

Statistics
17 October 2005
Mr. Quinn

Understanding Quantitative Data: End-of-Unit Investigation

For the last week, we have been looking at the display of *quantitative data* – that is, the various ways that we can deal visually with the fact that there are an awful lot of possible answers to a quantitative question.

So, it's survey time again, but this time, our lives are going to be a bit simpler. As an end-of-unit project, you are required to do the following:

- 1. Design and conduct a quantitative single-question survey, giving the survey to at least 100 students.**
- 2. Aggregate your data.**
- 3. Design and construct a histogram to display your data.**
- 4. Summarize your findings, including a complete description of the distribution of responses, and any real-world conclusions you would make**

In order to make your life easier and to be perfectly clear about what I expect, a rubric describing success in each of these steps is printed on the back of this page.

The final due date for this project is *Friday, the 21st of October, at the beginning of the period.*

Accommodations for late work can always be made.
However, as this is the last day of the first marking period, if you miss the 21st,
a grade of **zero** for this project will be factored into your marking period grade,
and the resulting grade will go out to your home.

As during the first unit, we will spend substantial time in class discussing and modeling what will constitute success on this histogram project. We will also spend a couple of periods during the week working on the project.

Please raise questions early, and often. It is your responsibility to resolve any ambiguities you perceive.

	A	B	C	Incomplete
Survey Results 20 %	Your question is well-defined and quantitative. You asked 100 people, and recorded responses on your survey form neatly and clearly.	Your question is well-defined and quantitative. You asked 85 people, and recorded responses on your survey form.	Your question is quantitative. You asked 70 people, and recorded their responses.	Your question is poorly-defined or not quantitative. You asked 69 or fewer people, and were sloppy in recording their responses.
Histogram 40 %	Your histogram is complete, accurate, and well-labeled. It has a title, bins are properly labeled and identified, axes have names and units, and bar heights are indicated above each bar. In addition, there are enough bars to see the detail in your data, but not so many that your table is hard to read.	One condition from 'A' is not met.	Two conditions from 'A' are not met.	More than two conditions from 'A' are not met.
Written Summary 20 %	Your summary completely describes your survey and analysis, draws conclusions, and describes your motivations and expectations. No grammar or spelling errors.	Your summary adequately describes your survey and analysis, and draws conclusions from your numerical results. One or two grammar or spelling errors.	Your summary describes your survey and analysis. Three to five grammar or spelling errors.	Your summary is strange, confusing, and inconclusive. An abundance of grammar or spelling errors.
Presentation 20 %	Your work is clean and neat, your charts accurate and colorful and labeled and clear, and your summary typed.	One condition from 'A' is not met.	Two conditions from 'A' are not met.	More than two conditions from 'A' are not met.

* Untitled or poorly-labeled charts will result in a one-grade penalty.