieve the learning goals). Since students may have different perspectives, it's important for you as their supervisor and assessor to provide regular feedback on their learning process up to that point.

At regular intervals, clarify where they stand as a group in relation to the assessment criteria by giving them feedback: what are the strengths and weaknesses of their work so far? Provide guidance and suggestions on how to improve upon the weaker points as they finetune or rework the assignment – which in turn will help them to do better in future similar assignments as well.

Your feedback can help students grow and evolve throughout the group assignment, not only with regard to the final product, but also when it comes to their collaboration skills.

You can give feedback (and feedforward) in different ways. Ask yourself the following questions, bearing the goals of the group assignment in mind. Who gets feedback? Who gives feedback? When and how often will you be giving feedback? How are you going to give the feedback? What will you be giving feedback on? The following sources can help you answer these questions: [Feedback matters! High quality feedback](#) (ECHO tip, 2022) and the [thematic overview page on assessment with tips on giving feedback](#) (ECHO website).

7. Encourage collaboration and conflict management

Collaboration

Simply putting students together in groups doesn't guarantee a learning effect. In many cases, good cooperation between students is essential for achieving a successful final result. Research shows that trust is an important predictor of student engagement in a group assignment (Poort et al., 2020). This trust is built fairly early on in the group process (Ennen et al., 2015). You can stimulate this by having students get to know each other better at the start of the group assignment or the programme component.

Also keep in mind that many students don't yet know how to work together in a higher education context. They should be given the opportunity to *learn* how to cooperate efficiently and how to function in a team (Loh & Ang, 2020; Burke, 2011). As a lecturer, you should provide them with several opportunities throughout your programme component (or throughout the study programme) to practise and hone their interpersonal skills in terms of

communication, leadership, trust, decision-making and conflict resolution (Johnson et al., 2013). For instance, prior to a complex group assignment, you could have students collaborate on a few smaller tasks with a low (or zero) impact on their marks for your programme component. This way, they can learn to work together as a group in a safe setting.

Inexperienced students can work on their collaboration skills by taking up specific roles within the team. One could be the note taker, the other the moderator, the source retriever, the timekeeper, and so on (Vanthournout et al., 2009). By providing such guidance, you can encourage collaboration and individual commitment.

Conflict management

In group work, students face certain challenges that are inherent to human interaction, so it's quite possible that conflicts may arise (Hodges, 2017).

There are two main types of conflicts: task conflicts and relationship conflicts (Van Oudenhoven & Grutterink, 2016; Dekeyser & Baert, 1999). A task conflict is content-related and may arise when group members disagree on how to perform a task (e.g. when there is disagreement about what exactly should be included in the paper). However, task conflicts are not necessarily negative and, in most cases, will even be necessary to arrive at new perspectives and creative solutions. The important thing is that these task conflicts remain 'mild' and that the students discuss and ultimately resolve their disagreements to reach a solution together.

However, when a task conflict escalates into a relationship conflict, this is almost always detrimental to the group process and the final product. Relationship conflicts are characterised by tensions between group members on a personal level, often accompanied by frustration and hostility (e.g. a student is reluctant to contribute, for fear of being criticised by the other group members). In relationship conflicts, it's important for the lecturer to step in and resolve the situation together with the group.

Tip: Make it clear in advance how you expect groups to deal with problems or conflicts. Tell the students that you expect them to address problems proactively and to try and resolve conflicts amongst themselves first. Also explicitly state when they should involve you.

- For example, when a group member fails to do something one time, or when a task conflict arises, the group can try to find a solution on its own.

- *However, when a student is repeatedly absent and doesn't contribute to the group assignment, the group shouldn't hesitate to inform you of the situation.*

Assessment

It's up to you to determine what exactly will be assessed, how this will be done, and who will be doing the assessing. Be sure to have a clear view of this before the start of the assignment.

8. Decide what you'll be assessing

Depending on the goals you have in mind for the group assignment, decide whether you'll be assessing the final product, the process, or a combination of both.

For the **final product**, list your expectations in terms of the content and the form factor (e.g. a paper, an oral presentation, a poster). For example, if students should be able to communicate their findings in an accessible way by the end of your programme component, a presentation would be a useful assessment method. If you want to test their research skills and their ability to conduct a literature review, however, a research report might be a more appropriate final product.

In addition, it might be advisable to assess certain elements of the process. You could assess the **'task' process** and check the extent to which students have followed a particular roadmap, protocol or appropriate research method by asking them to submit a plan of action, for example.

If students also need to acquire collaboration skills over the course of the group assignment, it's best to also assess the **'group' process**. Have the groups organised their work properly and efficiently (division of roles and tasks, etc.)? Has everyone had their say and done their part? How were conflicts in the group resolved? You could have students keep an online log, which you would ideally have access to as well, to see how the group is working together.

The weight you give these different aspects (product, 'task' process, 'group' process) should be directly linked to your goals. For example, if the focus is on learning to work on a project basis, then you'll want to give the 'task' process a higher weight in the final score than the product.

9. Decide who will do the assessing

In most situations the lecturer providing guidance is also the assessor (Bax et al., 2013). However, as the lecturer, you can also complement your own assessment with peer assessments. You're likely to have limited insight into the group process and the contribution of different students, whereas the group members themselves will be able to make a more reliable judgment of this. Moreover, it turns out that the average (actual or corrected) is very close to the marks awarded by the lecturer when several students assess each other's work (see also this ECHO tip from 2017: [Reliability of peer assessment](#)). Ultimately, the final responsibility always lies with you, the lecturer, and that includes the peer assessment part.

10. Decide how to assess the assignment

Make sure you develop clear assessment criteria that are directly linked to your goals and be unambiguous and transparent about them, so that students know what to focus on (Vanthournout et al., 2009).

Examples of assessment criteria for group work:

- *Can the student use critical, creative and problem-solving reasoning?*
- *Can the student communicate professionally with other team members?*
- *Can the student function as part of a team and handle supervision in a constructive way?*
- *Can the student critically reflect on their own actions?*
- *Can the student positively handle social and intercultural diversity and encourage others to do so?*
- ...

Next, you should choose whether to assess every individual group member or the group as a whole. In most cases, it's best to opt for a combination of both, so as to encourage students to work together towards a common goal, while also recognising and rewarding students' individual efforts to contribute to the group assignment. Different ways to individualise a group mark are discussed in Vanthournout et al. (2009, pp. 146-158).

Once you've thought the assessment through, you've almost finished designing a group-worthy assignment that will hopefully produce the desired learning effect in students. Be sure to go over your design one last time to check that all the choices you've made add up to one coherent and purposeful design (De Hei et al., 2016).

In short

In this Teaching Tip, we've shown that a group assignment can lead to a desirable learning effect in students, as long as you create the optimal conditions for it. The following recommendations will help you:

1. Start from your goals
2. Make the assignment group-worthy
3. Give thought to the group composition
4. Provide clear assignment instructions
5. Determine the extent of your guidance
6. Provide feedback and feedforward
7. Encourage collaboration and conflict management
8. Decide what you'll be assessing
9. Decide who will do the assessing
10. Decide how to assess the assignment

In other words, the key to success lies in a purposeful design of the group assignment, taking into account interrelational and collaborative aspects, and communicated to students in a transparent and unambiguous way.

The road to a successful group assignment is now wide open. Good luck!

Want to know more?

ECHO Teaching Tips (in English)

- [Dividing students for group work? \(2018\)](#)
- [Reliability of peer assessment \(2017\)](#)
- [Peer assessment \(2013\)](#)

ECHO Teaching Tips (in Dutch)

- [Heterogene groepen samenstellen \(2019\)](#)
- [Projectonderwijs in de praktijk \(2015\)](#)

ExpertiseCentrum Hoger Onderwijs (2013). [Vijftig onderwijstips](#). Antwerpen-Apeldoorn: Garant. (Available to UAntwerp staff [here](#) after logging in, in Dutch):

- Tip 24: Voorkomen van meeliftende studenten bij groepsopdrachten
- Tip 25: Kenmerken van een kwaliteitsvolle groepsopdracht

Good practices

These good practices (in Dutch) can only be consulted by UAntwerp staff members after logging in.

- [De kracht van samenwerkend leren in de opleiding Verpleeg- en Vroedkunde](#)
- [Peer feedback systeem voor groepswork](#)
- [Blackboard als katalysator voor zelfstudie en groepswork](#)

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