



Discipline-specific  
knowledge and  
capabilities



Communication skills



Digital literacy



Critical thinking



Problem solving



Self-management



*Teamwork*



Global citizenship



## ABSTRACT

Teamwork is listed as one of the Deakin Graduate Learning Outcomes and is sometimes referred to as group work, team building and group collaboration. When Deakin graduates obtain a high level of teamwork skills they demonstrate they are able to work with others from diverse disciplines and backgrounds, and learn from this experience.

Understanding the dynamics of how teamwork occurs and how to assess students' teamwork skills are important elements for assisting students to acquire essential employability skills. In order to create authentic teamwork assessment activities, it is important for students to see the relevance of such an activity. For example, how the teamwork activity relates to and mirrors a 'real world' or authentic job experiences. The following information is set out in order to assist academics at Deakin University to explore, create and re-imagine what teaching and assessing teamwork skills means.

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## INTRODUCTION

Teamwork is often a crucial part of many vocational activities as it is often necessary for employees to work in teams to attend to a task. Designing effective, robust and collaborative student teamwork activities with other students from different disciplines and backgrounds can help students understand the process of working effectively within a group to achieve a common goal, as it relates to the 'real world'. Teamwork is part of Deakin University's suite of Graduate Learning Outcomes and appears as GLO 7 and involves 'working and learning with others from different disciplines and backgrounds'.

## WHY IS TEACHING TEAMWORK SKILLS IMPORTANT?

The assessment of teamwork involves:

- the assessment of different skills for instance, interpersonal skills, oral communication skills, problem solving, inclusivity etc...
- a possible reduction in the academic's marking workload, especially with large cohorts. When teamwork is well planned and student objectives are clearly outlined these teams can supervise and even assess themselves
- students exploring more complex problems that typically could not be completed by an individual
- preparing the student for employment
- motivating students by demonstrating the application and relevance of skills being taught.

## WHY IS LEARNING TEAMWORK SKILLS IMPORTANT FOR STUDENTS?

Learning how to work together as a team is important when you consider:

- students have different ways of learning and teamwork often helps students' metacognitive awareness
- teamwork enables students to bring their ideas together thus leading to more creative thinking and enabling them to find solutions to problems – 'two heads are better than one',
- teamwork activities develop management skills amongst students such as:
  - organisational skills
  - communication skills
- teamwork activities can:
  - accommodate different personality types
  - accommodate for different ability levels amongst team members
- teamwork develops lifelong learning skills which will be desirable attributes for future employment
- in the workforce people take on different roles and an understanding of preferred ways to contribute to a team is crucial for succeeding at work.



Understanding the four stages of teamwork can also help academics create authentic teamwork activities and assessment.

Table 1 (Derek Bok Centre for Teaching and Learning, Harvard University) draws on Tuckman's (1965) theory of communication in small groups and sets out his model of four stages of teamwork.

Table 1. The behavioural stages for group dynamics

STAGE	DESCRIPTION OF STAGE
1. Forming	<ul style="list-style-type: none"><li>students are polite and some students can be guarded about their own opinions, leaving the more confident members of the group to take over as leaders</li></ul>
2. Storming	<ul style="list-style-type: none"><li>students express ideas more openly and clashes can occur, especially with leaders</li><li>communication can become more chaotic, there may be less listening, more conflicting ideas, unruly behaviour, less attendance or passive resistance to participating in the task</li></ul>
3. Norming	<ul style="list-style-type: none"><li>the team's in-fighting subsides and there is a new spirit of cooperation as students begin to feel secure in expressing their own point of view</li><li>students begin to listen, and most importantly, methods of working together are established with greater clarity and confidence</li></ul>
4. Performing	<ul style="list-style-type: none"><li>a clear system for speaking freely and with a higher level of support becomes evident in students in each group</li><li>the team begins to make their own decisions as a collective</li><li>there are obvious outcomes despite differences.</li></ul>

(Tuckman 1965)

## TEACHING TEAMWORK

When teaching students to work in teams keep in mind that students may have obtained experience in working in teams outside of university (e.g., through such activities as part-time employment, sporting club memberships). Thus, students are likely to be at different levels in regards to their knowledge pertaining to what constitutes the process of working in teams. It may be helpful to establish what prior experience students have had in regards to working in teams prior to commencing teamwork activities and asking students to share their experiences (i.e., what worked well, what did not work and why).

### How to implement teamwork with large groups?

One of the most important aspects of working with large student numbers when implementing teamwork activities and assessment is to find ways to manage large classes as well as provide teacher-student interaction and directions. The following points list learning and teaching tips:

- present clear learning objectives, timelines and learning outcomes for students undergoing teamwork activities
- pre-select groups and/or topics for students to choose from to avoid long delays and any possible disorganisation
- Academics can allocate groups using an online application. Instructions on how to create groups online can be found at CloudDeakin: Creating groups.



## How to allocate students into teams?

There are generally a number of methods of allocating students to teams:

- self-selection – students decide team members
- random allocation – the academic randomly assigns students to groups
- deliberate allocation – teacher assigns students to groups, based on pre-existing attributes (e.g., skills, knowledge, topic interests).

Advantages and disadvantages associated with each method of allocating students to groups can be found at Deakin University's website on teaching learning modules for:

- arranging students into groups/teams
- team size (see [Topic 7: Forming groups](#))

## How many students should academics allocate per team?

The optimal number of students per team is often defined as 4–5. Advantages associated with having this number include:

- optimal size to conduct team meetings
- ideal division of work between team members
- all team members are accountable for their contributions, or lack of
- difficult for 'free riders' (i.e., more likely in large teams) to avoid contributing to the task
- reduces the chance of splinter groups forming
- less impact on the team if one member happens to withdraw from the unit (i.e., problematic for a pair or team of three).

(Deakin University, 'Topic 7: Forming groups')

There are a number of useful tools and resources for students when engaging in teamwork by enabling them to communicate online (e.g., Skype, Jabber) and to share documents (e.g., Google docs). Table 2. sets out a number of commonly used resources.



Table 2. Resources, what to use them for and where to find assistance

RESOURCES	USE OF RESOURCES	LOCATION
a Drop box (CloudDeakin)	<ul style="list-style-type: none"><li>• Submit assessments</li></ul>	<ul style="list-style-type: none"><li>• CloudDeakin Dropbox: <a href="http://www.deakin.edu.au/teaching-learning/dso/guides/why/dropbox.php">http://www.deakin.edu.au/teaching-learning/dso/guides/why/dropbox.php</a></li></ul>
eLive	<ul style="list-style-type: none"><li>• Online virtual face to face discussion</li><li>• Enables team members to share their computer screen with other members. Share documents and you can also create break-out rooms for group and teamwork activities</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.deakin.edu.au/teaching-learning/dso/guides/elive-login-staff.php">http://www.deakin.edu.au/teaching-learning/dso/guides/elive-login-staff.php</a></li></ul>
Face to face meeting space – book a room in the library	<ul style="list-style-type: none"><li>• Premium located discussion</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.deakin.edu.au/library/book-a-room/">http://www.deakin.edu.au/library/book-a-room/</a></li></ul>
Facebook	<ul style="list-style-type: none"><li>• Forum for online discussion set up specifically for that group</li></ul>	<ul style="list-style-type: none"><li>• facebook.com</li></ul>
Google docs	<ul style="list-style-type: none"><li>• Share written documents</li><li>• Work on same document at the same time (helps with version control)</li></ul>	<ul style="list-style-type: none"><li>• google hangouts: <a href="http://www.google.com/+learnmore/hangouts/">http://www.google.com/+learnmore/hangouts/</a></li><li>• <a href="https://accounts.google.com/ServiceLogin?service=writely&amp;passive=1209600&amp;continue=http://docs.google.com/?hl%3Den%23&amp;followup=http://docs.google.com/?hl%3Den&amp;itmpl=homepage&amp;hl=en">https://accounts.google.com/ServiceLogin?service=writely&amp;passive=1209600&amp;continue=http://docs.google.com/?hl%3Den%23&amp;followup=http://docs.google.com/?hl%3Den&amp;itmpl=homepage&amp;hl=en</a></li></ul>
Group locker	<ul style="list-style-type: none"><li>• enables group members to share files</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.deakin.edu.au/dso/">http://www.deakin.edu.au/dso/</a></li></ul>
Jabber	<ul style="list-style-type: none"><li>• Online virtual face to face discussion</li><li>• Enables team members to share their computer screen with other members</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.deakin.edu.au/current-students/study-support/dso/guides/d2l-locker.php">http://www.deakin.edu.au/current-students/study-support/dso/guides/d2l-locker.php</a></li></ul>
Mediawiki	<ul style="list-style-type: none"><li>• Track student contributions and participation</li><li>• provides a web space where students can share information and create documents collaboratively</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.deakin.edu.au/dso/">http://www.deakin.edu.au/dso/</a></li><li>• <a href="http://www.teaching-teamwork-in-design.com/">http://www.teaching-teamwork-in-design.com/</a></li><li>• <a href="http://www.deakin.edu.au/teaching-learning/dso/guides/mediawiki-userguide.php">http://www.deakin.edu.au/teaching-learning/dso/guides/mediawiki-userguide.php</a></li></ul>
Skype	<ul style="list-style-type: none"><li>• Enables group members to have a virtual face to face discussion online</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://beta.skype.com/en/download-skype/skype-for-computer/">http://beta.skype.com/en/download-skype/skype-for-computer/</a></li></ul>



## HOW TO ESTABLISH ROLES AND TASKS WITHIN STUDENT TEAMS?

Discussing the following points with students prior to commencing teamwork activities may be beneficial for students, for example, identifying students' roles and responsibilities within their team. The following points have been taken from the Derek Bok Centre for Teaching and Learning, Harvard University' website which draws on Tuckman's (1965) theory of communication in small groups ('Developmental sequence in small groups', *Psychological Bulletin*, vol. 63, no. 6, June, pp. 384–99).

Getting started:

1. Encourage students to get to know each other's backgrounds and experiences using online or face-to-face ice breakers that are especially related to the task at hand and assist in creating a positive learning culture.
2. Inform students that it is important to include everyone when considering ideas about how to proceed as a group as some may have little or no experience and others may have some good ideas.
3. Inform students how conflicts should be resolved within their team (see Figure 1).
4. Consider selecting leaders for each team early in the group formation process.
5. Allow leaders and team members to establish and clarify the goals of the group's work. This is an important step to avoid conflict later on in the teamwork project.
6. It is important for leaders of the teams to assist each member to establish group expectations and 'rules of engagement', for instance, attendance at all scheduled meetings with a 'contact phone tree' should a meeting need to be changed, engaging in respectful communication, allowances for texting (or not), types of behaviour which will not be tolerated.

Organising the work:

1. Organise regular mutually suitable meetings.
2. Establish best means of contacting team members (e.g., email, phone, discussion posts in Cloud Deakin and group wikis)
3. Break up jobs into smaller sections and allocate individuals to take responsibility for each part.
4. Discuss how each team member's part will be assembled into the final product/form.
5. Develop a timeline, including who will do what, in what format, by when.
6. After each session review what work individuals expect to complete by the following session.
7. Understand and manage the group processes, because a group works best if everyone has a chance to make strong contributions to the discussion at meetings.

**Resources for academics to guide students:**

The following resources focus on how to guide students in developing teamwork skills:

- Aarnio, M, Nieminen, J, Pyörälä, E & Lindblom-Ylänne, S 2010, 'Motivating medical students to learn teamwork skills', *Medical Teacher*, vol. 32, no. 4, pp. e199–e204,





- retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/03075079912331379935>
- Burdett, J 2003, 'Making groups work: university students' perceptions', *International Education Journal*, vol. 4, no. 3, pp. 177–91, retrieved 29 May 2013. <http://ehlt.flinders.edu.au/education/iej/articles/v4n3/Burdett/paper.pdf> [sourced 6 February, 2013]
  - Sancho-Thomas, P, Fuentes-Fernández, R & Fernández-Manjón, B 2009, 'Learning teamwork skills in university programming courses', *Computers & Education*, vol. 53, no. 2, September, pp. 517–31, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://www.sciencedirect.com/science/article/pii/S0360131509000797>.

The following website below can help students and academics understand the many facets of group work. The website offers a series of 10 episodes where five students undertake a journey regarding a teamwork project: <http://www.learnhigher.ac.uk/groupwork/index.php>.

## HOW TO DOCUMENT EQUAL TEAM CONTRIBUTIONS

To encourage individual students in each team to contribute equally, academics/students should clearly allocate each team member's roles such as who does what within a team and why. This can be completed in the following ways:

- academics can ask students to clearly define roles and responsibilities prior to commencing a teamwork activity (i.e. form a written contract between team members). It is important that each team member confirms their agreement to the contribution (e.g., by asking all team members to sign the document)
- academics should encourage students to document their contribution throughout the working journey of their projects
- the signed agreement or contract (completed prior to commencing the project) and documentation of tasks (throughout the project) completed by each team member should be submitted at the time that students conduct an oral presentation of their group work, or submit a written report of their project
- academics may also set a reflective piece for individuals to complete on their teamwork project. The link discusses the use of reflection in peer and self-assessment. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/03075079912331379935> (see 'Reflective practice and peer and self-assessment').

## HOW TO MANAGE CONFLICT WITHIN A TEAM

Conflict that arises within a team is sometimes inevitable irrespective of how hard individuals try to prevent this from occurring within their team. These conflicts could include individuals feeling that other team members are not making an adequate contribution.

In order for teams to manage potential conflict it is worthwhile providing teams with a conflict resolution flow chart (prior to commencing team work) showing them a step by step logical pathway. This includes how to address the issue within their own group to raising an issue with an academic staff member.

Providing students with a conflict resolution framework will teach students to solve their own conflict situations (where possible) and prevent the Unit Chair having to deal with many 'minor' complaints regarding conflicts within the teams. Such an approach will also assist the prevention of minor conflict escalating into major ones.



## HOW TO GUIDE STUDENTS TO CAPITALISE ON DIVERSE BACKGROUNDS

Learning is enriched through integrating perspectives of individuals from diverse backgrounds. Global citizenship is another of the eight Deakin Graduate Learning Outcomes. However, claims that students are more comfortable working with others of their own cultural groupings due to cultural connectedness should be questioned. Views that limitations in communicative competence detract from the collaborative study are unhelpful to the overall learning and teaching experience. The following points are important to consider in any teamwork activity:

- modelling inclusive teaching practices often pays good dividends – bring in global or broad perspectives as these relate to learning objectives, ask culturally and linguistically diverse (CALD) students to share their comparative reflections/understandings;
- ensure clarity of concepts, terminology, jargon and ‘Aussie talk’. There is much literature on the importance and benefits of breaking out of one’s comfort zone to gain a broader educational experience which is equally applicable to local as to international students (see further readings)
- consider when it is appropriate to focus on the correct use of the language over just the communication of messages. This decision requires much consideration however Table 3 below will provide some stimulus for your own decision making based on your own teaching objectives and/or discipline. Also think about whether the activities are formative or summative. Remember, teacher feedback would be provided accordingly
- remember that CALD students also have trouble getting used to varying accents, especially when newly arrived (Ryan 2008)
- consider how best to use technology, for instance to ensure that students can also use visual cues to pick on messages, Skype or video conferencing would be helpful
- provide a mix of formative and summative assessment tasks to help draw out and develop study strategies. CALD students often feel that asynchronous communication provides the opportunity to review their written messages before hitting the send button whilst might shy away from synchronous communication because they feel their English has to be perfect before they speak
- guide the students to adopt different study strategies to help them cope with elements of the course, especially students new to the learning environment that includes the Australian academic culture, the language and the technology
- consider group formation so that students groups reflect a mix of language ability, interpersonal skills (emotional intelligence [Reilly & Karounos 2009]), intercultural skills.

Taking into consideration how the group make-up is aligned to the task and the learning outcomes may take some time but it is usually a good investment of time and effort. Academics may find that students then allocate and negotiate tasks within the group according to skills, interest and experience.



Table 3: Considerations in assessing language ability within teamwork projects

RESOURCES	USE OF RESOURCES	LOCATION
Tutorial communication (synchronous)	To explore and examine key concepts and understandings	Less emphasis
Summary notes (of a presentation/readings etc.)	To ascertain if key points picked up	Less emphasis
Mock presentation	To ascertain if key concepts are understood correct evidence or methods are being drawn skill level with oral presentation genre	Less emphasis
Formal presentation	Explication of key concepts and arguments drawing on conventions of academic argument	More emphasis
Essay/report	Discussion of key themes, providing supporting evidence. demonstrating a solid understanding of discipline specific communicative language	More emphasis

#### Readings on mixed cultural groups in the classroom:

Dawson, J 1998, 'From accommodation to incorporation: internationalising the classroom through structured dialogue', *HERDSA Conference*, Auckland, New Zealand, July, pp. 1–12, retrieved 29 May 2013. <http://www.herdsa.org.au/wp-content/uploads/conference/1998/PDF/EquiPol/Dawson.pdf>.

Volet, SE & Ang, G 1998, 'Culturally mixed groups on international campuses: an opportunity for inter-cultural learning', *Higher Education Research & Development*, vol. 17, no. 1, pp. 5–23, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/0729436980170101>

Summers, M & Volet, S 2008, 'Students' attitudes towards culturally mixed groups on international campuses: impact of participation in diverse and non-diverse groups', *Studies in Higher Education*, vol. 33, no. 4, pp. 357–70, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/03075070802211430>



## ENSURING AN INCLUSIVE TEACHING APPROACH TO TEAMWORK ACTIVITIES

Students present a wide mix of abilities and learning needs. Therefore the curriculum needs to address the diverse needs, strengths, backgrounds, and interests of students. Employing good inclusive teaching practices benefits all students, and reduces unintentional barriers. This will mean that all students are included in the activities. Deakin Learning Futures has provided a teaching resource on this topic to assist academics in fostering an inclusive teaching and learning environment for all (Inclusive teaching practices).

Some students with specific learning needs based on disabilities, impairments and/or mental health conditions may need an adjustment in order to have access to learning. These students may let you know their needs directly, or they may have a Learning access plan developed in conjunction with Disability Services, Deakin University.

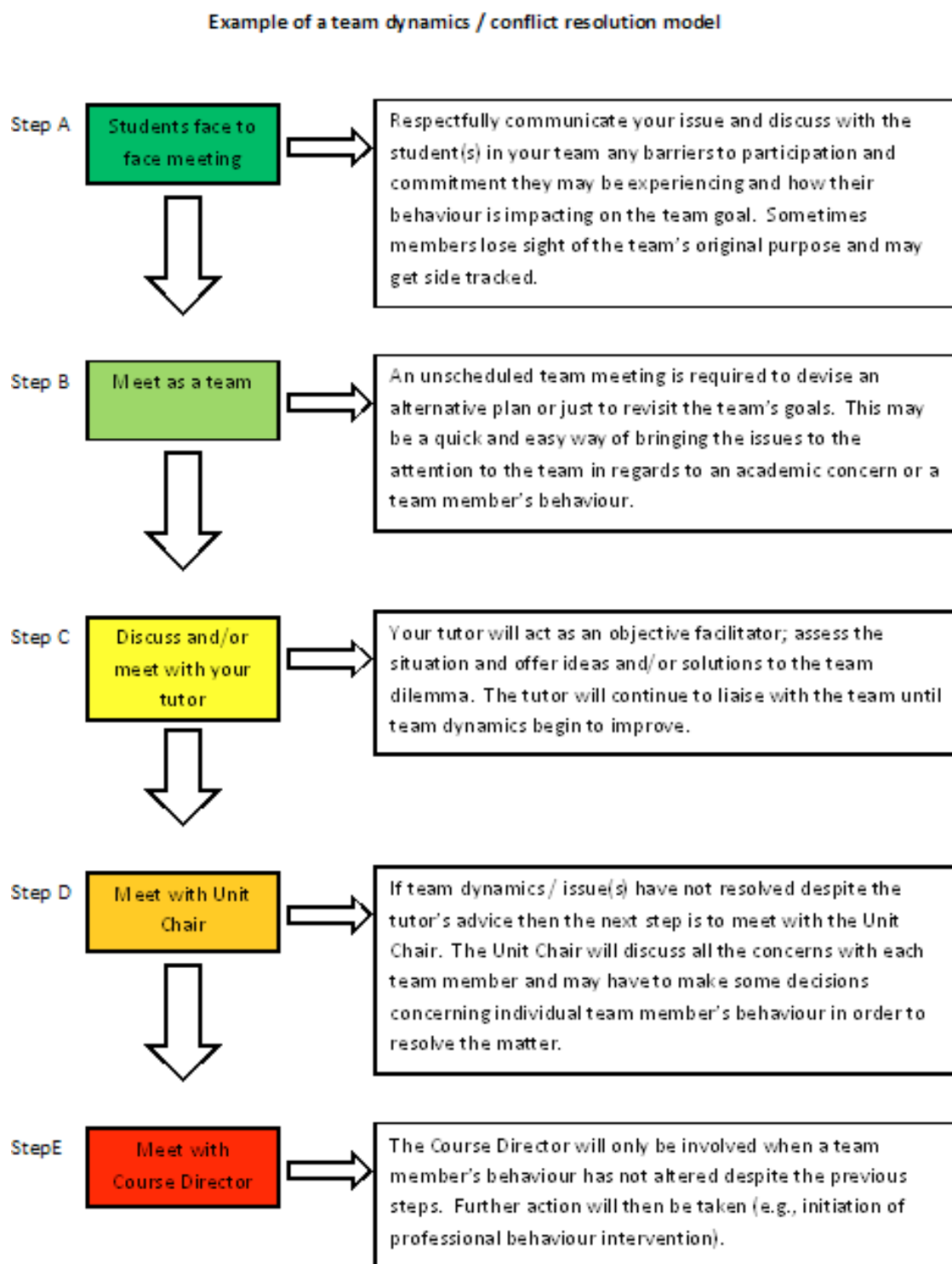
Here are some tips for accommodating diversity:

- Clearly state the learning outcomes and any inherent requirements within the course in order to assess the reasonableness of any accommodations required.
- Make sure all content is electronically accessible. Some students may need screen readers to assist with reading text. Others may be using academic support workers and/or note takers. This requires using different forms of representation around group work.
- Collaboration and teamwork is easier for some students than others. When carefully structured, peer cooperation can increase engagement in students. Team members will need to create clear goals, responsibilities and roles to encourage support and take into account of and benefit from, any diversity within the group such as disabilities and/or mental health conditions. These differences may or may not be obvious – so students need to be mindful of disclosure issues.
- Give yourself time to work with students who have a Learning access plan to ensure you are familiar with any specific adjustments to the course design or delivery that may be required.
- Some student's find that working in CloudDeakin provides a more comfortable and accessible learning environment than located learning. It may:
  - lessen the need to transport special equipment
  - minimise any mobility issues or employment of assistive staff
  - maybe less disruptive and tiring (and less stressful).

CloudDeakin may provide a way for students to engage in a meaningful way with their peers as part of a community of learning experience. It is important then to guide and resource students in developing strategies to build and maintain such an experience amongst themselves as peers.



Figure 1: Flowchart of dynamics or conflict resolution



Adapted from an original concept developed by N Peters, Community Based Practice Program 2012, MBBS, Monash University.

(Peters, N 2012, *Community based practice program 2012*, M BBS, Monash University)



## ASSESSING TEAMWORK

Teamwork can be a positive experience for both the student and the academic, but for this to occur there are multiple facets to consider and plan prior to considering the use of teamwork. The area that can cause the greatest concern is the assessment of teamwork, in particular:

- should the assessment be formative or summative?
- who will undertake the assessment?
- what task should be set for the teamwork?

Types of assessments: Formative and/or Summative

Table 4 outlines some of the advantages and issues of using teamwork for either formative or summative assessment. Further readings detailing how to use teamwork for formative and summative assessment are also provided.

Table 4. Advantages of formative and summative assessment

ADVANTAGES	FORMATIVE	SUMMATIVE
students gain insight into their own, and others, learning needs as part of a less stressful assessment task	✓	
students have an opportunity to prepare for assessments that will contribute to their overall mark (summative)	✓	
students learn collaboratively	✓	✓
students gain team skills and important generic skills for use in the workplace	✓	✓
students take responsibility for their own learning	✓	
ISSUES		
student concerns teamwork will impact their final grade		✓
student concerns with unequal contribution		✓
belief that there is too much group work, or that it is not relevant	✓	✓

(Deakin University)

### Assessing product and/or process of teamwork

There are multiple different ways for both academics and students to assess the *product* and the *process* that occurs during teamwork. Assessment of the process enables greater formative feedback to be given to student; it may also provide evidence to the academic when there are allegations of unequal contribution from team members. The following link provides more information on product and process assessment and includes an audio link from the Faculty of Art at Deakin discussion the relative merits: <http://www.deakin.edu.au/itl/pd/tl-modules/assessment/group-assignments-assess/index.php>.

Table 5 summarises a selection of assessment styles. It is also possible to 'blend' the assessment, so that one assessment task has components that are assessed by both the academic and the student, resulting in a final mark.



Teamwork assessment comes in many different forms. Thus, the way teamwork is assessed depends on the learning outcome and/or product/objective (please refer to Center for the Study of Higher Education for more information).

Table 5. Examples of who does the assessing and possible assessment styles

WHO DOES THE ASSESSING?	POSSIBLE ASSESSMENT STYLES
Academic assessment of team product	<ul style="list-style-type: none"> <li>• Shared team mark (one piece of work is submitted and a single mark is provided)</li> <li>• Average team mark (each team member provides an individual report on the teamwork and are assessed individually, but an average team mark is the final outcome)</li> <li>• Individual mark</li> <li>• Combination team and individual mark</li> </ul>
Student assessment of team product	<ul style="list-style-type: none"> <li>• Student allocation of mark within guidelines set by academic</li> <li>• Peer evaluation</li> </ul>
Academic assessment of team process	<ul style="list-style-type: none"> <li>• Individual mark based on evidence of process</li> <li>• Individual mark based on reflection on the process</li> <li>• Average team mark (each team members' mark is assessed individually on previously agreed evidence e.g. logbooks, but an average team mark is the final outcome)</li> </ul>
Student assessment of team process	<ul style="list-style-type: none"> <li>• Peer evaluation</li> <li>• Self-evaluation</li> </ul>
Employer assessment (WIL)	<ul style="list-style-type: none"> <li>• Written feedback for individual grade for clinical teamwork practice</li> </ul>

(Devlin 2002)

Further resources can be found at:

- Brown, CA & McIlroy, K 2011, 'Group work in healthcare students' education: what do we think we are doing?' *Assessment & Evaluation in Higher Education*, vol. 36, no. 6, pp. 687–99, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/02602938.2010.483275>
- Deakin University, *Topic 11: Assessing group assignments*, Vic, retrieved 29 May 2013. <http://www.deakin.edu.au/itl/pd/tl-modules/teaching-approach/group-assignments/topic11.php>
- Devlin, M 2002, 'Assessing group work', *Assessing learning in Australian universities: ideas, strategies and resources for quality in student assessment*, Centre for the Study of Higher Education, Melbourne, Vic, retrieved 29 May 2013. <http://dro.deakin.edu.au/view/DU:30028781>
- Dolmans, DHJM, Wolfhagen, IHAP, Van Der Vleuten, CPM & Wijnen, WHFW 2001, 'Solving problems with group work in problem-based learning: hold on to the philosophy', *Medical Education*, vol. 35, no. 9, September, pp. 884–9, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1046/j.1365-2923.2001.00915.x>



- Willis, SC, Jones, A, Bundy, C, Burdett, K, Whitehouse, CR & O'Neill, PA 2002, 'Small-group work and assessment in a PBL curriculum: a qualitative and quantitative evaluation of student perceptions of the process of working in small groups and its assessment', *Medical Teacher*, vol. 24, no. 5, pp. 495–501, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1080/0142159021000012531>

## EXAMPLES OF RUBRICS FOR ASSESSING TEAMWORK

Table 6 illustrates various examples of premium located and Cloud located assessment types, resources and rubric examples to assist academics when implementing teamwork activities into the classroom:





Table 6. Examples of premium located and Cloud located assessment types, resources and rubrics

TYPES OF ASSESSMENT	POSSIBLE TOOLS	OTHER USEFUL RESOURCES
Group oral presentation	<ul style="list-style-type: none"> <li>• Prezi</li> <li>• Powerpoint</li> <li>• Posters (glogster)</li> <li>• Video</li> <li>• Multimedia</li> <li>• eLive</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio State University's rubric for oral communication Skills.</li> <li>• How to create quality group work environments: &lt;<a href="http://www.projects.uts.edu.au/index.html">http://www.projects.uts.edu.au/index.html</a>&gt;</li> <li>• Glogster: <a href="http://www.glogster.com/login">http://www.glogster.com/login</a></li> <li>• Prezi: <a href="http://prezi.com/login/?next=/auth/login/%3Fnext%3Dhttp%253A%252F%252Fprezi.com%252Fyour%252F">http://prezi.com/login/?next=/auth/login/%3Fnext%3Dhttp%253A%252F%252Fprezi.com%252Fyour%252F</a></li> <li>• Google presentations: <a href="https://docs.google.com/document/d/1e3eNwwmnlGd2vaE5ZOZ4Loo_8RmPjY8fDBar6hdAFRc/edit">https://docs.google.com/document/d/1e3eNwwmnlGd2vaE5ZOZ4Loo_8RmPjY8fDBar6hdAFRc/edit</a></li> <li>• eLive: <a href="http://www.deakin.edu.au/itl/pd/tlo/elive.php">http://www.deakin.edu.au/itl/pd/tlo/elive.php</a></li> </ul>
Digital Literacies	<ul style="list-style-type: none"> <li>• Game simulations</li> <li>• Second Life</li> <li>• Situated learning</li> <li>• Technological media teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• University of Wisconsin-Madison: <a href="http://engage.wisc.edu/sims_games/">http://engage.wisc.edu/sims_games/</a></li> <li>• The University of Western Australia's Second Life program: <a href="http://www.uwainl.blogspot.com.au/">http://www.uwainl.blogspot.com.au/</a></li> <li>• Situated Learning at The University of Wisconsin-Madison: <a href="http://engage.wisc.edu/sl/">http://engage.wisc.edu/sl/</a></li> <li>• Digital Media Assignments at the University of Wisconsin-Madison: <a href="http://engage.wisc.edu/dma/">http://engage.wisc.edu/dma/</a></li> </ul>
Peer and self-assessment of teamwork	<ul style="list-style-type: none"> <li>• Mediawiki</li> <li>• Blogs</li> <li>• Reflective writing exercises</li> <li>• Formal discussions and debates</li> </ul>	<ul style="list-style-type: none"> <li>• An assessment Rubric (The University of Western Australia's Business School)</li> <li>• How academics can assist students' learning in a group environment <a href="http://deakin.edu.au/itl/pd/tl-modules/teaching-approach/group-assignments/index.php">deakin.edu.au/itl/pd/tl-modules/teaching-approach/group-assignments/index.php</a></li> <li>• Peer marking: (<a href="http://turnitin.com/en_us/products/peermark">http://turnitin.com/en_us/products/peermark</a>)</li> </ul>
Hard copy assignment/ written teamwork assignment/group reports/project management plans	<ul style="list-style-type: none"> <li>• Microsoft</li> <li>• Spreadsheets</li> <li>• Excel</li> </ul>	<ul style="list-style-type: none"> <li>• Student resource: &lt;<a href="http://deakin.edu.au/current-students/study-support/study-skills/handouts/groups.php">deakin.edu.au/current-students/study-support/study-skills/handouts/groups.php</a>&gt;</li> <li>• Developing groups effectively, why group work is important, and other tips: <a href="http://deakin.edu.au/current-students/services/counselling/achieving/groupwork.php">deakin.edu.au/current-students/services/counselling/achieving/groupwork.php</a>&gt;</li> </ul>
On site/clinic/placement	<ul style="list-style-type: none"> <li>• ePortfolio</li> </ul>	<ul style="list-style-type: none"> <li>• A rubric for assessing team members' contributions: &lt;<a href="http://www.cse.ohio-state.edu/~neelam/abet/DIRASSMNT/oralTeamPresRubric.html">http://www.cse.ohio-state.edu/~neelam/abet/DIRASSMNT/oralTeamPresRubric.html</a>&gt;</li> </ul>

(Deakin University)



## CONCLUSION

Teamwork is a characteristic of academic studies. Drawing on what often naturally occurs with student groups, harnessing this and facilitating the development of the skill set required by this macro skill will stand the student in good stead – both in terms of studies and with taking up professional activities. Designing activities, developing rubrics to foster awareness, creativity and skills will ensure that Deakin University students are able to work effectively as team members and as team leaders.

## FURTHER READINGS & OTHER RESOURCES

### Articles on teamwork

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Tarricone, P & Luca, J 2002, 'Successful teamwork: a case study, in quality conversations', *Proceedings of the 25th HERDSA Annual Conference*, Perth, WA, 7–10 July, pp. 640–6.

Tomcho, TJ & Foels, R 2012, 'Meta-analysis of group learning activities: empirically based teaching recommendations', *Teaching of Psychology*, vol. 39, no. 3, July, pp. 159–69, retrieved 29 May 2013. <http://ezproxy.deakin.edu.au/login?url=http://dx.doi.org/10.1177/0098628312450414>

Tucker, R 2012, 'Collaboration down under: investigating team learning in Australia in architecture and related design contexts', *Proceedings of the Canada International Conference on Education (CICE-2012)*, University of Guelph, Ontario, Canada, pp. 324–9.

### Deakin resources on teamwork

How to develop teamwork skills: *Career development skills*, <http://www.deakin.edu.au/health/ens/careers/Dietetics/career-development-skills.php>

The following link explains how to provide students with teamwork sheets for effective group work. The resource covers designing group assignments, preparing students for group work, forming effective groups, getting groups started, monitoring Groups, assessing groups, and helping students reflect on their group experience: <http://www.iml.uts.edu.au/learn-teach/groupwork/index.html>

### Teamwork using ePortfolio and Mediawiki

Marin-Garcia, JA & Lloret, J 2008, 'Improving teamwork with university engineering students. The effect of an assessment method to prevent shirking', *WSEAS Transactions on Advances in Engineering Education*, vol. 5, no. 1, January, retrieved 29 May 2013. <http://www.wseas.us/e-library/transactions/education/2008/25-166.pdf>

Osman-Schlegel, L, Fluker, G & Cheng, ST 2012, 'Engaging first year students through the use of ePortfolio', in T Bastiaens & G Marks (eds), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2012*, AACE, Chesapeake, Virginia, pp. 1216–21, retrieved 29 May 2013. <http://www.editlib.org/p/41765/>



Osman-Schlegel, L, Fluker, G & Cheng, S 2011, 'Working collaboratively in a group assignment using a Mediawiki for an architecture and construction management undergraduate unit', in G Williams, P Statham, N Brown & B Cleland (eds), *ascilite 2011: Changing Demands, Changing Directions, Proceedings of the Australian Society for Computers in Learning in Tertiary Education Conference*, pp. 947–57, University of Tasmania, Hobart, 4–7 December, retrieved 29 May 2013. <http://www.leishman-associates.com.au/ascilite2011/downloads/papers/Osman-Schlegel-full.pdf> <http://www.leishman-associates.com.au/ascilite2011/downloads/papers/Osman-Schlegel-full.pdf>

### **Working collaboratively in a group assignment using a Mediawiki for student architectures**

Osman-Schlegel, L, Fluker, G & Cheng, S 2011, 'Working collaboratively in a group assignment using a Mediawiki for an architecture and construction management undergraduate unit', in G Williams, P Statham, N Brown & B Cleland (eds), *ascilite 2011: Changing Demands, Changing Directions, Proceedings of the Australian Society for Computers in Learning in Tertiary Education Conference*, pp. 947–57, University of Tasmania, Hobart, 4–7 December, retrieved 29 May 2013. <http://www.leishman-associates.com.au/ascilite2011/downloads/papers/Osman-Schlegel-full.pdf>

### **Peer assessment for teamwork**

Weimer, M 2012, 'Peer assessment is not an elixir for all group work challenges', post to Faculty Focus: Higher ED Teaching Strategies from Magna Publications, The Teaching Professor blog, 10 October, retrieved 24 May 2013. <http://www.facultyfocus.com/articles/teaching-professor-blog/peer-assessment-is-not-an-elixir-for-all-group-work-challenges/>

Rayens, WS 2012, *Peer assessment in high enrollment courses*, Professor Statistics Department, College of Arts & Sciences, University of Kentucky Faculty Toolkit, UK Faculty Toolkit Guest Author, October, retrieved 24 May 2013. <http://ukfacultytoolkit.wordpress.com/2012/10/11/peer-assessment/>

### **Conflict resolution flowchart in nursing**

NSW Department of Health 2011, *Ways of working in nursing*, WOW Resource package, Nursing and Midwifery Office, NSW Department of Health, North Sydney, NSW, June, pp. 1–22, retrieved 24 May 2013. [http://www0.health.nsw.gov.au/resources/nursing/projects/pdf/wow\\_resource.pdf](http://www0.health.nsw.gov.au/resources/nursing/projects/pdf/wow_resource.pdf)



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## DEVELOPMENT OF THE TEAMWORK TEACHING RESOURCE

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