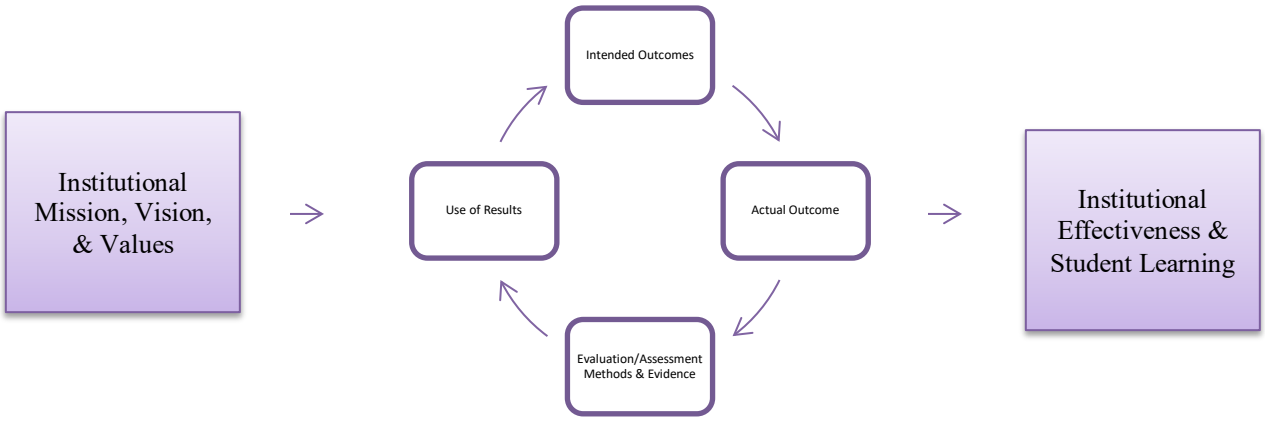
Texas Christian University
Student Affairs Assessment Guide

Chapter 3: Outcomes Assessment

Outcomes assessment is the most valid way of demonstrating the effectiveness of services, programs, and facilities, especially in defending and promoting higher education, and also in meeting accreditation standards. It is also the most difficult, complex and misunderstood of all the assessment methodologies (Upcraft & Schuh, 2001).



Assessing outcomes helps clarify how the division, department, and program fit, or align, with the overarching institutional vision, mission, values, and strategic initiatives. When outcomes are stated clearly, students and other constituents know what is expected of them and what gains they can expect from participating. Outcomes assessment moves beyond measuring satisfaction or tracking use by providing measures of effectiveness. Assessing outcomes increases the awareness of the connection between what students are learning in the classroom and outside of it.

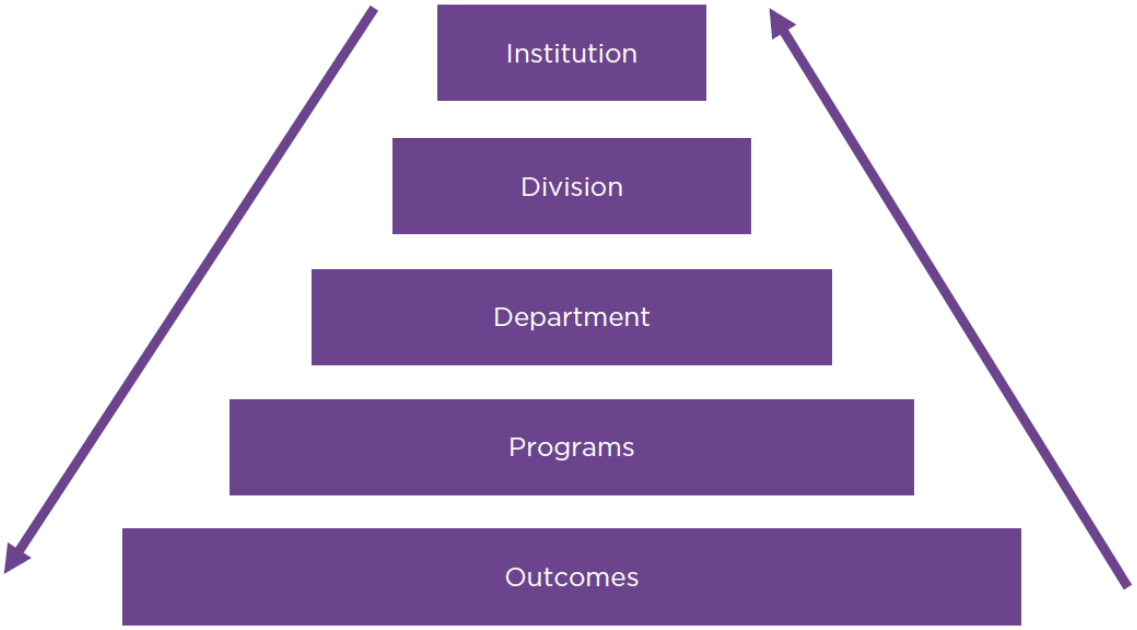
"Student learning is not the result of discrete experiences but rather the product of many different kinds of experiences in and outside the classroom over an extended period of time," (Schuh, J. H., & Gansemer-Topf, A. M., 2010, p. 10).

Types of Outcomes

There are basically two types of outcomes, *program*, or *operational*, outcomes and *student learning outcomes (SLOs)*. Operational outcomes examine what a program or process is to do, achieve, or accomplish for its own improvement. An example of an operational outcome might be, "By the end of the semester, 95% of all RA's will have completed CPR training." Operational outcomes typically have indirect effects on end users and therefore, ultimately influence the SLO.

SLOs, on the other hand, examine what students, or participants, are doing or thinking as a result of their participation in the program, service, or activity. "After completing CPR training, 95% of RA's will be able to demonstrate correct CPR techniques," is a good example of an SLO. SLO statements clearly state the expected knowledge, skills, attitudes, competencies, and habits of mind that students are expected to acquire.

Connection To The Big Picture



Both SLOs and Operational outcomes should follow the "3 M Guideline," of being meaningful, measurable, and manageable. Outcomes should also be SMART:

Subject: Who is going to do the action	**Measurable:** Target behavior is specified	**Action:** A specific action to be performed is specified	**Realistic:** Goal is within reach but still challenging	**Time-Bound:** Time goal should be achieved is specified

Subject:	Students who attend Frog Camp
Measurable:	at least 3 fellow students they didn't know before
Action:	will be able to name
Realistic:	at least 3 (not 50, not all the campers)
Time-Bound:	By the end of Frog Camp

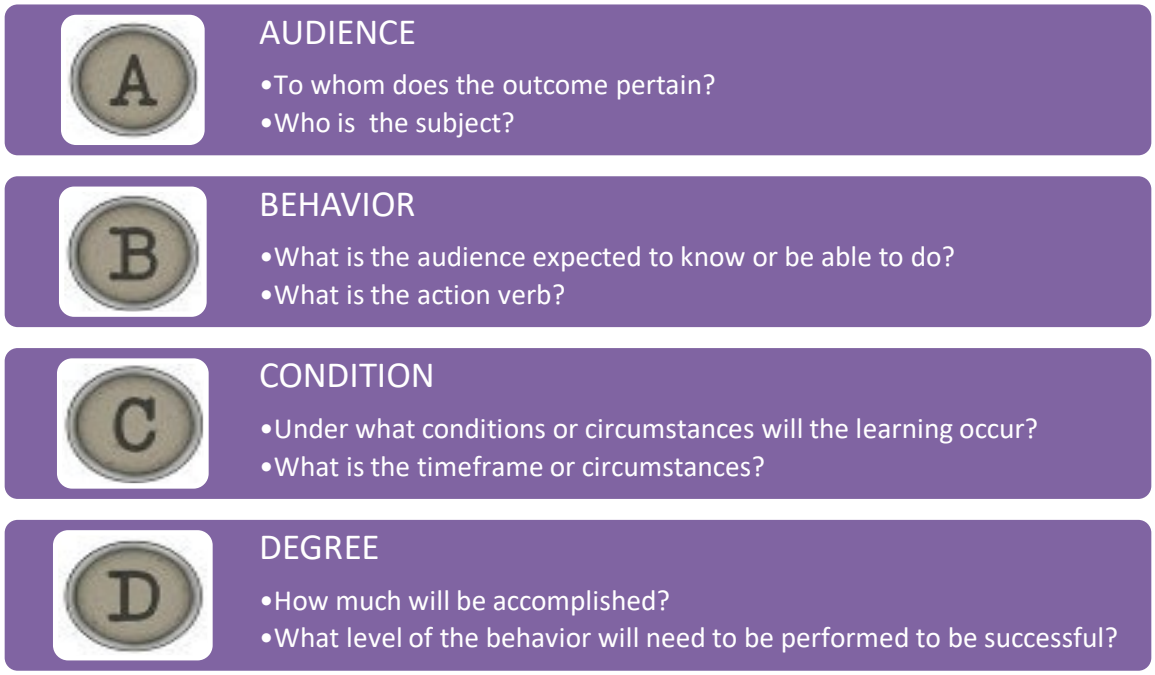
Example:
By the end of Frog Camp, students who attend Frog Camp will be able to name at least 3 fellow students they did not know before camp started.

Student Learning Outcomes (SLOs)
Measuring SLOs provides many challenges. Assessing them is not always easy – a survey may not do it. Students do not experience college in discreet chunks of programs or learnings. It is all mixed up together in the classroom and out of it. It is difficult to attribute learning to one, singularly identifiable event in a student's entire collegiate experience. Also, some desirable outcomes from our programs may take months or even years to come to fruition. Identifying tangible ways of measuring intangible concepts can be tricky; but, not impossible.

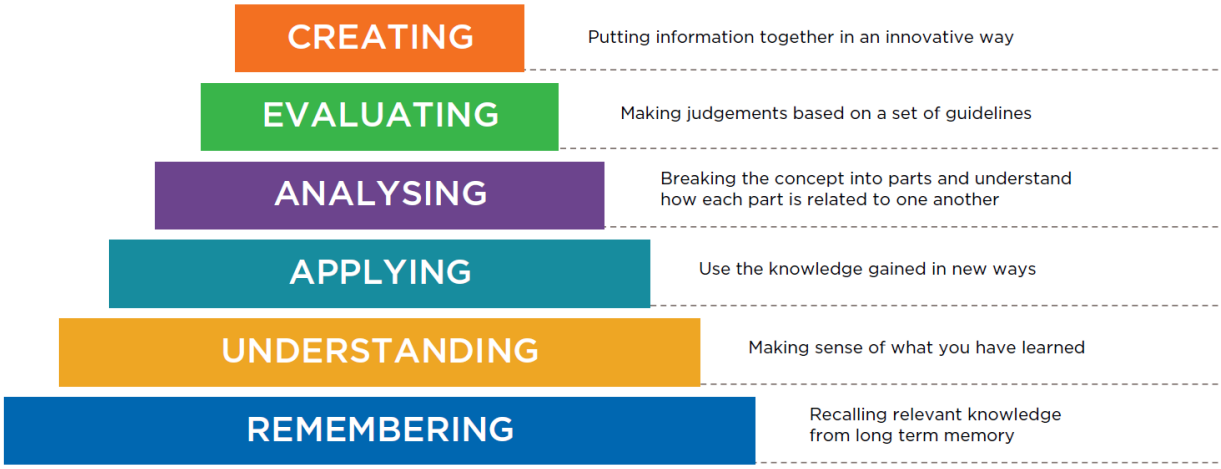
According to Huba & Freed (2000), there are several characteristics that make SLOs more effective. Effective SLOs:

- Are student-focused
- Focus on learning resulting from an activity rather than the activity itself
- Reflect the institution's mission and the values it represents
- Align at the course/program, academic program/department, divisional, and institutional levels
- Focus on skills and abilities central to the program's purpose and based on standards of excellence
- Are general enough to capture important learning, but clear and specific enough to be measurable
- Focus on aspects of learning that will develop and endure but that can be assessed in some form now

ABCD Structure of an SLO



Bloom's taxonomy can be extremely helpful in determining measurable learning behaviors.



Bloom's taxonomy is a classification of skills arranged in levels of complexity. The taxonomy involves all categories of questions. And, like other taxonomies, Bloom's is hierarchical, meaning that learning at the higher levels is dependent on having attained prerequisite knowledge and skills at lower levels. Bloom's Taxonomy is often displayed as a pyramid graphic to help demonstrate this hierarchy. Thinking about Bloom's taxonomy, the different levels of thinking would require different assessment methods. (More in-depth thinking level = more in-depth assessment)

Bloom's taxonomy can be a powerful tool to help develop learning objectives/outcomes, because it explains the process of learning:

- Before you can ***understand*** a concept, you must ***remember*** it.
- To ***apply*** a concept you must first ***understand*** it.
- In order to ***evaluate*** a process, you must have ***analyzed*** it.
- To ***create*** an accurate conclusion, you must have completed a thorough ***evaluation***.

However, starting at lower order skills and stepping all the way through the entire taxonomy for each concept presented would become tedious for all involved! Instead start by considering the level of learners participating in the program:

1. First-Year Students? If so, many the learning outcomes may target the lower order Bloom's skills, because these students are building foundational knowledge. However, even in this situation strive to move a few of the objectives into the ***applying*** and ***analyzing*** level, but getting too far up in the taxonomy could create frustration and unachievable goals.
2. Graduating Seniors? If so, then ***remembering*** and ***understanding*** level objectives might be limiting. Advanced students should be able to master higher-order learning objectives. Too many lower level objectives might cause boredom or apathy.

Fortunately, there are tables to help identify which action verbs align with each level in Bloom's Taxonomy. One of these tables may be found on the following page. Using a verb table like the one on the next page will help avoid verbs that cannot be quantified, like: understand, learn, appreciate, or enjoy.

LOW LEVEL THINKING SKILLS ← → HIGH LEVEL THINKING SKILLS

Knowledge

Recall /regurgitate facts without understanding. Exhibits previously learned material by recalling facts, terms, basic concepts and answers.

Key words:

Choose, Copy, Define, Duplicate, Find, How, Identify, Label, List, Listen, Locate, Match, Memorise, Name, Observe, Omit, Quote, Read, Recall, Recite, Recognise, Record, Relate, Remember, Repeat, Reproduce, Retell, Select, Show, Spell, State, Tell, Trace, What, When, Where, Which, Who, Why, Write

Actions:

Describing, Finding, Identifying, Listing, Locating, Naming, Recognising, Retrieving

Outcomes:

Definition, Fact, Label, List, Quiz, Reproduction, Test, Workbook, Worksheet

Questions:

Can you list three ...?
Can you recall ...?
Can you select ...?
How did _____ happen?
How is ...?
How would you describe ...?
How would you explain ...?
How would you show ...?
What is ...?
When did ...?
When did _____ happen?
Where is . . . ?
Which one ...?
Who was ...?
Who were the main . . . ?
Why did ...?

Comprehension

To show understanding finding information from the text. Demonstrating basic understanding of facts and ideas.

Key words:

Ask, Cite, Classify, Compare, Contrast, Demonstrate, Discuss, Estimate, Explain, Express, Extend, Generalise, Give examples, Illustrate, illustrate, Indicate, Infer, Interpret, Match, Observe, Outline, Predict, Purpose, Relate, Rephrase, Report, Restate, Review, Show, Summarise, Translate

Actions:

Classifying, Comparing, Exemplifying, Explaining, Inferring, Interpreting, Paraphrasing, Summarising

Outcomes:

Collection, Examples, Explanation, Label, List, Outline, Quiz, Show and tell, Summary

Questions:

Can you explain what is happening . . . what is meant . . .?
How would you classify the type of ...?
How would you compare ...?contrast ...?
How would you rephrase the meaning ...?
How would you summarise ...?
What can you say about ...?
What facts or ideas show ...?
What is the main idea of ...?
Which is the best answer ...?
Which statements support ...?
Will you state or interpret in your own words ...?

Application

To use in a new situation. Solving problems by applying acquired knowledge, facts, techniques and rules in a different way.

Key words:

Act, Administer, Apply, Associate, Build, Calculate, Categorise, Choose, Classify, Connect, Construct, Correlation, Demonstrate, Develop, Dramatise, Employ, Experiment with, Group, Identify, Illustrate, Interpret, Interview, Link, Make use of, Manipulate, Model, Organise, Perform, Plan, Practice, Relate, Represent, Select, Show, Simulate, Solve, Summarise, Teach, Transfer, Translate, Use

Actions:

Carrying out, Executing, Implementing, Using

Outcomes:

Demonstration, Diary, Illustrations, Interview, Journal, Performance, Presentation, Sculpture, Simulation

Questions:

How would you use...?
What examples can you find to ...?
How would you solve _____ using what you have learned ...?
How would you organise _____ to show ...?
How would you show your understanding of ...?
What approach would you use to...?
How would you apply what you learned to develop ...?
What other way would you plan to ...?
What would result if ...?
Can you make use of the facts to ...?
What elements would you choose to change ...?
What facts would you select to show ...?
What questions would you ask in an interview with ...?

Analysis

To examine in detail. Examining and breaking information into parts by identifying motives or causes; making inferences and finding evidence to support generalisations.

Key words:

Analyse, Appraise, Arrange, Assumption, Breakdown, Categorise, Cause and effect, Choose, Classify, Differences, Discover, Discriminate, Dissect, Distinction, Distinguish, Divide, Establish, Examine, Find, Focus, Function, Group, Highlight, In-depth discussion, Inference, Inspect, Investigate, Isolate, List, Motive, Omit, Order, Organise, Point out, Prioritize, Question, Rank, Reason, Relationships, Reorganise, Research, See, Select, Separate, Similar to, Simplify, Survey, Take part in, Test for, Theme, Comparing

Actions:

Attributing, Deconstructing, Integrating, Organising, Outlining, Structuring

Outcomes:

Abstract, Chart, Checklist, Database, Graph, Mobile, Report, Spread sheet, Survey

Questions:

What are the parts or features of ...?
How is _____ related to ...?
Why do you think ...?
What is the theme ...?
What motive is there ...?
Can you list the parts ...?
What inference can you make ...?
What conclusions can you draw ...?
How would you classify ...?
How would you categorise ...?
Can you identify the difference parts ...?
What evidence can you find ...?
What is the relationship between ...?
Can you make a distinction between ...?
What is the function of ...?
What ideas justify ...?

Synthesis

To change or create into something new. Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.

Key words:

Adapt, Add to, Build, Change, Choose, Combine, Compile, Compose, Construct, Convert, Create, Delete, Design, Develop, Devise, Discover, Discuss, Elaborate, Estimate, Experiment, Extend, Formulate, Happen, Hypothesise, Imagine, Improve, Innovate, Integrate, Invent, Make up, Maximise, Minimise, Model, Modify, Original, Originate, Plan, Predict, Produce, Propose, Reframe, Revise, Rewrite, Simplify, Solve, Speculate, Substitute, Suppose, Tabulate, Test, Theorise, Think, Transform, Visualise

Actions:

Constructing, Designing, Devising, Inventing, Making, Planning, Producing

Outcomes:

Advertisement, Film, Media product, New game, Painting, Plan, Project, Song, Story

Questions:

What changes would you make to solve...?
How would you improve ...?
What would happen if...?
Can you elaborate on the reason...?
Can you propose an alternative...?
Can you invent...?
How would you adapt _____ to create a different...?
How could you change (modify) the plot (plan)...?
What could be done to minimise (maximise)...?
What way would you design...?
Suppose you could _____ what would you do...?
How would you test...?
Can you formulate a theory for...?
Can you predict the outcome if...?
How would you estimate the results for...?
What facts can you compile...?
Can you construct a model that would change...?
Can you think of an original way for the ...?

Evaluation

To justify. Presenting and defending opinions by making judgements about information, validity of ideas or quality of work based on a set of criteria.

Key words:

Agree, Appraise, Argue, Assess, Award, Bad, Choose, Compare, Conclude, Consider, Convince, Criteria, Criticise, Debate, Decide, Deduct, Defend, Determine, Disprove, Dispute, Effective, Estimate, Evaluate, Explain, Give reasons, Good, Grade, How do we know?, Importance, Infer, Influence, Interpret, Judge, Justify, Mark, Measure, Opinion, Perceive, Persuade, Prioritise, Prove, Rate, Recommend, Rule on, Select, Support, Test, Useful, Validate, Value, Why

Actions:

Attributing, Checking, Deconstructing, Integrating, Organising, Outlining, Structuring

Outcomes:

Abstract, Chart, Checklist, Database, Graph, Mobile, Report, Spread sheet, Survey

Questions:

Do you agree with the actions/outcomes...?
What is your opinion of...?
How would you prove/disprove...?
Can you assess the value/importance of...?
Would it be better if...?
Why did they (the character) choose...?
What would you recommend...?
How would you rate the...?
What would you cite to defend the actions...?
How would you evaluate ...?
How could you determine...?
What choice would you have made...?
What would you select...?
How would you prioritise...?
What judgement would you make about...?
Based on what you know, how would you explain...?
What information would you use to support the view...?
How would you justify...?
What data was used to make the conclusion...?

Bloom's Taxonomy: Teacher Planning Kit

Example:
Students and parents will know what kinds of career services exist on campus after orientation.

Students and parents will be able to list three career exploration services available at the Career Center after participating in the Career Center session at Orientation.

Audience Behavior Condition Degree

After attending a financial aid session, students will be able to fill out the FAFSA form with no mistakes.

As a result of three meetings with an academic coach, students will be able to determine two study strategies that are appropriate for their learning style.

As result of participating in incident training, RA's will be able to identify the five major job responsibilities of being on call.

After participating in a leadership retreat, organization presidents will be able to accurately identify at least three tasks to complete themselves versus those to delegate to their executive board before their first spring semester planning meeting.

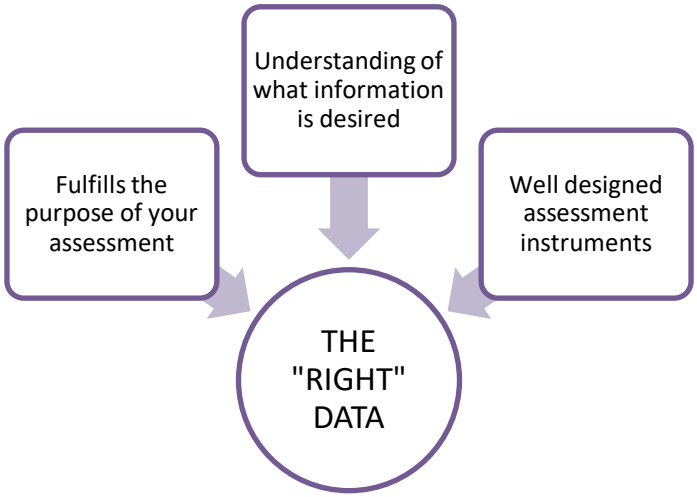
Program/Operational Outcomes
As stated previously, program, or operational, outcomes focus on what a program/service/activity is to do, achieve, or accomplish for improvement or to support SLOs. Operational outcomes are often related to administrative details, such as cost, resource acquisition, staff development, technology, etc.

Operational outcomes follow the same format as SLOs and have similar components, it's just that the focus is shifted to what the program/service/activity is doing rather than what the participant is getting from the program/service/activity.

Example:
By the first day of class, 85% of FY students will have completed the CIRP Freshman Survey.

By the end of September, Quality Enhancement will have administered the New Student Programs Benchmarking Survey with a minimum sample size of 566.

Putting It All Together



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