

Assessed Group-work:

A framework and guidelines



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Purpose of the document

This document has been developed to provide a framework for programme teams and lecturers to consider the role and place of group-work in their programmes and teaching and to plan and manage it in a way that enhances learning and promotes a positive student experience. Group-work in this context refers to two or more students working together as part of a formal assessment.

Background

Group projects and other forms of group-work are widely used in DkIT and elsewhere. It is widely recognised that group-work has academic, practical and social benefits (e.g. Lee *et al.*, 2015, Noonan, 2013). However there are many challenges including student perceptions of (un)fairness (MacFarlane, 2016; Rogers & Smith, 2014), exclusion (Noonan, 2013), assessing appropriately and the demands placed on students' time (Lee *et al.*, 2015). Group-work supports the development of key skills and graduate attributes, however it is important to recognise that group-work does not automatically benefit students; to do this it needs to be well planned, structured and supported. This requires planning, input and support from the lecturer. Evidence is clear that if group-work is to be successful, it needs to be facilitated and students need preparation and guidance (e.g. Noonan, 2013). Group-work that is not well planned and supported can impede learning, create a difficult social environment and cause students to experience stress and distress. Group-work, perhaps more than any other form of assessment, highlights the ethical issues inherent in assessment (Noonan, 2013).

Unfortunately there is no simple formula for doing group-work well; there is no single 'best' approach to forming groups, managing the process and assessing. All approaches have advantages and disadvantages and need to be considered within the context of the programme, the stage, the nature of the assessment, student characteristics and so on.

Development of this guidance

This guidance has been developed following extensive consultation with lecturers and students across DkIT and is informed by the literature. Staff were consulted via information/discussion sessions and an online survey; students via three focus group sessions encompassing student representatives from a wide range of programmes and stages. Feedback from staff indicated many different approaches to implementing, monitoring and assessing group-work. There were many examples of good practices and positive experiences, however it is clear that, in some cases, group-work constitutes a significant source of stress and distress for students. Both staff and students report challenges around the assessment of group-work. Student feedback highlighted problems with lack of co-ordination, where students were involved in multiple group projects at one time.

Using this guidance

This document has been designed to provide a framework for thinking about group-work in a structured way and making decisions at each stage in the process: Programme Development; Module Planning; Assessing

and Monitoring and Supporting. The flowchart shown in Figure 1 illustrates the process and identifies key questions to answer at each stage. The guidelines then deal with each stage in more depth.

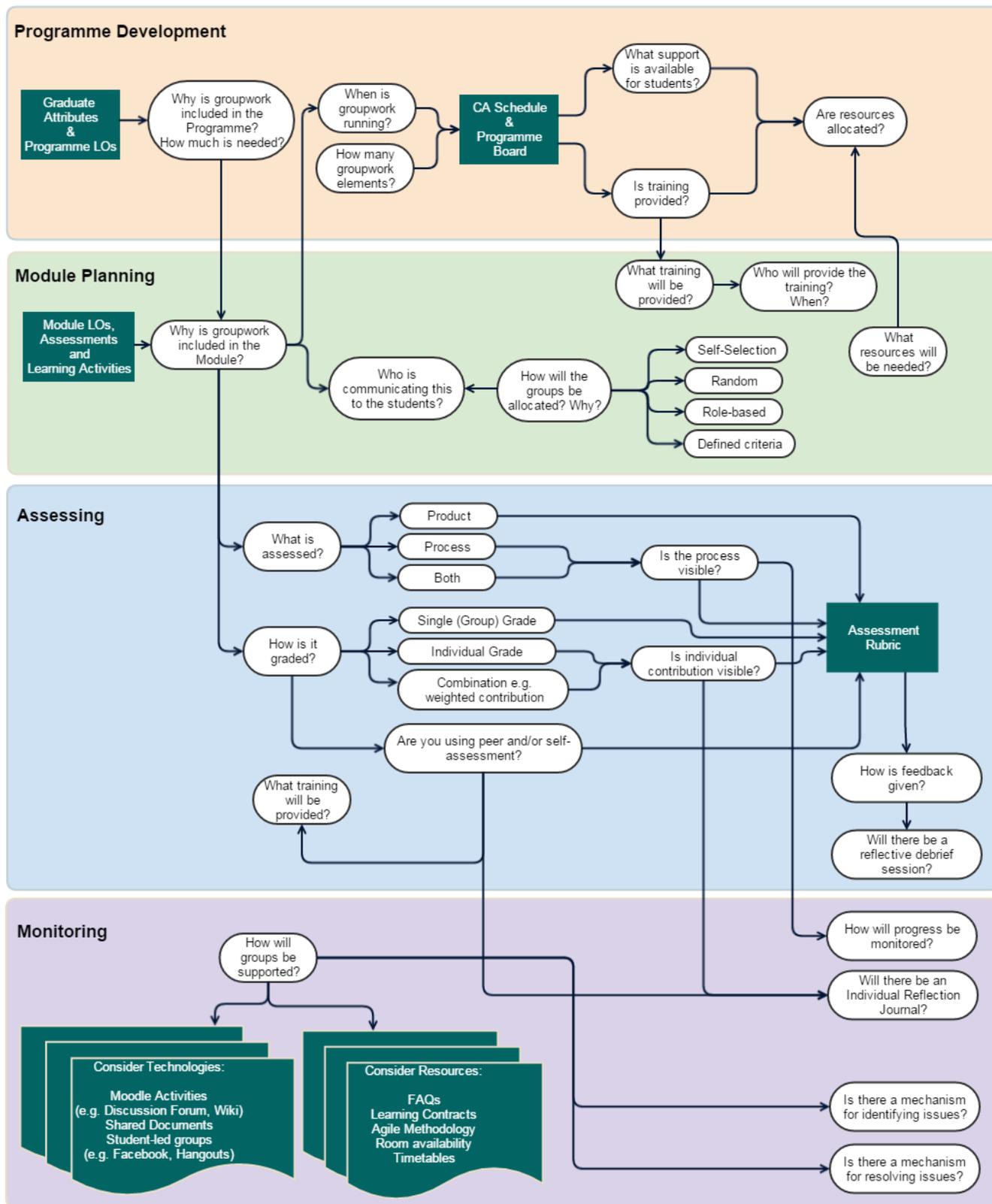


Figure 1: Planning, Implementing and Assessing Group-Work

1. *The programme level*

Group-work is experienced by students within the context of the programme. Questions for the programme team to consider are: why is group-work used on this programme? How does it contribute to the programme learning outcomes and graduate attributes? Addressing these should inform the nature of the group-work, where it sits in the curriculum, how it is introduced and how the skills are developed over time. The rationale for group-work should be discussed with students. While these questions are particularly pertinent at the programme development stage or during Programmatic Review, it is important that group-work is reviewed by Programme Boards on an ongoing basis. This helps to ensure that (i) the group-work is appropriate in terms of the programme learning outcomes and graduate attributes, (ii) there is a coherent approach to group-work across the programme and expectations are consistent, appropriate and reasonable, (iii) students receive the training and support they need, when they need it.

In particular, it is important that Programme Boards consider the amount of group-work facing students in a given semester and ensure that this is reasonable¹. Even if the assignments involved have a small weighting, the work involved in managing the group process is likely to be considerable and may be complicated by timetabling.

Actions

- Table group-work as an agenda item at a Programme Board,
- Talk to students about the role of group-work on the programme, for example, as part of induction,
- Identify group-work/group projects on the CA schedule,
- Consider group-work as part of the Programmatic Review process.

2. *Module planning*

Within the context of an individual module it is also important to consider why group-work is being used. Rogers & Smith (2014) suggest using group-work only if it is the '*... best possible way to demonstrate achievement of specific course objectives*' (p.126).

2.1 *Selecting groups*

Methods can be broadly categorised as student-led or lecturer-led. Both have advantages and disadvantages (see Table 1) and the most appropriate method depends on the task and the context. Students often self-select on the basis of friendship or previous experience of working in a group but may also seek to work with high-performing students and/or avoid students perceived as unreliable. Lecturers may allocate students to groups randomly or on the basis of particular characteristics, for example, ensuring a mix of international and domestic students or on the basis of performance or specific skills. As Noonan (2013) suggests, the most important factor in determining group membership is promoting cohesiveness as this allows students '*...to focus on the task to be completed rather than spending time on conflict management*' (p. 1423). Whatever method is used, the rationale should be explained to the students.

¹ This may depend on the programme/discipline

Method	Advantages	Disadvantages
Self-selection by students	<ul style="list-style-type: none"> ● May increase motivation and engagement, ● Increased sense of control, ● Friendship groups often cohesive, ● May reduce anxiety and conflict, ● May facilitate meeting and organisation of the work. 	<ul style="list-style-type: none"> ● May exclude some students, particularly those outside established friendship groups or those perceived as less reliable by other students, ● Roles and power structures within friendship groups may be limiting, ● Reduces opportunities to hear other views and work with a wide range of peers.
Groups formed by lecturers	<ul style="list-style-type: none"> ● May represent a more authentic work situation, ● All students are selected and part of a group, ● Exposure to a wider range of perspectives, ● May facilitate students adopting new roles and approaches. 	<ul style="list-style-type: none"> ● Reduces the student's control, ● May increase anxiety, ● Some students may be marginalised within a group, ● May be more difficult to meet and organise the work.

Table 1: Forming groups

2.2 Free-riding

Free-riding happens when some group members do not contribute or do not contribute sufficiently to the work. This is widely recognised as a challenge and is a key source of student dissatisfaction (e.g. Macfarlane, 2016; Noonan, 2013). Free-riding may be involuntary, for example, the dynamics within a group may subtly prevent a student from participating fully and the impact of this can be damaging (see Noonan, 2013). Preparing the students to engage in group-work will help. There are also a number of strategies that can be used to encourage full participation by all (Perry, 2008):

- Rewarding individual contributions and linking to group goals,
- Reviewing individual contributions,
- Peer assessment,
- Lecturer assessment of contribution,
- Diaries/logs/reflective journals,
- Contracts for specific tasks,
- Penalties for inadequate contribution.

Perry (2008) provides a series of mini-cases studies exploring each of these approaches here www.sussex.ac.uk/tldu/documents/an-introduction-to-mini-cases-on-ways-of-dealing-with-free-riders.doc

Again, the best approach will depend on the context but it is important to note that students appreciate any effort by lecturers to tackle free-riding (Perry, 2008).

3. Assessing

It is important to differentiate between the process and product in the assessment (Dijkstra, Latijnhouwers, Norbart & Tio, 2016). Clarify what is being assessed - product, process or both? This should be reflected in

the assessment criteria for the task and linked to the specific module learning outcomes. The assessment criteria should be discussed with students early in the process and it should be clear how grades will be assigned. A rubric may be helpful in specifying criteria, standards and weightings.

If process is being assessed, identify the elements (e.g. effort, contribution, personal development etc.) and consider how they will be evidenced. Digital technologies can be very helpful. For example, groups might use a Moodle discussion forum or wiki in addition to face-to-face meetings. This helps students to share and organise information and manage their time. It also generates a record of activity that can help the lecturer to monitor and assess the process (Elgort, Smith & Toland, 2008). Other strategies include reflective diaries/logs, self-assessment, peer assessment and lecturer observation. A methodology for managing the process, for example Scrum², may also be used to provide transparency on individual roles, planning and task completion. However, if using a process methodology like Scrum, significant training and monitoring will be needed to ensure the students correctly understand, interpret and apply the process disciplines.

3.1 Grading

Typically the approaches are (i) a single grade for all group members, (ii) an individual grade for each group member (iii) some combination, often a group mark with an individualised component reflecting effort, contribution and/or other dimensions of process.

Again, all approaches have advantages and disadvantages, however, while a single grade may be appropriate in some circumstances, it is generally perceived as very unfair. A single grade may also undermine personal responsibility and promote free-riding. While there is little research on this, there is evidence to suggest that students with low individual marks achieve higher group marks while those with high individual marks achieve lower group marks (Almond, 2009) and this is also reflected in student perceptions (Moore & Hampton, 2015).³

Individual grades are more likely to be perceived as fair. Allowing students to submit individual assignments may be appropriate in some cases, particularly where the focus is on the product and/or individual competencies. For example, a group of students might conduct a small piece of research and each then submits an individual research report. In other cases, this would not be appropriate and some combination of group and individual grade must be used.

One approach is for the group to submit a single product, such as an artefact or report, but each group member also submits an individual piece that reflects on the process and their learning. This is assessed by the lecturer. The overall grade for each student is determined by the shared grade for the product and the individual grade. Another approach is to combine an overall product grade with an individualised grade for contribution using one of the methods in Table 2.

² See <https://www.scrumalliance.org/>

³ While this may reflect relative advantage or disadvantage, it may also reflect the different skills involved in group projects.

Quality of work	Assessed by lecturer - typically same mark for all		
Contribution/effort* and /or the process	Assessed by lecturer	Assessed by peers	Self-assessment
	<p>Likely to be perceived as fair, Requires a system for monitoring the process and/or contribution (digital technologies likely to be useful).</p> <p><i>But,</i> Little active engagement by students in the assessment process, Difficult to manage if no monitoring system in place.</p>	<p>May promote ownership and engagement, Enhances understanding of task and process, May reduce free-riding, Group-members often best placed to evaluate contribution.</p> <p><i>But,</i> May be perceived as unfair, If poorly managed can create a 'hostile' environment (Noonan, 2012), Preparation and training required may place additional demands on staff and student time, May produce inconsistencies and/or grade inflation.</p>	<p>May promote ownership and engagement, Enhances understanding of task and process, Has the potential to develop understanding of own learning.</p> <p><i>But,</i> May be perceived as unfair or unreliable, Preparation and training required - students often feel ill-prepared, May produce inconsistencies and/or grade inflation.</p>
Useful when	<p>The emphasis is on the product and/or some key element of process, Little time to prepare students for peer/self - assessment, Groups are not cohesive.</p>	<p>The process is an important part of the assessment, There is time to prepare and support the students, Clear criteria are developed and applied - consider using a rubric, Rationale is clear to the students, Groups are fairly cohesive, Grading is anonymous.</p>	

Table 2: Individualising grades by contribution.

*Contribution reflects effort but is more than this (e.g. quality of ideas) so it is important to be clear about what is being assessed.

Peer and self-assessment are very useful learning activities but students need guidance, support and clear criteria. It is worth noting these forms of assessment can be formative rather than summative. Students can learn a great deal by giving feedback to each other and receiving it in return. They do not have to grade each other to benefit.

3.2 Weightings

These should be determined by the learning outcomes and assessment criteria. For example, if process is a key part of the assessment this should be clear from the weighting. Rubrics can help to make this transparent. If peer or self-assessment contributes to the grade think carefully about the appropriate weighting for this. Lee *et al.* (2015) suggest a weighting of approximately 10% as reasonable.

4. Monitoring

Lecturers have a duty to guide and support the students; it is unreasonable to expect them to manage the complexities of group-work without support.

Consider:

- What experience do these students have with group-work?
- What preparation do they need?
- What support do they need? How will this be provided?
- Timetables and room availability may make it difficult for students to meet so devoting some class time to projects can be very helpful. Technologies such as skype can also be useful. Shared digital workspaces, such as Moodle wikis, can be very useful in terms of managing and recording the work and promoting transparency.

Stage	Strategy
Before	Discuss expectations, Explain the assessment process, Support group formation: <ol style="list-style-type: none">1. Encourage allocation of roles within the group,2. Agree a communication process,3. Consider learning contracts,4. Agree a mechanism for identifying and resolving problems.
During	Encourage groups to set clear goals and allocate tasks, Review progress at regular intervals, Lecturer should support groups in resolving issues and intervene where appropriate, If a group appears to be having difficulty deal with this as early as possible, Encourage students to reflect on their learning.
After	Discuss the experience and encourage students to reflect on what they have learned, Provide timely constructive feedback on product and process.

Table 3: Monitoring and supporting group work

Summary

- Group work plays an important role in developing transferrable skills and has the potential to enhance learning, however it must be planned, monitored and supported if these benefits are to be realised.
- The role of group work should be considered in the context of the programme and discussed with students.
- The relative emphasis on product and process should be considered.
- Assessment criteria should be clear and discussed with students.
- Students need support and guidance throughout the process.

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