Assessing Student Learning

Office of Institutional Assessment
August 15, 2012

Important Questions for Teachers

- What is most important for students to learn?

- What teaching methods will work best?

- What activities will support student learning?

- How will I know if they've learned?

. . . . Assessment!

What is assessment?

1. Establish clear measurable, expected outcomes

2. Ensure students have sufficient opportunity to achieve

3. Systematically gather, analyze & interpret evidence

4. Use resulting information to understand and **improve student learning**

Establishing Outcomes

What kind of learning?

- Psychomotor

- Affective

- Cognitive

What Level of Learning? Psychomotor Domain

- Imitation

- Practice

- Habit

Levels of Learning: Affective Domain

Krathwohl's taxonomy

·Receiving

·Responding

·Valuing

·Organization

·Characterization (internalization)

Levels of Learning: Cognitive Domain

- Bloom's Taxonomy (revised)
  - Remembering
  - Understanding
  - Applying
  - Analyzing
  - Evaluating
  - Creating

Types of Assessment

Formative versus Summative

Formative assessment checks progress and identifies areas that need strengthening.

Summative assessment sums up learning.

Direct Evidence of Learning

Answers questions of what students know and can do.

· Observations of behavior

· Classroom response systems (clickers)

· Projects, presentations, performances, etc. scored with rubric

· Quizzes and exams

· Student reflections on values, attitudes, & beliefs

Indirect Evidence of Learning

Answers questions of how learning is perceived or why performance was above or below expectation.

- Surveys
- Interviews
- Focus groups

Quantitative vs. Qualitative

- Quantitative
  - Structured, predetermined response options
  - Numbers can be analyzed statistically
  - Test scores, rubric scores, survey ratings

- Qualitative
  - Flexible, naturalistic
  - Looks for recurring themes/patterns
  - Allows exploration of possibilities
  - Reflective writing, discussion threads, interviews, focus groups, observation

Objective vs. Subjective

- Objective
  - More difficult to construct, easy to score
  - Can be summarized as a single number
  - Provides lots of information in short time
  - Assesses broader learning

- Subjective
  - Evaluates skills that objective tests cannot
  - Can assess skills directly
  - Assessments themselves promote learning
  - Scoring procedures allow nuances or partial credit

Useful Assessments

- Focus on clear and important learning goals and outcomes

- Provide accurate and truthful information

- Used to improve learning

- Used to improve teaching

Match Assessment to Learning Level

· Remembering --> list, name, recall

· Understanding --> identify, describe, discuss

· Applying --> apply, complete, demonstrate

· Analyzing --> categorize, compare, contrast

· Evaluating --> argue, interpret, rate

· Creating --> construct, design, plan

Developing Assessments

- What is it that students must know/do? (outcome)

- What activity will facilitate learning?

- How should this learning be assessed? (measure)

- What level of achievement signals success?

(achievement target)

Example

- **Program Goal**: Graduates can develop valid solutions to common business problems

- **Outcome**: Students will present an appropriate resolution plan for an assigned business case study to external evaluators

- **Measure**: Case study assignment and presentation in capstone course

- **Achievement target**: All students will achieve satisfactory or better on 5 of 6 components of the grading rubric. No component score may be lower than "emerging"

Your Turn

- **Goal**: What is the goal/purpose of your course?

- **Outcome/Objective**: Write a student learning outcome for your course (specific, measurable - using an action verb).

- **Activity**: What activity will facilitate learning?

- **Measure**: What method will you use to measure learning?

- **Achievement target**: What level is satisfactory?

Course Level Assessment

- Examine assessment results as evidence of learning
- Reflect on achievement of course outcomes by cohort
- Use findings to improve instruction and learning
- Assign individual grades

Program Level Assessment

- Assesses program goals and outcomes

- Focus is on aggregated results

- Assumes that program > sum of parts

- Uses a variety of measurement methods

Combining classroom and program assessment

- Program outcomes referenced in syllabi

- Assessments in key courses

  - Designed by program faculty

  - Demonstrate mastery of program outcomes

  - Generally given near end of program
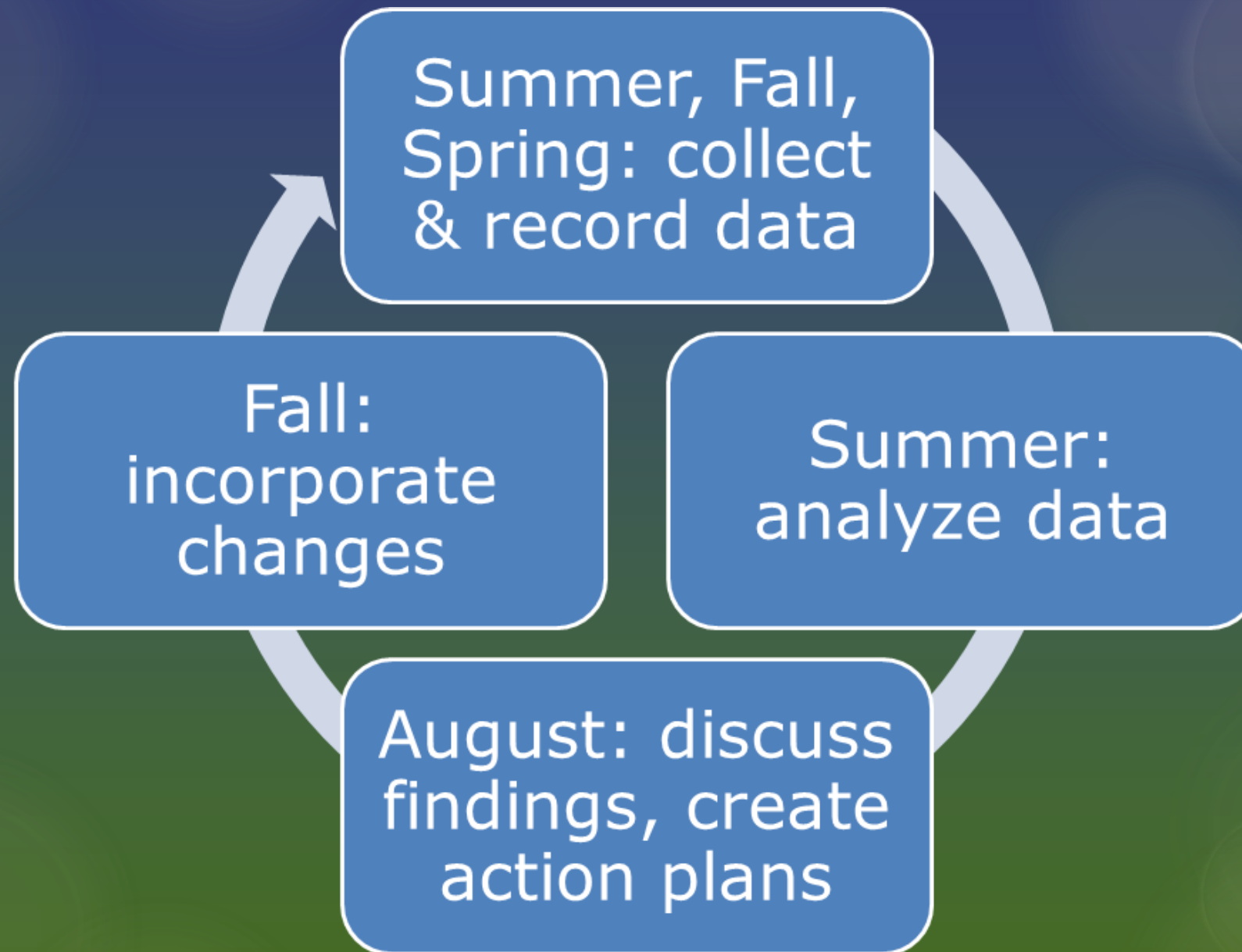
Assessment Reporting

- Outcome achievement

- Departmental assessment meeting

- Departmental report

- Student rating of teaching

- Faculty review (January Report)

- University-wide assessment

- Program review (7-year cycle)

- Accreditation visits

Resources

- Office of Institutional Effectiveness, www.andrews.edu/effectiveness

- Center for Teaching and Learning Excellence, James White Library

  - Assessing Student Learning: A common sense guide. Suskie

  - Classroom Assessment Techniques: A handbook for college teachers. Angelo & Cross

- **Faculty Institute!**