Institutional Assessment: Sampling and Statistics

Office of Institutional Research and Assessment (OIRA)

THE UNIVERSITY OF
ALABAMA IN HUNTSVILLE

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Key Questions

What are some sampling practices recommended in outcomes assessment?

What are some statistics recommended in outcomes assessment?

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Current APR Expectations

Student Learning Outcomes (SLOs)	**Operational Outcomes (OPOs)**
1. Outcome (observable knowledge, skill, attitude or behavior for student group)	1. Outcome (service or process with expected beneficiary and intended impact)
2. Assessment Methods (two ways to measure)	2. Assessment Method (one way to measure)
3. Assessment Targets (expected results)	3. Assessment Target (expected results)
4. Data Collected (actual results)	4. Data Collected (actual results)
5. Use of Results (changes made)	5. Use of Results (changes made)

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Sampling

"Collect enough evidence to feel reasonably confident that you have a representative sample of what your students have learned and can do. The sample should be large enough and representative enough that you can use the results with confidence to make decisions about a course or program. And take careful steps to ensure the accuracy and truthfulness of your assessment findings."

Linda Suskie in *Assessing Student Learning: A Common Sense Guide*

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Sample = ?

- How many students are eligible?

Recommended sizes for 95% confidence level available at http://assessment.aa.ufl.edu/sample-size-chart.

- How complex is the work being assessed?

Minimum of 10% or 10 artifacts, whichever is greater.

- How many faculty are available?

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Sampling Methods

#1 Simple Random Sampling
#2 Stratified Sampling
#3 Systemic Sampling
#4 Cluster Sampling

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Sampling Methods

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Sampling = Yes

Include in the Assessment Method

✓ a rationale for the decision and

✓ a thorough description of the sampling process.

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Statistics

Descriptive	Inferential
• Mean and standard deviation	• Analysis of variance
• Frequency percentages	• Correlation
	• Regression analysis
	• Tests of significance

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Statistics

Descriptive

- Mean and standard deviation ➡ Comparisons over populations or over time

- Frequency percentages ➡ Identifying areas of strength or areas for improvement

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Statistics

Inferential

population/sample size

number of data points

specific results

- Analysis of variance

- Correlation

- Regression analysis

- Tests of significance

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Statistics

Descriptive

- Mean and standard deviation

- Frequency percentages

Inferential

- Analysis of variance

- Correlation

- Regression analysis

- Tests of significance

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Key Questions

What are some sampling practices recommended in outcomes assessment?

What are some statistics recommended in outcomes assessment?

More Questions?

Visit the OIRA website. (Search OIRA from the UAH Website. Click on Assessment then Resources.)
Contact Ginny Cockerill at gdc0004@uah.edu or x. 6254.

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