

INTRODUCTION

There are different ways to use the Normalized Grade Report to calculate individualized grades for your students working on team assignments or projects. Many instructors simply want to apply a fair, sound and efficient approach to individualized grade calculation that is consistent with their learning objectives. This report is built for you. But it is also suitable for those who prefer to apply their own customized algorithms based on peer ratings.

The Normalized Grade Report is available on the Reports page, for use on current and past courses. Just fill out the settings to simply configure it for your class assessment(s) and choose which assessment(s) to include in the Excel output file. This new spreadsheet even calculates your final, individualized grades. It computes a normalized grade factor (+/- 1.00) for each student based on their peer ratings and multiplies that by the group project scores you can enter into the sheet.

FEATURES

- 1) Able to assign individual grades that are higher or lower than the group project score based on peer ratings.
- 2) Converts peer ratings into a normalized grading factor (+/-1.00) that can be multiplied by the group score.
- 3) Can limit how far peer ratings can increase or reduce an individual student's grade.
- 4) Can include a point reward or penalty to incentivize students to fill out the assessment.
- 5) Enter group project scores with which to produce individualized student grades.
- 6) Export a spreadsheet displaying key data used in the grade calculations. You can use it as is, or customize the calculations to better fit your learning outcomes.

NOTES

- **Peers Only!** There is a legitimate debate over whether Self-assessment data should be averaged with Peer-assessments to calculate individualized grades. We have decided to exclude self-assessment data in the grades calculated by PAcom, based on findings from the literature.
- **If you prefer the old Grade Report, its still available!** Where the new report uses a normalized grading factor (+/-1.00), the old report uses a straight percentage possible score (from 1 to 100%).
- **Send feedback always; but don't grade unless you have to!** Sridharan et al (2018) found that students can assess their student peers accurately and consistently when grades are not an outcome. But students are naturally reluctant to honestly assess their peers when it can penalize them. We recommend that you intersperse formative peer assessments with summative ones so students can have constructive feedback before their grade depends on it.

INSTRUCTIONS

- (1) The instructor adjusts the report settings. Press Save.
- (2) Press 'View' to output the report as a spreadsheet.
- (3) Enter group project scores if needed to calculate grades.
- (4) Grades are automatically calculated and displayed. Or instructor can customize spreadsheet calculations.

REPORTS [Back](#)

Report settings have been saved.

★ CLASS AND ASSESSMENT REPORTS

Report	All	Assessment 1
Instructor Report (PDF)	All Teams	View View
Student Report (PDF)	All Teams	View View
Feedback Assessment Report (PDF)	All Teams	View View
Grade Report (Excel)		View View
Normalized Grade Report (Excel)	Settings	View View
Student Roster (Excel)		View

SETTINGS

The Settings button brings up four adjustments you can make automatically to the Normalized Grade. Once you save the settings, you can View the spreadsheet. It is easy to change your settings and rerun the report at any time.

a. Select which Question Set to calculate grades –

Select any rating or numeric Peer question set you used. In this example we used **P-01a** (labeled “Participation Activities”, a set of nine questions, with a 1-5 likert rating scale.)

Grading Question Set

Select which Peer Question Set to use for calculating grades on the Normalized Grade Report.

(P-01.a) Participation Activities - Scale: 1-5

b. Set Minimum & Maximum Limits –

The question of limits is about how much impact you want to allow peer ratings to have on individual grades. Limits are expressed as percentages below or above the group project grade. You may decide that very poor peer ratings could reduce a student’s grade by as much as 30% below the group grade, or very strong ratings could increase their grade by up to 15%. Thus, if the group project score was 100, the range of grades could range from a floor of 70 up to a ceiling of 115. (See the section “Deciding on What Limits to Use” later in this document. We’ll explore selecting Limits to match your learning objectives.)

Minimum Peer Adjustment Limit

Enter a percent value that will limit how far the peer-adjusted, individual grade may fall below the group project grade.

20 %

- ▶ **0%** -- prevents the peer-adjusted, individual grade from falling below the group project grade.
- ▶ **Between 1% and 40%** -- limits how far the peer-adjusted, individual grade can fall below the group project grade.
- ▶ **100%** -- removes any limit on how far the peer-adjusted, individual grades can fall below the group project grade.

Maximum Peer Adjustment Limit

Enter a percent value that will limit how far the peer-adjusted, individual grade may increase above the group project grade.

20 %

- ▶ **0%** -- prevents the peer-adjusted, individual grade from increasing above the group project grade.
- ▶ **Between 1% and 40%** -- limits how far the peer-adjusted, individual grade can increase above the group project grade.
- ▶ **100%** -- removes any limit on how far the peer-adjusted, individual grades increase above the group project grade.

c. Set Completion Incentives –

Peer assessments do not work well if students won’t fill them out. It is often a good idea to provide an incentive to complete them. If you have a point-based incentive, enter it as a positive or negative number of points. The positive number is an award of points if the student completes it; the negative number is a penalty of points subtracted if they do not finish it.

Completion Points

Enter a positive number (eg. 5) or a negative number (eg. -5) if you use points to incentivize your students to complete the peer assessment. The system will add the positive points to the student’s individualized project grade if they completed the assessment. Or, it will subtract the negative points from the student’s individualized project grade if they did not complete the assessment.

-5

- ▶ **##** -- Enter a positive number for the points a student should receive if they do fill out the peer assessment.
- ▶ **- ##** -- Enter a negative number for the points a student should lose if they do NOT fill out the peer assessment.
- ▶ **0** -- Enter zero if no reward or penalty will be applied.

Save Settings

SPREADSHEET

After the four settings are saved, View the report as a spreadsheet. Our example is a four-person team called Blue, which received a group project score of 85. The instructor entered the group score in the spreadsheet. Also, one student—Duncan—did not fill out the assessment, so received a -10 point penalty.

	B	G	H	I	J	K	L	M	N	O	P
1	Student Name & Class Information	Team	Enter group scores here	Student completed assessment	(Setting #4) Incentive to complete assessment	Ave of Peer ratings for student	Ave of Peer ratings for entire group	Normal Factor: Individual/Group	(Settings #2 & 3) Normal Factor w/ Low & High Percent Limits	Indiv. Grade: Group Project Score * Normal Factor w/ Limits	Indiv. Grade: Group Project Score * Normal Factor w/ Limits + Incentive
2	First Name	Team	Group Project Score	Completed (1=Yes)	Completion Points (-10 pts if missed)	(P-01.a) Indiv. Peer Average	(P-01.a) Group Peer Average	(P-01.a) Indiv. Grading Factor	(P-01.a) Indiv. Grading Factor w/ Limits (-25% +10%)	(P-01.a) Indiv. Project Grade w/ Limits	(P-01.a) Indiv. Project Grade w/ Limits & Completion Points
7	Wendy	Blue	85	1	0	3.96	4.04	0.982	0.982	83.47	83.47
8	Duncan	Blue	85	0	-10	2.59	4.04	0.642	0.75	63.75	53.75
9	Paul	Blue	85	1	0	4.67	4.04	1.156	1.1	93.5	93.5
10	Amy	Blue	85	1	0	4.93	4.04	1.22	1.1	93.5	93.5

Column labels in the report display your setting choices and steps in the calculation.

- **[Columns A – G] Student Name, Email, ID, Class, Assessment, Team information**
- **[Column H] Group Project Score** – If you wish to use the spreadsheet to calculate individualized grades based on the Peer Assessment results, then enter the project scores for each group into this column. Give each group member the same group project score.
- **[Columns I & J] Completed** – First, the system records a 1 for each student who completed the assessment, and a 0 for any student who did not complete it. Next the Incentive Setting is applied. If you made the setting a negative number, student who did not complete the assessment receive negative points, and vice versa with positive points.
- **[Column K & L] Individual and Group Peer Averages** -- This is the core data for the individualized project grade. The first is an average of the ratings a student’s peers assigned to him/her. In this case a 1-5 rating scale was used. Wendy’s average, 3.96, is somewhat lower than the group average, 4.04, meaning she was viewed as contributing less than others.
- **[Column M] Individual Grading Factor** -- Here is displayed the raw normalized factor, or ratio of the individual divided by the group average. Wendy’s result is less than 1.00--specifically .982--indicating he/she was perceived to have contributed less than others.
- **[Column N] Individual Grading Factor with Limits** -- When a student’s individual factor is within the Low and High limits set by the instructor--in this case -25% | +10%--then no change is made. This was the case for Wendy. However, if a student was assessed outside of these limits, their factor is reset at the limit. For example, Duncan was rated at a very low .642 and so was reset to the .750 minimum limit. Meanwhile, Amy received a very high rating, 1.220, so was reset to 1.100 maximum limit.
- **[Column O] Individualized Project Grade With Limits** -- The student’s grade is calculated by multiplying their group’s project score by the limited individual grading factor. (In Excel, the formula is “=(H2*N2)”).
- **[Column P] Individualized Project Grade With Limits and Completion Points** – A second individualized grade is calculated with both settings. (In Excel, the formula is “=(H2*N2)+J2”).

DECIDING ON WHAT LIMITS TO USE

In fact, peer ratings are just one of many factors you might wish to use in preparing individualized grades for a group project. The more weight you give to peer ratings, the less weight you are giving to other factors. For example:

- Instructor Observations—observed work behaviors by the instructor or tutors
- Student Journals—grades assigned to evaluation of observations or analyses recorded in student journals
- Individual Role Commitments—students adopt specific work roles (eg. Leader, researcher, editor, etc.) for which grades can be assigned

The limits applied by this report are not sophisticated. Each is a percentage of the score assigned to a group project. If the score is 90 and the Min/Max limits are -20% and +10%, then individual team members can receive between 72 and 99 points.

Limits can be set from 0% to 100%. First, with the endpoints:

0% Limit – Set a limit to 0% if a student should not receive more (Max=0%) or less (Min=0%) than the group score. For example, Max=0% would state peer ratings should only be able to reduce an individual's grade, not improve it relative to the group score. Finally, set both Min and Max limits to 0% to only allow individuals to receive the group score.

100% Limit -- A 100% limit is actually no constraint at all. You are allowing the peer ratings for a student drive the individual's grade as far up or down as it goes. It is the raw individual grading factor times the group project score.

Wide Limits – These might be in the 20% to 40% region. This would amount to, for a group score of 90, from 18 to 36 points above and/or below.

Wider limits place more weight on the role of teammates in monitoring and mediating the behavior and contributions of individual students. Thus, you might emphasize the importance of students being accountable to their teammates. Their grade is heavily affected by their efforts to help the team--as a productive and reliable contributor, a leader or organizer, or one who provides meaningful assistance to teammates.

Narrow Limits – These limits could be found in the 5% to 15% region. With our example of 90, this would be from 4.5 to 13.5 above and/or below the group score.

Narrower limits provide a smaller but still visible role for students to be accountable to their teammates. Thus, with less individual variance from the group project score, you may place more emphasis on the fact that each individual plays a central role in making the team successful. Their individual accomplishment is found in a high quality team product, ensuring that group processes are effective and efficient.

Different Minimum/Maximum Limits -- The Minimum and Maximum Limits are separate to allow you to set them to different amounts. For example, setting Max=10% and Min=30% could reinforce the idea that all students should try to contribute more than their fair share of the work, and that failure to do so will be strongly penalized.