Design,
Data Collection,
Interpretation,
Equity and
Storytelling



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Design, Data Collection, Interpretation, Equity and Storytelling

Introduction

Welcome to Successful Campus Assessment: Design, Data Collection, Interpretation, Equity and Storytelling. This binder is designed to assist you with creating and implementing an effective assessment project from start to finish. With the demand for assessment data increasing, higher education professionals are being called upon to produce evidence that shows how programs and services are contributing to the academic mission of the institution and using limited resources effectively. For many of us, assessment can be exciting, interesting and informative while at the same time overwhelming, time consuming and difficult to put into action. The techniques presented here assist in improving assessment skills, focusing assessment efforts and thus allowing you to gather more effective data.

Even with increasing calls for assessment, there are many barriers that prevent us from carrying out assessment as part of our everyday responsibilities. Bresciani, Moore Gardner and Hickmott (2009) found some of the most common barriers to be time, resources, knowledge and skills, an unclear "conceptual framework" for assessment (e.g., knowing the definition of assessment, being clear on how assessment fits in on your campus), trust and managing/knowing expectations (p. 137).

This binder is written to walk you through the assessment process and to overcome many of these barriers. Each section is designed to first provide you with a knowledge base related to each topic, as well as an exercise to help build your skill-set. Some of the other barriers to assessment are context-specific, meaning you may need to seek clarification or ask questions on your campus. Some campuses are farther along than others, so if you cannot find clarification in your particular context, guidance is provided as to how to move forward without campus resources.

Our goal is to take you through an "assessment cycle," or one assessment project from start to finish. Before we get started, there are two foundation items you'll need to know. First, we'll begin with the assessment cycle. A good place to begin is to see if your campus has an assessment cycle, process or timeline already designed. If you are unsure, check with your institutional assessment or research office or try doing an Internet search on your institution's name plus the word "assessment." If your campus has a well-developed foundation for assessment, you may find something like Loyola Marymount University's Assessment Cycle (https://academics.lmu.edu/educationaleffectivenessandassessment/ about/assessmentcycle/). If your institution does not have a clearly defined assessment cycle, then start with using the cycle designed for this binder on the next page.



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Planning Assessment Data Collection Tools continued

Survey Design 101

Becoming an expert on survey design takes time, education and lots of experience. But luckily there are many tricks of the trade that you can start utilizing today in order to get experience. Remember, it is essential to test the face validity of your survey by asking someone who has an expertise in survey design to review your survey before sending it to participants. Follow these steps to design a survey:

- 1. Determine your purpose/objective/what you want to know
- 2. Outline topics to give the survey a shell to work with
- 3. Determine which question formats will get the information you need under each outline item (https://www.qualtrics.com/blog/writing-survey-questions/)
- 4. Write and edit question items
- 5. Determine item sequence
- 6. Review and revise survey ensuring quality question formats
- 7. Pre-test or pilot survey with small group or asking colleagues to review survey

The key to designing a strong survey for assessment purposes is to avoid some of the common mistakes such as making the survey too long, using an inappropriate question type, asking double-barreled questions and having respondents have to remember too far back.

What makes a good survey question?

- Will respondents interpret the item in the same way on a different day? (reliability)
- Will the item mean the same thing to all people in the population? (reliability)
- Will the item elicit the information you want? (validity)
- Will the item elicit accurate and relevant data? (validity)



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Planning Assessment Data Collection Tools continued

Survey Design Tips

When creating survey questions use these guidelines:

Focus on:

- **⊃** Information you need to find out stick with what is in your survey outline
- **⊃** Choosing specific and inclusive language in questions and answer choices
- **⊃** Using scales already created by conducting an Internet search
- **⊃** Matching scale to the question
- ☐ If measuring behavior, ask for past instead of future (e.g., How often have you recycled paper products in the past week?)

Avoid:

- Trivial questions not on your outline
- → Information you cannot act upon
- Questions you do not want to know the answer to
- Leading or biased questions
- **⊃** Socially desirable responses
- Double negatives
- **○** Number scales that overlap (e.g. 1-5, 5-10, 10-15) or are uneven (e.g. 1-3, 4-8, 9-11)
- **⊃** Double-barreled questions that ask two questions at once (e.g., How helpful and welcoming was the front desk staff?)



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Data Storytelling

Campus Connections

- ✓ Hire a student employee, graduate assistant or create an internship for a student with graphic design experience to assist with creatively sharing results.
- ✓ Collaborate with a faculty member who is looking for a class project in marketing to design an assessment PR campaign. (Hint: look for classes in digital media, communications and marketing)
- ✓ Take a few minutes to think of all of the pre-existing opportunities (formal and informal) on campus and in your department where you can share data or begin a conversation around assessment results. The best opportunities are those that allow for not just showing results but having conversations around what to do with the results. (Hint: staff meetings, retreats, on-campus or local conferences, brown bags, one-on-ones, planning meetings and budget processes are all great places to start.)

You've planned your purpose, set your outcome, determined your method, collected, analyzed and interpreted your data and now it's the most exciting part of assessment – transforming the data into information via visuals, having conversations, asking more questions and so much more. If you find that assessment data is sitting in a file (virtual or real) and not getting out around campus, then consider some of these techniques to help you start spreading the news.

Elements of Data Storytelling

Consider sharing assessment data much like telling a story, with a beginning, middle and end. Rather than presenting isolated data points, find the connection between your data points to connect them with your goals. Consider these tips when developing a story with data:

○ Connect with people's experiences - Audience is key when telling a compelling story. Consider how your data connects with or answers important questions for them.



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Data Storytelling continued

- **⊃** Focus on a single idea Too much data is overwhelming, even for those who work with data every day. Focus on one story line with multiple data points to keep you and your audience focused on important information.
- **⊃ Keep it simple** Use white space, clutter-free graphics, color and simple numbers to help guide your audience
- **⊃** Explore what you know best Provide context when needed but remember to keep it at a level that supports the data instead of overwhelming it
- **⊃** Make an impact Select data points that tell a compelling story based on what your audience cares about
- **⊃** Sequence ideas Order is important. Use good storytelling elements like a hook to pull your audience in or build suspense, ordering data in a way that builds to your most important point and ending with action steps.

Creating Your Data Message

Keeping the elements of data storytelling in mind, follow these four steps when creating compelling stories with your data. After each step, an example is provided based on a career center that has been asked for career outcome data.

Step 1: Who is your audience(s)?

- **⊃** Who wants this information? Why do they want it? How does it inform their work?
- **○** Who needs this information? (sometimes this is a new or different audience!)
- **⊃** How would they best digest the information? Is it in a written format or in a meeting, through visuals or narratives, etc.?
- Is there a time constraint? Is the data needed by a specific time in order to help form policy, practice or resource allocations?

Example:

- **⊃** Primary audience is the Board of Trustees.
- They are asking for career outcome data of graduates in order to consider how



Design, Data Collection, Interpretation, Equity and Storytelling

Data Storytelling continued

best to provide resources and direction for career preparation of undergraduate students.

- → They typically digest information through presentations (simple slides, high level data).
- **○** A presentation has been requested in 1 month during an in-person Board meeting.

Step 2: What story do you need to tell? Based on your audience(s):

- **⇒** What information do they need?
- ➤ What information do you want to ensure they have? (hint: sometimes this is the same as what they need, sometimes it is different)
- ➤ What might be interesting but not necessary? (Answer this question to know what to eliminate moving forward)

Example:

- → Information they need: Percent of graduates employed/going to grad school after graduation, link between career placement and majors
- → Information we want them to have: Connection between participation in high impact practices and career outcome, graduate's perception of institution's investment in preparing them for career, equity gap analysis of career outcomes and participation in higher impact practices by gender, race and first generation status
- ➤ What might be interesting but not necessary: top graduate schools, top employers (they will want but we want to steer the conversation away from links and ranks to supports that help students)

Step 3: What key data points inform that message?

- ◆ What key data points match the information they need and the information you want them to have?
- ➤ What data points are really important to the message? Be selective so you do not overwhelm your audience with too much data.
- → What sequence should these data points be in? Is there a timeline? Simple to complex ideas? Context, then overview, then details?



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Data Storytelling continued

⇒ What voices need to be included? If qualitative data, what	quotes do we use?
⇒ What action step needs to be communicated based on the	data story?
Example:	
⊃ Context: How outcome rate is measured/calculated	
Outcome rate (percent of recent graduates who are employ 6 months after graduation) - 5 year trends - overall and by	
☐ (Note: things not to share - comparisons between sch al schools will consistently have higher outcome rate and by major, school comparisons are a good overvie	s than arts and sciences
○ Outcome rate of key demographic groups	
⇒ Context: definition of high impact practices	
⇒ High impact practices participation overall and by key den	nographic groups
Outcome rate of students who participated in at least one lead to those who did not participate	nigh impact practice
→ Percent who strongly agreed/agreed that:	
☐ Participating in a high impact practice helps them exp ties	plore career opportuni-
\square The institution invested in their career preparation	
☐ They felt prepared for their career after graduation	
p 4: Create visuals to match key data points	
⇒ Are the visuals appealing to your audience?	
⇒ Are the visuals simple and easy to understand?	
○ Can visuals be created in a realistic and manageable way? enough time to create a dashboard, but it is enough time to slide deck)	· •



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Data Storytelling continued

- **⇒** Are visuals concise and focused on key data points?
- ➡ What format should the visuals be in? A report, slide deck, infographic, interactive dashboard, etc.

Example: A slide deck was created using lots of simple visuals and very few words. It provided context for the Director to lead a conversation around defining career outcomes and cultivating an understanding of how to support students in their career preparation through equitable access to high impact practices.

