

## Summarize the Results

- 1. Summarize the results.**
- 2. Include any additional information or insights you gleaned during the semester. These may be serendipitous moments, stories or other qualitative findings to add to your quantitative data.**
- 3. Reflect on the Assessment Process. (What went well? What didn't go well? Is there anything related to assessment procedures your program would do different next time?)**

### Data Analysis

Analyzing data is important to get a sense on how students performed against each outcome. Analysis is a process that provides better understanding of data and allows inferences to be made. It allows you to summarize the data to enhance the value of the information gathered and provides direction for decisions regarding course and program improvement. While data analysis can be relatively complex, for the purpose of assessment it is usually basic. The following illustrates how to link data to the learning outcomes and provide a basis for using data to improve student learning.

#### Before analyzing data

You should review data visually. Make sure that your data set includes results from all sections and modalities of the course. Reviewing data has two benefits: It allows for the identification of outliers and possible mistakes, and it enables basic patterns or trends to emerge. For example, it may be clear that all students had difficulty with a particular outcome.

#### Analyzing assessment data

Once the aggregated data has been reviewed, the process of analyzing data follows. Assessment's focus on student achievement of learning outcomes typically requires the determination of counts and percentages. Together they show clearly the number of students involved in the activity and the rate of successful display of the outcome. All data, regardless of type can be analyzed using counts and percentages. Numeric data has the additional benefit of being able to be analyzed using descriptive statistics. Mean, median, and mode provide useful information to interpret data by allowing for easier comparison between groups and tests for significant differences.

#### Missing data and valid responses

Working with assessment data, there are many instances when data will not be available for every student. As a general rule, missing data should be excluded from calculations of percentages and descriptive statistics. If a program has ten (10) students, and eight (8) submit a needed paper for the assessment of an outcome; then eight (8) submitters become the basis of the analysis.

### Summarizing Results

Tables and graphs are useful in presenting analysis because they focus attention to specific results. Tables are useful for reporting multiple percentages and frequencies, comparison of student performance over time and some descriptive statistics. They provide an ordered way for readers to see results quickly for each outcome measure without having to search through text to find a particular result. Graphical representations of results show differences in variables, which makes graphs highly effective in showcasing assessment

results.

1. When sharing the results of course/program assessment it is useful to report each learning outcome and outcome measure paired with the corresponding results of the analyses, which joins the multiple outcome measures for each learning outcome.
2. Compare the results with the specified achievement target and discuss the implications of the data as they relate to the course or program.
3. Both strengths and areas for improvement are discussed, because showcasing course and program success is just as important as identifying areas for improvement, when it comes to making data based decisions about the program.
4. When comparing student performance to specified performance standards, a table with the counts and percentages may be useful to summarize the data.

**When reviewing your data to summarize be sure to consider the following questions**

1. What does the data say about your students?
2. To what extent are students able to perform the outcomes?
3. In which areas of the subject matter is student achievement outstanding?
4. In which areas of the subject matter would you like to see a higher level of student achievement?
5. Was there a particular outcome that many students struggle to achieve? If so, what skill did they struggle with?
6. Where in the curriculum is that skill taught and reinforced?