

# **CREATING/IDENTIFYING SELF-GENERATED TOOLS**

UK Office of Assessment

# The **LEARNING** Initiative

## *Dual Track Implementation Strategy*

<b>Completion Dates</b>	<b>Not actively engaged in program level assessment</b>	<b>Actively engaged in program level assessment</b>
<b>Sept 2009</b>	Program level student learning outcomes revised and/or updated	
<b>Dec 2009</b>	Assessment strategy in place	
<b>Jan-Mar 2010</b>	Assessment strategy implemented	
<b>April 2010</b>	Assessment results available for faculty reflection and action	
<b>May 2010</b>	First cycle completed and improvement plans submitted	At least one cycle completed and improvement plans submitted
<b>September 2010</b>	First annual <b>LEARNING Improvement</b> awards announced	
<b>May 2011</b>	Two cycles completed	At least two cycles completed
<b>August 2011</b>	SACS Compliance Audit begins	
<b>September 2011</b>	Second annual <b>LEARNING Improvement</b> awards announced	

# Provost's Learning Initiative

- Goal: Two full cycles of assessment completed by May 2011
  - ▣ Includes the following activities:
    - Establish or strengthen ongoing program-level assessment to promote student learning and curriculum improvement for all degree programs
    - Formulate a plan to develop learning outcomes assessment coordinators in every college
    - Create *Provost's Learning Improvement Awards*
    - Implement a dual track strategy to advance continuous improvement through assessment

# SACS Requirements & Expectations

- The Comprehensive Standards
  - 3.3.1: The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results in:
    - 3.3.1.1: educational programs, to include student learning outcomes ...
      - Documents listing expected outcomes for all programs
      - Evidence that learning outcomes are evaluated and achieved

# SACS Requirements & Expectations

- Evidence that supports compliance must be:
  - ▣ Reliable
  - ▣ Current
  - ▣ Verifiable
  - ▣ Coherent
  - ▣ Objective
  - ▣ Relevant
  - ▣ Representative
- Entail interpretation and reflection
- Represent a combination of trend and snapshot data
- Draw from multiple indicators

# General Definition of Evidence

- Information that tells you something directly or indirectly about the topic of interest
- Evidence is neutral -- neither “good” nor “bad”
  - ▣ Requires **context** to be meaningful
- Two types of assessment evidence
  - ▣ Direct and Indirect

# Measuring Learning Outcomes

- Measures must be appropriate to outcomes
  - ▣ Avoid cumbersome data-gathering
  - ▣ Use both indirect and direct methods
    - Indirect methods measure a proxy for student learning
    - Direct methods measure actual student learning
  - ▣ **“Learning” = *what students know (content knowledge) + what they can do with what they know***

# Indirect Evidence

- **Indirect methods measure proxies for learning**
  - ▣ Data from which you can make inferences about learning but do not demonstrate actual learning, such as perception or comparison data
  - ▣ Surveys
    - Student opinion/engagement surveys
    - Student ratings of knowledge and skills
    - Employers and alumni, national and local
  - ▣ Focus groups/Exit interviews
  - ▣ Aggregate analyses of course grade distributions
  - ▣ Institutional performance indicators
    - Enrollment data
    - Retention rates, placement data
    - Graduate/professional school acceptance rates

# Direct Evidence

- Students show achievement of learning goals through performance of knowledge, skills:
  - ▣ Scores and pass rates of licensure/certificate exams
  - ▣ Capstone experiences
    - Individual research projects, presentations, performances
    - Collaborative (group) projects/papers which tackle complex problems
  - ▣ Score gains between entry and exit
  - ▣ Ratings of skills provided by internship/clinical supervisors
  - ▣ Substantial course assignments that require performance of learning
  - ▣ Portfolios

# Self-Generated Tools

- Curriculum-embedded, performance-based methods
  - ▣ Normal student work products already in place
    - Individual and collaborative papers, projects, performances, etc
  - ▣ Classroom Assessment Techniques (course-level, generally not suited to program-level assessment)
    - Student self-reflection
    - Peer assessments
  - ▣ Internships, Clinicals
    - Supervisor/employer judgments
- Rubrics, crosswalks/matrices, panels of experts
  - ▣ Instruments/methods that translate qualitative assessments into quantitative data results
- Can also be locally developed surveys, tests

# Rubrics

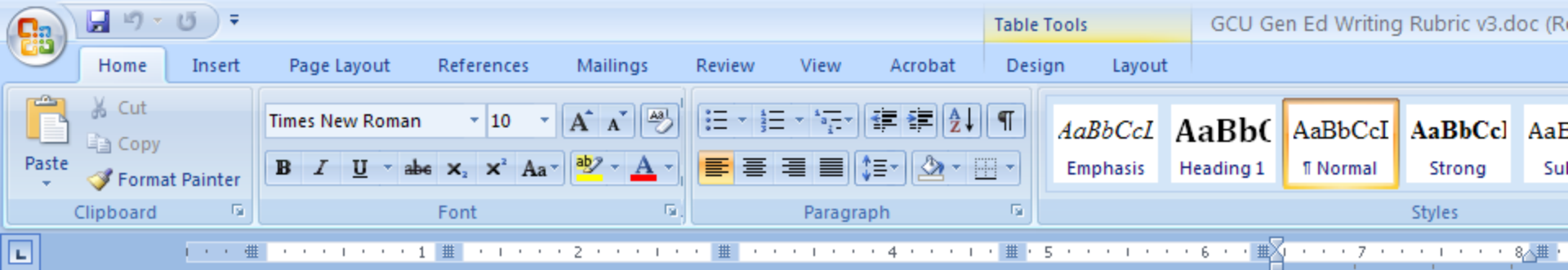
- Clear articulation of expectations that are linked to specific course & program outcomes
- A means through which correspondence of online & ground rigor can be ensured
- An instrument for increasing consistency in grading across sections, courses, programs, colleges
- An instrument for gathering quantitative data on performances of learning

# Holistic vs Analytic Rubrics

- **Analytic rubric:** each performance indicator is assigned a numerical value; final score is the sum of indicator values
  - ▣ Extremely low inter-rater reliability
  - ▣ Labor and time intensive
  - ▣ Best used for 'drilling down' into data
- **Holistic rubric:** a single score is assigned for the whole performance
  - ▣ Very high inter-rater reliability
  - ▣ Quick scoring (labor and time efficient)
  - ▣ Single score masks exact performance on each indicator
  - ▣ Best used for large-scale assessment

# Developing Rubrics

- Basic Elements of a Rubric (refer to handouts):
  - ▣ Program Learning Outcome
  - ▣ Criteria for achievement of Learning Outcome
    - generally listed on the Y-axis
  - ▣ Scale
    - generally placed on the X-axis
  - ▣ Performance indicators
    - Descriptions of observable behaviors/performances that indicate each point on the scale for each outcome



### General Education Writing Rubric

Criteria	1: Unsatisfactory	2: Less than Satisfactory	3: Satisfactory	4: Good	5
<b>Mechanics of Writing</b> (includes spelling, punctuation, grammar)	Surface errors are pervasive enough that they impede communication of meaning.	Frequent and repetitive mechanical errors that distract the reader.	Some mechanical errors or typos are present, but are not overly distracting to the reader.	Prose is largely free of mechanical errors, although a few may be present.	V st E
<b>Evaluating and Documenting Sources</b> (includes use of appropriate style, correct in-text and citation format, etc)	Plagiarism; rarely follows any documentation format correctly; uses <u>noncredible</u> sources	Uses documentation, but frequent formatting/citation errors are present; some sources have questionable credibility	Sources used are credible and documented appropriately to the discipline; formatting and citation is usually correct, but some lack of control is apparent.	Documentation is appropriate and formatting/citation is correct, although a few errors/typos may be present; most sources are authoritative.	T d c: a
<b>Language Use and Audience Awareness</b> (includes sentence construction, word choice, etc)	Inappropriate word choice and/or sentence construction, lack of variety in language use. Writer appears to be unaware of audience. Use of "primer prose" indicates writer either doesn't apply figures	Some distracting and/or inconsistencies in language choice (register), sentence structure, and/or word choice are present. Sentence structure may be sporadic. The writer exhibits some lack of control in using figures of	Sentence structure is correct and occasionally varies. Language is appropriate to the targeted audience for the most part.	The writer is clearly aware of audience; uses a variety of sentence structures and appropriate vocabulary for the target audience; uses figures of speech to communicate clearly.	T se o u a d

# Developing Rubrics

- According to Stevens & Levi, there are four key stages:
  - ▣ Reflecting
    - Reflect on what students are expected to do/achieve in terms of the learning outcome
  - ▣ Listing
    - List specific criteria against which student achievement of the outcome can be measured
    - List behaviors/performances that exemplify different levels of achievement (performance indicators)
  - ▣ Grouping and Labeling
    - Group similar performance expectations and indicators together and create labels for each group
  - ▣ Application
    - Arrange the lists created on a matrix (rubric grid)

# Collegiate Learning Assessment (CLA)

- An authentic, performance-based test of critical thinking, analytic reasoning, problem solving, written communication
- Currently used to assess UK students' acquisition of these General Education skills
- Composed of two types of tasks:
  - ▣ Performance Tasks
  - ▣ Analytic Writing Task
    - Make an Argument
    - Critique an Argument
- Scored with a common, holistic rubric

# CLA Performance Tasks

- A strategy for building student tasks that measure critical thinking, analytic reasoning, problem solving, and written communication, with a common, hybrid rubric
- Performance Tasks can be built in any discipline or combination of disciplines
- Elements (refer to handout):
  - Scenario
  - Document Library
  - Questions
- Appropriate for course, program, institutional level assessment

# CLA Rubrics

- There are two types of items that appear on CLA scoring rubrics: holistic and analytic
  - Holistic scoring refers to general dimensions, such as evaluation of evidence, drawing conclusions, acknowledging alternative explanations and viewpoints, and overall writing, whereas analytic scoring refers to items particular to each prompt
  - Scoring rubrics for the Performance Tasks are tailored to each specific prompt and include a combination of both holistic and analytic scoring items

# CLA in the Classroom

- Performance Tasks are embedded in the curriculum across disciplines
- Preferred strategy for large-scale, authentic assessment of UK General Education
- UK is hosting a CLA in the Classroom Academy
  - ▣ 28-29 May 2009
  - ▣ Email [marsha.watson@uky.edu](mailto:marsha.watson@uky.edu) if you're interested in participating

# Capstone Experiences

- A learning experience that synthesizes and integrates a degree program:
  - ▣ Capstone course
  - ▣ Individual or collaborative capstone project (independent studies; theses)
  - ▣ Internships; clinical experiences
- An opportunity for end-of-program authentic assessment
  - ▣ Requires specific program learning outcomes, shared rubrics, crosswalks/matrices

# Using Tests/Exams for Assessment

## □ Disadvantages:

- Many tests measure only content knowledge (Learning = content knowledge + performance)
- “... most tests tend to be ‘indirect’ (and therefore inauthentic) ways of evaluating performance, because tests must simplify each task in order to make the items and answers unambiguous and independent of one another” (Wiggins15)
- “One test signifies nothing ...” (Wiggins)

## □ Advantages:

- Limited instructor labor/time to attain quantitative results

# Modifying Tests for Direct Evidence

- Identify questions on the test that provide evidence of a learning outcome:
  - ▣ Ex: Five questions that require the use of deductive reasoning to arrive at the right answer
  - ▣ Ex: Open-ended questions that require students to solve a unique problem given knowledge/skills learned
- Isolate those questions and look for patterns of performance:
  - ▣ Ex: The average grade in the class was a “B” but 85% of the students missed four of the questions requiring deductive reasoning
  - ▣ Ex: 70% of students were able to use a particular theory/approach to resolve the problem

# Modifying Tests for Direct Evidence

- Use open-ended (short or long) essay questions instead of multiple choice; True-False
  - ▣ Pose complex problems that require students to analyze, synthesize, evaluate
  - ▣ Allow unique solutions
- Use a pre/post design to determine value-added of a program
  - ▣ Administer test at program entry and exit
  - ▣ Avoid pre/post at the course level

# Before you start creating new tools ...

- Take stock of the assessments the program is already conducting
  - ▣ Assessment Inventory can be helpful (refer to handout)
- Analyze your program curriculum map to determine most logical assessment points
- Map the major student work-products (artifacts) already being generated in the program
- **Then** create new assignments/tasks as needed, at strategic program assessment points

# Collecting and Analyzing the Data

- Automate collection whenever possible
  - ▣ For objective, valid assessment, student artifacts must not have comments, grades on them when assessed at the program level
  - ▣ Blackboard assignment feature makes collection very easy to accomplish
- Use matrices, crosswalks to analyze qualitative data
  - ▣ Use major themes to group qualitative data; translate into quantitative data through counts, scales
  - ▣ Use crosswalks to equate qualitative data to outcome performance indicators (on a scale)

# Planning to Analyze & Use Student Learning Data

- Assessment Cycle:
  - ▣ Determine where, when, by whom data will be collected, disseminated, analyzed
  - ▣ Assess 1 or 2 outcomes per year
  - ▣ Identify/set up regular venues (once or twice a year) where data can be disseminated to faculty for analysis and formulation of improvement action plans
    - Look for opportunities that already exist, such as regular program/departmental meetings
    - Time to coincide with the strategic planning, budgeting processes

# Analyze & Use Student Learning Data

- Automate collection, reporting of data whenever possible
  - ▣ Existing technologies provide some help:
    - Blackboard (collection of artifacts, distribution of rubrics, virtual norming/scoring)
    - Digital Measures (reporting at department, college, institutional levels)
    - Shared drives (dissemination, collection/sharing of data, reporting)
    - Sharepoint (collection of artifacts, distribution of rubrics, virtual norming/scoring, dissemination, collection/sharing of data, reporting)

# Activities

- The Evidence Inventory
  - ▣ Inventory the assessment evidence you are already collecting
- Developing, Selecting, and Refining Assessment Measures
  - ▣ Develop/select self-generated assessment measures

# One More Thing ...

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- Please fill out the Workshop Evaluation Form in your folder.

*Thanks!*