

University of Wisconsin –  
La Crosse

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# Learning Outcomes Handbook

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Division of Student Affairs and Academic Services  
Spring 2009

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## What Are Learning Outcomes

### Learning Outcomes Defined

Learning outcomes are statements that indicate what is expected that the student will know or be able to do upon completion of an activity, program, a course, etc. Outcomes are usually expressed as knowledge, skills, or attitudes.

Learning outcomes are statements which describe a **desired condition** – that is, the knowledge, skills, or attitudes needed. They also:

- **Focus** on a learner's behavior to be changed
- **Serve** as guide for managing content, instruction, and/or evaluation
- **Identify** specifically what should be learned
- **Inform** learners exactly what will be accomplished

### Why Create Learning Outcomes

- 1) It allows us to demonstrate that learning has occurred in our students in an objective, measurable way.
- 2) A focus on learning and student success supports the university's mission
- 3) It empowers students to become more involved with their learning experiences.
- 4) It assesses students' learning and uses the results as a tool for improvement.
- 5) Learning outcomes create a common language that crosses all departments within our division. Example, Maslow's Hierarchy of Needs.

**Learning outcomes are nothing short of what departments are already doing but this provides a meaningful structure to identify and evaluate current practices.**

Learning outcomes have been an integral part of accreditation standards in many states and this movement changes the way we think about how we deliver our services. It also changes how we think about what we want students to know by focusing on whether students actually use or apply those concepts/treatments we provide to their daily lives.

To be considered a Learning Outcome, the Outcome must be:

- 1) achievable/ completed by the learner
- 2) observable
- 3) measurable

**A learning outcome should answer:**

- 1) What did the student learn? (Learning Outcome)
- 2) How do we know it? (Assessment)

## More Questions to Consider:

- 1) Does the potential audience's level of awareness need to be raised?
- 2) Do they need to better understand the context of the problem/issue?
- 3) Are there things students need to unlearn?
- 4) What are the most essential things students need to know or be able to do?
- 5) What specific skills or strategies are needed?
- 6) What obstacles can be faced in using this new learning?
- 7) What are the most important things they need to be able to do when they finish?

### A learning outcome states:

- who is to do the action
- what action is to be done, and
- what result will come from that action

## Distinguishing Learning Outcomes from Learning Objectives:

**Learning objective** can be described as what we hope our students **will learn**; objectives are statements to accomplish to achieve a goal.

**Learning outcomes** are what our students **actually learn** and can be observed, and assessed against specific criteria.

## Competencies

- Competencies are **general descriptions** of the abilities needed to perform a role in the organization (knowledge, skills, abilities, or talents required). The term competencies is used interchangeably with goals and objectives.
- Competencies are **broader statements** than the more detailed and specific learning outcomes.
- Learning outcomes can be developed to achieve the desired core competencies.

### Organizational Context

Divisional Organization  
Student Development & Academic Services  
Core Learning Competencies  
Components of Department Assessment Plan  
Departmental Mission

### Competencies

Programs and Services  
Learning Outcomes  
Evaluation Methods  
Implementation of Assessment Plan  
Results  
Decisions and Future Recommendations

### Competencies in Perspective

It is useful to compare competencies to job descriptions.

- **Job descriptions** list the **tasks** or functions and responsibilities for a given role, whereas **competencies** list the **abilities** necessary to conduct those tasks or functions.
- Competencies can be used as a basis for training because competencies can be converted into learning outcomes.

## Examples of Competencies:

### Student Affairs Administration Program Core Competencies

- Applied Research
- Critical Analysis and Problem Solving
- Effective Communication
- Ethics and Professional Responsibility
- Global Connection and Human Diversity
- Higher Education Knowledge
- Student Characteristics and Effect of College on Students

### University of Florida Example Residence Life Competencies

- Administration
- Crisis Management
- Diversity
- Foundational
- Interpersonal Skills and Communication
- Professional Development
- Residence Education
- Supervision

### University of Delaware Example of Social Identities Competency

Defined as “understanding how one’s social identities affect how they view others.”

Students will **gain a better understanding of their own social identities** and the significance in their day-to-day life.

Students will gain an increased knowledge of how their social identities influence their views of others.

### University of Arizona Multicultural Competency

Defined as “the awareness, knowledge and skills necessary to work effectively and ethically across cultural differences.”

#### Multicultural **Awareness**

Students will **gain an increased appreciation** on how their attitudes, beliefs, values, and self-awareness impact interactions with those different from themselves.

#### Multicultural **Knowledge**

Students will **gain an informed understanding** of cultures different from ones’ own.

#### Multicultural **Skills**

Students will enhance their skills needed to engage in effective and meaningful interactions with those from different cultural backgrounds.

## Connecting Competencies and Learning Outcomes:

- **Develop your core competencies departmentally**

Create the general descriptions of the **abilities needed** to perform a role/task in the department.

- **From your core competencies**

**Develop learning outcomes** to achieve the desired core competencies.

- **From your learning outcomes**

**Complete the learning outcome cycle** to discover if/how effectively you are meeting your core competencies.

## Writing Effective Learning Outcomes

### Using the A-B-C-D Formula

- A- Who is the target **audience**?
- B- What is the **behavior**?
- C- Under what **condition**?
- D- To what **degree**?

#### Examples

Here is an example of how an outcome is written using this formula:

- Audience:**       **The student**  
**Behavior:**       **can apply appropriate techniques for addressing a policy problem**  
**Condition:**       **after reading the assigned chapter on administrative policies**  
**Degree:**         **with 90% accuracy**

**Important Note:** Not all outcomes will need to state a degree.  
When writing a learning outcome the order of the A-B-C can vary.

#### Examples of Learning Outcomes:

- 1) Given pricing information about projective markets, students will be able to identify buying opportunities to maximize profits as evidenced by a unit test in Economics 101.
- 2) After completing the Awake and Alive Alcohol Education program students will be able to identify a minimum of 10 healthy behaviors for reducing their future risk related to alcohol use as evidenced by follow-up testing.
- 3) As a result of residence life's ARC active and passive programming students will be informed of academic resources available on campus as evidenced by positive program assessment.

Notice that the learning outcome examples are all easily measurable; as you read them, you can easily imagine test questions, projects or problems that would reveal whether, and to what degree the learning outcomes have been met.

## Verbs to use in Creating Learning Outcomes:

Use active verbs that state what students will be able to do as the result of your treatment/intervention. According to **Bloom's taxonomy** use active and explicit verbs such as 'identify', 'explain', 'determine', 'demonstrate', 'predict', 'practice', 'apply', 'schedule', 'manage' should be used where possible.

### Verbs to Consider for to Identify Transferable Skills:

- For Knowledge –
  - Arrange, order, define, recognize, label, recall, list, repeat, name, state, relate, reproduce
- For Comprehension –
  - Classify, locate, describe, indicate, discuss, report, explain, restate, express, review, identify, select
- For Application –
  - Apply, operate, choose, practice, schedule, dramatize, sketch, employ, illustrate, use, interpret, write
- For Analysis –
  - Analyze, differentiate, appraise, test, calculate, discriminate, distinguish, examine, categorize, compare, experiment, contrast
- For Synthesis-
  - Arrange, formulate, assemble, write, manage, collect, organize, compose, plan, construct, prepare, create
- For Evaluation –
  - Appraise, judge, argue, predict, assess, rate, attach, score, choose, select, compare, support
- For Psycho-Motor Skills –
  - Perform, execute, develop, operate, manipulate
- For Self-Appraisal/Reflection –
  - Reflect, identify, recognize, evaluate, criticize, judge
- For Management/Planning –
  - Apply, plan, prioritize, access, use, select, explore, identify, decide
- For Problem-Solving –
  - Identify, choose, select, recognize, implement, define, apply, assess, solve, propose, formulate

## A checklist for writing learning outcomes

### *When writing learning outcomes, I need to:*

1. Focus on outcomes, not processes
2. Start each outcome with an action verb.
3. Use only one action verb per learning outcome
4. Avoid vague verbs such as *know* and *understand*
5. Check that the verbs used reflect the level of learning required
6. Ensure that outcomes are observable and measurable
7. Write the outcomes in terms of what the learner does, not what the instructor does.
8. Check that the outcomes reflect knowledge, skills, or attitudes
9. Include outcomes that are woven into the entire course (such as *work effectively in teams*)
10. Check that there are an appropriate number of outcomes (no more than three per major topic)
11. List the sub-outcomes for each outcome
12. Check that the outcomes fit within program and course goals

## What are the characteristics of a good student learning outcome?

Use the following acronym to check that the outcome for a course has the required characteristics: **SMARC**

1. It is Specific.
2. It is Measurable
3. It is Actionable.
4. It is Relevant.
5. It is Communicated.

A specific outcome refers to one learning behavior. For example, identify the five most common potential sources of patient stress on a post surgical ward.

A measurable outcome includes actions depicting knowledge, skills, or behaviors that can be observed and rated in some form. For example, students will be able to depict, in a visual format with bulleted notes, the cycles of cellular respiration.”

An actionable outcome is one that can be demonstrated with evidence, or observed. For example, students will describe the two most important functions of a cell wall.

For an outcome to be measurable it should be actionable. A relevant learning outcome is one that prepares the student for future experiences.

A communicated outcome is one that is made transparent to other faculty, college administrators and to the students.

## What is Assessment

### Assessment Defined

Assessment is an integral part of a continual learning cycle which includes measurement, feedback, reflection, and change. It is an ongoing process of understanding and improving student learning.

Assessment involves:

- making expectations explicit
- setting appropriate criteria and high standards for learning
- systematically gathering and interpreting evidence
- measuring outcomes and
- using results to explain and improve performance

Assessment can help:

- focus our collective attention
- examine our assumptions
- create a shared culture with goals of understanding and
- assure quality learning in higher education

The Purpose of Assessment is to:

- inform
- foster improvement and/or
- prove

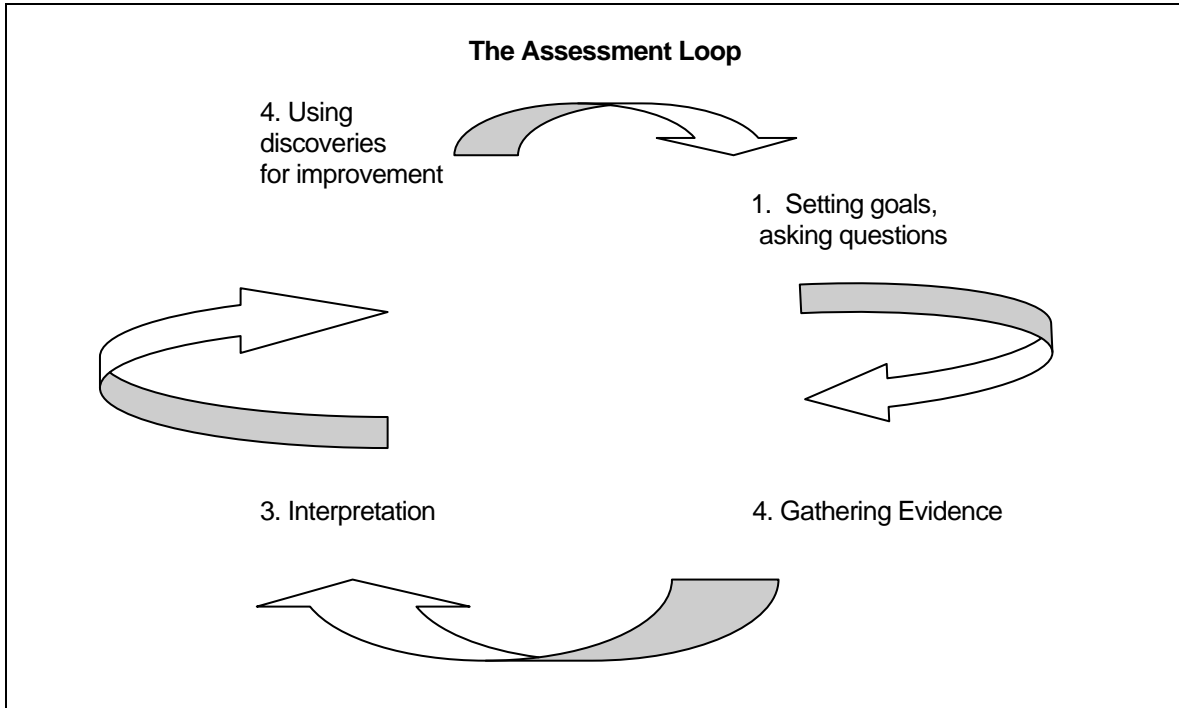
Assessment is a process of:

- **setting goals**/asking questions about student learning and development
- **gathering evidence** to show whether the goals are being met
- interpreting the evidence to determine strengths and weaknesses and
- using those discoveries for **improving** the learning environment by reviewing what worked and/or addressing new questions/ideas about learning

## Assessment Sequence:

An assessment program requires a **statement of goals** which requires an **analysis of needs** that then facilitates the **design of an assessment protocol**.

The process is shown in the diagram:



## Effective Assessment:

- assesses what we do - and what we expect the product to be
- provides information for improving what we do
- focuses on process as well as outcomes
- actively involves relevant stakeholders
- uses multiple and varied measures
- is carried out at various points
- provides feedback to those most affected and
- is an intrinsically educational activity
- during the semester, include formative assessments as opportunities for students to measure their progress toward the stated outcomes
- provide information or resources that will help students improve their performance on specific stated outcomes

## Nine Principles of Good Practice for Assessing Student Learning: The Link between Assessment and Student Learning

- 1) **The assessment of student learning begins with educational values.**  
We measure what is most important to our mission and goals.
- 2) **Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.**  
Learning entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom.
- 3) **Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.**  
Assessment is a goal-oriented process. Assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; precise goals that can be implemented are the cornerstone for useful assessment.
- 4) **Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.**  
To improve outcomes, we need to know the curricula, teaching, and student effort that lead to particular outcomes.
- 5) **Assessment works best when it is ongoing, not episodic.**  
Whereas isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a series of activities undertaken over time, monitoring progress toward intended goals in a spirit of continuous improvement.
- 6) **Assessment fosters wider improvement when representatives from across the educational community are involved.**  
Student learning is a campus-wide responsibility; the aim is to involve people from across the educational community. Assessment is not a task for small groups of experts but a collaborative activity whose aim is a wider, better-informed attention to student learning by all parties with a stake in its improvement.
- 7) **Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.**  
To be useful, information must be connected to issues or questions that people really care about. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.
- 8) **Assessment can lead to improvement when it is part of a larger set of conditions that promote change.**  
Assessment alone changes little. Its greatest contribution comes on campuses where the quality of learning is visibly valued, where information about learning outcomes is seen as an integral part of decision-making.
- 9) **Through assessment educators and administrators meet responsibilities to students and to the public.**  
The deepest obligation...to ourselves, our students, and society...is to improve.

## Designing an Assessment- Some Initial Questions to Consider:

- **Motivation-** What's the important question to answer or problem to solve?
- **Type of inquiry-** Is your inquiry exploratory or confirmatory?
- **Stakeholders-** Who'll benefit from/be interested in the answer and/or solution?
- **Desired response to the assessment-** What do you hope will happen in gathering responses?
- **Type of information/evidence required-** What kind(s) of data will stakeholders find persuasive?
- **Amount of information/evidence required-** How much data will it take to persuade stakeholders?
- **Type of reporting format required-** What type of reporting format/presenting results will persuade stakeholders?
- **Expected results of the assessment-** What do you predict the data will show?
- **Expected response-** How do you want interested parties to respond?

### **Other considerations:**

- Goals and objectives are similar in that they describe the intended purposes and expected results of specific activities and establish the foundation for assessment.
- Goals are statements about broad, long-range general aims; they are used primarily in policy making and general program planning.
- Objectives are brief, clear statements that describe specific desired outcomes of activities; the attention is focused on performance and competencies.
- There will always be more than one way to measure any objective.
- No single method is good for measuring a wide variety of desired outcomes.
- There's usually an inverse correlation between the quality of measurement methods and their expediency (in other words the best methods usually take longer and cost more).
- It's usually best to implement a beta test before completing an assessment project.
- If an assessment method doesn't suggest what the program's strengths and weaknesses are, then that assessment method cannot serve the institutional effectiveness goals of your program.

## Assessment Challenges:

- Institutions need to formulate goals that capture the most complex, demanding ambitions for students.
- Institutions need to assess what *matters*, not just what is readily measurable.
- Institutions need to be honest about the limitations of the current assessment technology and only recently have been exploring what can be done with alternative, non-traditional methods such as portfolios, capstones or performances.
- Institutions do not have a good single assessment method for complex outcomes today, and therefore need to raise the level of assessment technology.
- Institutions need to provide the support and the setting in which it is possible to take risks, investigate real concerns, exercise honesty, self-reflection, and improvement.
- Institutions need a notion of accountability that serves improvement.
- Institutions need a kind of accountability that includes measurement, but also makes use of demonstrations, documentation, evidence of *all* kinds, and relies in the end on human judgment to make meaning.

## Some Tools for Assessing Learning Outcomes:

- Knowledge surveys
- Quizzes/tests
- Portfolios
- Rubrics
- Questionnaires
- Standardized instruments
- Possibilities for administration can be online, email, phone or in-person

## Worksheet for Writing Learning Outcomes for Your Unit::

1. First, brainstorm to come up with a list of all the things a student should be able to know, think, or do as a result of participation in your services. Then, fill in the chart below:

<b>Knowledge and conceptual understanding students will have:</b>	
<b>Skills or performance abilities students will have:</b>	

2. Select 2 – 3 (top priority) outcomes to assess during the upcoming year.

Note: Dr. Marilee Brescani recommended two per year.

Remember: You don't have to assess everything each time. You unit should choose only what is important to understand about its services in any given year. Use this format to develop learning outcome statements for your unit.

<b>What is in the statement:</b>	<b>Appropriate action verb</b>	<b>Statement of what should be demonstrated and assessed</b>	<b>Conditions Of Performance</b>
<b>Function:</b>	Describes what students are expected to be able to do.	Specifies the knowledge, value or skill that is expected.	Define scope and boundaries of learning.
<b>How to develop:</b>	Use action verbs and indicate the highest standard to which learning will be assessed.	Think about and jot down the broad subject matter which the students will need to learn and demonstrate.	
<b>Example:</b> By the end of the semester students will be able to	Explain and evaluate  Select and apply	Key theories  Appropriate design principles	In the field of...  In the construction of...

Write your high priority selections as measurable learning outcomes using active verbs.

**3. Think about how to assess each outcome.**

Think about possible assessment techniques and record those after the learning outcomes.

Selected Learning Outcome	Possible Methods of Assessment	Assessment Selected
1.		
2.		
3.		

**4. Transfer the best/chosen method of assessment to the third column.**

Note: In the assessment selected column include **when** and **where** the assessment will be administered, and by **whom**.

**5. Analyze assessment results and prepare an assessment report.**

Analyze each major learning outcome, based on the statistical results. Include the following:

- **Criteria for Success** -expected statistical results
- **Summary of Assessment Findings** -actual statistical results
- **Use of Results** -analyze results to determine if planned program improvements are deemed necessary
- **Action Plan and Timetable for Implementation**
- **Budgetary and Planning Implications**

**6. Implement the action plan and prepare a follow-up report.**

The analysis/evaluation of assessment results should generate possibilities for improvement and revisions.

- **A follow-up report** should be submitted during the following fiscal year reflecting the status of each action plan item.

**ASSESSMENT**

a. The systematic and ongoing process of collecting, analyzing and interpreting evidence on programs, services and activities done for the purpose of improving student learning and development.

b. The ongoing systematic process aimed at understanding and improving student learning. It involves determining learning outcomes, gathering, analyzing and interpreting evidence to determine how well our programs, services and activities meet our learning outcomes. The resulting information is used to make necessary changes in our programs and services to improve student learning.

**BLOOM'S TAXONOMY**

Bloom's Taxonomy identifies three domains of learning: Cognitive, Psychomotor and Affective. These three domains are also referred to as KSA (Knowledge, Skills, and Attitude). The domains are divided into subdivisions, starting from the simplest behavior to the most complex. The taxonomy provides a useful structure in which to categorize questions.

**DOMAINS OF LEARNING**

- o Cognitive: mental skills (*Knowledge*)
- o Psychomotor: manual or physical skills (*Skills*)
- o Affective: growth in feelings or emotional areas (*Attitude*)

**DIRECT ASSESSMENT METHODS**

Methods that assess student learning directly by requiring students to demonstrate their knowledge and skills. Examples include: artistic performances, supervisor observation of field work, projects, presentations, direct observations, classroom and homework assignments, exams and quizzes, capstone course, portfolios,

**EVALUATION**

Evaluation is associated with judgment. The use of assessment data to judge department/program effectiveness. The results are then used as a basis for making decisions for program improvements. Evaluation defined this way is part of the assessment process: interpreting the assessment evidence and using the results

**FORMATIVE ASSESSMENT**

The gathering of information about student learning during the course of a program, service, or activity. It helps you understand the effectiveness of your strategy. The purpose is to provide feedback while the process is on-going. Changes can then be made mid-course to improve student learning.

## **INDIRECT ASSESSMENT OF LEARNING**

Gathers reflection about the learning rather than demonstrating what has been learned. Examples: surveys, questionnaires, interviews, focus groups, reflective essays on what they have learned, student ratings of their knowledge and skills.

## **LEARNING OUTCOMES**

Refers to the specific knowledge or skills that students actually develop through a program, activity or service. A learning outcome is a concise measurable statement that specifies what students *will know, be able to do or be able to demonstrate* when they have participated in a program, project or received a service.

## **QUALITATIVE METHODS**

Methods are flexible and data obtained is formed with words rather than measured with numbers. Analysis is usually done by looking for recurring patterns and themes. Examples include: notes from interviews and focus groups, notes from observations, open-ended questions on surveys.

## **QUANTITATIVE METHODS**

Methods that use structured, predetermined response options that can be summarized into meaningful numbers and analyzed statistically. Examples include: surveys and test scores.

## **RUBRIC**

A scoring guide that describes the criteria you will use to rate an outcome. Rubrics divide the outcome into its component parts and provide detailed descriptions of what constitutes the level of performance for each of the component parts. Values are then assigned to each level.

Rubrics includes: (1) a task description (the outcome), (2) a scale of some sort (level of achievement), (3) the dimensions of the outcome (a breakdown of the skills/knowledge involved) and (4) descriptions of what constitutes each level of performance. These elements are then set out on a grid.

## **STANDARDS**

Statements presenting criteria that represent the most fundamental essential expectations for student learning agreed on by the profession at large. Sets a level of accomplishment all students are expected to meet or exceed. General standards are the broadest of a group of terms including content standards, performance standards, and benchmarks.

## **CAS STANDARDS**

Statements presenting criteria based on nationally derived norms with which to assess and make judgments about the quality of the programs and services. CAS standards were created for sole purpose of providing criteria that individual institutions, programs and departments could use for self-evaluation.

## **SUMMATIVE EVALUATION**

The gathering of information about student learning conducted after the program, activity or service has been completed. The purpose is to determine to what extent you have met your established learning outcomes. The results can be used to: 1) improve the performance for the next cohort of students; 2) provide documentation of what students have learned; and 3) provide information resulting from this experience to others interested in improving student learning who want documentation.

## **TRANSFORMATIONAL LEARNING**

Transformative learning is learning to purposively question one's own assumptions, beliefs, feelings, and perspectives in order to grow or mature personally and intellectually. Transformative learning begins with a disorienting dilemma which requires critical reflection on the student's previous assumptions following which the student makes new meaning in their life by reconstructing their old assumptions.

## VALUE-ADDED

The increase in learning that occurs during a program, activity, service or course. Can either focus on the individual or on a cohort of students (evaluating them in the aggregate). Requires a baseline measurement for comparison. This is usually measured as longitudinal change or difference between pre-test and post-test. Keep in mind research show pre- and post-tests are fraught with problems. The main question to ask is whether you want to assess value-added outcomes or learning outcomes. They are different.

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