



ASSESSMENT AND EVALUATION PRACTICES 101

**New York State College Health
Association
Syracuse, New York
October 21, 2010**



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TOPICS FOR TODAY

- Assessment and Evaluation in Higher Education: The National Landscape
- Middle States' Expectations for Institutional and Program Effectiveness
- The Assessment Process: Using it to Understand and Improve Programs and Services
- Demonstrating Program Effectiveness: Collecting, Analyzing, and Interpreting Data



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ASSESSMENT AND EVALUATION IN HIGHER EDUCATION:

The National Landscape

HISTORICAL CONTEXT: THE “SPELLINGS COMMISSION”

- Formation of Commission on the Future of Higher Education in September 2005 by Secretary of Education Margaret Spellings
 - In acknowledgment of federal government as a “big investor” in higher education
 - To provide opportunity for national discussion on how to assure our system of higher education remains the “best in the world”
- Release of Commission’s Report in September 2006
 - Calling for improvements in “accessibility, affordability, and accountability”



THE COMMISSION'S FAR-REACHING IMPACT

- Implications for Regional Accrediting Agencies (Including Middle States)
 - “Accreditation – the system we use to put a stamp of approval on higher education quality – is largely focused on inputs.” (from Commission’s report)
- Has resulted in great pressure on accrediting agencies – and their institutions – to demonstrate their impact on students, not only in terms of learning outcomes but also overall effectiveness





MIDDLE STATES' EXPECTATIONS FOR US:

Standard 7 (Institutional Assessment)

INSTITUTIONAL EFFECTIVENESS: MSCHE CRITERIA

1. Documented, organized, and sustained assessment process to evaluate and improve the total range of programs and services and achievement of institutional mission, goals, and plans
2. Written institutional (strategic) and unit plans that reflect consideration of assessment results
3. Evidence that assessment results are shared and used in institutional planning, resource allocation, and renewal



WHAT IS GOOD ASSESSMENT? (SUSKIE, 2005)

- It's Useful
- It's Cost-Effective
 - Focus on a few goals/outcomes and stagger assessments
 - Use sampling approach
- It's Reasonably Truthful and Accurate (NOT Dissertation Quality Research)
 - Use variety of tools
 - Make sure measures map to outcomes
- It is “organized, systemized, and sustained”



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THE ASSESSMENT PROCESS:

Using It to Understand and
Improve Programs and
Services

ASSESSMENT PLANNING'S FOUR STEPS

1. Setting objectives: “What you say you do”
2. Activity mapping: “How you do what you say you do”
3. Assessment: “How you know you are doing what you say you do”
4. “Closing the loop”: “What you do next based on results”
 - **Assessment without #4 = Waste of time!**



DEVELOPING PROGRAM OBJECTIVES: WHAT SHOULD THEY REFLECT?

- Documentation of all services and programs offered
- Consideration of all constituents served
- Tracking of use of services (and by whom)
- Unit effectiveness performance indicators
- Student satisfaction with services/programs
- Direct impact of services/programs on students (as appropriate)

#1 Rule: Use existing data sources as much as possible!



BUT OTHER THINGS TO KEEP IN MIND

- Do you have a program/activity in place to realize the objective?
- Can desired change be measured (especially if focus is student learning or development)?
 - **Ultimately, objectives will have to be translated into outcomes**
- How will you know you were successful?
- Do external standards apply (i.e., in case of external accreditation/certification)?



SAMPLE PROGRAM

OBJECTIVES: SFSU

- To provide accessible and cost-effective quality medical care for all registered students of SFSU
- To work with students to facilitate retention and graduation, reduce systematic health disparities related to human and cultural diversity, and enhance lifelong health and wellness
- To increase students' knowledge of wellness and preventive health so that they can develop and/or maintain a healthy lifestyle
- To educate students about healthy eating - how it serves as a foundation for good health and reduces their chances of chronic disease
- To help position students for post-college wellness by increasing their understanding of health care and how it functions in modern American society





FROM ASSESSMENT TO EVALUATION:

Outcome Statements

WRITING GOOD OUTCOMES: ESSENTIAL COMPONENTS

- Who/what is the target?
 - What aspect of your program or services are you intending to change?
 - What domain of student development is your focus?
- What activity is expected to lead to change?
- What change is expected?



SAMPLE OUTCOME: SFSU

Objective

To increase students' knowledge of wellness and preventive health so that they can develop and/or maintain a healthy lifestyle

Outcome

Students participating in the SHS “Hot Safer Sex” workshop series will increase basic awareness and comprehension of sexually transmitted infections such as Chlamydia, HIV, GC, and HPV.



BASIC RULES FOR WRITING OUTCOME STATEMENTS

- Focus on students (not programs)
 - Good example: “Students will articulate knowledge and understanding of the health consequences of tobacco use.”
 - Poor example: “Student Health Services will educate students regarding the health consequences of tobacco use. ”
- Focus on outcomes (not process)
 - Good example: “Students will demonstrate clear and accurate knowledge regarding the consequences of alcohol abuse with respect to sexual behavior, the ability to operate a motor vehicle, and health across the lifespan.”
 - Poor example: “Students will attend three events that focus on the consequences of alcohol abuse.”



STUDENT LEARNING OUTCOME EXAMPLES: ILLINOIS INSTITUTE OF TECHNOLOGY

- As a result of services provided in the Student Health Center, female students will become knowledgeable and assume responsibility for their sexual and reproductive health. Including recognition, prevention, and treatment of sexually transmitted diseases, prevention of unintended pregnancies, and awareness of health screenings appropriate at various stages of their reproductive lives.
- As a result of participation in the Student Health Insurance Plan, students will have access to high quality healthcare and become knowledgeable regarding successful navigation of the US healthcare system within the confines of the insurance industry bureaucracy.
- As a result of the implementation of the Automated External Defibrillator Program, students will become aware of early warning signs and symptoms of both heart attack and stroke, the importance of accessing rapid emergency medical services, and will be capable of instituting defibrillation when appropriate.





DEMONSTRATING PROGRAM EFFECTIVENESS:

Collecting, Analyzing, and
Interpreting Data

SELECTING GOOD MEASURES: BASIC PRINCIPLES

- Measurement techniques must be rigorous, since unreliable data are of minimal value
 - But again, not dissertation research quality!
- Best to use variety of quantitative and qualitative measures
 - Quantitative easier, but not often as rich
 - Qualitative often more informative, but require check on scoring (e.g., rubrics)
- Indirect measures have value, but should never be sole indicator of effectiveness
- Rely as much as possible on existing data sources!



GENERAL TYPES OF MEASURES (MAKI, 2004)

- Direct measures – students actually demonstrate learning so that evaluators can match results to expectations
 - Standardized tests
 - Authentic, performance-based – embedded into students' actual educational context
- Indirect – students' perceptions of learning
 - Should never be used as sole indicator



QUANTITATIVE OR QUALITATIVE?

- Depends on what you're trying to do
- Quantitative methods are best if you're interested in “How many? How much? What percentage? How frequently? How much on average?”
- Qualitative methods are best if you're interested in “What were strengths, weaknesses? What do the data mean? What worked, what didn't? How was the project useful?”



AUTHENTIC, PERFORMANCE-BASED ASSESSMENT: THE VALUE OF RUBRICS

- Rubrics provide reliable means of rating student performance in more qualitative way
- Steps in developing rubrics
 - Use entire staff to help develop and be as specific as possible in differentiating between performance levels
 - Use existing rubrics as guide
 - Pilot test to assure scoring is reliable



RUBRIC EXAMPLE: STUDENT HEALTH SERVICE (BOWLING GREEN STATE UNIVERSITY)

	Compliance	Administration	Duration of Therapy	Side Effects	Drug Interactions
Knowledge	Can correctly express how often medication should be taken	Can correctly state whether antibiotic should be taken with or without food or water	Expresses that full course of therapy should be completed	Is aware of all potential side effects of therapy	Is aware that taking other medications, vitamins and supplements may interfere with antibiotic
Some knowledge				Partially identifies potential side effects	Is not taking other medications, vitamins or supplements
Lack of Knowledge	Is unaware of prescribed dosing schedule	Is unaware of the need to take medication with or without food or water	States that treatment can be stopped prior to completing full course	Is unaware of the potential for side effects	Does not believe that interactions are possible or is unaware of possible interactions



MAJOR DATA COLLECTION METHODS

- Questionnaires, surveys, checklists
- Interviews
- Documentation review
- Benchmarks
- Observation
- Focus groups
- Case studies



ANALYZING AND INTERPRETING INFORMATION

- Quantitative information (e.g., scores, ratings/rankings)
 - Tabulate the information
 - Calculate frequencies, means or averages, percentages, and put into table – will help visualization
 - If possible, and of interest, compare scores between subgroups (e.g., males vs. females)
 - For each table, write summary paragraph about what the numbers indicate



ANALYZING AND INTERPRETING QUANTITATIVE INFORMATION - EXAMPLE

How do you describe your weight? (#35)

	2002(UMU)			2005 (UMU)			2002 (National)			2005 (National)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Very Underweight	2.0%	1.0%	1.5%	1.0%	1.0%	0.6%				1.0%	1.0%	0.8%
Slightly Underweight	15.0%	9.0%	11.3%	16.0%	7.0%	9.2%	15.0%	8.0%		15.0%	8.0%	10.4%
About the Right Weight	56.0%	45.0%	49.0%	59.0%	55.0%	55.4%	55.0%	52.0%		53.0%	53.0%	53.0%
Slightly Overweight	26.0%	42.0%	36.2%	23.0%	35.0%	32.3%	27.0%	36.0%		28.0%	35.0%	32.2%
Very Overweight	1.0%	2.0%	1.8%	0.0%	3.0%	2.5%				3.0%	4.0%	3.7%



ANALYZING AND INTERPRETING INFORMATION (CONT.)

- Qualitative information (e.g., as collected through interviews, written essays, focus groups)
 - Read through all the information and begin to organize it into “themes” as they emerge
 - Attempt to identify patterns, or associations/causal relationships in the themes
 - Examine themes as they may vary between sub-groups



FROM MEASURES TO CRITERIA

- Assessment criteria reflect your expectations about student performance (i.e., how you know you were successful)
- Set criteria at reasonable but challenging levels
 - Use benchmarks whenever possible, but sometimes you just have to guess!
- Often take these forms:
 - “90% of students will
 - “80% of students will score at least 70% on...”



EVALUATING YOUR ASSESSMENT PLAN: SAMPLE ACTION PLAN

Objective	Outcome	Assessment Measure	Expected Outcome
To increase students' knowledge of wellness and preventive health so that they can develop and/or maintain a healthy lifestyle	Students participating in the SHS "Hot Safer Sex" workshop series will increase basic awareness and comprehension of sexually transmitted infections such as Chlamydia, HIV, GC, and HPV.	25-item pre-test/post-test that evaluates knowledge of these topics	70% of students will demonstrate improvement on post-test cores.



PARTING ADVICE

1. Relax – this is not brain surgery!
2. No assessment or evaluation is ever perfect – if you wait for that, you won't do anything.
3. Take a participatory approach, being sure to involve all staff members as much as possible – the more buy-in, the better.
4. Don't try to do everything at once, and don't try to assess all students.
5. Document, document, document!
6. **CLOSE THE LOOP!**





YOUR TURN!