



MIAMI

# PEER AND SELF ASSESSMENT IN THE DISCUSSION-BASED CLASSROOM

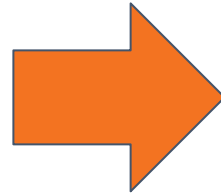


## **DISCUSSION**

Do you currently use peer and self assessment in your courses and, if so, how?



# THE QEP: FROM TRANSMISSION TO DIALOGUE AND DISCUSSION



<https://www.exeter.edu/news/how-do-you-orient-new-exeter-teachers-harkness-take-them-straight-table>

# THE QEP METHODS: NEED FOR ALTERNATIVE ASSESSMENTS



## HARKNESS

Students initiate and lead discussions about assigned material, exchanging views and learning with and from one another, while faculty act primarily as facilitators to ensure balance and focus in discussions.



## FLIPPED LEARNING

Students' first exposure to content - through readings, video, or some other medium - takes place before class, and class time is primarily dedicated to activities which promote active learning.

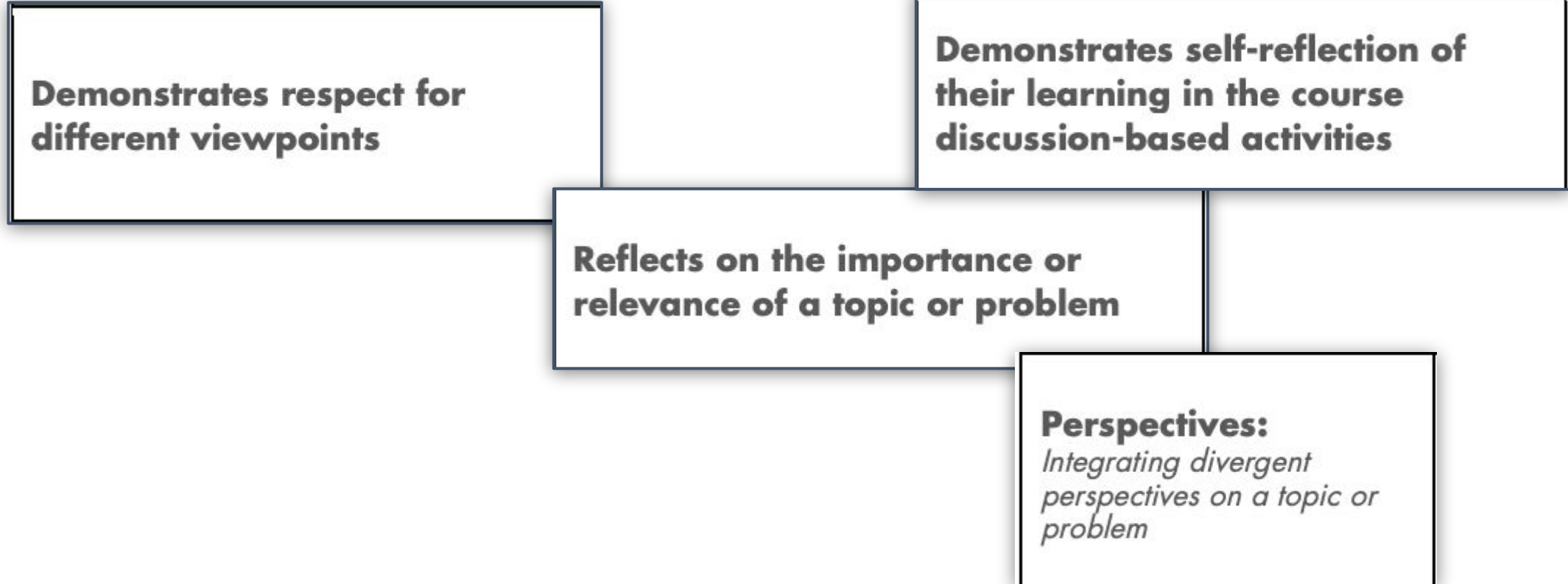


## PROBLEM-BASED LEARNING

Students learn by working in groups to solve open-ended problems. They work to define problems, identify and search for necessary resources, generate and evaluate possible solutions, and finally present the most viable solution(s).

# THE QEP: REVISITING THE OBJECTIVES

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# PEER AND SELF ASSESSMENT: THE BENEFITS

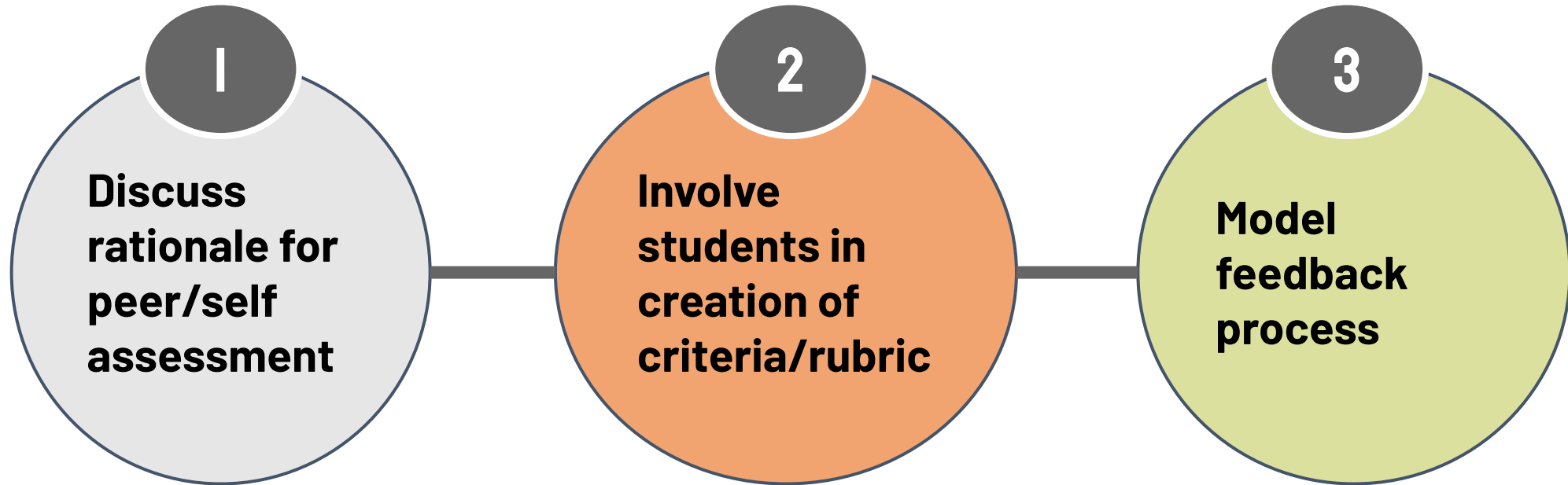
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- Develops lifelong skills in providing feedback to others (peer)
- Promotes accountability in group work (peer)
- Encourages students to be cooperative, responsible, and productive members of a group (peer)
- Promotes self reflection and regulation of learning (peer and self)
- Helps students to become autonomous, lifelong learners (peer and self)



# IMPLEMENTING PEER AND SELF ASSESSMENT: SETTING THE STAGE

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## SETTING THE STAGE: DISCUSS RATIONALE

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*“Making connections with all teaching and learning elements will help learners see the relevance of the assignments and optimize the learning outcomes...Never assume that learners naturally make connections between the course’s goals and expectations with the assessments and activities.”*

(McDaniel, 2021)



## SETTING THE STAGE: DISCUSS RATIONALE

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Explicitly link peer review with the course learning outcomes.

**Example:** “Students will be able to effectively assess the strengths and weaknesses of peer papers/projects and make concrete suggestions for improvement.”

# SETTING THE STAGE: INVOLVE STUDENTS

**CO-CONSTRUCT  
THESE CRITERIA  
WITH STUDENTS**

	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Task requirements</b>	All	Most	Some	Very few or none
<b>Frequency</b>	Always	Usually	Some of the time	Rarely or not at all
<b>Accuracy</b>	No errors	Few errors	Some errors	Frequent errors
<b>Comprehensibility</b>	Always comprehensible	Almost always comprehensible	Gist and main ideas are comprehensible	Isolated bits are comprehensible
<b>Content coverage</b>	Fully developed, fully supported	Adequately developed, adequately supported	Partially developed, partially supported	Minimally developed, minimally supported
<b>Vocabulary Range Variety</b>	Broad Highly varied; non-repetitive	Adequate Varied; occasionally repetitive	Limited Lacks variety; repetitive	Very limited Basic, memorized; highly repetitive

# SETTING THE STAGE: INVOLVE STUDENTS

**CO-CONSTRUCT  
THESE WITH  
STUDENTS DURING  
THE NORMING  
PROCESS**

<b>Objective</b>	<b>Excellent (A)</b>	<b>Good (B)</b>	<b>Fair (C)</b>	<b>Poor (D or below)</b>
<i>Participation</i>	Takes part on a regular basis but does not dominate. Consistent and constructive	A bit too vocal; could let others speak more OR could speak a bit more regularly	Has to be reminded about being dominant OR has to be reminded to speak up	Domineering OR never or rarely takes part
<i>Engagement</i>	Totally engaged and enthusiastic through words and body language	Engaged	Tends to disengage occasionally	Rarely engaged or little demonstrated interest
<i>Table Behavior</i>	Listens to peers and does not interrupt. Addresses comments to and looks at entire class. Respects others and has earned respect of others	Likes to talk too much. Inconsistent use of names and eye contact or only speaks to part of group. Listens fairly well, not disruptive, but may interrupt occasionally.	Can be distracted or a bit disruptive or interrupts several times. May push away from table or withdraw. Talks just to teacher or individual.	Sometimes disruptive or withdrawn and disconnected. Does not respect others or is not respected.
<i>Articulation</i>	Speaks clearly, succinctly, and articulates ideas well. Thorough explanations	Points generally clear and some explanation of them. May not be succinct.	Hard to understand all points; not thoroughly explained or rambling.	Confusing, convoluted
<i>Text References</i>	Regularly uses specific evidence to support or disprove points.	Occasionally cites evidence	Rarely cites evidence	No evidence used; only opinion
<i>Leadership</i>	Your questions (and comments) shape the discussion in important ways. You actively encourage wide participation and new avenues of inquiry	Some of your points help shape the discussion in new ways.	You make solid points but do not move the discussion in new directions or to greater depth	No leadership evidenced
<i>Critical Thinking</i>	Makes connections to previous comments or other ideas without merely repeating them. Sees the big picture concepts as well as the specific details. Truly understands the issues and raises new ideas or explore others in greater depth. Reasoned points.	Occasionally makes connections. Has a solid understanding of the big concepts and the details. Comments sometimes lead to more in-depth analysis. Sometimes repeats others' ideas.	Can make disparate points about parts of the discussion, but little evidence of broader understanding. May show inaccuracies. Repeats others' points.	Misunderstanding of the issues and/or details.

(Caldwell, 2016)

# SETTING THE STAGE: MODEL FEEDBACK

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Discuss the characteristics of constructive feedback (specific, respectful, non-judgmental, etc.)

Model the act of assessing and giving feedback by guiding students through the process of assessing some sample assignments of varying levels that illustrate common challenges



## IMPLEMENTING PEER ASSESSMENT: ACTIVITY IDEAS

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Redistribute papers randomly along with a grading rubric. After students have evaluated the papers ask them to exchange with a neighbor, evaluate the new paper, and then compare notes.

After completing an exam, have students compare and discuss answers with a partner. You may offer them the opportunity to submit a new answer, dividing points between the two.

For group presentations, require the class to evaluate the group's performance using a rubric.

# IMPLEMENTING PEER ASSESSMENT: ACTIVITY IDEAS



When working on group projects, have students evaluate each group member's contribution to the project, possibly requiring students to provide rationale for how and why they awarded points.

Student Evaluated \_\_\_\_\_ Problem \_\_\_\_\_

1. Did the person attend all class meetings, come prepared for the discussion, and contribute to the group's discussion?  
Never (0.70)  Seldom (0.80)  Sometimes (0.90)  Often (1.00)  Always (1.05)
2. Did the person ask relevant questions and respond to the questions of others?  
Never (0.70)  Seldom (0.80)  Sometimes (0.90)  Often (1.00)  Always (1.05)
3. Was the person willing to do work outside of class and bring relevant information back to the group for discussion?  
Never (0.70)  Seldom (0.80)  Sometimes (0.90)  Often (1.00)  Always (1.05)
4. Was the person a good listener who respected the opinions of others?  
Never (0.70)  Seldom (0.80)  Sometimes (0.90)  Often (1.00)  Always (1.05)
5. Did the person contribute to overall organization and group consensus?  
Never (0.70)  Seldom (0.80)  Sometimes (0.90)  Often (1.00)  Always (1.05)

Comments:

# IMPLEMENTING SELF ASSESSMENT: ACTIVITY IDEAS



**Exam/assignment wrappers** ask students to reflect on their performance on an exam or assignment, how they prepared, and what they might do differently going forward.

As with the first exam, this activity is designed to give you a chance to reflect on your exam performance and, more importantly, on the effectiveness of your exam preparation. Again, please answer the questions sincerely. Your responses will be collected to inform the instructional team; they will have no impact on your grade.

1. Approximately how much time did you spend preparing for this exam? \_\_\_\_\_
2. What percentage of your test-preparation time was spent in each of these activities?
  - a. Reading textbook section(s) for the first time \_\_\_\_\_
  - b. Re-reading textbook section(s) \_\_\_\_\_
  - c. Reviewing homework solutions \_\_\_\_\_
  - d. Solving problems for practice \_\_\_\_\_
  - e. Reviewing your own notes \_\_\_\_\_
  - f. Reviewing materials from blackboard \_\_\_\_\_  
(What materials? \_\_\_\_\_ )
  - g. Other \_\_\_\_\_  
(Please specify: \_\_\_\_\_ )
3. What aspect(s) of your preparation for this exam seemed different from your exam 1 preparation? Did these changes have any effect?
4. Now that you have looked over your graded exam, estimate the percentage of points you lost due to each of the following (make sure the percentages add up to 100):
  - a. Trouble with vectors and vector notation \_\_\_\_\_
  - b. Algebra or arithmetic errors \_\_\_\_\_
  - c. Problem with force-body diagram \_\_\_\_\_
  - d. Lack of understanding of the concept \_\_\_\_\_
  - e. Not knowing how to approach the problem \_\_\_\_\_
  - f. Careless mistakes \_\_\_\_\_
  - g. Other \_\_\_\_\_  
(Please specify: \_\_\_\_\_ )
5. Students sometimes have difficulty drawing appropriate force-body diagrams and applying Newton's second law appropriately. Was either of these a difficulty for you (check question 2 on the exam)? If so, try to self-assess your understanding: Identify what aspect of these skills are causing you difficulty and what you can do to improve your ability to solve problems using these skills.

# IMPLEMENTING SELF ASSESSMENT: ACTIVITY IDEAS



**Exam/assignment wrappers** ask students to reflect on their performance on an exam or assignment, how they prepared, and what they might do differently going forward.

1. The goal of this homework assignment is to give you practice calculating excitation energies and visualizing the process of energy level change. Before you try to solve the problem, rate each of the following statements according to how true it is for you on a scale of 1 (not at all true) to 7 (very true).
  - (a) Before I began this assignment, the idea of quantized energy levels was familiar to me. 1 2 3 4 5 6 7
  - (b) Before I began this assignment, I felt confident I could accurately calculate energy levels. 1 2 3 4 5 6 7
  - (c) Before I began this assignment, I felt confident I could draw an energy level diagram? 1 2 3 4 5 6 7
2. The sun's atmosphere contains vast quantities of  $\text{He}^+$  cations. These ions absorb some of the sun's thermal energy, promoting electrons from the  $\text{He}^+$  ground state to various excited states. The energy of these excited states are called excitation energies and are measured relative to the ground state whose excitation energy is zero by definition. A  $\text{He}^+$  ion in the fifth energy level may return to the ground state by emitting three successive photons: an infrared (IR) photon (wavelength = 1014 nm), a green photon (469 nm), and an X-ray (26 nm).
  - (a) Calculate the excitation energies for each of the levels occupied by the  $\text{He}^+$  ion as it returns to the ground state.
  - (b) Draw an energy level diagram for  $\text{He}^+$  cations that illustrates all the details of this cascade process.
3. After having completed this assignment, rate each of the following statements in terms of how true it is for you on a scale or 1 (not at all true) to 7 (very true).
  - (a) If I had to do an energy calculation for a different one-electron system on a test, I am confident I could do so. 1 2 3 4 5 6 7
  - (b) I understand how the idea of changing energy levels relates to other topics in the course. 1 2 3 4 5 6 7 Here is an example of another topic and why it is related to energy levels: \_\_\_\_\_



# IMPLEMENTING SELF ASSESSMENT: ACTIVITY IDEAS



Short daily/weekly  
end-of-class surveys

## Harkness Discussion

Date: \_\_\_\_\_

Name: \_\_\_\_\_

My goal for today's discussion:

Did you meet your goal? Explain why or why not.

How did the class do? List one thing we did well and one thing we can do better on as a class.

List one thing that someone in your class said that influenced your thinking.

# IMPLEMENTING SELF ASSESSMENT: ACTIVITY IDEAS

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## DISCUSSION AUDIT INSTRUCTIONS

Please write down anything that occurs to you about your contributions to the discussions we've had in class this week and anything you may have learned from those discussions. You may record your thoughts in a free-flowing way. If you prefer more structure, you may consider the following questions:

- List the assumptions that you held about the topic of the discussions this week that were uncovered or clarified for you.
- What different perspectives on the topic were suggested for you by our discussions?
- etc.

(Brookfield & Preskill, 2005, pp. 277-278)

# IMPLEMENTING SELF ASSESSMENT: ACTIVITY IDEAS

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## **COURSE PORTFOLIO: INSTRUCTIONS FOR EVALUATING YOUR DISCUSSION PARTICIPATION**



Participating in class discussion is an important part of this course. However, what participation means and how it can be observed are open questions. In this course, both you and your instructor will judge your participation in discussion according to how seriously you try to live out the conditions of critical conversation.

Below are listed fifteen purposes for discussion. Each week, I want you to write about the extent to which you think each of these purposes was accomplished. Give as many examples of your discussion behavior as you can.

1. Becoming aware of diversity...
2. Appreciating ambiguity and complexity...
3. Hunting assumptions...

# IMPLEMENTING PEER AND SELF ASSESSMENT: PLATFORMS



Question 1: Multiple-choice (single answer) Cancel Delete

How would you rate this student's contribution to team meetings?

Good: you really helped to make meetings productive ✕
 Or, generate options from the list of all students

Normal: you contributed to meetings ✕

Poor: you either didn't attend or contribute to meetings ✕

+ add more options

Add 'Other' option (Allows respondents to type in their own answer)

Feedback Path (Who is giving feedback about whom?)

Who will give the feedback: Students in this course Who the feedback is about: Giver's team members

Visibility (Who can see the responses?)

[Edit Visibility](#) [Preview Visibility](#)

User/Group	Can see answer	Can see giver's name	Can see recipient's name
Recipient(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Giver's Team Members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Save Question

Question 1:  
Please select the appropriate description for each of your team members. Each person will see their own feedback, but not your name.

Only the following persons can see your responses:

- The receiving students can see your response, but not your name.
- Instructors in this course can see your response, the name of the recipient, and your name.

To: Anderson, Seth

	Strongly Agree	Agree	Disagree	Strongly Disagree
a) This student participates well in team discussions.	<input type="radio"/> Initiates discussions frequently, and engages the team.	<input type="radio"/> Takes part in discussions and sometimes initiates discussions.	<input type="radio"/> Occasionally responds, but never initiates discussions.	<input type="radio"/> Rarely or never responds.
b) This student completes assigned tasks on time.	<input type="radio"/> Tasks are always completed before the deadline.	<input type="radio"/> Occasionally misses deadlines.	<input type="radio"/> Often misses deadlines.	<input type="radio"/> Rarely or never completes tasks.
c) This student listens carefully and encourages others to contribute	<input type="radio"/> Often solicits other opinions, makes sure everyone is heard	<input type="radio"/> Sometimes solicits other opinions from team members.	<input type="radio"/> Solicits agreement from others in team	<input type="radio"/> States own opinion and is argumentative



# IMPLEMENTING PEER AND SELF ASSESSMENT: PLATFORMS



The image displays a screenshot of the Blackboard Assignment Settings interface, overlaid with two modal windows. The main settings page includes:

- Assignment Settings** (gear icon)
- Due date:** 10/1/22, 12:00 AM (EDT)
- Grade category:** Assignment
- Grading:** Points | 100 maximum points. Post grades manually when assessment graded. [Change grade posting setting.](#)
- Attempts allowed:** 1 attempt
- Originality Report:** Enable SafeAssign

The first modal window, titled "Grade using", contains the following settings:

- Grade using:** Points
- Maximum points:** 100
- Anonymous grading:**
  - Hide student names (Note: You can't turn on anonymous grading because peer review is turned on. Students won't see names on submissions and reviews.)
- Evaluation options:**
  - 2 graders per student (Note: You can't turn on parallel grading because peer review is turned on)
  - Peer review
  - [Select peer settings](#)
- Assessment grade:**
  - Post assessment grades automatically **NEW** (Note: Automatically posts the grade when the assessment is graded. The feature covers automatically and manually graded assignments, and tests with auto-graded question types. Turn the setting off if you want to manually control grade publication.)

The second modal window, titled "Peer review settings", includes:

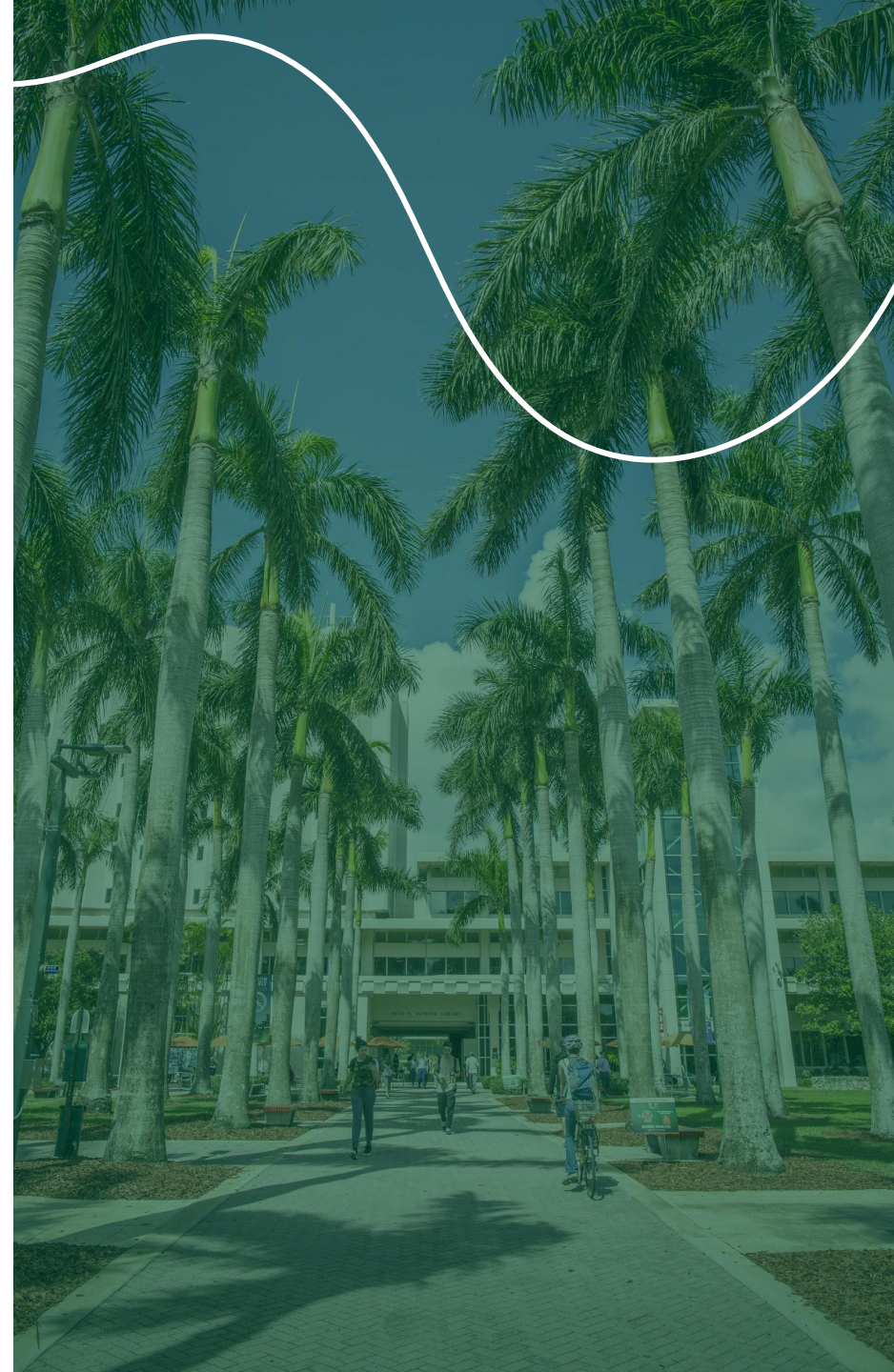
- Reviews per student:** 3 (Note: In student view, names don't appear on submissions and reviews. Late reviews are accepted.)
- Assessment due date:** 10/1/22, 12:00 AM
- Peer review due date:** Date, Time (Note: Peer review due date must come after assessment due date. The review process starts immediately after the assessment due date.)

Both modal windows have "Cancel" and "Save" buttons at the bottom.

## ACTIVITY

Choose one peer/self assessment activity and discuss how you will need to adapt it for your context. Think about the following:

- How will you convey purpose to students?
- How will you involve and prepare them?
- How will it factor into their grades?
- Where/how will it take place?







# THANK YOU

Any questions?

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