

Some overall comments:

- * you did not cite or discuss any of the articles you found on this subject
- * some issues of your sample size/margin of error calculations are not clear to me
- * please list references in a format compatible with the examples at <http://www.library.cornell.edu/resrch/citmanage/apa>

Survey of Carnegie Mellon Faculty on Student Attendance and Performance

Introduction

This study focuses on surveying members of the Carnegie Mellon faculty community in order to determine if there exists a relationship between attendance requirements and students' performance in classes. This topic is interesting because there is a large disparity in the way classes are structured across various departments of the university, and thus it is possible for two students of different majors to have entirely opposite classroom experiences. For example, many humanities courses are small and discussion based, while many science and math courses are large lectures composed of students from varying technical majors. In general, it would not be practical for instructors of such courses to require or take attendance because of the large class size. While focusing on determining if requiring attendance has an effect on students' performance, this survey will also, at the same time, note any other course details that may affect performance.

We hope that in completion of this survey, the Carnegie Mellon faculty and students will both benefit. By evaluating how course structure can affect performance, the University and faculty will gain insight on how to define structure and size limitations for their courses. The university should be interested in the information from this survey as they consider how many faculty members should be employed for different departments, as well as how they can create an environment where students can be most successful. In the same sense, students will also gain by better understanding the impact attendance can have on their grades and class performance.

We will add here a short summary of final results.

Methods

The target population of this study is Carnegie Mellon faculty members who teach undergraduates at the Pittsburgh campus. The population that we wish to make inferences about is Carnegie Mellon undergraduate students at the Pittsburgh campus.

In choosing the sample of the target population to survey, it was decided that a random sample would be taken in each of Carnegie Mellon's six major schools: CFA, CIT, H&SS, MCS, SCS, and Tepper. For each of these schools, we chose a random sample proportional to 50% of the number of departments (majors) within the school. Making appropriate modifications for schools with an odd number of

departments or schools with only one department, we assemble a sample of 15. After the random sample was chosen, each professor in each chosen department that taught an undergraduate course in the Fall of 2010 was to be surveyed.

School	Number of Departments	Number of Departments Randomly Chosen (~50%)
CFA	5	3
CIT	5	3
H&SS	9	5
MCS	4	2
SCS	1	1
Tepper	1	1

Sample Size

This section really seems to be about margin of error rather than about determining sample size! What am I missing?

To calculate sample size, we first estimate the mean GPA across all colleges using the formula for stratified samples. We obtained estimates for the average GPA in each department by asking students of various majors and using appropriate weights for each stratum. We determined the estimate for the stratified sample mean to be 3.42.

Using the sample sizes for each stratum listed above, we calculate the sample variance for each stratum and the overall variance for the entire stratified sample. We determine the variance to be 0.005 and thus the standard deviation is 0.07. Using a 95% confidence interval, the margin of error is 0.1372.

please provide the details of these calculations -- here, or refer to an appendix.

Response and Errors

Prior to the completion of this survey, we predict that non-response error will be of highest concern. This is because it is likely that some professors may feel sensitive about releasing information regarding grade distributions or class performance.

We plan to deal with nonresponse by sending follow up emails to professors who do not respond, and we will be available to conduct interviews in person if professors do not wish to provide grade distribution information over the internet.

Post Survey Processing

We will be focusing on comparing grade distributions within departments between attendance mandatory and attendance optional courses. We would also like to compare if grade distributions are significantly different between departments and colleges.

***Results**

***Conclusions**

***Discussion**

Appendix: Questionnaire

1. College:
2. Department/Major:
3. Course Number:
4. Size of Class:
5. Attendance Mandatory or Attendance Optional?
6. Is this class lecture only? Are there recitations or labs?
7. What percentage of students enrolled attend class regularly? 0-20% 21-40% 41-60% 61-80% 81-100%
8. Is this a core or major required course?
9. Class Structure: Discussion based or lecture based?
10. Are notes or lectures available for students to view online?
Are they complete or partial notes? (Do students need to be in class to fill in certain sections?)
11. If attendance mandatory:
What percentage of student's grade is dependent on attendance? 0-10% 10-20% 20-30% 30-40%

12. Grade distribution for a previous semester:

Number of students receiving an A:

Number of students receiving a B:

Number of students receiving a C:

Number of students receiving D/F:

Mean Final Grade(if applicable):

Is this distribution consistent with previous semesters?