

Assessing group work

When effective group management processes are employed, clear assessment guidelines developed and communicated and valid and fair grading processes employed, the likelihood of positive learning outcomes and student satisfaction with group activities is significantly increased. Alternatively, if students cannot see the objective of group work, are unsure of what is expected of them, or believe the assessment methods are invalid or simply unfair, the educational benefits are reduced and tensions can emerge. The conditions under which group work is conducted are crucial to its success:

Group work, under proper conditions, encourages peer learning and peer support and many studies validate the efficacy of peer learning. Under less than ideal conditions, group work can become the vehicle for acrimony, conflict and freeloading. It may also impose a host of unexpected stresses on, for example, students with overcrowded schedules living long distances from the University.

(University of Wollongong assessment policy, 2002)

The educational benefits of students working cooperatively in groups are well recognised. Among other things,

- studying collaboratively has been shown to directly enhance learning;
- employers value the teamwork and other generic skills that group work may help develop; and
- group activities may help academic staff to effectively utilise their own time.

The design of assessment is central to capturing the benefits of group work and avoiding its pitfalls. Assessment defines the character and quality of group work. In fact, the way in which students approach group work is largely determined by the way in which they are to be assessed.

To maximise student learning in group activities, this section offers advice on how academic staff can:

- establish explicit guidelines for group work to ensure that learning objectives are met and to ensure that they are transparent and equitable; and
- manage the planning, development and implementation of processes and procedures for learning through group work and group assessment.

Three good reasons for group learning

1. Peer learning can improve the overall quality of student learning

There are sound educational reasons for requiring students to participate in group activities. Group work enhances student understanding. Students learn from each other and benefit from activities that require them to articulate and test their knowledge. Group work provides an opportunity for students to clarify and refine their understanding of concepts through discussion and rehearsal with peers.

Many, but not all, students recognise the value to their personal development of group work and of being assessed as a member of a group. Working with a group and for the benefit of the group also motivates some students. Group assessment helps some students develop a sense of responsibility: 'I felt that because one is working in a group, it is not possible to slack off or to put things off. I have to keep working otherwise I would be letting other people down'.

2. Group work can help develop specific generic skills sought by employers

As a direct response to the objective of preparing graduates with the capacity to function successfully as team members in the workplace there has been a trend in recent years to incorporate generic skills alongside traditional subject-specific knowledge in the expected learning outcomes in higher education.

Group work can facilitate the development of skills, which include:

- teamwork skills (skills in working within team dynamics; leadership skills);
- analytical and cognitive skills (analysing task requirements; questioning; critically interpreting material; evaluating the work of others);
- collaborative skills (conflict management and resolution; accepting intellectual criticism; flexibility; negotiation and compromise); and
- organisational and time management skills: 'Having to do group work has changed the way I worked. I could not do it all the night before. I had to be more organised and efficient'

3. Group work may reduce the workload involved in assessing, grading and providing feedback to students

Group work, and group assessment in particular, is sometimes implemented in the hope of streamlining assessment and grading tasks. In simple terms, if students submit group assignments then the number of pieces of work to be assessed can be vastly reduced. This prospect might be particularly attractive for staff teaching large first year classes.

But the assessment of a group 'product' is rarely the only assessment taking place in group activities. The *process* of group work is increasingly recognised as an important element in the assessment of group work. And where group work is marked solely on the basis of product, and not process, there can be inequities in individual grading that are unfair and unacceptable.

Once a workable model of group work is in place and the necessary planning has occurred, group assessment may reduce some of the task of assessment and grading — provided that assessing individual contributions to the product or process is limited. Without careful preparation and these limitations, however, group assessment can add significantly to staff workload.

Common issues and concerns

Lack of perceived relevance, lack of clear objectives

While some students consider the group assessment they participate in as effective preparation for employment ('it's just how teams work in the media industry'), others are yet to be convinced. There is an alternative view that employers focus on employing an individual, not a team, and that the way group work is carried out and assessed in universities is rarely the way it is carried out or evaluated in 'the real world of the workplace'. As one staff member put it 'I'm not sure we replicate the workplace'.

Students are sometimes not clear about the learning benefits of group work and group assessment and are sometimes ill equipped or under-skilled for such work. Many students enter higher education having developed independent study habits and are strongly oriented towards their own personal achievement. These students may perceive little value for their own learning in group activities, or may be frustrated by the need to negotiate. Students can also perceive group work as a management tool used by academic staff primarily to reduce their assessment load and of little or no benefit to students.

The diversity of reactions to the relevance of group activities is at least partially explained by the fact that individual staff and students are referring to their personal experiences of markedly different approaches to the structuring of group learning.

Inequity of contribution

One of the strongest concerns that students have about group work is the possibility that group assessment practices may not fairly assess individual contributions. Students are keen that grading practices are established such that grades properly reflect the levels of performance of each student and that where necessary, grade adjustments can occur to better reflect these levels. Such arrangements can address the issue of the would-be 'shirkers' and ensure they are encouraged to contribute equitably and that they receive an appropriate grade if they do not. Such arrangements can also reward individual group members who carry a proportionally heavier load or who make a more significant contribution than do their group colleagues.

Overuse

"It's different, therefore interesting and enjoyable, but I wouldn't want every piece of assessment to be like this"

Careful coordination of the scheduling of assessment can help avoid the serious student workload issue that is likely to arise from a number of group assessment tasks across different subjects. Monitoring and regulation of the extent and timing of group work is therefore desirable. But with the challenges posed by more flexible study options and a wider range of student choices, the coordinated scheduling of assessment is often difficult. Some consideration of the needs of particular students may be possible. For example, if students are allowed to put a case explaining the extent of concurrent group assessment they are experiencing, it might be possible for staff to provide alternative assessment in one or more of the subjects in which a student is enrolled. The provision of such student choice would need to be carefully managed so that individual students were assured of some opportunities for group assessment over their course of study.

Designing group activities that work

Is there a best model for group work?

Probably not, for the 'best' model depends much on the context. One view is that imposing one or other model may impede learning and prevent effective cooperation. On the other hand, some students may prefer to be guided by a clear model. There are many approaches that are possible. Some groups, for example, might prefer to meet within a formal structure with agendas, resolutions and minutes; others may prefer a series of informal discussion groups.

Well organised and supported group work may build confidence in first year students. An initial contract, where students commit themselves to the services and tasks they will complete for the group, may be effective in some situations although many staff find such approaches cumbersome. Such contracts do, however, make it easier to measure performance later and to identify 'shirkers'.

In any case, explicit and transparent procedures should be made available and explained to students undertaking group work. In addition, as many universities recognise, academic staff supervising group work should make advance plans for students whose groups disband.

The 'best' selection of group members, the 'optimal' roles and responsibilities that should be adopted and the 'ideal' conduct of group meetings will all depend on the purpose and function of the group. The following sections offer some alternative approaches.

Providing explicit guidelines

1. Determining group membership

There are a number of options for determining group membership, including letting students choose their group ('friendship groups') and staff assigning students to groups. There is a view that in units where learning about group dynamics is not one of the aims, students can self select. An alternative view suggests that 'it's best to know and trust others so the group does not end up carrying a slacker' but this may be difficult for students who do not know anyone in their class.

On the other hand, in situations where group dynamics and the challenge of working effectively as a group are an expected part of the learning, effective group work may be facilitated by staff forming the groups. In this case, it may be useful to consider matching group members; for example, students of similar ages or with similar backgrounds may work well together, depending on the nature and content of the task or project. Or it may suit the purpose and function of the group to 'mix them up' randomly.

In either case, ensuring cohesiveness so that group time and effort is spent on the task, rather than on developing cohesiveness and dealing with unproductive conflict, is almost certainly staff time and effort well spent.

2. Establishing the role(s) and responsibility of group members

Students less familiar with university group work, such as some international students and first year students, may find clear guidelines about the possible roles and expected contributions of group members useful in guiding their behaviour and contributions. Students may find simple suggestions about possible roles (for example, leader, notetaker and so on) useful for guiding their own discussions about roles.

Similarly, a discussion of the responsibility each group member has to the others in their group will not only provide guidance in what to reasonably expect from others but also in what other members are likely to expect from individual students in terms of contributions.

3. Scheduling group meetings

It will be useful to assist students to consider the impact for group members of:

- travel time and cost from diverse locations;
- part-time or full-time work commitments;
- parental and family responsibilities; and
- student disabilities.

These are not minor issues. The time and workload pressure and, in many cases, resulting anxiety, of organising oneself to attend and contribute to group meetings is keenly felt by many students in higher education. Many students develop a significant sense of responsibility to their group(s) and while this feeling sometimes brings a welcome sense of 'relief from full responsibility – it's a shared responsibility', it more often brings a 'worry about the effect on the group of anything that I do'. At least a small amount of scheduled class time should be used discuss these issues and provide students with support and advice related to how to manage them.

4. Defining group processes and procedures

Guidelines and procedures for group work and group assessment should be detailed. It is essential that the purpose and function of group activities and assessment be explained fully to students undertaking such activities. The following three questions encapsulate the main concerns students have about group work and may be useful as a guide for staff preparing information for their students:

- Why are we doing this in groups and not individually – what is the advantage of group work and group assessment here?

On this first concern, it is useful to pick a task that is worthwhile, feasible and best done, or only done, by a group.

- How does doing this group activity help me achieve the learning objectives of this subject?
- How will my contribution be fairly assessed?

On the final question, there is much to consider and the decisions necessary to make about assessment are considered in detail in the discussion to follow.

Weighing-up the options for group assessment

Getting the assessment right is critical. Decisions about how to structure the assessment of group work need to be focussed around four factors:

- 1) whether what is to be assessed is the product of the group work, the **process** of the group work, or **both** (and if the latter, what proportion of each)
- 2) **what criteria will be used** to assess the aspect(s) of group work of interest (and who will determine this criteria - lecturer, students or both)
- 3) **who will apply the assessment criteria** and determine marks (lecturer, students – peer and/or self assessment or a combination)
- 4) **how will marks be distributed** (shared group mark, group average, individually, combination)

1. Product, process or both?

Many staff believe there is a need to assess the processes within groups as well as the products or outcomes – but what, exactly, ‘process’ means must be explicit and transparent for students. For example, if a staff member wants to assess ‘the level of interaction’, how might a conscientious student ensure they reach ‘an outstanding’ level? What is ‘an outstanding’ level?

The example above raises the question of how a staff member can confidently know the level of interaction that has taken place. Staff would either have to involve themselves intimately in the workings of each group or rely on student self- or peer-assessment.

Less often, assessment is focused solely on the product of group work: ‘I don’t care what they do in their groups – they’re adults. All I’m interested in is the final product – how they arrive at it is their business’.

Most commonly, there is an interest in both the process and product of group work and the decision becomes ‘What proportion of assessment will focus on each?’

2. What criteria and who says so?

Criteria for the assessment of group work can be determined by staff, students or through consultation between the two. Groups are most successful when students are involved in establishing their own criteria for assessment through consultation with teaching staff. These criteria are then used to assess and grade the group work.

A clear understanding of the intended learning outcomes of the subject in which the group work occurs is a useful starting point for determining criteria for assessment of the group work itself. Once these broader learning requirements are understood, a consideration of how the group task, and criteria for assessment of that task, fit into those broad requirements can then follow.

It is easier to establish criteria separately for the process and product of group work than to attempt to do both at once. The generation of criteria for the assessment of *products* of group work is relatively straightforward given the similarity between these and individual assessment submissions (products) in other contexts. Criteria for *process*, as appropriate to the subject and group work objectives, may include, for example:

- regular meeting attendance
- equity of contribution
- evidence of cooperative behaviour
- appropriate time and task management
- application of creative problem solving
- use of a range of working methods
- appropriate level of engagement with task
- development of professional competencies
- evidence of capacity to listen
- responsiveness to feedback/criticism.

3. Who is the assessor – lecturer, student or both?

and

4. Who gets the marks – individuals or the group?

Assessment and grading practices have a central role in optimising the quality of group interaction and more generally in directing student learning in group work. In a wide ranging interview about group assessment, students were asked if they could change one thing about this experience, what it would be. One 3rd year student said 'I would get the lecturers to clearly outline their expectations so that we know what amount of work and effort will get what mark'. Another said, 'I would make marking of group work consistent'.

This section provides some assessment options for the products and processes of group work where staff and/or students are responsible for allocating marks. Four tables are provided:

- Options for *lecturer/tutor* assessment of group work *product*
- Options for *student* assessment of group work *product*
- Options for *lecturer/tutor* assessment of group work *process*
- Options for *student* assessment of group work *process*

The assessment options and some of their likely advantages and disadvantages, both inherent and in relation to other assessment options, are outlined in the tables. Finally, a short list of assessment options that combine product and process foci and staff and student assessors is provided.

The suggestions offered in this section are not intended to form an exhaustive list of all possible group assessment options. They are an examination of some of the most commonly used options and intended as a set of prompts for consideration when designing group assessment.

Table 1 : Options for lecturer/tutor assessment of group product

Assessment option	Some possible advantages	Some possible disadvantages
<p>Shared Group Mark</p> <p>The group submits one product and all group members receive the same mark from the lecturer/tutor, regardless of individual contribution.</p>	<ul style="list-style-type: none"> • encourages group work – groups sink or swim together • decreases likelihood of plagiarism more likely with individual products from group work • relatively straightforward method 	<ul style="list-style-type: none"> • Individual contributions are not necessarily reflected in the marks • stronger students may be unfairly disadvantaged by weaker ones and vice versa

Assessment option	Some possible advantages	Some possible disadvantages
<p>Group Average Mark</p> <p>Individual submissions (allocated task or individual reports as described below) are marked individually. The group members each then receive an average of these marks.</p>	<ul style="list-style-type: none"> may provide motivation for students to focus on both individual and group work and thereby develop in both areas 	<ul style="list-style-type: none"> may be perceived as unfair by students stronger students may be unfairly disadvantaged by weaker ones and vice versa
<p>Individual Mark – Allocated task</p> <p>Each student completes an allocated task that contributes to the final group product and gets the marks for that task</p>	<ul style="list-style-type: none"> a relatively objective way of ensuring individual participation may provide additional motivation to students potential to reward outstanding performance 	<ul style="list-style-type: none"> difficult to find tasks that are exactly equal in size/complexity does not encourage the group process/collaboration dependencies between tasks may slow progress of some students
<p>Individual Mark – Individual report</p> <p>Each student writes and submits an individual report based on the group's work on the task/project</p>	<ul style="list-style-type: none"> Ensures individual effort Perceived as fair by students 	<ul style="list-style-type: none"> precise manner in which individual reports should differ often very unclear to students likelihood of unintentional plagiarism increased
<p>Individual Mark – Examination</p> <p>Exam questions specifically target the group projects, and can only be answered by students who have been thoroughly involved in the project</p>	<ul style="list-style-type: none"> may motivate students more to learn from the group project including learning from the other members of the group 	<ul style="list-style-type: none"> may diminish importance of group work additional work for staff in designing exam questions may not be effective, students may be able to answer the questions by reading the group reports
<p>Combination of Group Average and Individual Mark</p> <p>The group mark is awarded to each member with a mechanism for adjusting for individual contributions</p>	<ul style="list-style-type: none"> perceived by many students as fairer than shared group mark 	<ul style="list-style-type: none"> additional work for staff in setting up procedure for and in negotiating adjustments

NB. Table based on Winchester-Seeto (2002).

Table 2: Options for student assessment of group product

Assessment option	Some possible advantages	Some possible disadvantages
<p>Student distribution of pool of marks</p> <p>Lecturer/tutor awards a set number of marks and let the group decide how to distribute them.</p> <p>For example, the product is marked 80 (out of a possible 100) by the lecturer. There are four members of the group. Four by 80 = 240 so there are 240 marks to distribute to the four members. No one student can be given less than zero or more than 100. If members decide that they all contributed equally to the product then each member would receive a mark of 80. If they decided that some of the group had made a bigger contribution, then those members might get 85 or 90 marks and those who contributed less would get a lesser mark.</p>	<ul style="list-style-type: none"> • easy to implement • may motivate students to contribute more • negotiation skills become part of the learning process • potential to reward outstanding performance • may be perceived as fairer than shared or average group mark alone 	<ul style="list-style-type: none"> • open to subjective evaluation by friends • may lead to conflict • may foster competition and therefore be counterproductive to team work • students may not have the skills necessary for the required negotiation
<p>Students allocate individual weightings</p> <p>Lecture/tutor gives shared group mark, which is adjusted according to a peer assessment factor. The individual student's mark comes from the group mark multiplied by the peer assessment factor (eg. X 0.5 for 'half' contribution or X 1 for 'full' contribution)</p>	<p>As above</p>	<p>As above</p>

Assessment option	Some possible advantages	Some possible disadvantages
<p>Peer Evaluation - random marker, using criteria, moderated</p> <p>Completed assessment items are randomly distributed to students who are required to complete a marking sheet identifying whether their peer has met the assessment criteria and awarding a mark. These marks are moderated by the staff member and together with the peer marking sheets are returned with the assessment item.</p>	<ul style="list-style-type: none"> • helps clarify criteria to be used for assessment • encourages a sense of involvement and responsibility • assists students to develop skills in independent judgement • increases feedback to students • random allocation addresses potential friendship and other influences on assessment • may provide experience parallel to career situations where peer judgement occurs 	<ul style="list-style-type: none"> • time may have to be invested in teaching students to evaluate each other • staff moderation is time consuming

NB. Table based on Winchester-Seeto (2002).

Table 3: Options for lecturer/tutor assessment of group process

Assessment option	Some possible advantages	Some possible disadvantages
<p>Individual mark -based on records/observation of process</p> <p>Each individual group member's contribution (as defined by predetermined criteria) is assessed using evidence from:</p> <ul style="list-style-type: none"> team log books minutes sheets and/or direct observation of process. <p>And they are awarded a mark</p>	<ul style="list-style-type: none"> logs can potentially provide plenty of information to form basis of assessment keeping minute sheets helps members to focus on the process - a learning experience in itself May be perceived as a fair way to deal with 'shirkers' and outstanding contributions 	<ul style="list-style-type: none"> Reviewing logs can be time consuming for lecturer/tutor Students may need a lot of training and experience in keeping records Emphasis on second hand evidence - reliability an issue direct observation by a lecturer/tutor likely to change the nature of interaction in the group
<p>Group average mark -based on records/observation of process</p> <p>Each individual group member's contribution (as defined by predetermined criteria) is assessed using evidence from:</p> <ul style="list-style-type: none"> team log books minutes sheets and/or direct observation of process. <p>The group members each then receive an average of these marks.</p>	<ul style="list-style-type: none"> makes students focus on their operation as a team logs can provide plenty of information to form basis of assessment keeping minute sheets helps members to focus on the process - a learning experience in itself 	<ul style="list-style-type: none"> reviewing logs can be time consuming students may need a lot of training and experience emphasis on second hand evidence - reliability an issue averaging the mark may be seen as unfair to those who have contributed more than others
<p>Individual mark - for paper analysing process</p> <p>Marks attributed for an individual paper from each student analysing the group process, including their own contribution that of student colleagues</p>	<ul style="list-style-type: none"> helps students to focus on the process minimises opportunities for plagiarism 	<ul style="list-style-type: none"> information from students may be subjective and/or inaccurate may increase assessment burden for lecturer/tutor

NB. Table based on Winchester-Seeto (2002).

Table 4: Options for student assessment of group process

Assessment option	Some possible advantages	Some possible disadvantages
<p>Peer Evaluation - average mark, using predetermined criteria</p> <p>Students in a group individually evaluate each other's contribution using a predetermined list of criteria. The final mark is an average of all marks awarded by members of the group.</p>	<ul style="list-style-type: none"> • helps clarify criteria to be used for assessment • Encourages sense of involvement and responsibility on part of students • May assist students to develop skills in independent judgement • Provides detailed feedback to students • Provides experience parallel to career situations where group judgement is made • May reduce lecturer's marking load 	<ul style="list-style-type: none"> • may increase lecturer/tutor workload in terms of - briefing students about the process - ensuring the criteria are explicit and clear - teaching students how to evaluate each other • students may allow friendships to influence their assessment - reliability an issue • students may not perceive this system as fair because of the possibility of being discriminated against
<p>Self evaluation - moderated mark, using predetermined criteria</p> <p>Students individually evaluate their own contribution using predetermined criteria and award themselves a mark. Lecturers/tutors moderate the marks awarded.</p>	<ul style="list-style-type: none"> • helps clarify criteria to be used for assessment • Encourages sense of involvement and responsibility on part of students • May assist students to develop skills in independent judgement 	<ul style="list-style-type: none"> • may increase lecturer/tutor workload in terms of - briefing students about the process - ensuring the criteria for success are explicit and clear - teaching students how to evaluate themselves • self evaluations may be perceived as unreliable

NB. Table based on Winchester-Seeto (2002).

Other assessment possibilities

- The lecturer/tutor gives two grades - one for the group presentation of the product (shared) and one for a reflective piece from each individual member on the workings of the group itself (individual).
- Students receive two grades for the group work - one for the final group report/presentation from the lecturer/tutor and one for their individual contribution to the team as assessed by the others in their group.
- **Portfolio Evaluation**

The potential for evidence-based assessment of group work via a portfolio may be worth investigating in particular contexts. In principle, portfolios are useful in two major ways. The first is that they demonstrate the student's knowledge, understanding, skills, values and attitudes relevant to the area of study. Secondly, they are likely to be learning experiences in themselves because the individual student learns from the construction of the portfolio.

A portfolio should include both agreed criteria that are aligned with the requirements of the subject and examples of work that demonstrate knowledge and understanding of that criteria. With this option, either the lecturer/tutor or the student judges individual merits via components of and/or the whole portfolio. Components might include, for example:

- report(s)
- assignment(s)
- meetings minutes
- observational data
- interview data
- reflective pieces
- journal entries
- any evidence of the achievement of the set criteria.

The likely benefits include the opportunity for a lecturer/tutor to get a clear idea of individual contributions, an authentication of each student's experience, the reduction of plagiarism and increased student responsibility for their learning. However, assessing and grading portfolios can be very time-consuming for staff (or students where self- or peer-evaluation is used) and information from students may be subjective and therefore compromise reliability. This sort of option is also especially difficult with large classes.

Getting started with group assessment

Starting out with group assessment can seem overwhelming, particularly for a new academic. Some simple, yet effective, suggestions:

- Start somewhere
- Start small
- Start where success is most likely.

Given the possible pitfalls in terms of student perceptions of the worth of group assessment, it is advisable when starting out to aim for quality rather than quantity. Starting with a group work component that is a relatively minor proportion of the assessment for a subject means that any issues related to equity of contribution, fairness of grading and student experience of the group assessment that might arise can be resolved relatively easily.

References

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