

Teaching with PeerAssessment.Com (PAcom)

This article describes ideas to incorporate peer assessments in your teaching using the PAcom tool.

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The #1 complaint of most students about working in teams is called the “free-rider” problem. Basically, if students who do less than their fair share of teamwork receive the same grade as students who do more, the incentive for a student to do more or better is disrupted. Powerful collaborative learning strategies can fall apart when students have competing pressures, from multiple classes and outside work/family/friends.

PeerAssessment.Com (PAcom) is a tool designed to support collaborative learning. It can detect “free-riders” when students are learning and working together in teams. And it provides peer-generated feedback for each student to learn how their behaviors and contributions are perceived by other team members.

Here are the principal goals for PAcom:

1. **Accountability** – Peer assessment is a means of tying a student's team participation and contribution to a grade, as an extrinsic motivator. It defends against the “free-rider” problem.
2. **Develop Team Skills** – The feedback a student receives from their peers can help them improve their team and work behaviors.
3. **Self-Manage Teams** – Team-level feedback collected can help the team analyze, manage and improve their own processes.
4. **Monitor Issues** – It provides a window into team interactions for instructors to monitor this area, and potentially adjust their instruction or provide targeted assistance.
5. **Grading** – Peer assessment data can enable the instructor to determine individualized grades that reflect the perceived contributions of each student.

1. TIMING: How many assessments should you use?

WHY: Providing multiple, opportunities for students to give and receive feedback A single peer assessment at the end of a team assignment is too late if the student needs to correct, or if you need to intervene. Also, students will learn to give more effective, constructive feedback with successive assessments.

WHAT: For a longer team project, lasting most or all term, I recommend assessments every 2-3 weeks. Or do so weekly for a brief, high intensity project. Another natural way to time assessments is when major deliverables or milestones are completed. Upcoming deliverables increase the pace of work, creating natural points of reflection.

HOW: It's easy to create a number of assessments--up to 12 for one class

- a) Create the first assessment completely—prepare the questions, emails, and teams, plus set report distribution and special instructions.
- b) Click **+ New Assessment** for as many more assessments as you will need--each is identical to the prior one. Adding an assessment copies the teams, questions and other parameters from the prior assessment.
- c) Fill in the dates/times for each. You may make any other changes needed.

2. SURVEY PERIOD: How long should students have to complete a peer assessment?

WHY: When deciding on the start and end for an assessment, it is best to open it for the shortest time possible for two reasons. First, the feedback students give should follow as close as possible the behaviors and experiences it reflects on. Second, longer periods do not typically increase response rate; actually, it simply encourages deadline-driven students to postpone and forget to fill it out.

WHAT: I have found it is usually best to make the assessment period relatively short, such as 2 - 3 days. It can range from a couple hours (if you ask student to fill it out in-class on their smartphones) up to one week.

I consider various factors in deciding when to start and end an assessment. Here are a few examples:

- Fully online classes may need a full week to accommodate varying students' homework schedules.
- Face to face, or fixed meeting time, classes can set the next class meeting as the time to close the assessment.
- When I require teams to reflect and discuss how to improve their team processes, the assessment should end at the time those discussions can start.

- Occasionally, I set aside time in class to fill it out.

One last thing to remember: you can always extend the assessment time, or even reopen it, but it is very difficult to shorten it.

HOW: The assessment time is set on the Assessment page.

- In addition to the Start and End times, you will set up 2 Reminders.
- You can change any of the Start/End/Reminder times before or during the assessment as long as the time is set to the future.
- One the assessment starts, an ‘Extend’ button will appear. It helps to use this, as a special email is sent (to students who have not yet completed). [Click here for more information](#)

3. REPORT DISTRIBUTION: When should you release results to students?

WHY: Many instructors are concerned about releasing student feedback to other students before they know there are no inappropriate comments that could cause more harm than good. PAcom lets you balance the value of getting immediate feedback to students with the opportunity to review the feedback before sharing it.

WHAT: On the assessment page, under “Report Distribution”, there are three options to control how reports are distributed to students.

- **Automatically Distribute** includes the personalized report link in the end assessment email.
- **Hold and Review** withholds the report link until you can look over report. Then you decide when to send out the link.
- **Do Not Distribute.**

HOW: **Assessment 1:** I recommend you use “Hold and Review” for the first round. This lets you review the feedback. If there are issues, you can open the [Student Assessment Status Page](#) and edit/redact any offensive comments before distributing it.

Assessment 2 and Beyond: I recommend using “Automatically Distribute”. If you prepared students for giving effective feedback (see next tip), offensive comments will be very rare or nonexistent.

High Stakes Assessment: For higher stakes, graded, assessments—such as the final project--some instructors “Do Not Distribute” the feedback. This underscores the importance they place on students giving honest feedback to the instructor for grading purposes. There is no way to 100% eliminate potential collusion. However, by not distributing the feedback, the logic is that collusion may be more difficult as it removes evidence that some member broke with others.

4. PREPARATION: How to prepare students to give effective peer feedback?

WHY: One could argue that giving effective feedback is among the most challenging of the soft teamwork and communication skills to master, for success as a student as well as a working professional. Delivered well, constructive feedback motivates and improves work practices; delivered poorly, it can cause resentment and division.

I strongly urge you to talk with your students about the why and how of giving effective feedback, even if your class's explicit focus is not on soft skills. High quality of feedback can build team cohesion, motivate engagement, and turn differences of opinion into learning opportunities.

WHAT: We have included a brief, easy to apply, article to teach your students how to give constructive feedback. The model is called C.O.I.N. The simple formula will help them get their helpful feedback across and be heard. We have also prepared a rubric for evaluating the open-ended feedback students give to one another.

HOW: Consider using the following approach for your class's first assessment. The intent is to prepare your students to give effective feedback, while taking minimal time away from the rest of your class.

1. **Set Expectations:** Inform students of your expectations for giving feedback.
 - a. Please give honest, respectful, and constructive feedback that identifies specific positive and negative aspects of your peers' teamwork behaviors.
 - b. Feedback needs to be specific and behavioral; never about them as a person.
 - c. Include suggestions for how they can improve.
 - d. Your goal for giving feedback to peers is to help them improve their teamwork and contributions, for the immediate project and the long term.
 - e. I (instructor) will be reading the feedback you give and get, to make sure everyone is practicing good feedback skills.
2. **Instruction:** Most people have personally experienced good and bad models for giving feedback. All students can benefit from a simple, useful model to work from. I recommend you assign this brief article to your students [How to give feedback the right way: the C.O.I.N. Model](#).
3. **Evaluate Student Feedback:** Evaluate the open-ended feedback students give to one another. This will emphasize and reinforce their use of the C.O.I.N model, and communicate the importance you place on well-formed feedback. These materials can help streamline evaluation:

- a. Run the PAcom [Feedback Assessment Report](#) – this organizes all the open-ended feedback from a student to their peers on a single page, for you to quickly scan.
 - b. Customize the [Rubric to Evaluate Student Use of the COIN Model](#) to fit your needs. It allows you to efficiently evaluate and return feedback to the student regarding the feedback they gave.
4. **Reinforce Feedback:** After evaluating the first assessment, I briefly discuss my general impressions of the feedback given. (E.g. *Was the open-ended feedback specific? Did it point out positive and negative behaviors? Were suggestions identified?*) My goal is two-fold: to raise expectations AND to make it clear that I read and take seriously their feedback. After this early discussion, I rarely have experienced inappropriate comments.

Subsequent Assessments: When reviewing student’s feedback on subsequent assessments, watch for students who are failing to apply the feedback model. If there are widespread issues, you may need another round of systematically evaluating feedback, or to note it with individual students.

5. TEAM FEEDBACK: How can you use team-level feedback?

WHY: In the workplace, attention is paid to developing high-performing teams. Such teams have markedly higher levels of productivity, satisfaction, and independence. As instructors, we should be equally interested in building high-performing learning teams of students to generate curiosity and engagement.

Researchers point various characteristics of high-performing teams, such as defined roles, clear goals, good communication, and a respectful & safe environment. One frequently cited common characteristic is “learning from mistakes”, “continuous learning”, or a “feedback culture”. ([Quantum Workplace](#), [High5Test.Com](#)) That is, high performing teams regularly review their team processes, tools, interactions, and norms, to change what prevents them from becoming more effective.

A popular project management methodology currently used in industry and education is called Agile or Scrum. The [Agile “Retrospective”](#) is a key activity. On a regular basis, teams reflect on what worked, what didn’t, why, and how to improve.

WHAT: In PAcom, you can include team-level as well as peer or individual-level questions. Generating team-level feedback can boost team performance by helping students work together to identify and resolve team process issues. It can help:

- kickstart productive in-person or virtual discussions about how the team is operating and what it could do better,
- allow students to initially think and record their thoughts separately and

- anonymously, minimizing group think and expanding the diversity of perspectives,
- some students find it easier to critique the team versus individual peers, so they do not potentially offend a team mate.

HOW: We highly recommend using PAcom to initiate team-level discussions. This involves including Team question sets in addition to (or even in place of) Peer question sets. Consider this approach to team-level assessment:

1. Schedule the assessment with Peer + Team question sets to end just before the time when student teams should meet and discuss their teamwork processes.
 - a. Two question sets that I highly recommend, include: (T-03.a) Team Strengths, Weaknesses, Actions; and (T-04) Progress Toward Effective Team Functioning.
2. Ask teams to spend about 15 minutes discussing and writing down the top few things they are doing well and doing poorly, plus three changes they plan to make over the next working period* to improve their teamwork. They should use the reported team-level assessment feedback to start the discussion, but then move beyond it.
3. During the next work period*, remind teams to systematically apply the improvements they identified.
4. *Optional:* For the next peer assessment, add question set (T-06) Team Changes asking students to assess two of those changes they had agreement upon.

* The work period the time teams will be working on their project up to the next assessment and/or deliverable.

6. ASSESSMENT TYPES: *What different types of assessments can be used?*

TERM: I would like to clarify a few important distinctions among types of assessments:

- **Self vs. Peer vs. Team Assessment**

This identifies who is being assessed. Is the student assessing themselves, each peer, or the team as a whole? PAcom supports all three within the assessment survey.

There is one section of questions (“Peer”) that each student answers for themselves and for each peer on the team. Only responses about peers are used for grading (see the Normative Grade Report), so a student can not influence their own grade. But the Self responses are included in the student’s own feedback (see Student Report) so they can compare how they see themselves to how their peers see them.

Another section of questions (“Team”) is answered by each student about the overall team and how it is working. No grades are calculated, but this information is useful for team conversations about how to improve their team processes.

- **Assessment of Process vs. Content**

This refers to what is being assessed. Assessment of Process (PAcom's domain) focuses on the teamwork behaviors and team processes, evaluating how work is done and who does it. Assessment of Content is focused on evaluating the content of actual deliverables produced by an individual or team.

There are various systems available to support peer assessment of content. These systems manage the distribution of documents (and other e-artifacts) to other students to be reviewed/edited/evaluated and the collection of feedback/suggestions to assist the author or evaluate the work.

- **Formative vs. Summative Assessment**

This refers to the goal of an assessment. Summative Assessments evaluate student achievement, usually with a grade. Meanwhile Formative Assessments collect feedback that supports student learning and performance. PAcom is designed to support both Formative and Summative Assessment.

Both types of assessments share many characteristics. Both can help to motivate students, engage with teams, and achieve their best work. And both types can either work through the student (to help them correct their own errors or learning strategies) and/or the instructor (to help them modify and focus subsequent instruction for the individual student). Also, responses to a given set of questions could be used to serve both formative and summative purposes, depending on how they are framed and applied.

Many researchers feel that formative assessment can have greater impact on student learning when it is:

- Is frequent and ongoing so students can fine tune their progress
- is immediately collected and fed back to make sure it is meaningful
- includes specific assessments to ensure it provides concrete feedback for improvement

On the other hand, summative assessment is often dictated by our educational systems, and grades have become an expected extrinsic motivator for our students. Thus I usually include both formative and summative peer assessments in an iterative feedback process (see Tip #8).

7. GRADING: How can you use peer assessments to calculate grades for individual students?

The document [Calculating Individual Grades From Peer Assessment Scores](#) describes four types of grades that you may wish to apply at different points during student team projects. Your particular course, learning outcomes, student abilities to work in teams, etc. will determine which types are most helpful.

Here is a brief overview of those four grading types:

Grade Type	What	When
Completion Grade	Assign points as an incentive to fill out the peer assessment	On each assessment round
Given Feedback Quality Grade	Assign points to reinforce giving high quality, constructive, open-ended feedback to ones peers	First assessment only
Teamwork/ Participation Grade	Assign points to evaluate the quality of one’s teamwork or team participation	<p>As Needed</p> <p>--These grades are more likely to be substitutes.—</p> <p>Upon evaluation of team project deliverables</p>
Individualized Project Grade	Use peer assessment data to adjust the group project deliverables grade for each individual team member	

8. ITERATIVE FEEDBACK: How should I plan to gather and use peer feedback in a class with a large team project?

WHY: In classes with a large team project, successful learning depends on teams working fairly smoothly and independently over a lengthy period of time.

A plan for regular iterative peer feedback can support the following objectives:

- 1. Accountability** -- Repeated assessments help a student know whether or not they are performing to the expectations of their teammates. (Similarly, the team is accountable to the individual student. If they don’t give corrective feedback, the student is not responsible for continuing their behavior.)
- 2. Develop Team Skills** -- When a student receives feedback from one peer assessment they can adjust their team and work behaviors for the next work period.
- 3. Self-Manage Teams** – The feedback from team-level questions supports team efforts to analyze, manage and improve their own processes.
- 4. Monitor Issues** -- If issues do arise within teams, you need to know earlier rather than after it is too late to address.
- 5. Target Assistance** -- When you notice an individual or team issue, you can target your intervention. With the next assessment, check if the situation has improved
- 6. Grading** – Support the instructor determining individualized grades as needed for course requirements.

WHAT: We propose a plan with elements to meet the above objectives. This ties together ideas from previous teaching tips.

Both formative and summative assessments are included. The summative assessments are timed near submission of team deliverables; individualized project

grades are calculated using peer feedback to adjust grades for the group deliverables.

The template below is for a project lasting 9 weeks, with mostly 2 week work cycles, and project deliverables due at the mid-point and end. Feel free to adjust according to your objectives, project needs, and time frame.

Here are the basic components. (T# = Items that relate to Teaching Tips, * = footnote)

Week	Deliverables	Pre-Assessment	Assessment	Post-Assessment
0-1	* Team Contract	<ul style="list-style-type: none"> Introduce project Introduce teamwork skills Create teams T3 Prepare students to give feedback	Formative	T5 Hold 15-minute team discussions > submit notes * Invite team contract changes T3 Evaluate given-feedback with rubric
2-3	None	<ul style="list-style-type: none"> Students work in teams ** Meet students or teams with issues of concern	Formative	T5 Hold 15-minute team discussions > submit notes
4-5	Mid Deliverables	<ul style="list-style-type: none"> Students work in teams ** Meet students or teams with issues of concern	Summative	<ul style="list-style-type: none"> Teams submit mid-deliverables Grade team mid-deliverables T7 Calculate individualized project grades
6-7	None	<ul style="list-style-type: none"> Students work in teams ** Meet students or teams with issues of concern	Formative	T5 Hold 15-minute team discussions > submit notes
8-9	Final Deliverables	<ul style="list-style-type: none"> Students work in teams ** Meet students or teams with issues of concern	Summative	<ul style="list-style-type: none"> Teams submit final-deliverables Grade team final-deliverables T7 Calculate individualized project grades

* A Team Contract (aka team charter) is a written agreement among team members. It identifies ground rules, expectations, roles, and responsibilities by which team members can help keep one another on track and accountable. Creating the contract guides students in openly discussing their expectations for working together. Here is a [sample Team Contract exercise and template](#) from Kellogg School of Management.

** Peer Assessments also play an important role for instructors as a window on how student teams are working. You can often detect issues building with individuals or teams in order to decide whether to intervene in some way. Perhaps by posing a simple question to a student about how things are going or suggesting to the class a technique teams might use to address a common issue.

HOW: PAcom is designed to make it very easy and flexible to create multiple, iterative assessments. You can create up to 12 for one class. Most iterative assessments will include the same questions, emails, and teams, so it copies these from one assessment to the next. However, you can always make changes to any of these for a given assessment.

Here's how to set up iterative assessments:

1. **Create Assessment #1 Completely** — Prepare the questions, emails, and teams. Also set the report distribution and add any special instructions.

<<Only proceed to the next step after you load students and assign them to teams.>>

2. **Add Iterative Assessments** — Click “+ New Assessment” for as many more assessments as you will need--each is identical to the prior one (except for the dates).
3. **Add Dates** — Fill in the dates/times for each when you are ready.

Once the assessments are created, you can make any adjustments needed. Perhaps a student leaves the class or changes teams, or a specific question set needs to be added.

For more information on these changes, [see the HELP page](#) for these instruction sets:

- Tips for Creating Iterative Peer Assessments in PA
- Managing Students and Teams
- Use Manage Teams to Assess Some Groups but not Others
- Managing Questions
- Reopen or Extend Deadline for an Assessment