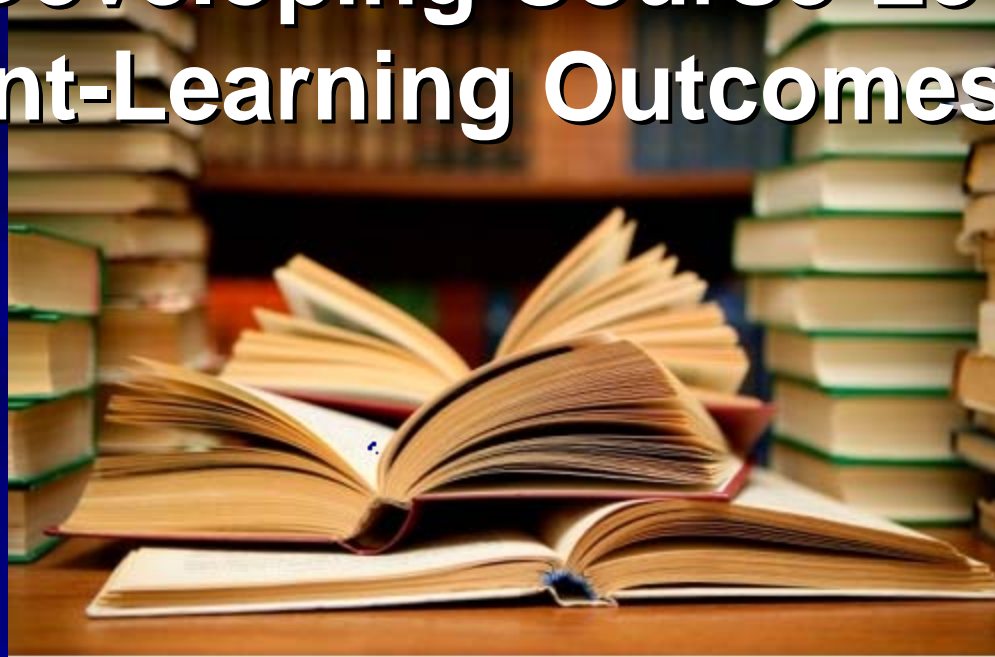


Social Science Division

Developing Course-Level Student-Learning Outcomes (SLOs)



The SLO PROCESS involves...

1. Developing Student Learning Outcomes

2. Determining
a plan to
assess

5. Utilizing data
to improve
learning

**Student
Learning**

A large yellow circular arrow graphic, resembling a recycling symbol, is centered on the slide. The words "Student Learning" are written in a bold, blue, sans-serif font across the middle of the arrow.

4. Analyzing and interpreting data

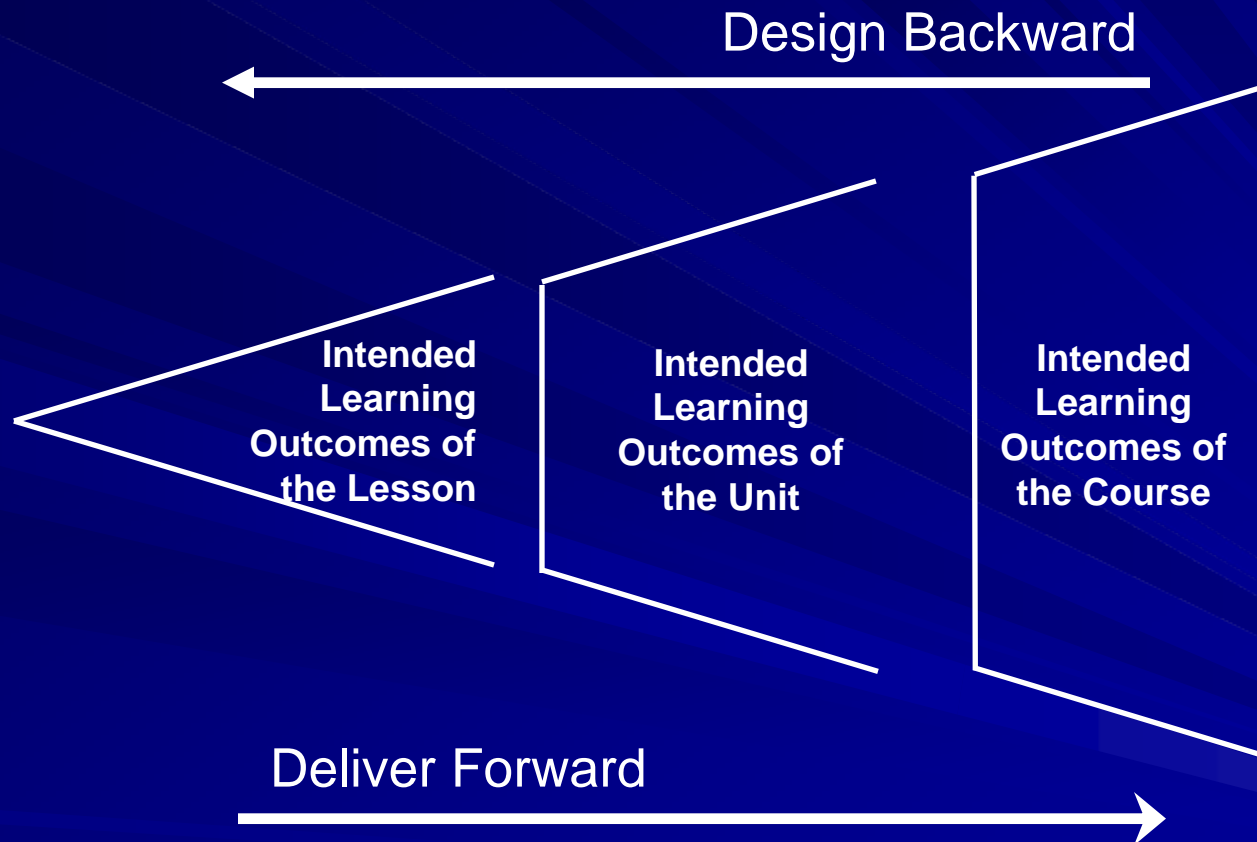
3. Assessing what students learned

SLOs versus Learning Objectives

- **Course learning objectives** are general goals that define what it means to be an effective course.
- **Student learning outcomes** are **specific results** the course seeks to achieve in order to attain the general goals defined in the objectives.
- Outcomes are **definite and intended to be measured**. They establish the particular means by which the agenda (as defined by objectives) is achieved.



Alignment Within Courses



SLOs should be...



- **student-focused rather than professor focused**
- **focused on the learning resulting from an activity rather than on the activity itself**
- **focused on skills and abilities central to the discipline and based on professional standards of excellence**
- **general enough to capture important learning but clear and specific enough to be measurable**
- **focused on aspects of learning that will develop and endure but that can be assessed in some form now**

Common Problems with Learning Outcomes

- Using vague terms, such as:
 - Appreciate
 - Become aware of
 - Become familiar with
 - Develop
 - Know
 - Learn
 - Understand
- Describing action taken by someone other than the learner.
 - “The program will...” or
 - “The course will...”



Fixing Poorly Stated Outcomes

- Students will understand Erikson's developmental stages.
- Students will identify and summarize each of Erikson's stages of development.
- Students will be familiar with the major sociological perspectives and how they relate to their daily lives.
- Students will describe each of the major sociological perspectives and will illustrate how each perspective relates to events in their daily lives.
- Students will develop the skills necessary for conducting research in the social sciences.
- Students will design, conduct, and analyze a research project using appropriate scientific theory and methodology

Classify Student Learning Outcomes?

- Why?
- All learning outcomes are not developed, delivered, or measured equally





Learning Domains

- Three primary domains for classifying educational outcomes/goals:
 - Cognitive (knowledge)
 - Affective (attitudes)
 - Psychomotor (skills)

SLOs Using Bloom's Taxonomy

Bloom's Taxonomy of Cognitive Categories

Course Goals/Objectives	Unit/Lesson Learning Outcomes	Student Learning Outcomes	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Introduce students to inferential statistics	1.a learn the conceptual foundations of inference	1.a.1. Define the three tenets of the Central Limit Theorem		X				
		1.a.2. Describe three key distributions		X				
		1.a.2. Combine to explain the relationship between the three distributions					X	
	1.b Apply to confidence intervals	1.b.1. Outcome						
	1.c Test for difference between means	1.c.1. Outcome						
2. Introduce students to descriptive statistics	2.a Outcome	2.a.1. Outcome						
	2.b Outcome	2.b.1. Outcome						

Teaching & Learning Activities by Outcomes and Bloom's Taxonomy

Bloom's Taxonomy of Cognitive Categories

Student Learning Outcomes	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1.a.1 Define the three tenets of the Central Limit Theorem		Class lecture and students will read assigned chapter.				
1.a.2. Describe three key distributions		Class lecture and students will read assigned chapter.				
1.a.3 Combine to explain the relationship between the three distributions					In class, students will calculate sample means and construct a sampling distribution. Homework will reinforce lesson.	
1.b.1 Outcome						
1.c.1 Outcome						
2.a.1 Outcome						
2.b.1 Outcome						

Assessments by Outcomes and Bloom's Taxonomy

Bloom's Taxonomy of Cognitive Categories

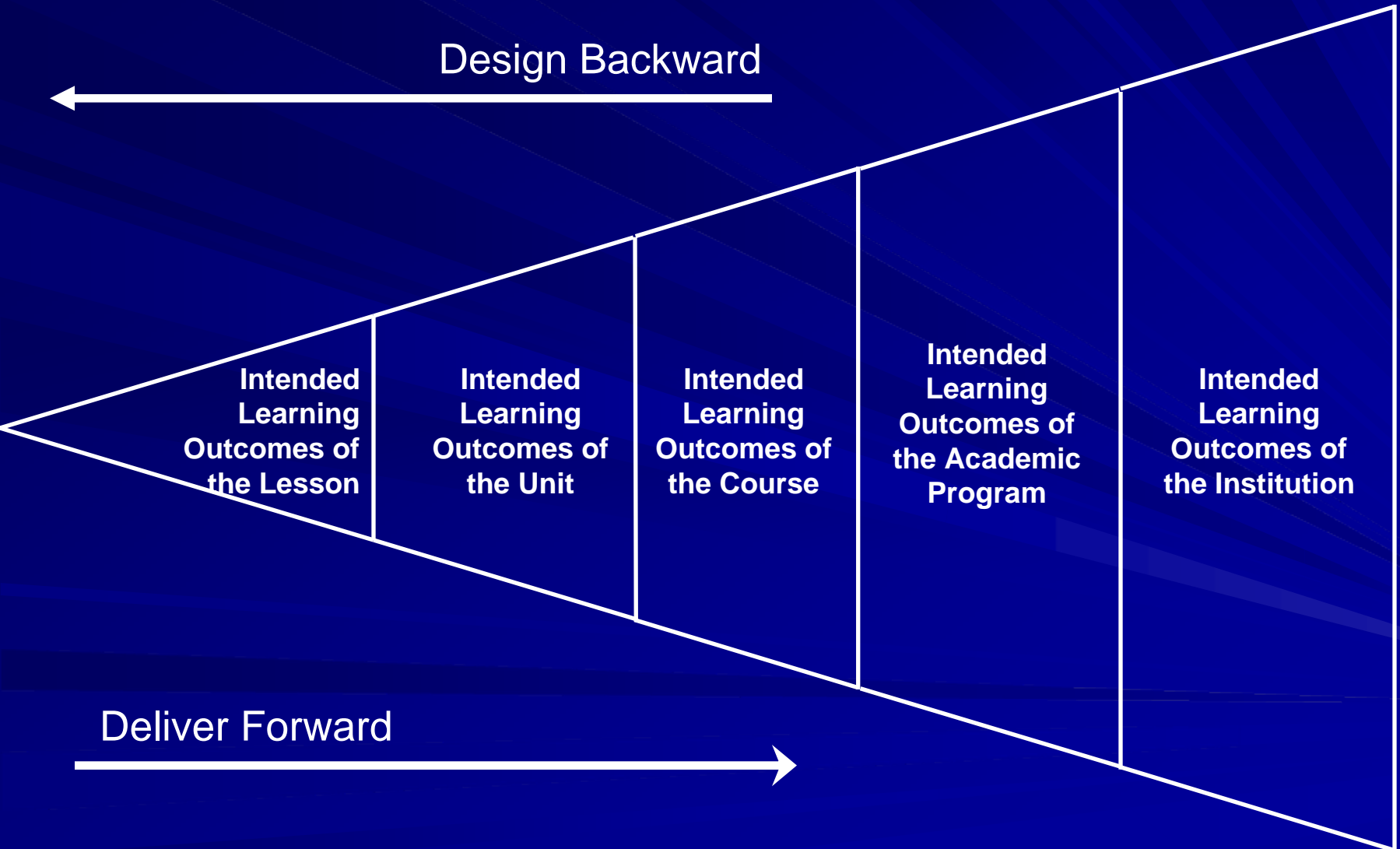
Student Learning Outcomes	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1.a.1 Define the three tenets of the Central Limit Theorem		Homework and examination.				
1.a.2. Describe three key distributions		Homework and examination.				
1.a.3 Combine to explain the relationship between the three distributions					Homework and examination.	
1.b.1 Outcome						
1.c.1 Outcome						
2.a.1 Outcome						
2.b.1 Outcome						

The Big Picture



- Consider the alignment of course level learning outcomes...
 - Sequentially
 - How do my outcomes fit with those of more advanced courses?
 - What do I expect students to have learned by the time they enter this class?
 - Programmatically
 - How do all of the courses within a program's curriculum fit together?
 - How do the program curricula contribute to the institutional outcomes?

Alignment Between Course Outcomes and Institutional Outcomes



That's All Folks

