Introduction

Group work can be used in a variety of contexts, ranging from small group exercises during tutorials, seminars or practical work through to formally assessed group project work. This guide is designed to supplement the University’s Policy for the Assessment of Group Work and provide advice on the implementation of group work in a range of different situations, so that staff and their students can derive maximum benefit from group work activity while avoiding some of the common pitfalls.

The benefits and challenges of group work

The use of group work has a range of benefits in terms of developing students’ transferable skills, all of which are valuable in promoting graduate employability, including:

- collaboration
- communication
- problem solving
- planning
- time management
- negotiation and conflict resolution
- leadership

Group work can also help to create a stronger sense of an academic community by enabling students to develop effective working relationships, thus promoting student engagement and supporting retention. Research shows that students learn better when they actively engage with their peers, thereby gaining a deeper understanding of the subject matter through sharing and challenging experiences and ideas, applying their learning and defending and reflecting on their own understanding.

The use of group work, however, is not without its difficulties, including:

- adverse effects on students’ working relationships if group tasks fail
- varying ability of students to work effectively in groups
- potential for differing levels of contribution to the group task
➢ potential for personal differences between group members to result in anxiety, stress and/or hostility
➢ the complexity of dealing with academic failure, extenuating circumstances, academic misconduct and academic appeals in relation to group work.

To reap the benefits of group work while avoiding the common pitfalls, it is important in designing group tasks to ensure that:

✓ the task is better suited to group work than to individual work (if students can accomplish the task individually, they are likely to be less effective in a group and may resent those who are pulling less weight. Conversely, a well-designed collaborative project can foster positive feelings of interdependence in which individuals perceive they will succeed only if the group succeeds)

✓ all group members are involved and are able to make a useful contribution

✓ diverse skills and knowledge are an asset and not a liability (for example within multi-cultural groups)

✓ the assessment process is transparent and fair, with an appropriate balance between assessment of the end product and the process

✓ individual contributions are easily identifiable (for example via the use of transparent online collaboration tools).

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**Potential tasks that lend themselves well to group work ...**

- analysis of a complex topic or situation
- problem solving which involves several lines of enquiry
- simulation of an authentic ‘real world’ activity
- design and conduct of a survey administered personally to participants and analysis of outcomes
- organisation of an event
- design of a new product or service
- preparing briefings or position papers
- design and perform a scientific experiment and analyse outcomes
Using group work in the classroom

Research suggests that students learn best when they are actively involved in the process (Ellis and Goodyear, 2010; Laurillard, 2012), and group work within the lecture or classroom setting can be an effective way of facilitating this. Group work is a valuable way of reinforcing student understanding and misconceptions of topics, generating ideas, engaging all students in discussion and debate and supporting peer learning. It can also help students to develop their critical thinking, communication and decision-making skills. Group work can be a particularly effective way of engaging students who may be reluctant to speak up in front of the whole class, but who may feel more comfortable about sharing their ideas in smaller peer groups.

The type of group work you use will depend on a range of factors including the size of your class, the time you have available and the physical features of the room (for example whether seating can be moved).

Students could be divided into pairs or small groups, for example, to:

- summarise key points in the lecture so far
- define or give examples of key concepts
- discuss a prepared question (for instance, students could be asked to respond to a question using electronic "clickers", and then pair up with someone who selected an alternative answer and persuade them that their answer is correct)
- apply theory to practice using small-scale case studies
- discuss their own experiences of particular topics or issues (particularly where students are involved in work-based or placement learning)
- engage in discussion as preparation for embarking on an individual assignment task.

Students should be provided with clear instructions about the purpose and benefits of the group task in order to promote effective engagement. While students are engaging in the group task, staff can circulate, answer any questions and prompt further discussion and debate. A debriefing at the end of the group task allows students to share their thoughts. This can be facilitated by groups selecting a spokesperson, or for larger cohorts by requesting feedback from a random selection of groups.
Group formation

Group size

The ideal group size can vary dependent on context and task, but 4-6 students tends to be a good target for effective management of group tasks. Larger groups can hamper or elongate problem solving processes, and can result in students experiencing cognitive overload, feeling that they lose their voice, and/or disengaging.

Group formation

A clear approach to group formation is required, which may vary according to the task and may be staff or student-led. Approaches include:

- self-selection by students
- random selection by the lecturer
- allocation by lecturer according to set criteria (e.g. cross-cultural experiences, mixed ability, interests).

Ideally, the same groups should not be used for repeated assessment tasks since students should be encouraged to interact with a broad range of students within their cohort.

Where students are asked to form groups themselves, it is important for the group dynamics to allow the students to take responsibility for the management of the group activity.

Unless there are compelling reasons to do otherwise, you should aim to create heterogeneous groups to provide the opportunity for students to work with peers with different abilities, enabling more diverse learning experiences. Ensuring that assessment tasks enable stronger students to be appropriately rewarded if they make a greater contribution can help to ensure a fair approach.

Other issues that may need to be considered when allocating students to groups include the geographical location of students (working together is easier if the students can meet up easily outside class time), employment of students (splitting students in the same employment context increases each group’s overall expertise), and the ages or backgrounds of the students. Research suggests that culturally homogeneous groups perform better in short tasks, but for longer and more complex tasks cultural heterogeneity is beneficial (Gibbs, 2010).
Task duration

Groups need time to gel (i.e. to form and establish mutuality and working relationships), particularly for more substantial tasks, and a common mistake is to expect groups to produce their collective work in a tight time frame.

Groups need time to work through their processes, i.e. forming, storming, norming, and ultimately performing (see section below on key stages of group work). It is therefore important to structure activities that are feasible to complete in the time given, enabling all group members to be involved and taking into consideration students' other commitments. Time might be needed, for example, for individual preparation prior to the group work commencing, so that individuals are not disadvantaged if they work at a slower pace.

You can support the logistical aspects of group work by, for example, allocating classroom time for students to use for group activities, by advising on technology that can be used to support group communication and collaboration processes, and by using group tasks in advance of the main group work activity.

In order to accommodate more complex tasks, it may be appropriate to spread group work over a longer period of time, with interim formative or summative assessment points to maintain group momentum and to ensure and support student engagement.

Student expectations

In designing group tasks, clear ground rules need to be established to enable students to function effectively within the group, including:

- the expectation that everyone will participate fully in the task
- the need to establish clearly defined roles for all group members (for example breaking tasks into specific briefs for each group member so that everyone can contribute – this can be staff or student-led)
- the need to ensure that practical arrangements are in place to enable collaborative work for all the group members (particularly in view of the constraints of students potentially juggling study with work or family commitments).

For group tasks, it is normally important to provide clear directions on what activities students need to undertake and associated timescales; what the expectations are; how group activities will be tracked and reported; where students can go for support should problems arise; and (where the group work is being assessed) what the submission deadline is, how work should be submitted and/or presented, and how marks will be allocated. Ensuring students have a clear understanding of the distinction between collaboration and
collusion is also very important, with the University’s Academic Misconduct Policy acting as a reference point.

Allocating class time to discussing all of this in detail can help, so that students are confident they fully understand what they need to do and how they will be judged.

Specific goals for group work should be clearly outlined, as well as any evaluation strategies to highlight differences between process (i.e. working effectively as a group) and product (i.e. the output of the group). Students may contribute to identifying goals as part of introducing them to group tasks.

**Preparatory work**

Preparatory work to ensure students are ready to engage in group activities may be helpful, particularly for assessed group work. In addition to ensuring students have a sound understanding of the group work activity or task (as outlined above), this preparatory activity could include, for example:

- exploring the rationale for using group work so that students see the benefit of active engagement (guest lectures by employers or recent graduates might help to reinforce the benefits of skills acquired through group work)
- engaging them in gathering testimonials from students from the previous year, including top tips on effectively working in a team
- exploring how groups function, the natural roles people take and the interpersonal skills needed for successful group work (including facilitating a supportive environment in which all students, including the quieter ones, feel able to contribute)
- exercises and discussions on decision making, negotiation and dealing with problems within the group (for example loafing, dominating members or conflict)
- consideration of how to manage group communication, take minutes and coordinate and organise meetings (including exploration of how to use online group work facilitation tools)
- guidance on providing constructive feedback and evaluating both individual and group performance
- ice-breaking activities to enable students to get to know each other better before they begin to work in their group.
A student guide to group work is available on the University website, and can be adapted by course teams to facilitate any preparatory work.

**Inclusivity and reasonable adjustments**

No student should be disadvantaged through the use of group work, and tutors should ensure that mechanisms are available to enable all students to take a full and active part in group activities. Where tutors are aware of students for whom reasonable adjustments have to be made, they should consider how particular arrangements for such students may impact on group-based activities. Ensuring that students have sufficient advance notice of planned group activities can help them to prepare and to raise any queries or concerns at an early stage. Where appropriate, guidance from Student Services staff should be sought.

For example, students with an autism spectrum disorder or with mental health difficulties may find social interaction within a group work context difficult, and might need support in understanding ground rules and expectations. Careful group allocation and close monitoring of group interactions by the tutor might be appropriate. It may be necessary to consider alternative ways of meeting the learning outcomes in cases where, even with additional support, the student would be unable to interact appropriately with other students and contribute to the group task (particularly where this might have an adverse impact on their own performance and/or the performance of other students).

Other examples where reasonable adjustments may be needed include support for deaf or visually impaired students who may not be able to pick up on verbal or visual social clues during group activities and who may not be able to make use of group work communication tools, and extra time for students with specific learning difficulties to enable them to prepare for group activities.

**Key stages in group work**

There tend to be five key stages in group work activity, building on the models of group development first outlined by Bruce Tuckman in 1965 (Tuckman, 1965; Tuckman and Jensen, 1977):

(i) **Group familiarisation**: this stage involves establishing who is in the group, getting to know each other and determining individual strengths, skills and expertise that can contribute to the group’s activities. Being clear about what the group needs to achieve and determining how the group will work together is also a key aspect of this stage. It can be helpful to establish some ground rules for how the group will function, share contact details and agree communication protocols.

(ii) **Group planning**: this stage involves ensuring a shared understanding of the task, brainstorming to create ideas for how to approach it, developing a plan for how it will be completed, and agreeing the intended outcome or end product. This involves breaking down the overall task into a range of objectives and action points, and planning how these will be taken forward and by whom. It is important to divide tasks evenly amongst the group, and to be clear about roles, responsibilities and associated deadlines.
(iii) **Implementation of plan:** during the implementation stage, it is important that the group has effective mechanisms in place to discuss each other’s work, monitor progress, share information and resources, and support each other in achieving the group’s objectives. Interim deadlines can be helpful to structure group activity, collectively review progress, deal with any problems and provide constructive feedback on each other’s work.

(iv) **Completion of activity:** at this penultimate stage, the group should have a clear strategy for bringing together individual contributions, identifying any final work required and completing the task.

(v) **Evaluation of group performance:** this final stage involves evaluating how well the group worked as a team and determining what worked well, what challenges the group faced, and what could have been handled better. This can include individual reflection on a student’s own performance as well as that of others, and can be used to encourage individual learners to look at, for example, strengths and weaknesses in group collaborative learning.

**Assessment of group work**

The assessment of group work requires careful consideration to ensure that the approach is transparent and fair and supports the objectives of the task. Students can express concern that their marks may be penalised through their peers’ poor contributions or performance, that the group allocation might disadvantage them, or that there may not be an even distribution of work within the group. While, ideally, we would want to be able to allocate grades in proportion to the quality of each student’s contributions, this is rarely possible or practical.

A key consideration is whether to assess the end product of group work or the process, or a combination of both. For example the learning outcomes might specify ability to engage in collaborative work as part of the development of employability skills, and thus process will be important. Another key consideration is how to evaluate the relative contribution and learning of individual group members.

A range of approaches that can be adopted for the marking of group work are discussed below.

(i) **Allocating a group mark**

Awarding the same mark to each member of the group rewards effective collaboration, but does not take into consideration the relative contribution of individual group members. There is a risk that some students may become ‘free-riders’, not contributing...
appropriately to the task and thus causing resentment and necessitating additional effort by other group members. Likewise, a group member may be overly dominant and thus reduce the ability of other members to effectively contribute. In both scenarios students may perceive their marks as unfair. Some caution is therefore required in the use of group marks, and they should never normally form more than 50% of the overall module mark.

To mitigate the risks of this approach, it may be helpful for group members to negotiate and sign up to an agreement of working principles at the beginning of their activities. A group presentation at the end of the task, to which all members have to contribute, may also be helpful in encouraging visible and tangible active engagement.

(ii) Allocating a group mark for the product and an individual mark for the process

While a single group mark could be allocated to the end product, students’ contribution to the group task could be assessed individually. This could be undertaken via:

- the lecturer’s observations of the group at work (an approach which would, if working online, necessitate the use of collaboration tools that are sufficiently transparent to the lecturer)
- individual critical reflections on the task, the process and what group members have contributed and learned from it (for example via short written reflective assignments, activity logs or journals), which the lecturer assesses.

(iii) Use of peer assessment of individual contributions to the group task

A range of mechanisms could be used to enable students to assess the contribution of their peers to the task. For example:

- the group could be awarded a group mark by the lecturer, and then group members could agree to vary marks allocated to each member by 1-2% more or less than the group average, ensuring that the group average remains the same as the original group mark
- a group mark could be allocated for the end product (for example 50% of the overall component mark) and peer assessment could be used for assessing the process (the remaining 50% of the overall component mark).

The use of peer assessment requires some advance preparation so that students embark on the process in a fair and reflective manner. Although this can be an effective mechanism for assessing the relative contribution of group members, there are dangers that students can manipulate the process, for example by covering for a non-contributing student or agreeing to ‘stitch-up’ a disliked peer. The use of continuous progress reporting (such as meeting minutes or group blogs) to evidence student involvement in tasks can act as a safety mechanism for corroborating evidence.

The provision of transparent assessment criteria is particularly crucial for self and peer assessment, so that students are clear regarding how to approach the assessment process. It is important to inspire confidence in students that they are being marked by their peers objectively, regardless of group relations. Clear marking guidelines will help
to avoid ambiguity, and opportunities to practice using criteria in formative tasks can also be helpful. Gibbs argues that peer assessment “is better restricted to global judgements of conventional academic tasks rather than multiple judgements against detailed criteria or judgements of professional skills”, and is more reliable when the peer assessor is anonymous (Gibbs, 2010, 2).

(iv) **Learning in groups but assessing individually**

Students can benefit from sharing ideas, information and resources as a group, but could draw their own conclusions at the end of the group task and submit an individual piece of assessment. Such an approach could span more than one assessment task, for example a formatively assessed group discussion leading to a final piece of summatively assessed individual work. Alternatively, students could be set a task which supports or complements the group activity but which is completed individually. The allocation of sub-components of the task to individuals could be via the tutor or through students’ own project management of the overarching task.

**Dealing with deferral, referral and re-assessment**

For assessed group work, it is important to be clear from the outset (i.e. during the design stage) about what will happen in the event of academic failure or students having extenuating circumstances accepted, so that referred students (as individuals or as a group) and deferred students have an appropriate opportunity to be (re)assessed.

Where group work involves the production of individual submissions, this is not normally as much of an issue. However, where some or all of a student’s mark is derived from a group mark, then deferral or referral work will need to be carefully planned from the outset. The replacement work should allow the student to demonstrate all the required learning outcomes, and yet ensure that those students who have had to put significant effort into group working don’t feel referred peers are getting away without a similar requirement.

For deferred students, depending on the degree of involvement the student had in the group work prior to the start of the situation upon which extenuating circumstances are granted, it may be appropriate for the Assessment Board to allow the student to be awarded the group mark awarded to the group as a whole. Alternatively, where group work is a significant part of a module’s assessment, it may be appropriate for the Assessment Board to advise the student to retake the module without penalty in order to be able to take part in a full group project.
Online group working tools

There are a large number of online group collaboration tools available to facilitate your learning model. These range from the core services supported by the Digital Learning Specialists within Learning Services to those available externally. This range of group working tools can optimise the sharing of knowledge and ideas and the development of shared group outputs, as well as suiting different learning needs. Some examples of online collaboration tools are provided below, and you are recommended to discuss your specific needs with the Digital Learning Opportunities Manager, David Mullett (d.mullett@uos.ac.uk), to ensure the tools are appropriate and you and your students are supported.

Learn (the University’s virtual learning environment)

Your Learn module contains a specific group learning area where group membership and access can be controlled. The group learning space is integrated within the Learn gradebook to facilitate assessment. The group tools include:

- **Wiki**: An online collaborative writing space for multiple authors and contributors. They can be used in a variety of ways to support group work. Using wikis for assessment gives students a collective online space where they can share their knowledge.

  Wikis can be used to support the dissemination of information, to enable the exchange of ideas, and to facilitate group interaction. Wikis can also be used to create a set of documents that reflect the shared knowledge of the group.

  The history feature of the wiki allows users to see what has been altered in the wiki and who has contributed what, which is a very useful tool when assessing individual and group participation.

- **Discussion forum**: An online communication tool that enables students within a group to generate ideas, discuss and contribute to group tasks in an asynchronous manner. This is particularly helpful if it is not possible for students to get together at a mutually convenient time for phone or video conference calls.

  Via discussion forums, group members can organise and manage group activities, ask questions, seek clarification, provide feedback and share ideas and resources.

- **Learning journal (blog)**: A private space for individuals to reflect on group working processes and share these reflections as a learning log with tutors. This is often used to capture individual component of assessed group work.
Other tools available for group members include:

- email
- tasks and project management tools
- file sharing

**Google Docs**

The online document collaboration sharing tool Google Docs can be used to help group members develop, edit and finalise group outputs collaboratively. Students can work on the same document (including documents, spreadsheets, presentations, forms or drawings) simultaneously, for example editing, combining notes, making comments, chatting with others within the document, and sharing links and ideas. There is also potential for tutors to provide developmental feedback as students’ collaborative work evolves.

Google is an external tool to the University, and there are issues which you will need to consider when using it. Therefore, you are recommended to discuss your needs with the Digital Learning Specialists in Learning Services.

**Skype**

Group work off-campus can be facilitated by online telephone and video conferencing tools such as Skype, which is free for students to download and enables group members to get together in real time regardless of their physical location. When combined with document sharing tools, students can effectively collaborate to discuss and create shared group outputs.

**Google Hangouts**

Like Skype, Google Hangouts can be used to schedule and take part in group meetings through video chat. When used in conjunction with the integrated Google Docs (see above), group members can talk to each other in real time while working on their shared documents.

**Further advice and guidance**

If you would like further advice and guidance on the use of group work, please contact the Quality Enhancement Manager, Christine Smith (christine.smith@uos.ac.uk).

If you have good practice that you would like to share, we would love to hear from you.
Additional resources

The following resources produced by the Assessment Standards Knowledge Exchange (ASKe), originally a Centre for Excellence in Teaching and Learning (CETL) based at Oxford Brookes University Business School, are very useful reference points when thinking about using group work within your teaching, learning and assessment:


You may also find the following resources on group work useful:


**Other online resources**
