Learning Outcomes Assessment Committee

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A product of the Office of Student Persistence Research
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**Purpose: Building a Coordinated Student Services Assessment Effort**

*Building a Coordinated Student Services Assessment Effort* is about building your assessment toolbox. By working together to develop a catalog of strategies for assessment, we can learn from each other and develop an *institutional memory* for assessment and evidence based decision-making. An institutional memory, that is, a shared memory, will help us avoid wasting time developing new measures that may or may not work. We want to avoid *reinventing the wheel*. *We want to identify what works to* use our time effectively and the time of our students more efficiently.

Assessment is a tool for continual improvement. It is a *means* for both evaluating your efforts, and for improving upon them. It is an iterative approach to program development and for the purpose of learning what works and what may need to be changed (Bresciani, 2004). As such, assessment is a learning process that works best when paired with incremental changes to programming. The emphasis on improvement is what separates assessment from evaluation and even research. Evaluation and research attempt to explain the relationship between inputs and outputs. They attempt to answer the question *why*. Why did *input* A result in *output* B and under what conditions? Assessment, in contrast, focuses less on the inputs and more on outcomes. The question an assessment attempts to answer is *what* – “what did the students actually learn?” & *how* – “how can we foster the learning we want?” Although “why” is still an important question, designing your assessment to answer the questions “what” and “how” will increase your sensitivity for understanding the totality of outcomes your efforts generate. An assessment approach will help you go beyond gathering data that describes your accomplishments; it will help you gather information that reveals all the positive, negative, and unforeseen ways you and your programming may influence students. Finally, by taking an assessment approach you will be able to make targeted changes to continuously and strategically improve your programming. *Assessment is intentional improvement.*

In order for an organization to improve it must be a *learning organization*. The goal of demonstrating learning represents a fundamental paradigmatic shift in student affairs away from improving instruction (i.e. inputs) and towards student development (i.e. outcomes) (Bresciani, 2009). To be a learning organization, it is important to develop a culture of learning. A culture of learning emerges when assessment is shared, transparent, and iterative. A culture of learning persists when it engenders honest reflection and responsive, *intentional* programming.

*The purpose of this handbook is to help you document a variety of measurement strategies* and ensure that you know *who* within the Division of Student Services has experience with a measure or method, so that you may learn from their experience. As you learn assessment techniques and begin to evaluate their effectiveness (and even improve upon them), please make notes in this handbook. We will take the opportunity to revise this handbook with your notes for future practitioners. Of course, you won’t have time or need to use every new measure or method we discuss. Therefore, a coordinated approach to assessment will help you track resources, especially human resources, for the future. It is your responsibility to use your colleagues as resources *and give them the opportunity to help you!* Only then will a culture of learning develop.
From this article (Appendix A), I want to highlight the **Four Pillars of Transformative Assessment**.

- **Build shared trust**: Begin by lowering social and interpersonal barriers to change.
- **Build shared motivation**: Collectively identify goals worth working toward and problems worth solving.
- **Build a shared language**: Develop a collective understanding of new concepts needed for transformation.
- **Build shared guidelines**: Develop a short list of research-based guidelines for using assessment to promote learning.

If we embrace these four pillars, we will effectively construct an assessment culture and community that is cooperative and makes intentional, evidence based improvements. Wide participation and a commitment to continual improvement will help us create a transformative university experience that is sensitive to 21st century realities. Transformative assessment is transparent assessment! Work with your colleagues to develop your assessment skills and knowledge and share resources.
## Committee Members

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<tr>
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<th>Committee Name</th>
<th>Member(s)</th>
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<tr>
<td>1</td>
<td>Student Conduct</td>
<td>Carol Millie; Jo Harvey</td>
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<td>New Student Initiatives</td>
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<td>Tutoring Center</td>
<td>Christopher Chadwick</td>
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<td>Center for Student Cultural Diversity</td>
<td>Araceli Martinez</td>
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<td>Student Engagement</td>
<td>Sandy Rodrigues</td>
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<td>8</td>
<td>Nevada Wolf Shop</td>
<td>Corie Moe</td>
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<td>9</td>
<td>Student Union</td>
<td>Raquel DePuy Grafton</td>
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<td>10</td>
<td>Trio</td>
<td>Rita Escher; Ellen Houston</td>
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<td>International Students</td>
<td>Adilia Ross; Lambert Glory</td>
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<td>Veterans Services</td>
<td>Terina O Caserto</td>
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<td>Disability Resource Center</td>
<td>Mac (Mary Ann) Christenson</td>
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<td>14</td>
<td>Counseling</td>
<td>Cindy Marczynski</td>
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<td>15</td>
<td>Career Services</td>
<td>Robyn Maitoza &amp; Mary T Calhoon</td>
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<td>16</td>
<td>Office of Prospective Students</td>
<td>Adam Stoltz</td>
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Provisioned Timeline

Year 1 – Building a Culture of Learning Outcomes Assessment
- March – Discussion of Goals & Learning Outcomes for Committee Participants
- April – Writing Learning Outcomes
- May – Measurement Strategies: Survey vs. Non-Survey Assessment Strategies
- June – Proposals for Learning Outcomes Assessment
- July – Measurement and Analysis, Analysis and Measurement
- August – Presentation of Proposals and Plans at Poster Session during Prof.Dev.Day (retreat)
- September - Taking time to Trouble Shoot, Revise, Reconsider Assessment
- October – Reflecting on Learning Outcomes, Planning for Analysis
- November – Reporting & Consolidating Reports
- December – First Division-Wide Learning Outcomes Report
- January – Plans for Program Development – The Next Iteration
- February – Taking Learning Outcomes Assessment to the Next Level by extending it to all programs and services your office supports

Year 2 – Extending Learning Outcomes Assessment to assess Program Development

Year 3 – Developing a Longitudinal View of Program Improvement and tying it to Retention
**Meeting Agenda**

**Part I: Educate**
- 20 minute presentation on an Assessment Topic by Jennifer Lowman
- 10 minute discussion or exercise

Part I: Each meeting I will share information on a particular assessment topic (e.g. writing learning outcomes) or an assessment tool (e.g. Self-Assessment of Motivation questionnaire). Expect my direct instruction to last no more than 20 minutes with an addition 10 minutes for answering questions, provide clarification, or direct you to additional resources on that topic. The purpose is to educate, as well as expose you to a variety of tools and resources to put in your toolbox and take back to your program for further discussion and use.

**Part II: Communicate**
- 10 min. Program Presentation by “Volunteer” Committee Member or Assessment Professional
- 20 min. Feedback and Discussion

Part II: Each meeting a committee member will present one learning outcome on which an assessment activity is desired, under development, or in a more advanced stage of production. This is an opportunity to discuss what you learn in a safe environment and get feedback from the group.

Presentations should cover the following topics - though one point might get more attention than another depending on the stage of assessment...

1) Identify Relevant Program Goal - describe the goal with just enough context to help the group understand why it is important to assess goal achievement.
2) List Learning Outcomes for assessment of this Goal
3) Pick one Learning Outcome and describe the following
   a. Expected Optimal Outcome
   b. Expected Variation for this Outcome (Range of possible (and likely) results)
4) Your intervention, that is, how your program attempted to influence learning.
   a. Attempt to include here factors that may enhance or limit the impact of your intervention (i.e. treatment) ...some of this stuff may be outside of your control.
5) Measurement (or possible ideas for measurement)
   a. What is optimal measurement? What is doable measurement?
   b. What are some of the trade-offs between possible measures? (time, intensity, depth, materials) - Attempt to identify two direct and one indirect measure
   c. What is the potential benefit and cost of multiple measures?
   d. Is an instrument available or will we need to create an instrument?
6) Analysis Plan
   a. How will you interpret the data you collect for each measure? Apply basic statistical or interpretive tools to your measures.
   b. How much overlap is there between multiple measures, if any all?
7) Reporting and Plans for Continual Improvement
   a. How will you use the data to change your programming or fine tune your assessment?
   b. What will you learn from your assessment of this learning outcome that influences practice more generally?
8) Expected Timeline from development to production and analysis to reporting
Incentives for Participation

Member committee participation is vital for developing a healthy culture of learning and continual improvement. Member contributions foster a stronger sense of community within the committee, and help the Division of Student Services to fulfill its student support role more efficiently by allowing committee members to receive input and different viewpoints, while remaining focused on their individual programs and services.

Is that inspiring enough? If you need a little external motivation, we are developing an official certification process to recognize your emergent proficiency as a Learning Outcomes Assessment Professional on campus. Tracking your individual growth as an Assessment Professional will be something we work on together, as will providing evidence of your assessment activities and developing skill set for your annual evaluation.
Chapter 1: What is Assessment?

Assessment means many things to many people. For our purposes, assessment is a guide for program improvement. In order to improve your programs, you will need to embed assessment into your activities, measure real outcomes, strategically target improvement, and then do it all over again. To make assessment part of your program, you will put in place systematic, continual methods to answer the following questions:

- What are students learning and why?
- How do we know?
- Are students learning what we intend for them to learn?
- How do we use assessment information to improve learning?
- Do the improvements we make work?

Decades of research shows that students respond to intentional activities that are linked to positive outcomes (Bresciani, Zelna, & Anderson, 2004). Assessment is no different – it must be intentional and focused on student outcomes. If you tell students what you expect them to learn and how it will benefit them, they are more likely to learn it. As this point, it may also be important to define what outcomes-based assessment is not (if this is a paradigm shift for you, then consider that assessment is no longer...):

...assessment is not focused on inputs or for the purpose of describing your activities.
...assessment is not about meeting performance standards.
...assessment is not about defending your programs or proving your worth.
...assessment is not for the sake of assessment!

1.1 Why Learning Outcomes?

Learning outcomes assess intellectual and cognitive learning. Learning outcomes “determine to what degree students have learned what they were supposed to learn by participating in a student affairs sponsored program, service, activity, experience or class” (Culp & Dungy, 2012). By focusing on learning outcomes, we can go beyond affective outcomes, like satisfaction with services, which are temporary and influenced by emotional states and social perceptions (like mood, weather, and affiliation). A focus on learning outcomes helps us tap into outcomes that are more likely to impact long-term student behavior (Kuh et al. 2005).

Assessment of learning outcomes and planning are intertwined and interrelated. When you ask yourself, “what do I want the students to learn?” then your programming will be more deliberate. Likewise, your assessment should be more intentional. Focusing on outcomes related to learning will help decrease our focus on descriptive outcomes and increase our focus on efficiency. Of course, we still need to document and validate who and how many we serve, but we need to go beyond summative and descriptive statistics. We need to focus on the levels and types of learning that occur because learning outcomes demonstrate impact, not just resource allocation and use. Finally, it is by demonstrating learning that we can build trust with external and internal stakeholders (Palomba & Banta, 1999).
1.2 Common Definitions

Before coordinating our learning outcomes assessment, we have to build a common language. The definitions I provide here are more general than specific. More importantly, we may have to revise them as we go because this is our language – not my language or Bresciani’s definitions (though they are from her work) – we have to take responsibility for defining these terms on our own campus, for our own student population and needs. *Take note that these definitions are ordered with increasing specificity.*

**Mission** – clarifies an organization’s purpose or why it should be doing what it does.

**Goals (aka Objectives)** - what you intend to accomplish in broad terms. Goals and objectives often articulate the values, mission, or purpose of the program. As such, goals may be statements that express optimal outcomes after participation in a program; however, they are not specific enough to be measured.

**Program** – the source of an intervention; anything that has an autonomous set of outcomes. A program delivers the end results of what you are assessing. If you have trouble defining your program, think of it as your set of responsibilities that may be classified as an activity that affects students.

**Outcomes** – describe the end result of the program. Foremost, outcomes must be measurable. Outcomes are more specific statements derived from goals and objectives. For our purposes, we will distinguish learning outcomes from other general types of outcomes – these other types of outcomes are also important for documenting program impact; however, learning outcomes are the best approach for gathering information for program improvement.

**Operational Outcomes (aka Descriptive Outcomes)** – metrics that document how well a program functions with available resources. Operational outcomes are primarily descriptive and communicate information on usage. For example, 200 students attended the event.

**Learning Outcomes (aka Individual Outcomes)** – a learning outcome is participant-centered and describes the desired effect of a program on a student’s cognitive or intellectual state. Learning outcomes are statements of what students will value, do, or know (ASK: attitude, skills, & knowledge) as a result of participation. For example, students who attend the event will be able to perform 7 of 10 effective presentation strategies. Learning outcomes are considered formative outcomes in that they describe student development or transformation.

**Program Outcomes (aka Aggregate Outcomes)** – the desired aggregate effect of a program. For example, 80% of students who attend will lead a student organization during their college career. Program outcomes are summative in that they explain the link between operational and learning outcomes.

**Measurable** – a systematic process to identify or observe an outcome. Measurable does not necessarily mean “countable.”
1.3 Cycle of Assessment

Equal to the purpose of understanding program impact through outcomes assessment is establishing a systematic process through which services and student learning are improved over time. Suskie (2009, p.4) defines assessment as an on-going process or cycle,

“Assessment is the on-going process of establishing clear, measurable expected outcomes of student learning; ensuring that students have sufficient opportunities to achieve these outcomes; systematically gathering, analyzing, and interpreting evidence to determine how well student learning matches our expectations; using the resulting information to understand and improve learning.”

Conceptualizing assessment as cyclical serves dual purposes: a) to establish a culture of continual improvement, and b) increase the probability that you will design and implement programs, processes, and services that really matter. The founding of a cycle of assessment has to start with the mission, goals, and objectives that give your program or service meaning. It is useful to look at your program from the perspective of an outsider or external reviewer in order to ensure mission, goals, and outcomes are aligned. Though a time-intensive exercise, it is important to ensure alignment not only exists, but endures as improvements are made or new programs are developed.

External Perspective

1. Define issue/problem, i.e. Mission
2. Identify Goals
3. Align Mission & Goals
4. Identify stakeholders
5. Identify theoretical/conceptual framework
6. Develop measurable outcomes from goals
7. Identify and measure inputs
8. Classify strategies from framework to reach goals
9. Isolate action steps to implement strategies
10. Develop formative assessment plan to understand process
11. Measure Outcomes
12. Make sense of results
13. Report / Present findings
14. Review, Reallocate, Advocate for Resources
15. Retool Program
16. Plan for Next Iteration

The purpose of the Learning Outcomes Assessment Committee is to help you view your program from an outsider’s perspective and achieve alignment among mission, goals, and outcomes. Use your fellow committee members to develop that external perspective. It will help you disentangle your perceptions from reality! Collaboration will help you avoid getting stuck in your silo. Your peers will help you determine if you are asking the right questions and if you are using the right indicators. Expect failure, but don’t accept it. You have too many resources amongst your fellow professionals to effectively learn from your mistakes.
Although the internal perspective is useful, as you may note in the diagram above, mission and purpose may become removed from the cycle of assessment. Mis-alignment between mission and outcomes is a risk when we design and implement assessment without taking a holistic perspective. Since many of you are not starting from scratch to build your assessment plan, consider that collaboration will help you gain that a fresh perspective on your programming, as well as expose you to existing data and resources amongst your peers.

That said, if your mission, goals, program, and outcomes are aligned, professionals who have an internal or insider’s view of their program are in the best position possible to evaluate outcomes. Assuming their motives are program improvement and not something else, insiders have extensive, practical experience on how students react to services and when students are more likely to perceive programming as relevant to their lives. This insider’s perspective can save a lot of time when it comes to planning and preparation, or research and program development. The external perspective cannot replace the insider’s knowledge, instead they should work together to extend knowledge and generate questions that the other might not be asking.
Chapter 1

1.4 Types and Forms of Assessment

The assessment of student satisfaction, needs, and service utilization is very important. However, findings from this type of assessment do not directly help you understand your program's contributions to the greater work of the university. In particular, the assessment of operational outcomes does not tell you how your program contributes to student development and learning, and the findings seldom help you make decisions for the improvement of your programs.

There are several types of assessment and you are likely familiar with these and may have engaged in one or more of them. These particular assessment activities are listed below in order of increasing complexity and integration— that is, each subsequent assessment activity may include the less complex assessment activity listed before it.

Furthermore, these assessment activities may be categorized by the type of data and insight they potentially hold (Scriven, 1967). **Operational Assessment** is used to determine if a particular organizational activity or function should be continued, enhanced, curtailed, or eliminated. Summative or descriptive data is used for accountability as it helps describe resource use and program cost. **Formative Assessment** is used to improve organizational or institutional effectiveness and typically focuses on improving processes, which should lead to increased effectiveness through program improvement. Finally, **Political Assessment** is used to communicate and defend a program to potential stakeholders, including professional staff, office staff, faculty, administrators, parents, taxpayers, and funders (Brown & Podolske, 1993). Its purpose is to document and validate your activities.

*Types of Assessment Activities*

- **Operational Assessment**
  - Tracking Usage
  - Needs Assessment
  - Satisfaction Study
  - Culture/Climate Assessment

- **Formative Assessment**
  - Outcomes Assessment
  - Resource Effectiveness Study
  - Benchmarking

- **Political Assessment**
  - Program Review
  - Strategic Planning
Chapter 2: Developing Learning Outcomes

The assessment of learning outcomes and program planning are intertwined and interrelated. In response to the question, “what do I want the students to learn?” program development starts with the formulation of the optimal outcome or goal. In essence, program planning begins with the end working backwards from the goal to identify the resources or “program inputs” needed to achieve the desired outcome.

Goals describe what a program intends to accomplish (Maki, 2001). Goals reflect our values and tie the institutional mission to the professional activities that take place. Goals, therefore, are often written in idealistic language and are quite ambitious. As such, as optimal outcomes, goals are not often measurable. For instance, a program goal to make students more critical-thinkers would require a person be able to observe a change in complex cognitive functioning. In addition, critical-thinking is a general concept that characterizes an evaluative approach to information use. Thus, to observe critical-thinking you have to define to aspects: 1) the informational context that makes critical-thinking meaningful and 2) the level of evaluation that indicates critical use. Specifically, to observe a student engaged in analytical deliberation it is necessary to define the topic or piece of information under consideration, such as a policy, a piece of legislation, or a cultural value, as well as what signifies critical vs. non-critical use.

The process of defining a concept in more specific terms is known as operationalization. When you take a general behavior and you define the context in which you intend to observe that behavior, you are creating an operational definition. Operational definitions are observable outcomes. You will likely have multiple, observable outcomes to assess your program’s goal achievement.

2.1 From Goals to Outcomes

Outcomes are more specific statements of goals (i.e. concepts) and contain enough contextual information that they allow you to infer some change in attitudes, skills, or knowledge took place as a result of your program – in other words, outcomes are specific enough to be tested!

Before the components of a contextualized, testable outcome are discussed, there are three more general properties of outcomes to consider. Each outcome should be measurable, manageable, and meaningful (Bresciani, Zelna, & Anderson, 2004).

**Measurable.** Measurable outcomes are observable or noticeable to multiple observers or through multiple methods. Measurable means that the existence of a thing may be determined by collecting objective evidence. Objective evidence is data collected in a systematic manner and in which subjective
bias has been controlled as much as possible. Subjective bias is reduced when sources of prejudice and individual partiality are removed from the process of making an observation or taking a measurement (See Appendix XX for subjective sources of bias in scoring).

Measurable does not necessarily mean countable or quantifiable. There are many behaviors that are socially complex, for instance, leadership involves many behaviors both instrumental and expressive that may not have quantifiable properties.

Manageable. For an outcome to be manageable, you have to be able to assess it through normal activity and in the process of your day-to-day interaction with program participants. In other words, you have to be able to measure or observe an outcome without placing too much burden on the participants of your program or on your staff. As with the example of critical-thinking as a program goal, it would not be feasible to have students undergo an MRI (magnetic resonance imaging) so that you may observe their brain functioning. That’s research, not assessment! Manageable assessment IS DOABLE in the constraints of your interactions with students. Consider observing students debate a particular policy or write an essay comparing and contrasting a decision in order to assess their critical-thinking.

Meaningful. Meaningfulness is a property of the link between your goals and outcomes, as well as your intention to use evidence to assess your program’s performance. Foremost, an outcome needs to have meaning to you the program planner. The assessment of an outcome needs to help you make some decision about the effectiveness of your program. As such, you should only measure those outcomes that will help you assess your goals and improve your program. If you can’t change something about your program, don’t measure it — it may be a waste of your time and resources.

2.2 Writing Learning Outcomes

ABCD Formula. Learning outcomes need to clarify the levels and types of learning that are expected to occur to demonstrate the impact of programming on students. A useful formula for writing learning outcomes is the ABCD formula:

Audience – Who? Who is the target of the program?

Behavior – What? What should the target be able to know, do, or value?

Condition – When? When, where, what action was taken to facilitate the learning?

Degree – How much? How much learning will be demonstrated?

Personally, I prefer to write a learning outcome by describing the condition first because it replicates the cause-effect relationship of the program treatment on the outcome in logical, temporal order. However, you can do what you believe will be most meaningful for you and your stakeholders. The following example applies the formula as:

\[ \text{Condition} + \text{Audience} + \text{Behavior} + \text{Degree} \]

[As a result of participating in the program] + [students] + [will demonstrate use] + [of 3 of 5 skills.]

[As a result of participating in the event] + [students] + [will be able to identify] + [three sources of academic support.]
More on **Degree of Impact**. It is important to establish a transparent standard to interpret the success of your program. You should signal that standard to your students and stakeholders by explicitly stating the degree of impact or *how much influence* you expect your program to have on the behaviors, values, or knowledge held by your audience.

Set your standard ahead of program implementation to signal your intention to both students and stakeholders that you expect your program to have a *measurable impact*. This tactic will help you be more intentional in your program design and more responsive to student perceptions as you collect data on your program. In addition, the standard you set will establish a criterion for data-driven program evaluation -- it helps you hold your program, your staff, and yourself accountable.

Of course, resources limit both optimal program design and student attention or engagement; therefore, it is important for you to identify the limitations of your resources as you consider the amount of learning you may realistically expect students to demonstrate. Start with what you expect to be the *minimum benefit* of your program within the limitations of your resources and then set the standard for the degree of impact at a level that will realistically challenge your staff and students or audience.

Finally, consider what is known about the learning you expect to take place. In general, learning theories (Dewey; Lewin; etc.) suggest that people learn more when they are actively involved in the learning process. The following graphic (from NTL, 2013) depicts greater retention the more a student is involved in the process of learning.

![The Learning Pyramid](image)

Learners appear to retain a greater amount the more skill and knowledge they are asked to *demonstrate* and *integrate* during the learning process. The degree of impact you expect to have will be influenced by level in which you engage your participants in the process of learning.

**Depth of Learning.** Depth of learning and degree of impact are not the same thing. Depth of learning or cognitive complexity identifies the cognitive demand underlying the process of learning, whereas degree of impact addresses how much learning you expect to take place.
Cognitive demand refers to the number of independent steps and complexity of the reasoning required to progress from step to step to complete a task (Webb, 1999).

- **Low complexity** – Relies heavily on the recall and recognition of previously learned concepts and principles.
- **Moderate Complexity** – Involves more flexibility of thinking and choice among alternatives than do those in the low-complexity category.
- **High Complexity** - Places heavy demands on students, who must engage in more abstract reasoning, planning, analysis, judgment, and creative thought.

Depth of learning or cognitive complexity is not synonymous with difficulty. Difficulty is a characteristic determined by the percentage of students who are able to meet some standard of task performance. Difficulty may be influenced by both situational and task-specific factors, such as the preparation of the students and the amount of time students have to complete a task. Such factors are important to identify and take into account (e.g. control) to understand variation in student performance.

**The Role of Action Verbs.** Use action or active verbs to state what students will be able to do as the result of your program intervention or treatment. Using Bloom’s taxonomy (1956) and ordered from low to high-cognitive complexity, the depth of learning may be reflected in the verb used:

- **Knowledge:** Remembers previously learned information.
  - Examples: recognizing, recalling, labeling, listing
  - As a result of participating in the workshop, students will be able to **list** five ways to reduce stress.

- **Comprehension:** Understands the facts and can explain the “why” of something.
  - interpreting, summarizing, contrasting
  - As a result of participating in the floor meeting, students will be able to **discuss** at least three reasons why we don’t allow alcohol in the residence halls.

- **Application:** Applies knowledge to actual situations; though limited to situations similar to the original context in which the information was presented.
  - executing, implementing, classifying
  - As a result of participating in the orientation session, students will be able to **integrate** the rules and regulations into their club constitutions.

- **Analysis:** Breaks down objects or ideas into simpler parts and finds evidence to support generalizations.
  - differentiating, organizing, attributing
  - After participating in the retreat, students will be able to **compare** the effectiveness of three leadership styles.

- **Synthesis:** Compiles component ideas into a new whole or proposes alternative solutions. Decontextualizes knowledge by applying knowledge to novel situations.
  - critiquing, integrating, generalizing
• As students reflect on this past year that I have served as their organization’s advisor, they will write a one-page essay reflecting on what areas I been most effective and in what areas can I improve.

• **Creating**: Make and defend judgments based on internal evidence or external criteria.
  - generating, planning, producing (teaching)
  - Based on the Career Counseling Training Course, students will be able to recommend four action steps to each of their group members.

**NOTE**: Don’t use verbs that are not observable, such as *appreciate, become aware, be familiar with, know, learn, acknowledge, or understand*. You cannot directly observe understanding, but you can observe the student comparing and contrasting information and infer understanding.

**SMART Outcomes**. Finally, a good learning outcome is **SMART** – **S**pecific, **M**easurable, **A**ggressive/Attainable, **R**esults-focused, & **T**ime-bound.

  - **Specific** – refers to the the observation of one testable learning outcome per statement. If you have an “and” in your learning outcome, then turn it into 2 individual learning outcomes.
  - **Measurable** – as previously stated, observable, discernible, noticeable, etc.
  - **Aggressive & Attainable** – learning outcomes should reflect the variation you expect to observe among your students. If everyone can attain the outcome, maybe you are not challenging your students – or yourself with your programming.
  - **Result-focused** – write outcomes that focus on what students can do as a result of your programming, not what you did.
  - **Time-bound** – to ensure that outcomes you observe are the result of your efforts and not some other event or experience, you need to assess outcomes in a timely manner. Hence, make assessment part of your programming. Don’t delay!

**2.3 To Assess or Not to Assess?**

Whether or not to assess a goal depends on you!

My main piece of advice is to collect evidence that you intend to use. Don’t waste the time of your students or staff collecting data that will not be meaningful to you or to your stakeholders. How you intend to use the data should be at the forefront of the design of your assessment. Just as important as whether to assess a goal or not is collecting enough data to make a meaningful inference about the impact of your program.
Chapter 3 – Practical Assessment Strategies and Analysis

This chapter is titled “Practical Assessment Strategies and Analysis” to emphasize that your assessment method needs to be feasible at both the point of data collection and data analysis. Once you have identified student learning outcomes, you need to select a method of observation that will allow you to systematically document your observations (i.e. data collection) and evaluate learning (i.e. data analysis). If you have developed a clear learning outcome, then select a doable method that can be applied systematically to document student outcomes with the resources available to you.

If you have considered fully the range of learning you expect to take place given the time, attention, and resources you have at hand and if you have a realistic expectation of the degree and depth of learning you expect to observe, then selecting a method should be relatively easy -- relative in contrast to an attempt to select a method without a clear understanding of what students are learning, what that learning looks like, or what resources will be needed to observe student outcomes.

Don’t select the easiest method! Select a method that maximizes the observation of learning and that may be “good enough” considering the resources you have available (Upcraft & Schuh, 2002). It may not be the easiest method or the one you are most comfortable with, but it needs to provide you with the information you need to evaluate the impact of your program.

Important: Only after you have identified student learning outcomes should you develop an assessment method. Your capacity for data collection or your ability to analyze data should not determine what you assess. Allowing your own bias against certain methods or analyses will introduce unforeseen bias into your assessment and severely limit what you learn about your program’s impact on student development.

At this point most methods manuals would introduce qualitative and quantitative methods. However, the difference between the two is conceptual at best and artificial at worst - strict adherence to one or the other type of data will introduce unanticipated bias into your assessment. A more useful methodological approach to assessment is to consider the difference between direct and indirect methods of observation. The more direct your observations of learning, the more powerful the evidence to assess the degree of impact and the depth of learning that took place.

3.1 Direct & Indirect Methods

Direct methods of assessment are based on an analysis of student behaviors or products in which students demonstrate how well they have mastered learning outcomes. Faculty conduct direct assessments of student learning throughout a course using such techniques as exams, quizzes, essays, and oral reports. These techniques allow students to show you what they have learned by putting it to use and provide strong evidence of student learning.

Indirect methods of assessment are based on reports or perceptions of student mastery of learning outcomes and are more subjective and less objective evidence of learning. Indirect measures are not as strong as direct measures because assumptions must be made about what exactly the report of learning means. For example, self-report measures often found in surveys are influenced by subjective interpretations and value-laden judgments about the learning experience. Likewise, measures of learning (i.e.
GPA, course grades) that reveal average or summative performance, and for which measurement takes place beyond or outside the context of a specific program’s point of contact also reflect learning that took place in other situations. Thus, general measures of performance are indirect and changes in such performance measures cannot be directly attributed to the program’s influence.

Survey methods are indirect methods of assessment! Survey methods require the student to report learning and development took place. Survey data, therefore, may be influenced by subjective and implicit qualities of the student, such as values, perceptions, and attitudes towards the learning opportunity or towards others involved in the learning experience. In the absence of direct evidence, assumptions must be made about how well perceptions match the reality of student learning and achievement. Simply, self-reports are highly subject to personal bias and mis-representations of learning. Careful survey construction may reduce such bias, but cannot eliminate it completely. Careful survey construction takes time and requires deliberation of threats to reliability and validity.

Multi-Method approaches are often best when observations of learning are less than direct. In reality, all assessment methods have limitations and contain some bias. A possible weakness of direct measurement is that not everything can be demonstrated in a direct way, such as values, perceptions, feelings, and attitudes. A meaningful assessment plan would use both direct and indirect assessments from a variety of sources (staff, faculty, & students). This use of multiple assessment methods provides convergent evidence of student learning. Indirect methods provide a valuable supplement to direct methods and are generally a part of a robust assessment program; however, indirect methods should be viewed as an enhancement of more direct methods of observation and not used exclusively.

The table on the next page categorizes examples of direct and indirect assessment methods; these examples should be considered as only more or less direct/indirect. For example, archival data is more indirect because it was collected before the program’s implementation and was not likely designed to assess a specific learning outcome. Likewise, essays and reflection papers are more direct assessment methods only if the topic of reflection is clearly linked to the learning expected to take place; this is why I categorized journaling methods as more indirect because instructions for journaling methods are often less precise and open to interpretation. Take note that both methods include qualitative and quantitative methods and data.

As you explore direct and indirect methods of observation consider resources that discuss classroom assessment methods or techniques. There is a long tradition of research on classroom assessment that student affairs professionals may exploit. Cross and Angelo¹ (1988), for instance, describe the pros and cons of 30 methods, including (1) techniques for assessing academic skills and intellectual development; (2) techniques for assessing students' self-awareness as learners and self-assessments of learning skills; and (3) techniques for assessing student reactions to teachers and teaching methods, course materials, activities, and assignments.

¹ I posted this particular resource on the Student Services Assessment resource page. Angelo has updated this publication and you may purchase his book on Amazon or elsewhere.
<table>
<thead>
<tr>
<th>Method</th>
<th>Direct</th>
<th>Indirect</th>
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</thead>
<tbody>
<tr>
<td>Archival Data</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Behavioral Observations</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Capstone/culminating activities</td>
<td>✓</td>
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<tr>
<td>Checklists</td>
<td>✓</td>
<td></td>
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<tr>
<td>Directed Paraphrasing</td>
<td>✓</td>
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<tr>
<td>Essays &amp; Reflection Papers</td>
<td>✓</td>
<td></td>
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<tr>
<td>Focus groups</td>
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<td>✓</td>
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<tr>
<td>Interviews</td>
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<tr>
<td>Journaling</td>
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<td>Oral Reports</td>
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<tr>
<td>Portfolios</td>
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<tr>
<td>Quasi-experiments (pre-post tests)</td>
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<td>✓</td>
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<tr>
<td>Rubrics</td>
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<td>✓</td>
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<tr>
<td>Simulations</td>
<td>✓</td>
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<tr>
<td>Surveys</td>
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<tr>
<td>Teacher/advisor/supervisor rates skills</td>
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<tr>
<td>Tests &amp; quizzes to assess content (math test)</td>
<td>✓</td>
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<tr>
<td>Tests or exams that assess general knowledge or intelligence (ACT, SAT, etc.)</td>
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<tr>
<td>Tracking</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Visual Collections</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
3.2 Measurement & Analysis, Analysis & Measurement

Your analysis will only be as good as your measurement. In other words, **garbage in, garbage out**! Make sure your measurement is sensitive to the entire range of variation in the *degree of impact* you expect to have and the *depth of learning* you expect to take place (see the previous chapter for a discussion of degree of impact and depth of learning). The amount and complexity of the learning you expect to achieve with your program should be matched by your assessment method. Don’t choose the easiest method; instead, choose the method that best identifies your program outcomes.

Bresciani, Zelna, & Anderson (2004) suggest the analysis of program impact is for the purpose of demonstrating two types of outcomes, 1) learning and development outcomes and 2) behavior-changing outcomes.

- Learning and development outcomes demonstrate that you taught students how to change their own behavior.
- Behavior-changing outcomes demonstrate that you changed students’ behavior.

Although it is a worthy goal to change student behavior, behavior change is difficult to achieve, especially considering the amount of time and the resources many student affairs professionals have at their disposal. Thus, Bresciani, Zelna, and Anderson (2004) suggest that it is good practice for student affairs professionals to assess both outcomes!

What this approach highlights is that measurement and analysis go hand in hand. Select methods that will allow you to measure the full range of potential outcomes from the *potential for change* to *actual behavioral change*. 
Appendix XX

Subjective Sources of Bias in Observation

Minimizing subjective bias is an important step in the design of an assessment. Suskie (2009, table 3.2) lists 10 common subjective errors in scoring student work.

1. Leniency errors – scoring student work better than most professional colleagues would judge it.
2. Generosity errors – scoring student work using only the high end of a rating scale.
3. Severity errors - scoring student work using only the low end of a rating scale.
4. Central tendency errors – scoring student work using the middle part of the rating scale and avoiding both the high and low ends.
5. Halo effect bias – allowing a favorable general impression of a student to influence scoring, giving higher scores to a student you like, who helps out, etc.
6. Contamination effect bias – allowing irrelevant student characteristics to influence scoring, such as a student’s handwriting, gender, etc.
7. Similar-to-me effect bias – scoring students higher if they seem similar to oneself or who share interests with oneself
8. First-impression effect bias – allowing early opinions to distort overall judgment; allowing good students to fail, or bad students to succeed based on the work of direct interest.
9. Contrast effect bias – allowing comparison of students to other students to establish standards
10. Rater drift – redefining scoring standards over time; allowing previous grading standards to influence work scored later.

If you are inclined to study sources of bias further, discussions of categories of bias that threaten the reliability (consistency) and validity (accuracy) of observations may be found in any research methodology text.

Validity refers to the accuracy of a method of observation for identifying the behavior, value, or knowledge of interest. Validity scores indicate increased confidence that an observation is a true measure of the outcome of interest.

Reliability refers to the consistency of a method of observation and reliability scores indicate an increased likelihood that observations are reproducible; for example, reliability may be reflected in the agreement between multiple observers or across multiple observations.