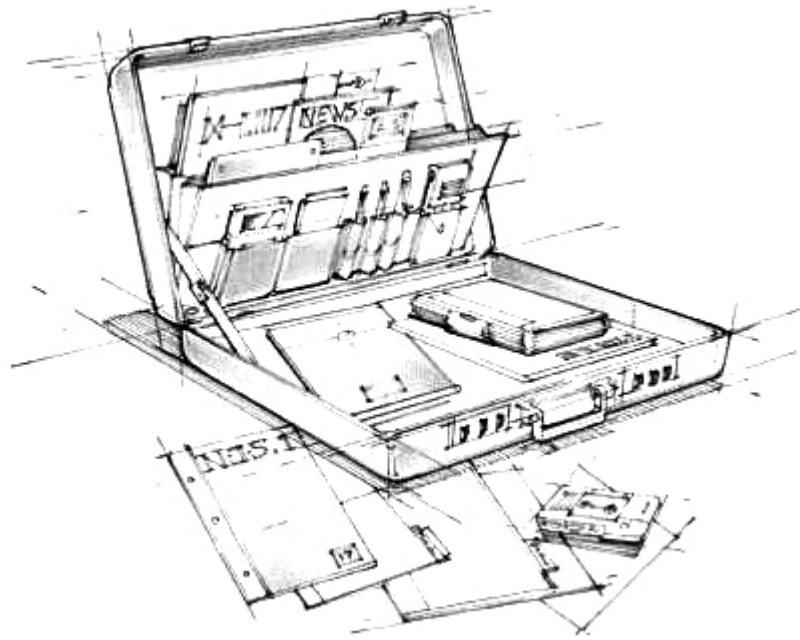
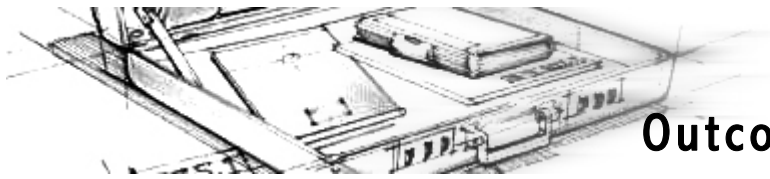


Outcomes Assessment Toolkit:



Learning From Your Survey



Outcomes Assessment Toolkit

Introduction

The information below is intended for Brooklyn College offices and departments who have administered a survey as part of their outcomes assessment process. This paper will familiarize you with current best practices in the analysis and interpretation of survey data. The staff of the Office of the AVP for Finance, Budget and Planning/Comptroller is available to help you plan and carry out a successful survey.

Revisit your Research Goals and Questions

Before beginning your data analysis, revisit your research goals and research questions. Take each survey item and identify the research question that it addresses. This will help you to be clear about what you want to learn from your survey.

Did Enough of the Right Participants Respond to the Survey?

The first tasks are to determine whether enough people have responded to the survey for a meaningful data analysis, and whether these participants' opinions adequately represent the group that you wished to hear from. When you administered your survey, you hoped that everyone who was invited to complete the survey would do so. This would be the ideal situation because then you would learn everyone's opinion and you would not have to make inferences about what everyone thinks from the responses of a few (the sample of respondents).¹ However, most of the time, you will find that only a percentage of the invited participants actually complete the survey. When only a percentage of the invited participants respond, it is important to determine whether that percentage is large enough for a meaningful analysis of the data and whether the respondents are similar to the population in critical characteristics that would affect their opinions.

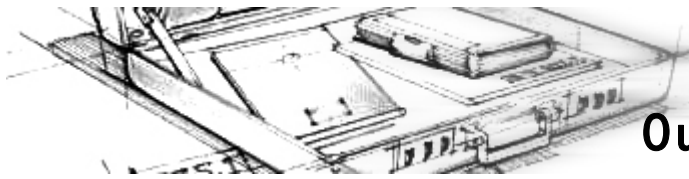
Thus, *the first step* in analyzing your data is to calculate the percentage of invited participants who completed the survey (the response rate). For example, if your original survey was sent to 1,000 students, and 250 sent back the completed questionnaire, your response rate would be 25%. Typically, surveys of students rarely have response rates that are greater than 25%.

When the response rate is low (there are no exact guidelines, but under 70% might be one rough rule-of-thumb), it is then important to determine what types of people did and did not respond, giving you a picture of how well your sample represents the entire group in whose feedback you are interested. For example (not real data), respondents to a survey of Education majors might consist of 20% Early Childhood, 30% Childhood and 50% Adolescence Education majors whereas the total population of majors includes a much greater percentage of Early Childhood majors (e.g., 50%), and a much smaller percentage of Adolescence education majors (e.g., 15%). One would have to conclude that the mix of respondents does not adequately represent the entire population of Education majors.²

Even if the respondents as a whole do not have the same 'mix' as the population they're representing, these data can still yield important results if each sub-group (e.g., major) is analyzed separately. Although the mix of sub-groups

¹ As part of your survey design, you made a decision to survey all or a representative portion of the group whose feedback you wanted. This decision was probably based on cost of survey administration and access to that group. This discussion applies to both cases. If you surveyed a sample drawn at random from your group of interest, you would still want to know if the respondents – who are only a percentage of the representative sample – adequately represent the entire population.

² In practice, we use statistical tests to determine to a reasonable degree of certainty whether the respondents differ significantly from their population on these critical characteristics. Our staff can help you with these analyses.



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(majors) is not the same, the participants within each major may still be representative of their particular groups in important ways. For example, one could compare the Early Childhood respondents to all Early Childhood majors on average GPA. If the respondents' average GPA closely matches the GPA of the population of Early Childhood education majors, then you know that your sample is comparable in that way. However, the respondents may not be comparable in other ways (such as age or gender), and this should be recognized as a limitation of your survey results. When designing a survey, it is good practice to collect as much of this type of information as possible so as to be able to make these comparisons.³

If your response rate is very low (less than 20 respondents in a sub-group as a rough rule of thumb), you should consider your survey results as suggestive but not conclusive. You might try to increase the response rate by doing another mailing to the same population. You also might try other methods of contacting participants (by telephone or email) to convince them to complete the survey.

Defining Success--Choosing a Standard by Which to Judge Successful Performance or Satisfaction with Your Programs and Services

Decide ahead of time what standard or criterion you will use to evaluate success as indicated by your survey results. For example, if three-quarters of your participants are satisfied with your department's work, do you consider that a successful outcome? There are no widely accepted guidelines across different types of programs and surveys. Some management consultants use a conventional wisdom criterion of 70% favorable responses. Accrediting organizations like NCATE (National Council for the Accreditation of Teacher Education) consider an 80% student pass rate on standardized tests as acceptable performance. Your department probably developed a criterion of "success" as part of the process of developing its performance goals and objectives.

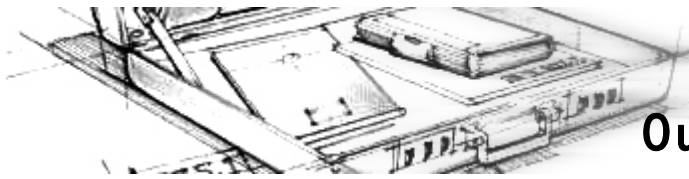
Sometimes external standards are available that you can use for comparison purposes. For example, the federal government and various non-profit research organizations do many rigorous surveys, and may have asked a question similar to yours. You then can use their data as a normative or average response for your population.

What Your Survey Data Can Tell You

There are a few ways you can summarize your data:

- **The percentage of participants who rated a product, service, skill or behavior favorably and unfavorably:**
For example, a survey question about participants' overall educational experience at Brooklyn College might find (not actual data) that 80% of participants rated their overall educational experience as acceptable, good or excellent, whereas only 10% rated their educational experience as marginal or unacceptable.
- **Participants' average or mean rating of a product, service, skill or behavior:**
The average is not as intuitively meaningful as percentage of favorable responses, but it includes all participants' ratings in the calculation. The average is the sum of all ratings divided by the number of ratings. If a "3" is a rating of "good" and a "4" is a rating of "excellent," then an average rating between "3" and "4" indicates that your product or service is perceived on average as good or a bit better than good, but not quite excellent.

³ If information about the population is not available, but you have information on the entire group to which you sent your survey, then you can compare the part of the sample that did respond to the part that did not respond.



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- **Range or distribution of respondents' ratings:**

One disadvantage of using the average score alone is that it does not provide information about the *distribution of ratings* around the average. Consider a typical response scale where “1” is “Unacceptable”, “2” is “Marginal”, “3” is “Average”, “4” is “Good”, and “5” is “Excellent.” On this scale, an average rating of “3” (“Good”) will be found when half the participants rate a skill as unacceptable and the other half rate the skill as excellent. The same average of “3”, however, will also be found when half the participants rate their educational experience as “Marginal” and the other half rate their experience as “Good”. Thus, an average should always be accompanied by some measure of the distribution of scores around that average.

The same logic holds true for percentage scores. If you report only the percentage favorable, then one does not know about how the other scores are distributed. For example, you might define percentage favorable as “Excellent” or “Good” as in the paragraph above. However, looking at the percentage favorable alone does not tell you whether the other respondents all rated the product or service as “Acceptable”, “Marginal”, or “Unacceptable.” So, when using percentages, it is important to report information about the less favorable responses as well.

The few simple types of data analysis discussed above can help you answer your most critical research questions:

- **Departmental strengths—what to keep the same:** A high percentage of participants responded favorably about a product, service, or skill, meeting or exceeding your chosen standard, and the percentage of unfavorable responses was low. Or, the average response was high compared with your standard, and there were few unfavorable responses.
- **Departmental challenges—what to follow up on to improve:** A small percentage of participants responded favorably or the average response was low compared with your standard.
- **Most important issues to your participants:** A large percentage of participants responded that a particular issue was important or the average “importance score” was high. You will be most interested in satisfaction with programs and services that your population considers most important.
- **Least important issues to your participants:** A small percentage of participants responded that a particular issue was important or the average “importance score” was low. Although you would like them to be satisfied in these areas as well, they may not be as critical as more important areas.
- **The range of opinion of a single group across survey items:** The highest minus the lowest average rating, or the greatest percentage favorable minus the lowest percentage favorable.
- **Differences among different types of participants in rating the same product, service, or skill:** Percentage favorable (or average score) of one group minus the percentage favorable (or average score) of another group.
- **Overall performance:** If you’ve asked participants to rate each of your department’s services, you can obtain an overall rating as follows: First calculate an average for each participant, and then take the average of those averages.