

Statistics Project—Differential Scoring of Statistics Projects

It is common to most group projects that some of the people do more of the work than others. Should all of the people in the group be assigned the same grade? This study investigates attitudes relative to this issue.

Propose several alternatives to the one-grade-for-all grading rubric for statistics projects. The proposals will need to satisfy both teachers and students of their inherent fairness and practicality. Then survey a sample of teachers and students for their reactions. Make sure that your subjects realize that the results of this study will not affect the grading for the current semester. It might however affect the grading for next semester.

Some scoring alternatives you might consider for inclusion in your survey:

1. Whoever writes the report gets $0.x$ grade points higher than the overall project grade and the others get $0.y$ lower. (Perhaps with $x=1$ and $y=2$ or visaversa).
2. The project members agree among themselves who should get the most credit for the success or failure of the project.
3. Each project member assesses the contribution of the others (by secret ballot) and then the teacher aggregates those assessments and assigns different grades for each of the team members. Notice that with this strategy no one assesses their own contribution. So that if the other members of the team assess you as the most/least important contributor then you will get the highest/lowest grade.

Limitations: The group projects will include three to six people on each team. The net effect of the grading must be neutral, i.e. if one team member gets a higher grade then someone else must get a lower grade. You cannot add unreasonable expectation of the teacher, as in—"the teacher will go to the site of the experiment and spy on the team to determine which person did the most work".

Cautions: Your subjects' attitudes are likely to be colored by their experience with the grading of previous group projects. Be sure to include an assessment of these experiences so that you can control for them. You also might want to ask your subjects to assess their anticipated level of contribution to current group projects (if they have a current group project). Be careful to keep your own biases out of the wording of the questions. The proposed alternatives will need to be better than the one-grade-for-all algorithm so be sure to evaluate the acceptability of that grading strategy.

Report Writing Cautions: Be sure you thoroughly describe the experiment/study to the reader. Remember you are writing this report for the general reader not specifically for your teacher. Try to address any objections that the reader might bring up. Your report should be in a prose format. Be sure to use complete sentences, proper grammar, correct spelling, understandable statements, etc. Clarity of your concepts and presentation is important. If your English composition skills are not so good then make sure that someone in your group with good composition skills goes through your document carefully. If you have extensive tables and graphs consider putting them in an appendix.