# **Assessing Group Work** creative commons image **The following text is under the Creative Commons copyright, copied from Carnegie Melon university. Eberly Center** [**https://www.cmu.edu/teaching/assessment/assesslearning/groupWork.html**](https://www.cmu.edu/teaching/assessment/assesslearning/groupWork.html)

# All of the basic principles of assessment that apply to individual students’ work apply to group work as well. Assessing group work has additional aspects to consider, however. First, depending on the objectives of the assignment, both process- and product-related skills must be assessed. Second, group performance must be translated into individual grades, which raises issues of fairness and equity. Complicating both these issues is the fact that neither group processes nor individual contributions are necessarily apparent in the final product. Thus, instructors need to find ways of obtaining this information.

The general principles described in the next few sections can be adapted to the context of specific courses.

**Assess process, not just product.**

If both product and process are important to you, both should be reflected in students’ grades – although the weight you accord each will depend on your learning objectives for the course and for the assignment. Ideally, your grading criteria should be communicated to students in a rubric. This is especially important if you are emphasizing skills that students are not used to being evaluated on, such as the ability to cooperate or meet deadlines.

**Ask students to assess their own contribution to the team.**

Have students evaluate their own teamwork skills and their contributions to the group’s process using a self-assessment of the process skills you are emphasizing. These process skills may include, among others, respectfully listening to and considering opposing views or a minority opinion, effectively managing conflict around differences in ideas or approaches, keeping the group on track both during and between meetings, promptness in meeting deadlines, and appropriate distribution of research, analysis, and writing.

**Hold individuals accountable.**

To motivate individual students and discourage the free-rider phenomenon, it is important to assess individual contributions and understanding as well as group products and processes. In addition to evaluating the work of the group as a whole, ask individual students to demonstrate their learning. This can be accomplished through independent write-ups, weekly journal entries, content quizzes, or other types of individual assignments.

**Ask students to evaluate their group’s dynamics and the contributions of their teammates.**

Gauge what various group members have contributed to the group (e.g., effort, participation, cooperativeness, accessibility, communication skills) by asking team members to complete an evaluation form for group processes. This is not a foolproof strategy (students may feel social pressure to cover for one another). However, when combined with other factors promoting individual accountability, it can provide you with important information about the dynamics within groups and the contributions of individual members. If you are gathering feedback from external clients – for example, in the context of public reviews of students’ performances or creations – this feedback can also be incorporated into your assessment of group work. Feedback from external clients can address product (e.g., “Does it work?”, “Is it an effective design?”) or process (e.g., the group’s ability to communicate effectively, respond appropriately, or meet deadlines) and can be incorporated formally or informally into the group grade.

 **Grading Methods for Group Work**

**Instructor Assessment of Group Product**

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| --- | --- | --- |
| **Assessment Option** | **Advantages** | **Disadvantages** |
| **Shared Group Grade**The group submits one product and all group members receive the same grade, regardless of individual contribution. | * encourages group work - groups sink or swim together
* decreases likelihood of plagiarism (more likely with individual products from group work)
* relatively straightforward method
 | * individual contributions are not necessarily reflected in the marks
* stronger students may be unfairly disadvantaged by weaker ones and vice versa
 |
| **Group Average Grade**Individual submissions (allocated tasks or individual reports) are scored individually. The group members each receive the average of these individual scores. | * may provide motivation for students to focus on both individual and group work and thereby develop in both areas
 | * may be perceived as unfair by students
* stronger students may be unfairly disadvantaged by weaker ones and vice versa
 |
| **Individual Grade - Allocated task**Each student completes an allocated task that contributes to the final group product and gets the marks for that task | * a relatively objective way of ensuring individual participation
* may provide additional motivation to students
* potential to reward outstanding performance
 | * 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
 |
| **Individual Grade - Individual report**Each student writes and submits an individual report based on the group's work on the task/project | * ensures individual effort
* perceived as fair by students
 | * precise manner in which individual reports should differ often very unclear to students
* likelihood of unintentional plagiarism increased
 |
| **Individual Grade - Examination**Exam questions specifically target the group projects, and can only be answered by students who have been thoroughly involved in the project | * may increase motivation to learn from the group project including learning from the other members of the group
 | * 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
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**Student Assessment of Group Product**

|  |  |  |
| --- | --- | --- |
| **Assessment Option** | **Advantages** | **Disadvantages** |
| **Student distribution of pool of marks**Instructor awards a set number of scores and let the group decide how to distribute them.**Example: 4 member group*** Product grade: 80/100.
* 4 \* 80 = 320 pts to be distributed.
* No one student can be given less than zero or more than 100.
* If members decide that they all contributed equally then each get 80
* If they decided that person A deserved much more, then A might get 95, and the remaining if equal would get 75.
 | * 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
 | * 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
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| **Students allocate individual weightings**Instructor gives shared group grade & individual grade adjusted accor-ding to a peer assessment factor. **Example*** Group Grade = 80/100
* The individual student's peer grade ranges from .5 – 1.5, with 1 for full
* Grade = Group grade \* peer
* Below=80 \*.75 =60
* Above=80 \* 1.2 = 96
 | As above | As above |
| **Peer Evaluation - random marker, using criteria, moderated**Assessment items are anonymously completed by students who identify whether their peer has met the assessment criteria and awards a grade These grades are moderated by instructor and rating sheets returned to student. | * helps clarify criteria for assessment
* encourages 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
* provides experience to careers where peer judgement occurs
 | * time may have to be invested in teaching students to evaluate each other
* instructor moderation is time consuming
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 *From Winchester-Seeto, T. (April, 2002). Assessment of collaborative work – collaboration versus assessment. Invited paper presented at the Annual Uniserve Science Symposium, The University of Sydney*

**Group Work. UNSW Sydney***Also a very elaborate, interesting site about group work.* <https://teaching.unsw.edu.au/group-work>
*Part of it concerns assessment strategies:* [*https://teaching.unsw.edu.au/assessing-group-work*](https://teaching.unsw.edu.au/assessing-group-work)--------------------------------------------------------------------------------------------------------------------------------------

**Methods for Assessing Group Work**<https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/group-work/methods-assessing-group-work>

This site also provides a lot of information about assessing groupwork. Although there is some overlap with the information previously described, definitely interesting to check this site. What is extra is a nice example in their appendix how in a numerical way grades can be distributed. Below two examples:
 **Example for distribution of a pool of marks**

* Group project mark: 70
* No. of group members: 4
* Instructor awards 280 points to group
* Advises students that difference between marks must not be greater than 20
* Group members divide marks by consensus as follows:

**Example for individual weighting factor**

Rating scale
1 -Did not contribute in this way
2 -Willing but not very successful
3 -Average
4 -Above Average
5 -Outstanding

Peer assessment factor = (individual total) / (average total)
Average of individual totals = 10 If project mark = 60
Individual marks:
Ann = 60 \* (11/10) = 66
Bob = 60 \* (12/10) = 72
Chris = 60 \* (7/10) = 42

**Some other sites that may be interesting:**

**More about group work from Carnegie Melon university. Eberly Center
Using Group Projects Effectively.** *Informative site with a lot of tips and tools.*<https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/index.html>

Topics: [What are the benefits of group work?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/benefits.html) // [What are the challenges of group work, and how can I address them?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/challenges.html) // [What are best practices for designing group projects?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/design.html) // [How can I compose groups?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/compose.html) // [How can I monitor groups?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/monitor.html) // [How can I assess group work?](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/assess.html) // [Sample group project tools](https://www.cmu.edu/teaching/designteach/design/instructionalstrategies/groupprojects/tools/index.html)

**What is Cooperative Learning?**
<https://serc.carleton.edu/introgeo/cooperative/whatis.html>
*A lot of elaborate information about cooperative learning.*Cooperative learning involves more than students working together on a lab or field project. It requires teachers to structure cooperative interdependence among the students. These structures involve five key elements which can be implemented in a variety of ways.
**Assessment of Cooperative Learning.** <https://serc.carleton.edu/introgeo/cooperative/assess.html>

 **The freeloader problem in group work. Some ways in which you can help reduce the freeloader problem.**
<https://www.reading.ac.uk/engageinassessment/assessing-group-work/eia-group-challenges-freeloaders.aspx>

**Methods for deriving individual marks from group work**. Article by Lucy Bowe, Miriam Delaney, Breiffni Fitzgerland, Peter MacCann and Christina Ryan. Dublin Institute of Technology. <https://arrow.dit.ie/ltcpgdprp/1/>