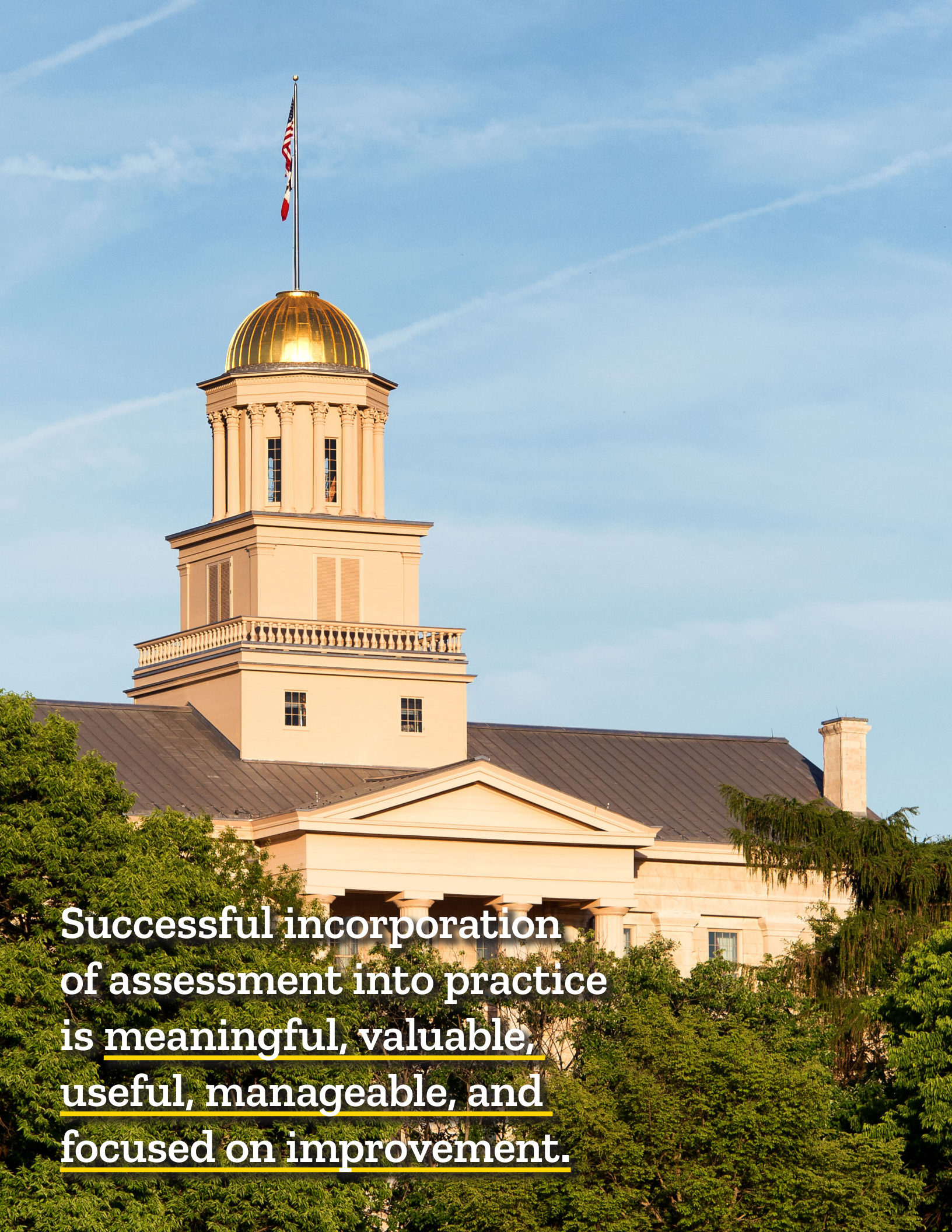IOWA

STUDENT AFFAIRS ASSESSMENT HANDBOOK

for the Division of Student Life

Successful incorporation of assessment into practice is meaningful, valuable, useful, manageable, and focused on improvement.

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With assessment we can evaluate the **effectiveness of our programs and services.**

AN INTRODUCTION TO ASSESSMENT

We all want to know if we are helping students succeed and assessment is a key tool that helps us target our efforts, learn about their impact, and make changes to best help students learn, grow, and develop during their time at The University of Iowa.

The primary purpose of assessment in the Division of Student Life is the improvement of student success and institutional performance. It is our expectation that all departments in the Division are conducting regular assessment to understand strengths and areas of improvement.

Assessment is "any effort to gather, analyze, and interpret evidence that describes institutional, departmental, divisional, or agency effectiveness (Upcraft & Schuh, 1996, p. 18)." In practice, assessment is making decisions based on [systematically collected] evidence versus instinct or tradition. Successful incorporation of assessment into practice is meaningful, valuable, useful, manageable, and focused on improvement.

Benefits and Barriers to Assessment Integrated assessment practices provide several benefits. Assessment data can be used as evidence that we are accomplishing what we say we are within our programs and services. Assessment also provides evidence on how we contribute to the mission of the department, Division, and University. With assessment we can evaluate the effectiveness of our programs and services and/or create more effective programs and services. We can also use assessment to make decisions on how to allocate resources more efficiently.

The barriers to assessment practices are generally a result of lack of resources, limited professional development/assessment opportunities to expand knowledge, a negative attitude toward assessment practices or a lack of departmental/supervisory support behind developing assessment practices within ones work.

Assessment Cycle The process of assessment is cyclical in nature in the following sequence: Identify goals/outcomes, gather evidence, interpret evidence, implement change and repeat. Each phase of the assessment cycle has a corresponding question accordingly: What is the program/service trying to accomplish? How will you gather evidence to know whether the program/service accomplished its purpose? How will you make decisions and implement change based on the findings?

"Student affairs staff members need to have more than programs, activities, and experiences they think would contribute to student learning. They need to have the empirical evidence to be confident that these programs, activities, and experiences actually do contribute to student learning. This is the point in student affairs practice where assessment is vital"

(Schuh and Gansemer-Topf, 2010).

INTRODUCTION TO STUDENT LEARNING ASSESSMENT

WHAT IS STUDENT LEARNING ASSESSMENT?

According to Schuh, et al (2016), assessment is "any effort to gather, analyze, and interpret evidence which describes institutional, divisional, or agency effectiveness" (p.21). In other words, assessment enables us to determine the level of effectiveness of our programs and services. The definition of "effectiveness" may vary by our goals.

For instance, is the program intended to:

- Increase student knowledge?
- Improve a student's ability to execute a specific behavior?
- Change student attitudes?
- Facilitate a student's reflection on a topic?

Consider the following example:

THE PROCESS OF ASSESSING STUDENT LEARNING

Viewed broadly, student learning assessment is a four-step process:

1. **Identify Learning Outcomes:** Determining what students should know, think, and be able to do as a result of a program or service.

2. **Gather Evidence:** Creating opportunities for students to demonstrate what they have learned.

3. **Interpret Evidence:** Drawing conclusions based on students' performance.

4. **Implement Change:** Using conclusions to modify the program or service.

Student learning assessment is cyclical. Unless we assess the modified program or service, we are unable to determine whether or not the changes we made actually *improved* student learning. Thus, the fourth step -- implementing change -- serves as a jumping-off point for future assessment, thereby creating an ongoing cycle of improvement **(see Figure 1)**.

In learning about student learning assessment it is also helpful to know some frequently used terms. For more information please see **Table 1**.
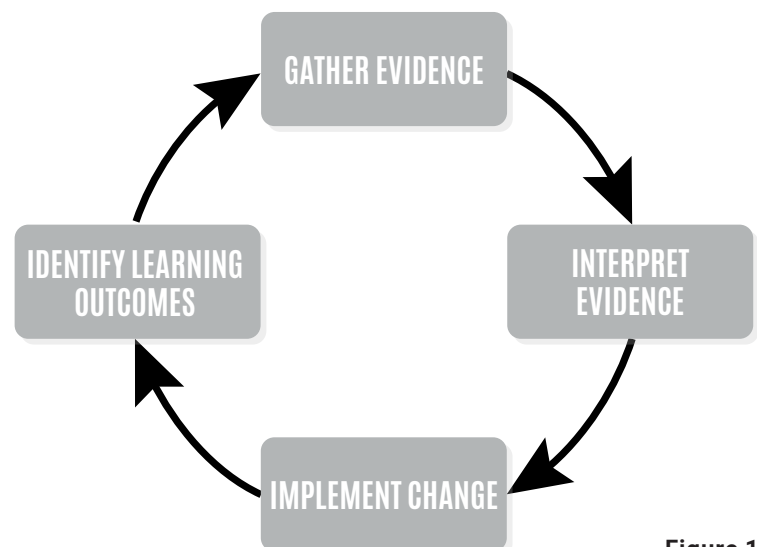

GATHER EVIDENCE

INTERPRET EVIDENCE

IMPLEMENT CHANGE

IDENTIFY LEARNING OUTCOMES

Figure 1

TABLE 1: KEY TERMS RELATED TO STUDENT LEARNING ASSESSMENT

Accountability	Involves data collection for external audiences (ex. faculty, administrators, students) and demonstrates the effectiveness of programs to services to stakeholders.
Assessment	Any effort to gather, analyze, and interpret evidence which describes institutional, departmental, divisional, or agency effectiveness (Schuh, et al., 2016).
Direct Measure of Student Learning	A measure that directly evaluates student learning (Walvoord, 2004). e.g., a survey question that asks students to define leadership in their own words
Evaluation	The use of assessment data to determine organizational effectiveness (Schuh, et al., 2016).
Improvement	Involves data collection for internal audiences (ex. legislators, donors, parents) and aims to improve the quality of the programs and services.
Indirect Measure of Student Learning	A measure that evaluates perceived, rather than actual, learning (Walvoord, 2004). e.g., a survey question that asks students to rate their understanding of leadership on a scale from 1 (very low understanding) to 5 (very high understanding)
Institutional Review Board	IRBs review and approve all research at the University of Iowa in accordance with the Department of Health and Human Services (DHHS) regulations. (The University of Iowa, 2020).
Learning Outcome	What students should know, think, and be able to do as a result of an experience. e.g., The American Association of Colleges and Universities (2010) established four learning outcomes for liberal arts education: knowledge of human cultures and the physical and natural worlds; intellectual and practical skills; personal and social responsibility; and integrative and applied learning.
Measurement	The methods used to gather information for the purposes of assessment (Upcraft & Schuh, 2001). e.g., survey, focus group, interview, portfolio
Qualitative Methodology	Involves the detailed description of situations, events, people, interactions, and observed behaviors; the use of direct quotations from people about their experiences, attitudes, beliefs, and thoughts; and the analysis of excerpts or entire passages from documents, correspondence, records, and case histories (Upcraft & Schuh, 2001).
Quantitative Methodology	Involves the assignment of numbers to objects, events, or observations according to some rule. Instruments with established psychometric properties are used to collect data, and statistical methods are used to analyze data and draw conclusions (Upcraft & Schuh, 2001).
Research	Differs from assessment in that it guides theory development, tests concepts, and has implications that extend beyond a single institution. The role of the research investigator is to describe what has been done. In contrast, assessment guides good practice; its implications can rarely be generalized beyond a single institution; and the assessment investigator's role is not only to describe what has been done but what should be done given the findings of the study (Upcraft & Schuh, 2001).
Rubric	A set of categories that define and describe the important components of the work being assessed. Each category contains a gradation of levels of completion or competence with a score assigned to each level and a clear description of what criteria need to be met to attain the score at each level (Ozarka College, n.d.).
Sampling	The method by which a pool of participants is selected from the population of interest.
Stakeholder	Anyone who has a vested interest in our work.

American Association of Colleges and Universities. (2010). *Liberal Education and America's Promise (LEAP): Essential learning outcomes.* Retrieved from http://www.aacu.org/leap/vision.cfm

Ozarka College. (n.d.). *Glossary of assessment terms.* Retrieved from http://www.ozarka.edu/assessment/glossary.cfm

Schuh, J. H., Biddix, J. P., Dean, L. A., & Kinzie, J. (2016). *Assessment in student affairs.* San Francisco, CA: Jossey-Bass.

Upcraft, M. L., & Schuh, J. H. (2001). *Assessment practice in student affairs: An applications manual.* San Francisco, CA: Jossey-Bass.

The University of Iowa. (2020). *Human Subjects Office.* Retrieved from https://hso.research.uiowa.edu/institutional-review-boards-irbs

Walvoord, B. E., (2004). *Assessment clear and simple: A practical guide for institutions, departments, and general education.* San Francisco, CA: Jossey-Bass.

STUDENT LEARNING ASSESSMENT:
IDENTIFY LEARNING OUTCOMES

GATHER EVIDENCE

INTERPRET EVIDENCE

IDENTIFY LEARNING OUTCOMES

IMPLEMENT CHANGE
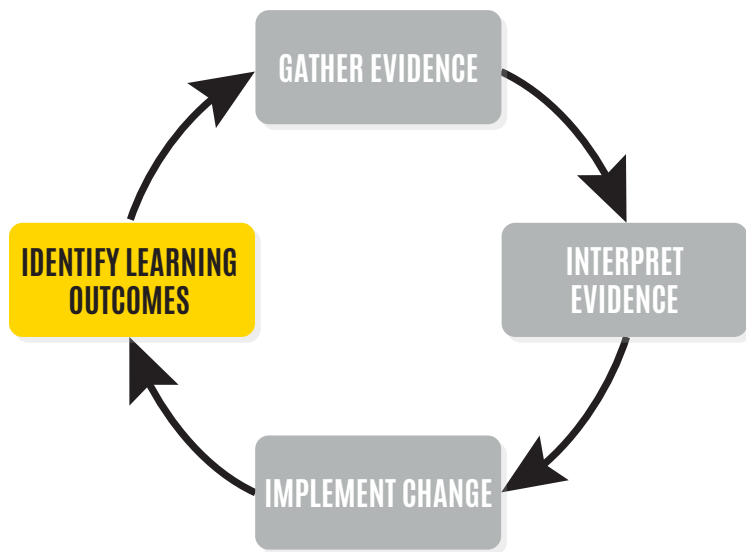
Student learning outcomes are goals that describe "the knowledge, skills, attitudes, and habits of mind that students take with them from a learning experience" (Suskie, 2009, p.75).

Program- and service-level learning outcomes are more specific and descriptive. Departmental and program examples from within the Division include the abilities to: *complete tasks independently* (Multicultural & International Student Support & Engagement) and *define philanthropy* (Dance Marathon).

BLOOM'S TAXONOMY

When writing learning outcome statements that describe cognitive growth, it may be helpful to refer to Bloom's (1956) taxonomy, or hierarchy, of learning in the cognitive domain. Student learning outcomes should reflect the level of learning you want students to demonstrate.

In a one-hour training session it makes sense for your outcomes to focus on remembering or restating a key idea, while in a year-long program, outcomes would likely reflect higher level learning such as analyzing or evaluating (See Figure 2: Bloom's taxonomy of learning in the cognitive domain).

CREATING

EVALUATING

ANALYZING

APPLYING

UNDERSTANDING

REMEMBERING
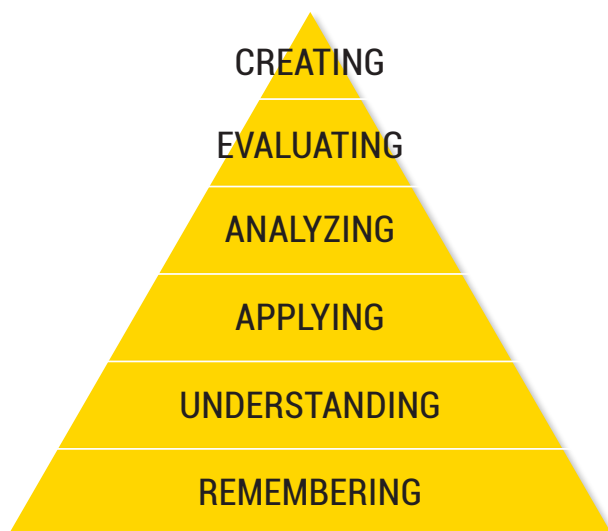
Bloom, Krathwhol and Masia (1964) developed words for the affective domain and Simpson (1972) followed with terms to describe the psychomotor domain (See Appendix Figure 3: Bloom's taxonomy of learning in the affective domain) and (See Appendix Figure 4: Bloom's taxonomy of learning in the psychomotor domain).

The Center for University Teaching, Learning, and Assessment at the University of West Florida provides a list of words describing behaviors associated with Bloom's taxonomy (See Table 2).

Figure 2

TABLE 2: ACTION WORDS FOR BLOOMS TAXONOMY

Knowledge	Understand	Apply	Analyze	Evaluate	Create
Define	Explain	Solve	Analyze	Reframe	Design
Identify	Describe	Apply	Compare	Criticize	Compose
Describe	Interpret	Illustrate	Classify	Evaluate	Create
Label	Paraphrase	Modify	Contrast	Order	Plan
List	Summarize	Use	Distinguish	Appraise	Combine
Name	Classify	Calculate	Infer	Judge	Formulate
State	Compare	Change	Separate	Support	Invent
Match	Differentiate	Choose	Explain	Compare	Hypothesize
Recognize	Discuss	Demonstrate	Select	Decide	Substitute
Select	Distinguish	Discover	Categorize	Discriminate	Write
Examine	Extend	Experiment	Connect	Recommend	Compile
Locate	Predict	Relate	Differentiate	Summarize	Construct
Memorize	Associate	Show	Discriminate	Assess	Develop
Quote	Contrast	Sketch	Divide	Choose	Generalize
Recall	Convert	Complete	Order	Convince	Integrate
Reproduce	Demonstrate	Construct	Point Out	Defend	Modify
Tabulate	Estimate	Dramatize	Prioritize	Estimate	Organize
Tell	Express	Interpret	Subdivide	Find Errors	Prepare
Copy	Identify	Manipulate	Survey	Grade	Produce
Discover	Indicate	Paint	Advertise	Measure	Rearrange
Duplicate	Infer	Prepare	Appraise	Predict	Rewrite
Enumerate	Relate	Produce	Break Down	Rank	Role-play
Listen	Restate	Report	Calculate	Score	Adapt
Observe	Select	Teach	Conclude	Select	Anticipate
Omit	Translate	Act	Correlate	Test	Arrange
Read	Ask	Administer	Criticize	Argue	Assemble
Recite	Cite	Articulate	Deduce	Conclude	Choose
Record	Discover	Chart	Devise	Consider	Collaborate
Repeat	Generalize	Collect	Diagram	Critique	Collect
Retell	Give Examples	Compute	Dissect	Debate	Devise
Visualize	Group	Determine	Estimate	Distinguish	Express
	Illustrate	Develop	Evaluate	Editorialize	Facilitate
	Judge	Employ	Experiment	Justify	Imagine
	Observe	Establish	Focus	Persuade	Infer
	Order	Examine	Illustrate	Rate	Intervene
	Report	Explain	Organize	Weigh	Justify
	Represent	Interview	Outline		Make
	Research	Judge	Plan		Manage
	Review	List	Question		Negotiate
	Rewrite	Operate	Test		Originate
	Show	Practice			Propose
	Trace	Predict			Reorganize
	Transform	Record			Report
		Schedule			Revise
		Simulate			Schematize
		Transfer			Simulate
		Write			Solve
					Speculate
					Structure
					Support
					Test
					Validate

STUDENT LEARNING ASSESSMENT:
IDENTIFY LEARNING OUTCOMES

FORMATTING LEARNING OUTCOME STATEMENTS

An easy format to use for writing learning outcomes is to follow the SWiBAT formula:

Students (who _____) **w**ill **b**e **a**ble **t**o _____.

Here are some examples of learning outcomes using the SWiBAT formula:

- Students will be able to discuss accommodation needs with their instructors.
- Students who work as intramural officials will be able to demonstrate appropriate conflict resolution skills in an emotional environment.

First-Year Students		participate in		activity	
Graduating Seniors	(who)	engage with		program	(will be able to)
Students		complete		course	
				8 counseling sessions	

identify	at least 3 out 4		interview
list	70% accuracy		observed behavior
describe	more/fewer than	(as demonstrated by)	journaling
summarize	all		blog
discuss			portfolio
explain	intended elements		post-survey

EVALUATING LEARNING OUTCOMES

So, how do you tell if the learning outcomes are capturing what you want? How do you know if they will lend themselves to good measure?

Take a look at a learning outcome you've developed and run through these questions as a check:

TABLE 3: EVALUATING LEARNING OUTCOMES

Does the outcome support the program objectives?

Does the outcome describe what the program intends for students to know, think, or be able to do?

Is the outcome important/worthwhile? Will assessing it give you valuable information?

Is the outcome:
- *Detailed and specific?*
- *Measurable/identifiable?*
- *A result of learning*

Can you create an activity to enable students to learn the desired outcome?

Can the outcome be used to make decisions on how to improve the program?

Appendix

INTERNALIZING VALUES

ORGANIZING

VALUING

RESPONDING TO PHENOMENA

RECEIVING PHENOMENA
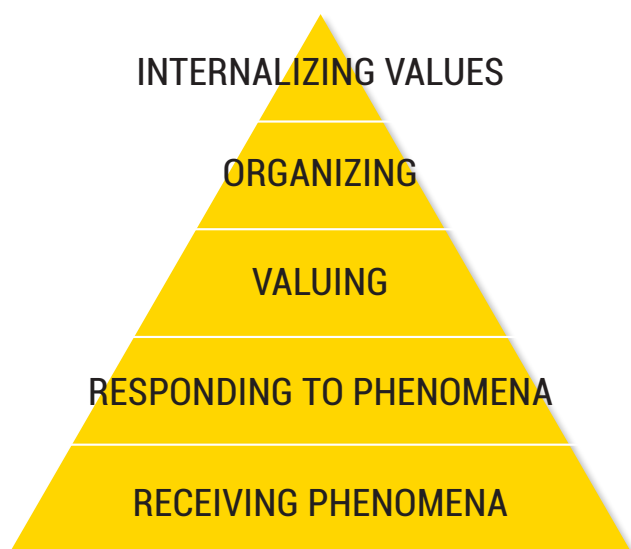
Figure 3- Affective Domain

ORIGINATION

ADAPTATION

COMPLEX OVERT RESPONSE

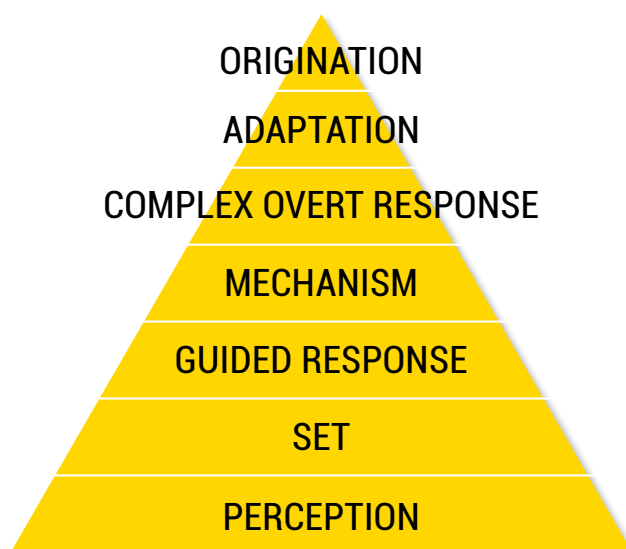MECHANISM

GUIDED RESPONSE

SET

PERCEPTION

Figure 4- Psychomotor Domain

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives, the classification of educational goals – Handbook I: Cognitive domain.* New York, NY: McKay.
Center for University Teaching, Learning, and Assessment. (2010). *Action words for Bloom's Taxonomy.*
Retrieved from http://uwf.edu/cutla/SLO/ActionWords.pdf
Hoque, M. E. (2016). Three domains of learning: Cognitive, affective and psychomotor. *The Journal of EFL Education and Research (JEFLER)*, 2(2), 45-52.

STUDENT LEARNING ASSESSMENT:
GATHER EVIDENCE

SELECTING AN ASSESSMENT TOOL

Once you have developed your outcomes, you have to determine how to assess them.

Consider these questions:

1. *Which outcome(s) do you want to measure?* Rather than assessing all learning outcomes at once, you may want to focus on specific groups of learning outcomes to make the assessment process more manageable.

2. How will you know if a student has achieved the outcome? What will achieving the outcome "look like"?

    For example:

    1. What do "effective presentation skills" look like?
    2. What are the essential elements that must be present in a "leadership vision"?
    3. What does a student need to be able to tell you for you to know they can identify their next steps for counseling or treatment?

We are often asked what the "best assessment" method is. Really, the best method is one that measures your outcome as effectively and efficiently as possible, is pertinent to your key stakeholders, and that gives you useful and usable data. Consider the audience for your assessment data -- what types of data do they respond to?

When possible, select a method that actually captures how students demonstrate what they have learned vs. their perception of what they learned.
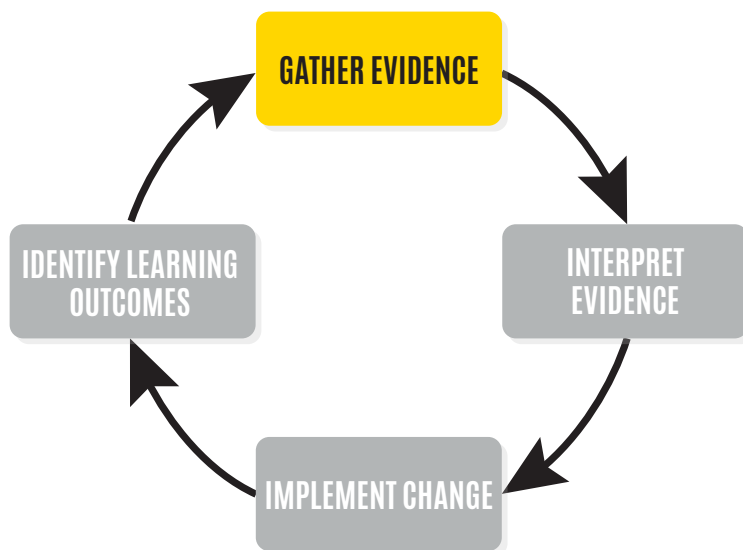
DIRECT VERSUS INDIRECT DATA

Direct measures of collecting information require student to *display* learning. Examples include collections of student work, pre-post tests, performance on a case study.

Indirect measures ask students or others to *reflect* on student learning. Examples include questions asking self-perceptions of learning, job placement statistics, the percentage of students who graduate.

When writing questions or selecting a method, note that there is a difference in asking students *if* they learned vs. *what* they learned. **We are most interested in *what* they have learned.**

ASSESSMENT METHODS

On page 13 is a table to help you compare and contrast various assessment methods. Once you have an idea of what assessment method would fit with assessing your student learning outcomes, feel free to contact the **Office of Assessment, Improvement, and Research** for more information on the specific assessment method.

Method	General Description	Strengths	Weaknesses
Interviews	A purposeful discussion with a single individual to get information.	• Rich detail • Deeper levels of information • Gather information on topics we know little about • Does not require professional moderator • Does not require special facilities • Good for discussing sensitive topics • Flexible	• Transcribing recorded conversation takes time and effort or if an outside company is hired to transcribe, money • A note-taker is recommended to ensure conversation is recorded • Time consuming if a large sample of students is needed • Breadth of understanding • Difficult to select and solicit participants • Not representative of population
Focus Groups	An interview with a small group of people to get information on a specific topic or experience	• Rich detail • Deeper levels of information • Gather information on topics we know little about/testing ideas • Does not require professional moderator • Does not require special facilities • Flexible • A large amount of data in a short amount of time	• Transcribing recorded conversation takes time and effort or if an outside company is hired to transcribe, money • A note-taker is recommended to ensure conversation is recorded • Breadth of understanding • Difficult to select and solicit participants • Not representative of population
Observations	Watching and recording a phenomenon within the context in which it occurs	• Study natural behavior • Gather rich detail about behaviors	• Based on the experience of the observer (bias, interpretation)
Documents	Gathering documents such as minutes from meetings, reports, or files and analyzing them	• Cost effective • Does not require soliciting participants	• Does not directly measure behavior, opinions, attitudes, or values
Survey	Descriptive data about attitudes, behaviors, opinions, values of an individual are collected. **Note:** The University provides Qualtrics which is a robust survey software available to anyone with a HawkID. Sign in via uiowa.qualtrics.com to get started	• Flexible (multiple formats and question formats) • Ask a larger number of questions • Breadth of topics and understanding • Ability to develop internally or use standardized surveys • Questions can be written to get at direct measures of learning	• Can result in a large amount of data • Based on self-report data which depends on accurate and honest responses • Often gathers data on indirect forms of student learning
Portfolio	A collection of artifacts that demonstrate student learning	• Opportunities for reflection • Opportunity for personal selection and assessment • Look at learning outcomes over time	• Labor and time intensive to compile and review
Visual Methods	Captures images (pictures, videos, artwork, sculptures, etc.) as main form of data	• The old cliché -- "A picture says a thousand words" • Could use images for multiple uses • Technology	• Smaller number of perspectives • Timeline • Technology
Rubric	Detailed set of criteria for defining the standards for evaluation performance	• Ability to develop a home grown rubric • Ability to use and tailor existing rubrics • Expose to students what we want them to learn • Reduces bias and/or subjectivity	• Can take time to develop • Multiple raters may have to coordinate ratings for reliability

Adapted from Bresciani, Zelna, & Anderson (2004), Morgan (1998), Sanderson (2007), and Sanderson, Ketcham, Alexander (2008).

Bresciani, M. J., Zelna, C. L., & Anderson, J. A. (2004). *Assessing student learning and development: A handbook for practitioners.* Washington, D.C.: National Association of Student Personnel Administrators.
Morgan, D.L. (1998). *The focus group guidebook.* Thousand Oaks, CA: Sage.
Sanderson, R. (2007). *Assessment 103* [PDF document]. Retrieved from http://oregonstate.edu/studentaffairs/sites/default/files/docs/assessment103.pdf
Sanderson, R., Ketcham, P. & Alexander, J. (2008). *The "What," "How," and "So What?" of Assessment Measures* [PDF document]. Retrieved from http://oregonstate.edu/studentaffairs/sites/default/files/docs/TheWhatHowandSoWhatofAssessment2008.pdf

STUDENT LEARNING ASSESSMENT:
# INTERPRET EVIDENCE

ANALYZING DATA

Data can be either qualitative or quantitative. Qualitative data describe things in terms of categorizations or qualities while quantitative data can be counted or expressed numerically. Your approach to analyzing your data depends on the nature of the data.

Qualitative Data

Qualitative data may include responses to a survey that asks students to define leadership in their own words, notes, and recording from a focus group, or interviews with students about what they learned through an experience.

When analyzing QUALITATIVE data the general process is:

1. Organize the data

2. Give the data a "onceover," noting initial impressions

3. Categorize the data

   • *You can determine the categories ahead of time, allow the categories to emerge from the data, or both*
   • *You may end up with subcategories*
   • *Categorizing data is an iterative process*

4. Determine the relative significant of each category by counting the number of times it occurs

5. Note the responses that do not fit into the categories

6. Find compelling quotes to include in your assessment report

7. Take a step back

   • *What do the data tell you about your assessment question?*
   • *What are the limitations? What are the implications?*
   • *Does the data lead you to make changes or confirm your approach (or both)?*
   • *What, if anything, will you change about the assessment process?*

GATHER EVIDENCE

INTERPRET EVIDENCE

IDENTIFY LEARNING OUTCOMES

IMPLEMENT CHANGE
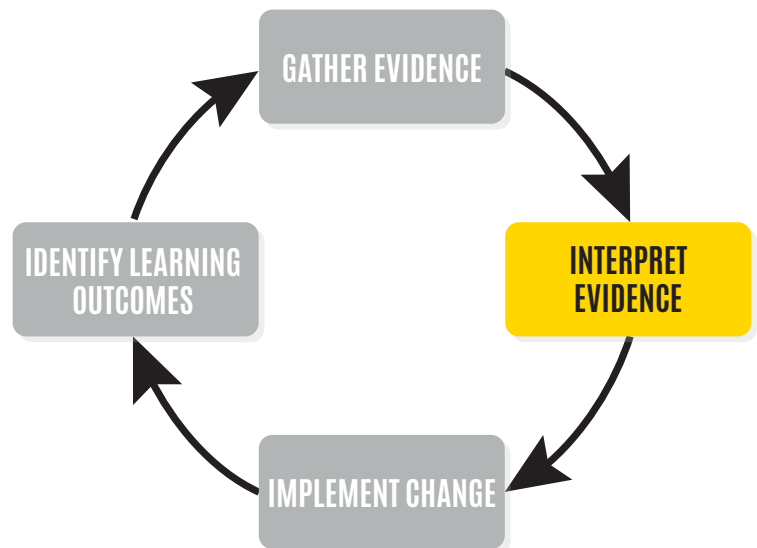
Quantitative Data

A few examples of quantitative data include: responses to a survey that asks student to rate their level of agreement with a statement (1=strongly disagree to 5=strongly agree) or a pile of rubrics that rate students on their ability to explain the importance of physical activity.

When analyzing QUANTITATIVE data the general process is:

1. Organize the data

2. Give the data a "onceover," noting initial impressions

3. Four analytic strategies

   - *Description (frequencies, percentages, mean, median, mode, range, standard deviation)*
   - *Differences (participants versus non-participants; do certain participants do better than others?)*
   - *Change (pre/post)*
   - *Expectations (do students meet our expectations)*

4. Alone, neither measure of central tendency (e.g. mean, mode, median) nor measures of variability (e.g. range, standard deviation) tell the whole story

5. Conduct other useful calculations (e.g. sums, percentages)

6. Take a step back

   - *What do the data tell you about your assessment questions? -- What?*
   - *What are its implications for policy and/or practice? -- So what?*
   - *What, if anything, will you change about the program or process? -- Now what?*

7. Other considerations

   - *Use online survey design software, Microsoft Excel, or a statistical package like SPSS, STATA, or SAS to make calculations*
   - *For help with statistical analysis (e.g. statistical significance, confidence intervals, etc.) contact the Office of Assessment, Improvement, and Research.*

STUDENT LEARNING ASSESSMENT:
IMPLEMENT CHANGE

COMPLETING THE CYCLE

Assessment is a cyclical process which continues through the use of evidence-based decision making as the programs and services you offer move from good to great. Once you implement change, the assessment process begins again, as you assess whether or not the changes you made had their intended effect. Some of you may be panicking right now, "Hold on! Does this mean I have to assess everything all the time?!"

The answer is no, while everything is important, we are not in a position to act or make change on "everything, all the time." In fact, you can create an assessment cycle to determine what to assess and when, thereby making assessment a very manageable process. In reality, there may be a gap between implementing change and reassessing. This is fine and often desirable, as it gives some time for us to find our new rhythm with changes before assessing them.

GATHER EVIDENCE

INTERPRET EVIDENCE
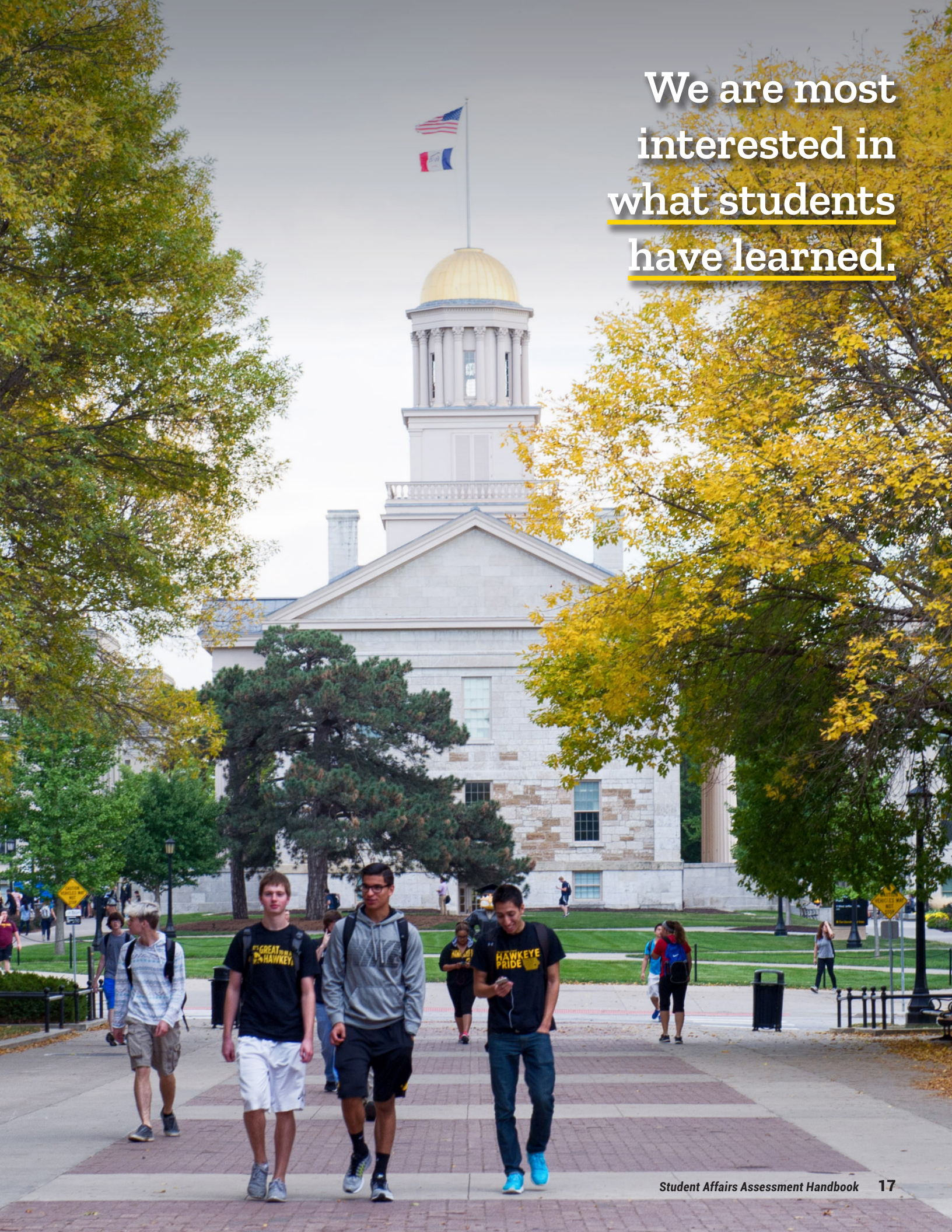
IMPLEMENT CHANGE

IDENTIFY LEARNING OUTCOMES
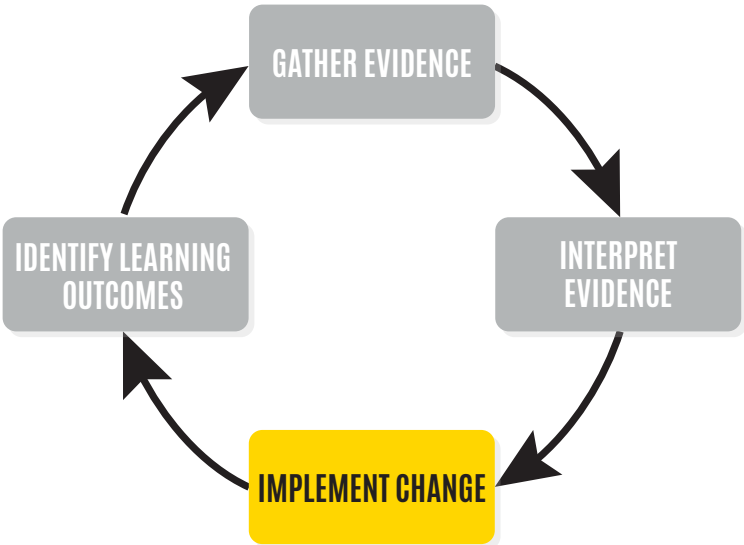
ELEMENTS OF AN ASSESSMENT CYCLE

The first element of an assessment cycle is to determine a timeline and be realistic about what you can assess when. An organizing framework may be useful. For instance, you may want to connect your assessment cycle to Division goals, departmental learning outcomes, or emphasis areas in your department. For example, you might choose to assess programs that most relate to leadership one year, those with a focus on civic responsibility during year two, etc. Or alternate between your group programs and individual consultations every other year. Below is a way to organize an assessment cycle.

DEPARTMENT LEARNING OUTCOME	Year(s) When Outcome is Assessed				
	1st	2nd	3rd	4th	Every Year

We are most interested in **what students have learned.**

STUDENT LEARNING ASSESSMENT:
COMMUNICATING RESULTS

TELLING YOUR STORY

The next step after analyzing the assessment data you have collected is to communicate your results. Telling your assessment story happens when you communicate results with your key stakeholders. This is an essential aspect of making assessment a valuable part of your work.

1. Determine Your Audience(s)

Ideally, you should tailor your communication of results to each specific audience.

Possible audiences could include:

- Administrators
- Partners/Collaborators
- Students
- Parents
- Funding Sources
- Faculty Members
- Referral Sources
- Colleagues
- Community Members

2. Target Communication to Your Audience(s)

Target your communication specifically to your audience(s) by determining what information is the most relevant to them and what communication format is most effective.

3. Keep It Simple

When communicating results to your audience keep in mind the "central nuggets" of information, focus on implications, connect results to outcomes/goals, anticipate questions, and provide answers. The reality is that your assessment report is one of many pieces of information your director or administrator may be receiving daily. Consider paring your information down to what they really need to know. In an influential study in the health domain on the gap between research and policy (Sorian & Baugh, 2002) *policymakers reported…*

- They read 27% of what they received in detail
- "Never get to" 35% of the material

4. Choose a Communication Format that Fits Your Audience

Possible communication formats to choose from are:

- Report
- Poster or Flyer
- Presentation
- Newsletter
- Student Newspaper
- Website

5. When Possible, Combine Quantitative Data with Qualitative Data

Combining quantitative and qualitative data turns the communication of results into a story about what you discovered and what you determined. While people respond to stories, adding quantitative data helps convey that there is more than one story to tell.

Example:

" … I came to see you over a year ago for smoking cessation help and I used Chantix to quit. I wanted to let you know that next Wednesday will be the one year anniversary of my quit date, and I have not smoked since then. One year free! I just wanted to thank you for your help again. It's a great feeling to have accomplished it!"

Students who participate in tobacco cessation consultations at Student Health have a 40% cessation rate.

Sorian, R., & Baugh, T. (2002). Power of information: closing the gap between research and policy. *Health Affairs*, 21(2), 264-273.