

The Meaning of ~~Life~~ Data:  
Effective Analysis and  
Use of Student-  
Learning Data

# Assessment in the DBU Annual Report Outline

ASSESSMENT TOOL(S): *(Student Learning Focused* - IDENTIFY IN **AUGUST**)

*The assessment tool is the investigative means to gather the concrete data in order to make sound decisions which can enhance student learning. An Assessment (e.g., essay, exam) is utilized with students to gauge learning and progress toward mastery of the LCO. The specific Scoring Method (e.g., rubric, external certification criteria) for the assessment should measure the degree to which the LCO has been achieved. Course(s) where the assessment tool will be utilized should be identified along with the desired level of mastery.*

1

The assessment is actual **assignment** the student will complete and from which you will take data.

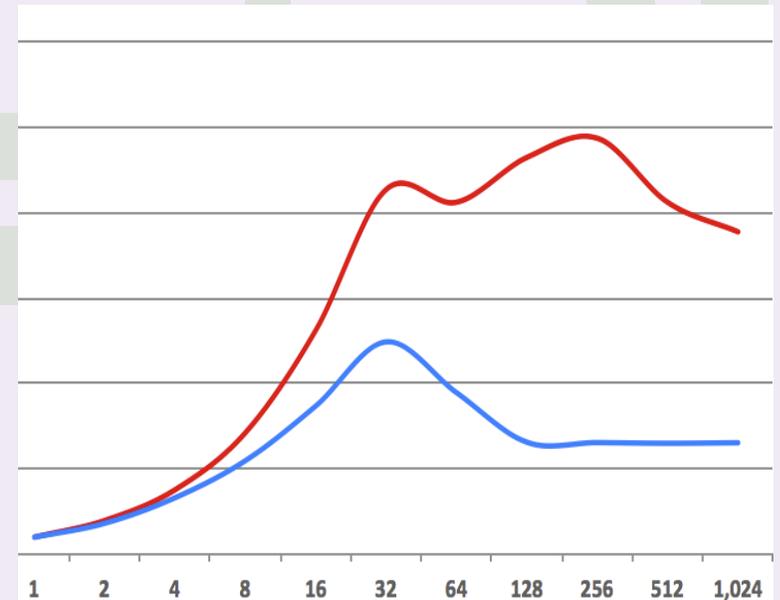
2

The scoring method includes what type of scoring you will use, e.g. a rubric or a test answer key or something else, **as well as the target and benchmark** your program is aiming for in terms of mastery.



Your **target** is the proportion of students that should achieve the minimally acceptable performance level that demonstrates learning. Ex. 95 % of students will demonstrate competence.

Your **benchmark** is the actual score or standard that is the minimally acceptable level to demonstrate learning. Ex. 3 or above on a rubric, or 6 of 8 questions answered correctly.  
(Suskie, *Assessing 290*).



# Additional Settings?

- You must have a benchmark and target, but it's possible that some additional settings can help to yield more useful data.
  - **Aspirational target**—You can set a target for higher-level achievement, not just minimal mastery, and this can be a target that is worth aiming for but doesn't mean you failed if you didn't achieve it. Ex. 10% of students will score at 100%, or 15 % of majors will achieve “Exceptional Performance” on the rubric.

- **Critical target**—You can set a benchmark of unacceptably low-level achievement as well, in other words, a level of learning you would find completely unacceptable, and use it to set a critical target. Ex. No more than 2% of students will answer fewer than 4 of 9 questions correctly, or no more than 3% of students will score at the level of 1 on the rubric.

(Suskie, *Assessment* 301-03)

*Additional settings are especially useful if your program or department generally does a really good job of making sure every student is at least competent.*

*For example, the English department might set a target of 90% of majors scoring at least a 3 (or competent) in the area of literary interpretation on the rubric, but usually 97% or more score at least a 3. It appears there is no room for improvement.*

*However, if they also have an aspirational target that at least 5% will score a 5, (or superior performance) in literary interpretation on the rubric, and the result is that only 1% score at that level, then there is something to work toward. An action plan can be put into place to try to achieve the unmet target.*

*(Suskie, Assessment 301-03).*



How are benchmarks and targets set?

Benchmark and target numbers are most meaningful, and easiest to set, when they are defined with regard to some sort of comparative data.

**What you choose to compare your students' learning to depends on the perspective you choose to take.**

Linda Suskie has identified **five types of perspectives** that are useful to consider. (*Assessment 209-97*).





# Perspectives:

- 1. Local standards perspective:** Set by the faculty in the program and only appropriate for direct assessment. These should never be used with indirect or self-reported assessments such as surveys.
- 2. External standards perspective:** Certification exams and standardized tests with validated instruments and acceptable scores set by the government or professional association. (Suskie, *Assessment* 209-97).

**AAC&U Rubrics offer a hybrid of local and external standards perspectives, as the instruments themselves are standardized and validated, but the faculty can set the acceptable score.**

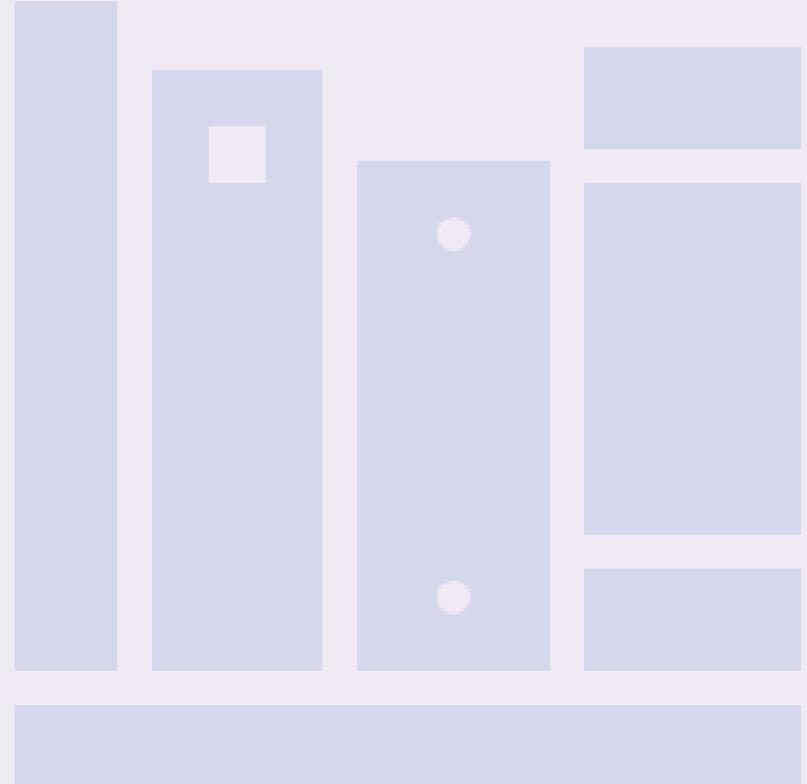




## Perspectives:

3. **Peer or norm-referenced** perspective: Internal peers might include all students enrolled in certain course. This type can be very useful for comparing/validating different course delivery methods such as online verses hybrid. External peers might include students in similar courses at similar universities using the same assessment instrument.

(Suskie *Assessment* 209-97).

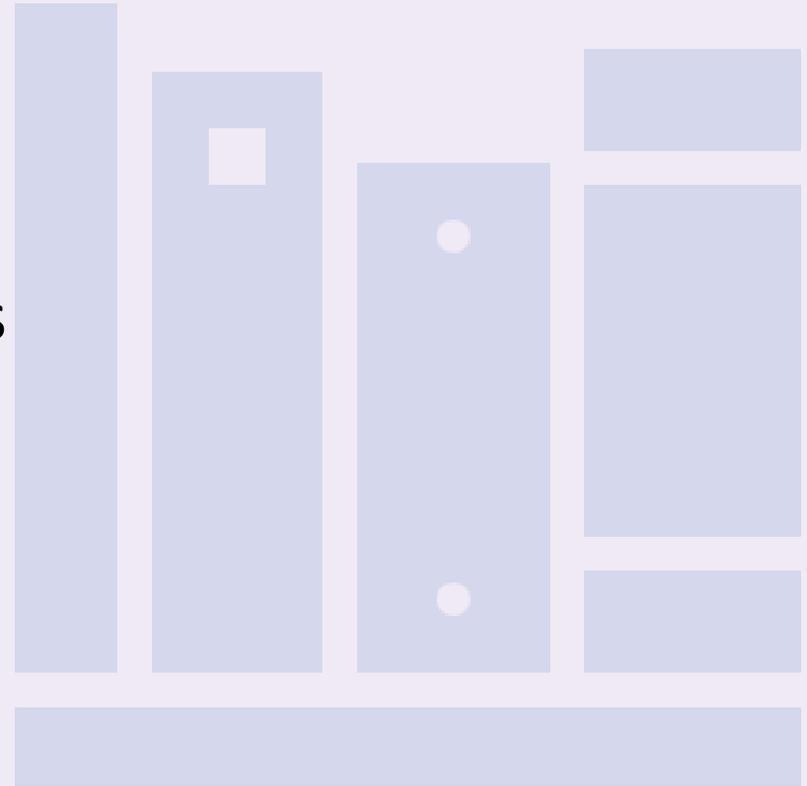




# Perspectives:

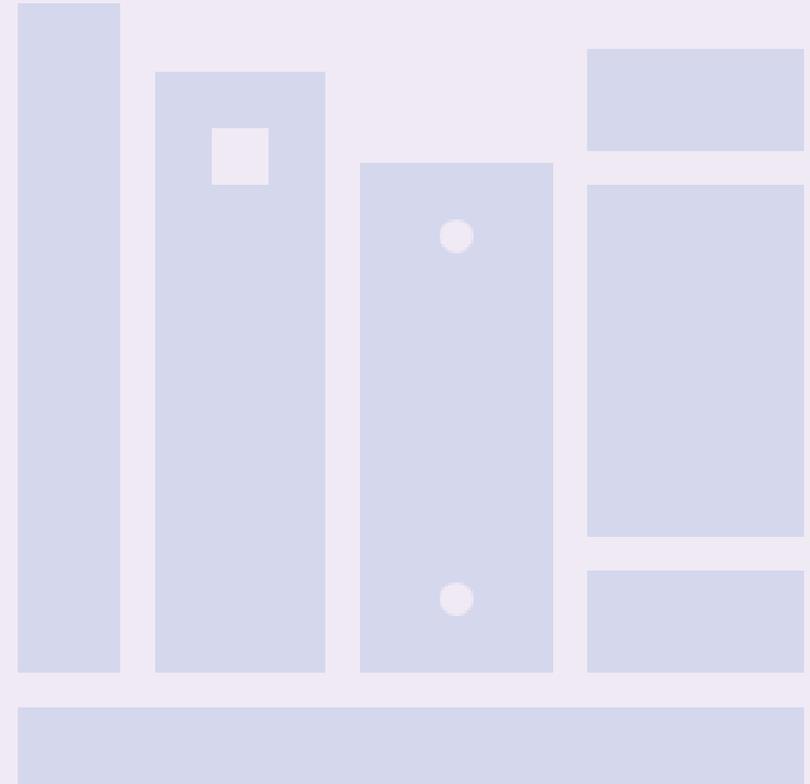
**4. Historical trends perspective:** Compares successive groups of students over time and is very useful for showing the value of interventions based on analysis of student-learning data.

*(Suskie Assessment 209-97).*





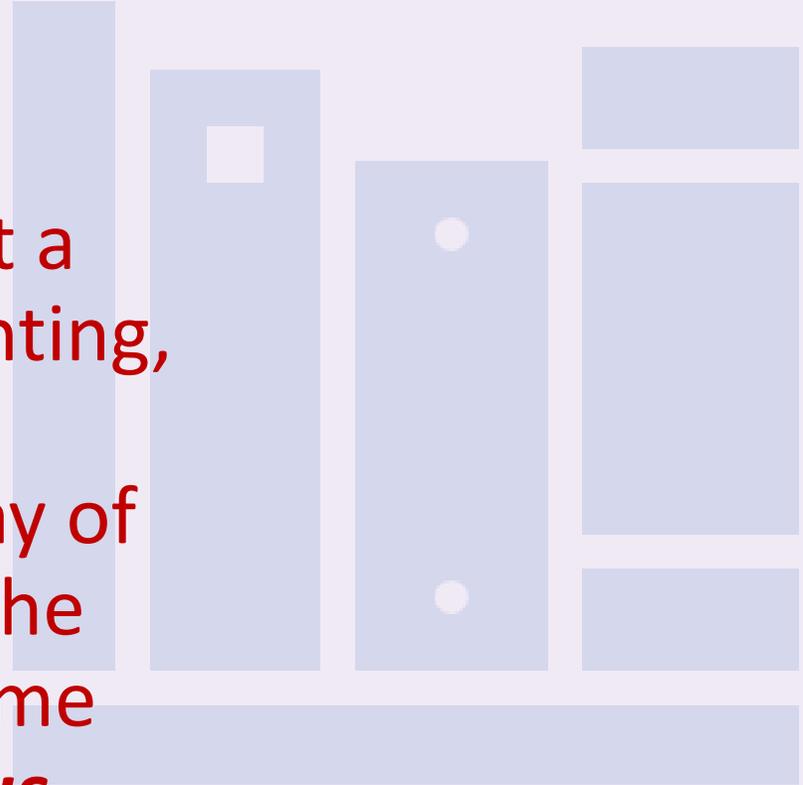
**5. Value-added perspective:**  
Compares what students know at the beginning of a course to what they have learned by the end of the course.  
(Suskie, *Assessment* 290-97)





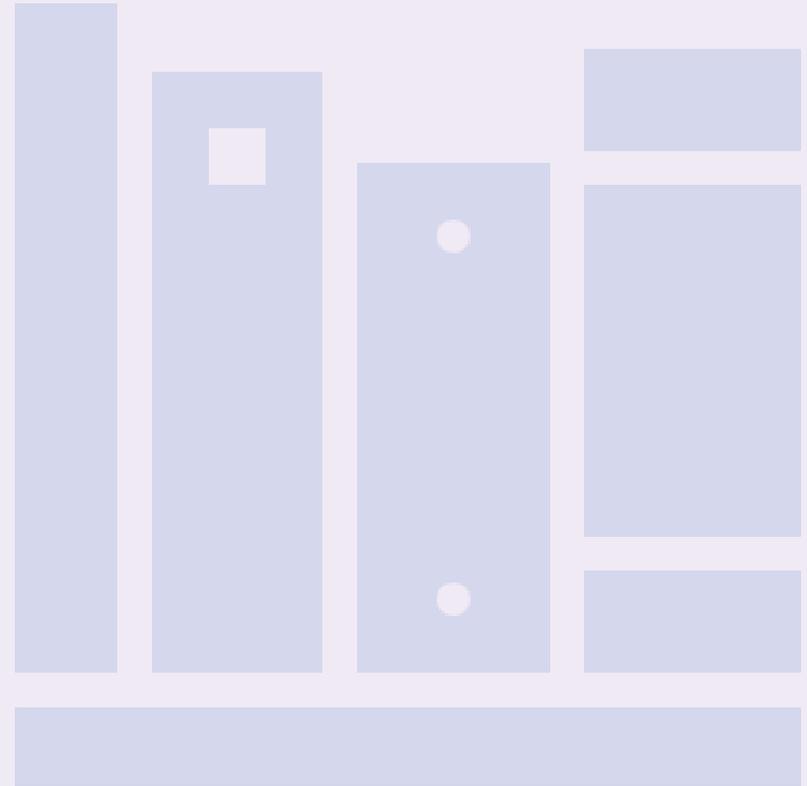
The value-added perspective is essentially the **pre-test/post-test** type of standard and is most useful for showing that learning has occurred.

Since it is only logical to assume that a student who has never taken accounting, for example, will score poorly on an accounting final exam on the first day of the course and will score better on the last day, this sort of standard can come across as suspect. ***A mid-term versus final test may be perceived as having greater validity.*** (Guskey 52, Suskie 294).





**The value-added perspective is most useful when a program is very small and meaningful data cannot be drawn due to the sample size (Guskey 52, Suskie 294).**





Note that no single perspective can tell the whole story, but if you know what your perspective is and can explain it in your narrative, your analysis will gain meaning and your data usage will be more effective.

(*Suskie Assessment 297*)





## Questions to Ask as You Set Targets:

“What is the lowest achievement level that would nonetheless adequately prepare students for success” at the next level (the advanced course in this discipline, graduate school, their job after graduation, etc.)?

Are there national or professional standards that can inform our benchmarks and targets?

What is the lowest achievement level that would not be embarrassing if it were published?  
(*Suskie Assessment 298*)





# Questions to Ask as You Set Targets:

Are we trying to identify areas for improvement, and is the benchmark high enough to do that?

Are we trying to make sure students are competent, especially at the exit level? The benchmark must be high enough to demonstrate competency—i.e. would you go to a doctor that made that score? Would you listen to a theologian who only knew that much? Would you want a person who wrote that way in your graduate program?





## Questions to Ask as You Set Targets:

Is this an essential learning outcome?  
If so, the target should be high. Is this  
an aspirational learning outcome? If  
so, the target can be lower.

(Suskie, *Assessment* 298)





## Other Concerns: Using Pre- and Post- Data

As mentioned above with regard to the value-added perspective, pre-test and post-test types of data can be tricky to use well.

Understanding the **three types of pre-testing data**, as identified by Guskey, can be helpful in designing your pre/post- assessments.

(Guskey 54-55)





# Types of Pre-Assessments

1. **Present:** This type of pre-assessment addresses where the students are right now in their level of knowledge and understanding of the course content. This type is best used to identify the best instructional sequence for the content (Guskey 55).





# Types of Pre-Assessments

2. **Preview:** This type of pre-assessment may be used to help students identify the learning outcomes of the course or unit or to pinpoint misconceptions or misunderstandings that may need to be addressed (Guskey 55).





# Types of Pre-Assessments

**3. Prerequisite:** This type of pre-assessment addresses potential deficits in what students need to know before they can learn the content of the current course (Guskey 55).





# Using Pre-Assessments to Improve Learning

If you use a **present** or **preview** assessment, be sure that your action plan or intervention **clearly addresses conclusions you drew from the results.**





# Using Pre-Assessments to Improve Learning

For example, if you conduct a **present** pre-assessment, you need to use the results to adjust your instructional sequence. Do you need to go back and review an earlier concept before proceeding? Can you jump ahead to a more advanced concept?





# Using Pre-Assessments to Improve Learning

If you conduct a **preview** pre-assessment, you (and the students) should use it to identify what it reveals regarding what they are expected to learn. What misconceptions or misunderstandings need to be addressed? What attitudes or dispositions need to change over the course of instruction?





# Using Pre-Assessments to Improve Learning

Research regarding the value of pre-assessments has produced mixed findings; however, one of the most effective uses appears to be the third type, the **prerequisite** (or perhaps prerequisite gap) pre-assessment (Guskey 52, 56).





# Using Pre-Assessments to Improve Learning

One study found that when gaps in prerequisite knowledge were identified in pre-assessment and a mastery teaching approach was used to address those gaps before moving forward, student learning improved dramatically (Guskey 56-57).

*(Caveat: you would probably need to use a historical trends perspective, rather than the method used in the study, so that you would not need to get approval from the IRB.)*





## Other Concerns: Tests and Rubrics

One difficulty that can occur when using tests or rubrics for assessment is obtaining data that is too general to be truly useful.

For example, if students take a test over domestic violence, a score on the whole test will not necessarily help you identify what their gaps in learning might be. Similarly, a total score from a rubric that addresses both form and content of writing might not identify specific learning needs.





## Sub-categories and Sub-scores

Breaking your test or rubric down so that you can readily identify sub-scores from sub-categories will make the data more useful.





## Sub-categories and Sub-scores

Imagine a program with an **outcome** stating that students will know the characteristics of anti-social personalities.





## Sub-categories and Sub-scores

On the domestic violence test, for instance, if **questions 6-12 specifically address the characteristics of abusers**, looking at the results from that set of questions will demonstrate whether learning on that specific outcome has occurred.





## Sub-categories and Sub-scores

If, instead of a test, the **assignment** were a research paper on domestic violence and the **scoring method** were a rubric, one requirement for the paper might be that it cover the characteristics of abusers.





## Sub-categories and Sub-scores

If the overall score on the rubric is broken down into **dimensional sub-scores**, it is much easier to know if learning for this outcome has occurred and to pinpoint any area of weakness that your action plan should address.



# Bibliography

Guskey, Thomas R. “Does Pre-Assessment Work?”  
*Educational Leadership*, February 2018, 52-57.  
*EBSCOhost*.

Suskie, Linda. *Assessing Student Learning: A Common Sense Guide*. John Wiley & Sons, 2018.

Suskie, Linda. *Five Dimensions of Quality*. John Wiley & Sons, 2015.

# Our Mission

DBU Mission Statement: The mission of Dallas Baptist University is to provide Christ-centered quality higher education in the arts, sciences, and professional studies at both the undergraduate and graduate levels to traditional age and adult students in order to produce servant leaders who have the ability to integrate faith and **learning** through their respective callings.

**One reason we are here is to teach students what they need to know, and assessment is an ongoing process that helps us monitor student learning and adjust our teaching to make sure learning is occurring. That is our mission.**

# Our Mandate from SACSCOC

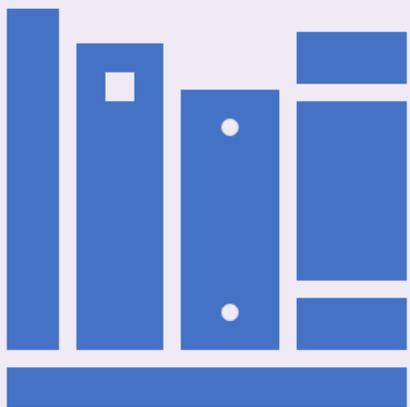
8.2 The institution **identifies** expected **outcomes**, **assesses** the extent to which it achieves these outcomes, and **provides evidence** of seeking improvement **based on the analysis of the results** in the areas below:

a. **Student learning outcomes** for each of its **educational programs**.

**Assessment is an ongoing process that helps us monitor student learning of our identified outcomes and adjust our teaching based on analysis of evidence to make sure learning is occurring. That is our mandate from SACSCOC.**

Our hope in Institutional Effectiveness is that as you move forward with your assessments and your annual reporting, you will find that some of these concepts will help you draw deeper and more useful conclusions so that you can plan effective action plans and interventions to improve your student learning.





# Next Session: Practical Implementation

If you are returning, please bring some assessments you are using effectively to share with us, or bring an assessment that you would like to try to use more effectively to discuss with the group.