

Assessment of Student Learning in A General Education Programme: Difficulties and Methods

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Content

- * Brief development of GE assessment
- * Difficulties
- * Methods
- * Discussion

Brief development of GE assessment

- * Since the 20th century, periods of assessment in higher education have historically followed periods of rapid enrollment expansion in the United States, which were from 1918-1928 and from 1952-1983. (Compbell, 1996, pp.29-30)
- * Since 1980's, more institutions developed methods to assess student's learning outcomes in general education.

Survey year	Had plans	Comprehensive assessment had conducted	Resource
1982	39% (in 272)	7% (in 272)	Gaff, 1983
2000		33.3% (in 278)	Johnson, Ratcliff, & Gaff, 2004

- * In Chinese society, few comprehensive assessment

Difficulties

- * There is no a common or accepted body of knowledge that constitute the common wisdom regarding general education on any campus.
- * Different opinions on GE and the subjective or value orientation of many of the intended outcomes.
- * The focus of most general education outcomes and their assessment in the liberal arts (in particular in humanities, Fine Arts, etc.) create further campus obstacles to implementation.
- * GE is the responsibility of all faculty, yet no one individual or group is held accountable for program results.

(Nicholes and Nicholes, 2001)

Methods

- * Comprehensive assessment
 - * Direct assessment methods
 - * Standardized tests
 - * Locally developed tests
 - * qualitative means
 - * Indirect assessment methods
 - * Multiple methods to use together
 - * Embedded or course-based assessment
- * Specific GE content or skill areas

Methods

—*Standardized test*

- * Standardized Tests
 - * *Test*: a set of questions with an accepted set of presumably correct answers. (Posner, 2004)
 - * *Standardized*: to the extent that it has been administered and scored under standard, or uniform, conditions and procedures. (Posner, 2004)
- * List of instruments compiled by Allen (2006)
- * In Mainland China, CET 4 and CET 6

Test	What to measure	Year of student
The Academic Profile	Critical thinking, mathematics, reading, writing	Lower division GE humanities, social sciences, and science curricula
ACCUPLACER	Reading, writing, mathematics	Incoming students
ASSET	Reading, writing, mathematics, info related to advising and placement decisions	
The California Critical Thinking Skills Test	Critical Thinking: inductive and deductive reasoning, analysis, inference, and evaluation	
The College Basic Academic Subjects Examination	GE English, mathematics, science, and social studies	State-wide test in Missouri, Incoming freshmen and follow up test
The Collegiate Assessment of Academic Proficiency	Reading, writing, mathematics, science, critical thinking	For GE programs
The Collegiate Learning Assessment	Critical thinking, analytic reasoning, written communication skills	Freshmen and seniors to assess value-added growth, items set in the context of science, SSci, humanities and the arts
COMPASS	Writing, reading, mathematics, and Eng as a second language	Online test

Revised based on Allen (2006)

* Standardized test

* Advantages

- * To test student cognitive achievement
- * Items may in the context of different subjects
- * To make normative comparisons
- * Availability of instruments
- * Acceptance of validity of results

* Disadvantages

- * Fit with campus GE outcomes
- * Multiple choice items, only limited objectives and outcomes to be assessed
- * Seriousness of student's taking tests

Methods

—*locally developed test*

- * Locally developed test
 - * Faculty developed tests
 - * Case: State University of New York College at Fredonia (Hurtgen, 1997)

	Content and skill areas	Paper and pencil tests
Part 1	Reading, writing	Reading test, writing test
	Computational skills, analytical thinking	Quantitative problem solving test
Part 2	Science and Mathematics	Scientific reasoning tests(2)
	Humanities	Reflexive reasoning and
	Social science	social-ethical reasoning tests (3)
Part 3	Upper division courses	

- * Locally developed test

- * Advantages of standardized tests

- * To fit with institutional expected GE outcomes

- * More diverse types of questions, a mixture of objective and subjective items

- * Disadvantages of standardized tests

- * Cost, in terms of time and effort of faculty, to develop, maintain, and administer

- * Mostly, have unknown reliability and validity

Methods

—*qualitative method*

- * Qualitative means

- * Prompt (Bers, 2001)

- * Answer questions based on materials selected from newspaper and magazine articles, graphs, and cartoons
 - * considered possible prompts and which objectives each prompt addressed as a simultaneous process, rather than first determining what objectives to assess and then seeking prompts germane to those objectives.

* Portfolio

- * student-centered collections of their academic work
- * Showcase portfolios or Developmental portfolios
- * Collection: as a grade component, a subset of student, or for a limited outcomes,
- * but it is among the most time consuming methods

Case: Indiana University- Purdue University Indianapolis
(Hamilton, 2003)

	L01	L02	L03	LO...n
introductory				
Intermediate				
Advanced				
Experiential				

Methods

—*indirect method*

* Indirect method

- * Involve in using surveys, interviews, or focus groups to collect self-assessment by students, as well as opinions of other

* Student self report learning outcomes

- * *Case: Longwood College at Virginia (Smith, 1993)*
- * *The program is structured around ten goals that define the content of the program and specifies nine criteria that all GE courses must meet.*
- * *General education course criteria survey*
- * *Assess two of the ten goals each year*

Methods

—Multiple instruments to be used

- * Multiple methods, align each goal with selected instruments

- * *Case: University of Colorado at Colorado Springs (UCCS, 2005), instruments adopted:*

The ETS Academic Profile Exam; The National Survey of Student Engagement; The Writing Portfolio; The Graduating Senior Survey; The Baccalaureate Alumni Survey

Goals		Instruments
Goal 1	Goal 1a Goal 1b	...
Goal 2	...	
Goal 3		
Goal 4		

Methods

—*Embedded assessment method*

- * Embedded assessment

- * Course embedded assessment

- * *Case: Coconino Community College* (Eickmeyer, 2001; Eickmeyer & Hill, 1998; Zumwalt, 1997)

- * Mapping between course objectives and program goals

- * Multiple assessment methods used

- * Identify effective methods to assess each student learning outcome

	Course 1	Course...n
Objective 1	*	*
Objective 2	*	
Objective...n		*

* Embedded assessment

* Use Rubric

- * Case: University of Northern Colorado (Gerretson & Golson, 2004, 2005)

develop GE programme level rubric, and then faculty members accordingly develop course level rubric

- * Issue of Quality Assurance

Methods

* Assessment in specific GE content or skill areas

Content areas	Cognitive skill areas	Other components
Natural sciences, social sciences, math/quantitative, humanities, fine arts, history, literature, philosophy and ethics, foreign language, physical sciences, life sciences, religion	Reading/writing, critical thinking, speaking/listening, computing	Cultural diversity, global studies, interdisciplinary, lifelong learning, collaboration/teamwork, leadership

revised from Johnson, Ratcliff, and Gaff (2004)

Types of intended GE outcomes	Associated Means of Assessment
Basic skills Reading Writing Speaking Mathematical calculations Basic computer skills	Standardized test/Nelson-Denny/ACT ASSET ST/Portfolio/writing sample Videotaped presentations with standardized evaluation sheets ST/ locally developed exams Locally developed tests/commercial computer skills tests
Knowledge/understanding Historical Perspective Literary Styles Culture Meaning of Numerical data Global Perspective Impact of Technology	College BASE/Locally developed tests College BASE/Locally developed tests Locally developed test/surveys/observation Locally developed cognitive Tests/Performance tests Graduating Student or Alumni Surveys/ Employer Surveys Graduating Student or Alumni Surveys

Types of intended GE outcomes	Associated Means of Assessment
Higher Order Thinking Critical Thinking Logical Reasoning Scientific Inquiry Concept Integration	ST Watson-Glaser CT Appraisal California CT Skills Test TASKS in CT/ Locally developed case studies
Values development Democratic value Cultural diversity Aesthetic appreciation Ethical perspective Religious orientation	Graduating Student or Alumni Surveys Voting Record/Political Activity/ Attitude Toward Concepts Graduating Student or Alumni Surveys--Attitudes/ Locally developed Case Studies Graduating Student and Alumni Surveys Attitude/Reported Events Report of Voluntary Attendance at Fine Arts Presentations Graduating Student and Alumni Surveys Attitudes/Reported Events Locally Developed Case Studies Graduating Student and Alumni Surveys Attitudes/Reported Events Report of Voluntary Chapel Attendance /Locally Developed Case Studies

Discussion

- * Stated objectives and purpose help establish a sense of identity for general education as a program.
 - * But how to get consensus among colleagues?
- * Five levels of curriculum (Goodlad, 1979) and discrepancy among them
 - * Ideal curriculum / Formal curriculum /Operational curriculum / Perceived curriculum /Experienced curriculum

Discussion

- * Measurement based evaluation Vs. Integrated evaluation (Posner, 2004)
- * Who or what group is responsible for assessment of General Education? (Nichols & Nichols, 2001)
 - * Programmatic approach Vs. Course approach
 - * GE curriculum committee, or institutional assessment committee, or a separate GE assessment committee ?
- * The use of the results

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Thanks!