

EDU online collaboration guide

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Introduction

Working in groups is beneficial to students: it helps them become active learners and develop transferable skills. While most lecturers are comfortable working with groups in a face-to-face setting, group work in an online environment can seem very challenging. This guide aims to give some ideas and points for consideration when facilitating distance collaboration and examines group tasks, setting up groups, the roles and responsibilities of the tutor, collaboration tools and assessment considerations.

The checklist appears first as this may be of immediate value to you; this is followed by key discussion.

Collaboration checklist

Use this checklist to help you set up your collaboration sessions.

1. Purpose	a) The reasons for collaboration are clear to you and your students.	
2. Collaboration	a) Etiquette guidelines are available (see Appendix 2). b) Your availability has been set for guidance and advice. c) Optimal group size has been determined. d) The basis on which groups are to be set up is clear. e) The most appropriate methods of collaboration have been identified.	
3. Time	a) Time for collaboration is built into delivery.	
4. Facilitation	a) It is clear to you and your students how tasks are to be facilitated. b) You are clear as to how you will help students build relationships within groups. c) You are clear on how you will maintain good group.	
5. Guidance	a) Clear guidance for students is available. b) Methods of collaboration are communicated. c) The importance of setting times for and frequency of collaboration is advised to students. d) Staff and student roles and responsibilities are clear.	
6. Induction	a) An introduction to collaboration is incorporated into the student induction. b) Collaboration guidance is made available on a shared storage area, such as Blackboard or Mahara.	
7. Assessment	It is clear: a) what is being assessed; b) what form/format the assessment will take; c) how is credit to be allocated; d) if student marking is to be allowed.	
8. Feedback	a) Students know who provides feedback and when. b) The distinction between formative and summative feedback is clear.	



Approaches to collaboration

Why do you want to include collaborative work? – You need to be clear on this!

Aims

Before undertaking collaborative work with your students, consider the following questions:

- Why do you want to include collaboration? Is it to improve transferable skills? Introduce new ways of learning? Aid in the learning process? Develop specific skills?
- How does collaboration fit into the overall aims of the course?
- What is the work you want students to collaborate on?
- Will the outcome of a task be improved by using collaboration?
- How will your students collaborate? What do you want your students to achieve?

Motivation

Motivation is one of the key factors in the success or failure of the collaboration. To maintain motivation to work as a team, **the task must be designed with collaboration in mind**, and **students must benefit directly** from teamwork. If the task can be better completed as an individual, consider setting it as such.

Tasks

Tasks may be designed for different purposes, including: developing team working skills, helping students to achieve the aims and objectives of the course, or developing specific skills.

Examples of tasks:

- Creating a product, for example a document, poster, video, podcast, or website on a specific topic, where the learning gained from the process of collaboration is as important as the product itself;
- Problem solving, where the solution could be presented live by the group;
- Exchanging views then writing up a report may suit a topic which requires debate and consensus.

Whatever the purpose of the task, set **task boundaries** with clear start and end points, and goals to reach along the way. For each task, have in mind a **pathway** for the students to follow to complete the task. Also think about the **tools** available to the students and how these can be used. You can then **guide** the students to the most suitable methods of collaboration, **and support** them throughout the task.

Don't forget: your students need to know how you expect them to report back on the results of the task. Will they report this to you or their peers? Online or by other methods? Formal or informal? Communicate this clearly to your students in advance.

Setting up groups

Just as you need to consider how and why you are including collaboration in your students' learning so you need to give careful consideration to the way in which your groups are set up. Considerations:

- **Formation of groups:** how are your groups to be formed? Chosen by students? By you?
- **Size:** if the groups are too large or too small, they may be doomed to failure.
- **Different groups:** will your students benefit from different groups for different tasks?
- **Group constellations:** diverse, mixed ability, based on experience?
- **Setting everyone at ease:** how will you do this?



Tips and considerations on setting up groups

Rules: Encourage students to agree ground rules as a group. Include both rights and responsibilities.

Induction: This provides a good opportunity to gauge bonding between students, and this knowledge can help you choose groups.

Arranging the groups: As a general rule, a heterogeneous mix of students in each group provides the best chemistry for interaction and achievement of task.

Group size: Match the size of the group to the task. Usually groups of between 4 and 6 are about right to ensure inclusion.

Mixed ability groups: If the main purpose of the group is to solve problems or to clarify or elaborate matters which have already received attention, then there are both common sense and research reasons why it may be wise to mix abilities, personalities, skills and experience.

Self-selected groups: These can be very productive as members are likely to feel comfortable with each other and can therefore often quickly bounce ideas around - individuals trigger and inspire each other; however, tutors must be aware that cliques can form, which can exclude other members of the group.

Consider: Try moving students between groups, or reforming groups between tasks. Group dynamics can quickly change with the addition or departure of an individual member.

Also consider: Factors such as availability, where students are based, interests, and motivation when organising groups can influence the success of the collaboration.

The role and responsibilities of the tutor

The roles of the tutor in online collaboration are many and varied but the key role is that of **facilitator**, to:

- encourage interaction within the class and the groups;
- describe how groups will be formed;
- offer clarification about the task.

Have you got a clear plan as to how your students will collaborate and when?

Interaction

When developing group work skills in students, you could use the principles of the 'powerful learning environment'¹:

- Modelling – show the students how you would like them to work together;
- Coaching – give help when they start working together;
- Scaffolding – give support as the students become more independent in their group work;
- Fading – progressively reduce your support, until the groups are self-supporting.

Leave the students to get on with the task, only intervening if they fail to contribute, or they ask for help.

The tutor role of clarification will encompass the task, the timescale and the form of presentation. Be clear what you expect of students in advance of setting tasks, and be willing to negotiate with students.

¹ A powerful learning environment focuses on knowledge construction instead of knowledge transmission; competencies instead of declarative information; and social exchange instead of individual learning. (De Corte, E. (2000) 'Marrying theory building and the improvement of school practice: a permanent challenge for instructional psychology', *Learning and instruction*, 10 (3), 249-266)



You may decide to give students the freedom to decide the form of presentation or methods of collaboration, make sure this is made clear when presenting the task.

Monitoring student progress

As facilitator, you will need to monitor your students' progress with the task. In an online environment, non-verbal cues may be lacking so you will be more reliant upon good lines of communication with and feedback from students (here a good rapport is essential).

Tips:

- Keep lines of communication open – you could set up an 'open office' at a set time.
- Reply to student communications in a timely fashion.
- Perhaps incorporate a 'mini' task early on to check if students have understood the main task and are working well as a group. This might be reporting back to you on allocation of roles or an outline plan/model of what they will do. This will also help students structure the task.
- Set goals throughout the task.

Considerations for assessment

- **Why?** –The purpose of the assessment. Is it formative or summative?
- **What?** – The process, the product.
- **How?** – The format, the form of submission.
- **When?** – At specific points, at the end.
- **Where?** – Online (discussion board, e-portfolio, email) VC, in person.

The above are all questions you need to ask yourself: both for assessment of the groups and the task itself.

If you are including group work for assessment, think about how you are going to assess the group component of the task. This is separate from assessing an understanding of the subject matter. Will you be assessing the contribution of individuals within a group? Will you be assessing the group process? Groups themselves are often (but not always) the best judges of how effectively they have worked together so peer assessment could be included as part of the final grade.

A shared group grade is one way of assessing the contribution of individuals within a group: a group is given a combined mark (for example, a group of 4 students gaining a mark of 70% would be given 280 marks between them), which can then be distributed as the group sees fit. While some groups may automatically divide the marks equally, marking guidelines could be given to allow students to take into account individual contributions.

Ideas for assessing the group process:

- Project exam: questions directly related to the way a project was undertaken, rather than the subject matter of the project, could be orally assessed with individuals or groups;
- Logbook: could be presented as a blog, the facility for which is possible with several of the collaboration tools;
- Also consider: observations, interviews, presentations, essays, final reports, or diaries;
- **Note:** Make marking schemes available to students in advance.

Tips for assessing a product:

- Be clear in what outcomes the students need to cover before starting the task;
- Consider leaving the students to choose the final product: report, poster, presentation, video/audio;
- Make marking schemes available to students in advance.



It may seem obvious, but do assessments have a connection with learning outcomes/course objectives?

Feedback

Feedback should be an integral part of the collaboration process. It should multi-way; that is, your students need to feedback both to you and each other. Good feedback identifies both strengths and weaknesses.

Tips:

- Start with a positive comment.
- Be constructive.
- Don't forget why, where, when, how and what.
- Allow opportunities for groups to feed back to each other.
- Check your students' understanding and completion of the task.

Induction

Induction to collaboration can be either during a formal induction process or prior to starting the first collaboration task. Ensure as far as possible that there are no 'non-collaboration' obstacles to task completion (such as poor online connections).

Lay the foundation for positive group interaction by allowing students to get to know one another.

Tips

- Plan a practice collaboration session.
- Explain the reasons for the incorporation of collaboration.
- Set clear goals and expectations.
- Give students 'task ownership' – ask students to assign roles, set timelines, meetings, format etc.

Methods of remote and online collaboration

Have a contingency plan for unforeseen problems such as poor Internet connections!

This section will look at methods of remote and online collaboration, features, and advantages and disadvantages of each.

***Synchronous** collaboration requires students and instructors to be online at the same time, for example, lectures, discussions, and presentations occur at a specific time.*

*In **asynchronous** collaboration, members contribute at a time that is suitable to them, and all members do not need to be present at the same time. Examples include discussion boards and project work which can be accessed at any time.*

Collaboration tools

Email

The asynchronous nature of email means it is suitable for complex writing and problem-solving tasks than could be accomplished using synchronous discussion.

Advantages: Easily accessible; can be used with attachments for exchange of documents.

Disadvantages: Difficult to keep track of versions of documents; information overload possible; care needs to be taken when using 'reply' or 'reply to all'.

***Best used** when members of a group can't meet up in real-time, and for complex writing.*



No good for fast exchange of ideas.

Discussion boards

Discussion boards can provide a clear structure on a variety of topics. They can be open or closed to allow different people to access different threads. Users are able to see related conversation items within individual topics, which can be organised according to your students' needs. Files, audio, videos and images can be attached to messages. Guidelines should be in place to avoid the misuse of the discussion board and to avoid demotivating participants. The tutor needs to moderate the discussion and guide students.

Advantages: Students are more likely to think through content if it is public; viewpoints can be exchanged; tutors can structure the board in advance, assess the collaboration process, encourage reflection; posts can be kept for reference.

Disadvantages: Public discussions can permit plagiarism; information overload is possible if boards aren't organised well; can be difficult to facilitate; students need confidence and trust to participate.

Best used when many different topics are being discussed and to provide direction.

No good for long and complex information or working on a product.

Note: Please refer to the **EDU discussion board best practice** document for more information.

Shared online documents

Shared online documents are files (including text documents, presentations, spread sheets etc.) which are stored online and can be accessed and edited by several people at the same time.

Advantages: Changes can be made real-time which everyone can see; can be worked on individually or as a group.

Disadvantages: Changes made are saved automatically, so care needs to be taken with version control.

Best used for developing a final product.

No good for multi-media projects.

Video or audio conference

Video or audio conferencing software allows group conferencing, sometimes along with other functionality such as shared presentations, whiteboards and desktops.

Advantages: Works well alongside other methods; good for developing rapport between students; conferences can be scheduled or impromptu to meet the needs of the students, so students are not limited to set times.

Disadvantages: Can be difficult to hold conferences for large groups, the group needs to have bonded before audio only conferences, can be difficult for reserved students to join in, need a good internet connection.

Best used when students are familiar with other members of the group.

No good when large amounts of text are generated.



Online collaboration platform

An online collaboration platform is software designed for group collaboration, particularly within education. Features may include video, audio, and chat, along with presentations and drawing tools.

Advantages: Many features can be used simultaneously; 'rooms' can be set up for different groups.

Disadvantages: Getting used to the software can be difficult for both students and staff; practice sessions are needed for familiarisation.

Best used for audio/video alongside creating a product or brainstorming.

No good when the group aren't available at the same time.

Telephone

Sometimes we forget about the most obvious tools for distance collaboration!

Advantages: Familiar, personal, can be used to easily clear up misunderstandings that may have developed in other methods of communication, good for mentoring students.

Disadvantages: Usually one-to-one only; may have to make your private phone number available; can be expensive.

Best used for one-to-one communication.

No good for working in large groups.

Wiki

A wiki is a website which is developed by a community of users, allowing any user to add and edit content. A wiki can have a folder system, documents can be created and uploaded, and changes can be tracked.

Advantages: Synchronous or asynchronous collaboration, enabling students to evolve and edit work, good as a planning tool or for collecting data, avoids duplication of work.

Disadvantages: 'Edit warring', anyone can change anything.

Best used as a research and development tool, and for refining ideas.

No good when people with opposing views can't agree.

See the help pages on Wikipedia: [http://en.wikipedia.org/wiki/Help:Wikipedia: The Missing Manual](http://en.wikipedia.org/wiki/Help:Wikipedia:_The_Missing_Manual)

Collaboration tools available to students

Blackboard

Tutors may use Blackboard for administering their courses, but it has a variety of tools built in which can be used for group collaboration. There are tools for class and groups discussion, an online 'classroom', and email functionality. The advantage of Blackboard is that students are familiar with using it, even if they need to get used to the additional functionality. Tutors need to set up the groups in advance.

Group functionality includes:

- collaboration (in a 'virtual classroom' with whiteboard and chat) | tasks
- email | file exchange
- homepage | blog | journal
- discussion board.



Blackboard user guide: http://www.uhi.ac.uk/en/lis/vle/blackboard-help/Blackboard_user_guide.docx

Mahara

Mahara may be used for collaboration as well as e-portfolio use. Groups can be set up by students or staff on Mahara for specific projects, with controlled access. Features include social networking, forums, pages and files (including many different types of files).

Mahara can also be used for assessment by setting up course groups, where 'views' can be submitted. Course groups can be used for submitting final products, and class groups for collaboration.

Students and staff should spend some time investigating how they would most like to use Mahara. It can be used very simply by asking students to post finished work to a group, or students can set up their own groups for collaborating with many advanced features.

Log on to Mahara here: <http://uhi-mahara.co.uk/>

Mahara training materials: <http://uhi-mahara.co.uk/view/view.php?id=466>

You will find the following resource particularly useful when getting started with Mahara: <http://uhi-mahara.co.uk/artefact/file/download.php?file=14969&view=466>

Lync

Lync is a very versatile tool which is available for all students to download, and is also available on some college computers. It allows text, voice and video chat, as well as file sharing, polls, interactive whiteboard, and desktop sharing (so several people can work on a document simultaneously).

To install Lync on your own PC:

- Log in to UHI webmail and click on 'Home' (top centre of the screen) - you'll find a link to Lync (!)
- The link takes you to a page which has the Microsoft sign-on assistant on it.
- **Note:** it's useful to be linked into webmail when you install Lync as it picks up your login details

UHI dropbox

This can be used by staff and students to transfer large files that are too big to send by email: <http://dropbox.uhi.ac.uk/>



Appendix 1: Collaboration type activities

Below are suggestions for activities that could be conducted online or by VC.

- **Quizzes:** In groups students prepare short quizzes based on topics already covered. These can be completed in advance and the results collated by students/the tutor. This can then inform discussion during the video conference.
- **Research:** Individual groups research a topic in advance. Groups then prepare and lead an activity in their area of research: a quiz, a demonstration, a presentation etc.
- **Jigsaw activities:** Incorporate team work and jigsaw activities, where each team does one aspect of a piece of work in advance of the session; for example, each group could be given a specific task such as, identify case studies, find examples, present findings, consider legal implications. Conduct preparatory work prior to the session.

Use the video conference to put all the 'pieces' together with each group presenting their piece of the jigsaw. Follow this with discussion.

- **Descriptions:** Students describe a process etc. that has been covered previously, describe the characteristics of an item or subject, present findings etc. to another group via the video conference. Other groups could be provided with an activity related to the description. For example, students might be asked to prepare questions that arise during the presentation, summarise the presentation, provide feedback etc.
- **Problem solving:** Students research a 'problem', determine solutions for this and present via VC.
- **Comparison:** Students compare and contrast situations or experiences based on their own individual perspectives. Students then produce a report, set of guidelines etc. based on this comparison.
- **Analysis and categorisation:** Using analysis students identify key categories according to specific criteria. Through discussion and debate, students then organise/add items to the categories they have identified.
- **Case studies:** Students either create or analyse a case study.
- **Wikis:** Using wikis for the authoring of group reports aids version control, provides a space for formative feedback and allows you to see the pattern of individual contributions (Smyth *et al* 2011:9)².
- **YouTube channel:** Students curate a YouTube channel on a given topic or research question. A discussion is held online between the group members to decide what to include and exclude (based on quality, currency etc.). The guidelines for the curation are drawn up online (e.g. using a tool like Google Docs) to result in a collaboratively produced shared reference document. The public domain contribution is the YouTube channel, with its title and short description (Smyth *et al* 2011).

² Smyth, K., Bruce, S., Fotheringham, J. and Mainka, C. (2011) *Benchmark for the use of technology in modules*. Edinburgh: Edinburgh Napier University.



Appendix 2: Netiquette

Netiquette stands for Internet Etiquette. Netiquette (the dos and don'ts of online collaboration) is just as important when collaborating online as etiquette is in real life. You are probably aware of things that are/are not acceptable but it's always good to check that your 'online' behaviour is as good as you think it is. The netiquette guidelines below are points you should take into consideration when working with others.

Group collaboration

Everyone should be prepared to play their part in developing a sense of online (and, if relevant, offline) community. For your group to be successful, you will need to think about the following:

Are you prepared to:

- help promote co-operation and collaboration within the group?
- agree on ground rules for working collaboratively?
- take responsibility as a member of the group?
- respect confidentiality within the group?
- accept that different people have different approaches to working?
- discuss differences of approach to a task or activity and reach agreement?
- support fellow group members when things are not going well?
- acknowledge the contributions of your fellow group members?

Do you:

- **really** 'listen' to what other members of the group have to say? ('Listen' refers as much to the written as the spoken word.)
- respond promptly to messages/information that is sent to you?
- acknowledge in a positive way what others have to say?
- seek clarity
- let other members of the group influence the final group decisions?
- accept that there might be differences of opinion within the group?
- accept the final decision of the group?

Don't forget to:

- avoid using capital letters (the equivalent of shouting) when sending emails etc.
- ask the author of an email or other written material before forwarding it.
- quote a specific point that you are responding to.
- respect privacy.
- abide by copyright and not plagiarise.

