INSTITUTIONAL EFFECTIVENESS/OUTCOMES ASSESSMENT FOR "NON-INSTRUCTIONAL" DEPARTMENTS/PROGRAMS

Colorado State University Pueblo

Gerry Dizinno, Ph.D.

Associate Professor Emeritus, Educational Leadership & Policy studies

The University of Texas at San Antonio

EXPECTED OUTCOMES OF PRESENTATION

Overall Goal: Provide information regarding best practices regarding assessment of student learning outcomes (SLOs) and ***using the results of assessment for improvement*****

- Objectives: Participants should understand:
  - How to choose useful outcomes that contributes to the ability to use results of assessment for improvement
  - How to ensure that the type of assessment method contributes to the ability to use results of assessment for improvement
  - How to ensure that the way you analyze and present results contributes to the ability to use results of assessment for improvement
  - How misconceptions of the assessment process contribute to the inability to use results of assessment for improvement
  - How to ensure that there are clear, direct relationships among expected outcomes, assessment methods, analysis and presentation of results, and use of results for improvement

WHY THESE OBJECTIVES FOR THE PRESENTATION

- First, they address the essential elements of the process

- Second, an examination of recent reports from instructional programs revealed that *all* of these elements were contributing to a lack of ability to use results of the process for improvement

  - Your HLC review committee identified the need to demonstrate the use of results for improvement

  - However, they did **no**t indicate *how* to improve your work so that improvements to outcomes could be more widespread within and across programs.

TYPES OF ASSESSMENT/EVALUATION

- Summative Assessment/Evaluation
    - Purpose is to come to some final decision regarding accomplishment, adequacy, competency, final grade, etc.

- Formative Assessment/Evaluation
    - Purpose is to provide information about current state of accomplishment, competency, progress so that information can be used for improvement
    - This process is cyclical

ASSESSMENT OF OUTCOMES FOR EVALUATION IS FORMATIVE

- Everything should be done so as to provide information that can be used to improve student learning

- Thus, we should not say that "no improvements are needed at this time"

- Improvements are always needed, and possible, if our purpose is formative.

GUIDING "RULE" FOR ASSESSMENT OF OUTCOMES

EVERYTHING YOU DO SHOULD BE DESIGNED TO ALLOW YOU TO ULTIMATELY IMPROVE YOUR DEPARTMENT/PROGRAM

- Outcomes: These need to be expectations that NEED to be improved

- Assessment Methods and Design: Need to provide data/information that can be used to help make decisions about how you will improve

- Analysis and Reporting of Results: should provide information that can be used to make improvements

INSTITUTIONAL EFFECTIVENESS

Institutional Effectiveness process requires that we:

1. Identify expected outcomes

2. Assess the extent to which outcomes are achieved (may involve a "sub-step" regarding setting expected achievement levels)

3. Analyze the results of assessment

4. **Use results to seek improvement**

CSU PUEBLO NON-INSTRUCTIONAL DEPARTMENT/ PROGRAM ASSESSMENT REPORTS INCLUDE THESE STEPS

Outcome Assessed	Date of Last Assessment	Assessment Method	Who was assessed?	Expected achievement level	Results of Assessment	Department Conclusions	Improvements planned
Outcome 1							
Outcome 2							
Outcome 3							
Outcome 4							
Outcome 5							

OUTCOMES FOR "NON-INSTRUCTIONAL" DEPARTMENTS/PROGRAMS

Depending your Mission, you may need to address one or both of these types of outcomes

- Student Learning Outcomes (SLOs)
  - Relevant for departments/programs where student learning and/or development is part of their mission; e.g. Student Affairs

- Business outcomes
  - Relevant for departments/programs whose mission focuses on engaging in business practices in support of CSU Pueblo's Mission

STUDENT LEARNING OUTCOMES THAT CAN BE USED FOR IMPROVEMENT: WHAT . . .

- **Students should know** – essential knowledge: theories, facts, history, etc.

- **Students should be able to do:**

  - **Cognitive Abilities/Skills** – such as critical thinking, problem solving, communication, etc.

  - **Discipline-Specific Skills** – essential skills/behaviors (e.g., use appropriate research methods to address scholarly research questions; perform a clinical evaluation of a client; evaluate potential security threats to a website, etc.)

- **Values/attitudes should be developed** as they apply to a field of study (e.g., professional/disciplinary ethics)

BUSINESS OUTCOMES

- Efficiency – processing work over time

- Accuracy – error rates

- Exceeding Standards – set by internal or external agencies

- "Customer" Satisfaction

- Any other Department/Program-Specific outcome related to your own Mission

PICKING THE RIGHT OUTCOMES

- Pick a manageable number of *essential* outcomes

- Pick outcomes that can be assessed given the expertise and time of staff

PICKING A *MANAGEABLE NUMBER* OF *ESSENTIAL* OUTCOMES

- What is a manageable number of outcomes?
  - Ultimately up to department/program, but I generally suggest focusing on 3 – 5 (certainly not fewer than 3)

- What is an essential outcome?
  - For SLOs: Things students should know, be able to do, or have attitudes and/or values that simply MUST be accomplished prior to graduation
  - For Business Outcomes: things that you need to accomplish in order to meet your Mission and CSU's Mission
  - IMPORTANT: Pick things that you already know (or strongly suspect) need improvement

PROBLEMS SEEN WITH OUTCOMES

1. Confusing what we *do* with what we expect to achieve

2. Outcomes that are too complex or unclear

3. Not focusing on a manageable number of "essential" outcomes

4. Outcomes that are not clearly related to the assessment methods designed to evaluate them

OUTCOME PROBLEM 1:
CONFUSING WHAT WE *DO* WITH WHAT WE EXPECT TO ACHIEVE

The following are examples of things we do to achieve outcomes; they are NOT OUTCOMES

- Provide excellent customer service

- Use/have technology and/or business machines

- Provide effective instruction (for SLOs)

- Provide relevant experiences (for SLOs)

- Ensure appropriate program content (for SLOs)

- Provide qualified staff

- Provide staff development/training

- Have appropriate budgetary support

OUTCOME PROBLEM 2: OUTCOMES THAT ARE TOO COMPLEX OR UNCLEAR

- For SLOs: Focus on Knowledge OR Skills OR Values (don't combine)
  - A poor outcome: "Students should know how to find critical student support offices on campus and can determine which support office is appropriate for various issues."

- For Business Outcomes: Focus on efficiency, or accuracy, or customer satisfaction, etc.
  - A poor outcome: "The department will reduce errors associated with processing of application materials and will reduce processing time."

- Ensure clarity and conciseness (especially when submitting to internal or external (e.g., HLC or other accrediting bodies) – focus on the audience

OUTCOME PROBLEM 3:
NOT FOCUSING ON MANAGEABLE NUMBER OF ESSENTIAL OUTCOMES

- Being too ambitious in terms of number of SLOs
  - 3-5 is usually manageable

- Not focusing on SLOs that really NEED to be improved
  - Formal Evaluation Projects: first step is a "needs assessment"
  - Evaluation of SLOs: formal needs assessment often not possible/practical; use less formal methods
    - staff discussions, "customer" input, input from professional organizations, etc.
      - NOTE: Some departments/programs should consider using CAS Standards as a resource (e.g., Student Affairs departments/programs)
  - If this isn't done, you often get to a point where you say you don't need to improve anything.

OUTCOME PROBLEM 4: OUTCOMES THAT ARE NOT CLEARLY RELATED TO THE ASSESSMENT METHODS DESIGNED TO EVALUATE THEM

- Sometimes this is a problem because outcome is not written very clearly (Problem 1)

- Assessment method and SLO are clearly unrelated (e.g., outcome is about knowledge while assessment method focuses on a skill)

- Assessment method and Business Outcome are unrelated (e.g., outcome is about efficiency, but assessment focuses on customer opinions/satisfaction)

SOME EXAMPLES OF GOOD OUTCOMES

- SLOs:
  - Students should understand how to manage their debt.
  - Students should be able to identify the important signs of alcohol dependency among their peers.
- Business outcomes:
  - There will be a reduction of recidivism for alcohol-related violations
  - Students will be satisfied with parking available on campus.

ASSESSMENT OF OUTCOMES

- You must have at least one assessment method for EVERY outcome, and you should *try* to have more than one ("triangulation")

- Reviewers will want it to be VERY obvious that the assessment method you use CLEARLY assesses the outcome you intend to assess. Technically, this is called VALIDITY.

BASIC TYPES OF ASSESSMENT METHODS

- Assessment methods can be *quantitative* or *qualitative*
  - Quantitative: counts, work processed over time, surveys, rubrics, tests, graded essays, etc.
  - Qualitative: interviews, focus groups
- Assessment methods can be *direct* or *indirect*
  - Direct: the results of the method provide information about the outcome being assessed; no inferences needed regarding knowledge, skills, values
  - Indirect: assessment provides information that can be used to make inferences about the outcome

ASSESSMENT METHODS

- Direct Methods:
  - Quantitative:
    - Tests: standardized or in-house/classroom tests (for SLOs)
    - Projects, other student-produced products **with rubric** (for SLOs)
    - Program-embedded assessments **with rubric** (for SLOs)
    - Counts of things processed, etc.
    - Rates of process, time to completion, meeting of deadlines, etc.
  - Qualitative:
    - Interviews where questions designed to evoke the knowledge or attitudes/values that student should exhibit

- Indirect Methods:
  - Quantitative:
    - Opinion surveys
  - Qualitative
    - Interviews where student feelings, opinions can be expressed
    - Focus Groups where student feelings, opinions can be expressed

EXAMPLES OF TYPES OF ASSESSMENTS

	Quantitative	Qualitative

Direct	• Rubrics used to evaluate course-embedded artifacts of learning
	   • Papers
	   • Projects
	   • Essays
	• Standardized tests/exams (caution)
	• Classroom tests (caution)
	• Counts of business processes
		• Interviews focused on student knowledge or skills (interview questions to evaluate knowledge or values/attitudes)

Indirect	• Student opinion questionnaires • Employer opinion questionnaires • Alumni opinion questionnaires	• Interviews regarding opinions • Focus Groups regarding opinions

ASSESSMENT TRIANGULATION: USE IF POSSIBLE AND APPROPRIATE

- Historically: an ancient (and modern) method (as early as 1st Century) in cartography/geodesy as well as navigation, surveying, etc. to help locate and describe distances, etc. A series of adjacent triangles are created and using trigonometry, distances are calculated.

- In assessment, the term refers to the use of multiple assessment methods of the same expected outcome. While triangulation refers to three of these, in practical terms we hope to have at least two.

- Multiple measures of the same outcome help us to ensure our conclusions are reasonable.

ASSESSMENT METHODS: RELIABILITY AND VALIDITY

- Psychometrically:
  - Reliability = Consistency; Validity = Accuracy
  - With quantitative research, there are statistical and research design methods to maximize both

- For IE/Assessment:
  - If you have the capability to do quantitative evaluations of these, please do so.
  - For many measures, especially qualitative, these psychometric terms are not relevant

- **Bottom Line:**
  - **YOU must be confident that you are "measuring" what you intend to measure, and then**
  - **YOU ultimately need to be able to *convince* an external reviewer that what you are doing is reasonable**

ASSESSMENT "RESEARCH DESIGN" – SOME CAUTIONS ABOUT USING RESULTS

- Asking questions (qualitative method), or administering a test, etc. only AFTER a student participates in a program does not tell you much about whether the program had an effect on the student
  - This is called a "post-test only" design in the research literature, and many other factors could be affecting the student's performance at the end of a program (other experiences, etc.)

- Pretest – Posttest allows you to see if any changes have occurred

- BEST: have a "control group" *with* Pretest – Posttest; this is a very powerful design; but often very impractical.

- Research design includes considerations of "sample size." Advice: if you have only a small number of students, evaluate them all; if you have a large program, obtain a sample (often, a sample of classes can be used)

- **Guidance: do the best you can with the resources you have!**

- **THEN: Only use results to seek improvement when you believe you have enough evidence to do so!**

UNACCEPTABLE ASSESSMENT METHODS:
FOR EACH, LET'S SUGGEST SOMETHING BETTER

- Outcome 1: Students should understand how to manage their debt.
  - A test on student debt management is provided, and only the final/total score is used
  - PROBLEM: final score does not provide "diagnostic" information

- Outcome 2: Students should be able to identify the important signs of alcohol dependency among their peers.
  - Students are surveyed and asked if they are prepared to identify the signs
  - PROBLEM: this is an indirect method that can be misleading

- Outcome 3: There will be a reduction of recidivism for alcohol-related violations
  - Assessment: The number of alcohol violations are recorded each semester
  - PROBLEM: recidivism requires student-level tracking not overall numbers

- Outcome 4: Students will be satisfied with parking available on campus.
  - Assessment: the number of student parking spaces unoccupied at various times of the day
  - PROBLEM: unoccupied spaces could be due to a variety of factors; better to use a student survey.

A NOTE ON SEEKING IMPROVEMENT FOLLOWING ANALYSIS

- You need to determine how you WOULD use the results based on different scenarios, BEFORE you analyze results
  - What if results show little effect on outcome(s)?
  - What if results show a very strong effect on outcome(s)?
  - What if results are not interpretable?

- This step may result in your rethinking/redoing what you planned to do

- NOTE: based on your HLC reaffirmation review, avoid using improvements of assessment methods in the "improvement" column of your report; you need to focus on making changes designed to improve student learning.

TYPES OF IMPROVEMENTS: SLOs

- Improvements on how your program is designed
  - Are participants exposed to all the information they need?
  - Is the information presented in a useful way?
  - Are the individuals involved in the program well-trained and capable?
  - What has been included that is irrelevant?
  - Are courses and any prerequisites arranged appropriately?
  - Etc.
- Changes to how the program is implemented (program implementation)
  - Are we the correct information, in the right order?
  - Do we have all the necessary resources?
- Changes to content of program(s)
- Changes of instructors, of instructional materials and resources for instruction

TYPES OF IMPROVEMENTS: BUSINESS OUTCOMES

- Process redesign/improvement
  - Requires that you rethink how you are currently doing things
  - Look for unnecessary steps, redundancy, assignment of personnel, etc.

- Staff Training/Development

- Appropriate Staff Assignments
  - Use of student workers (add OR eliminate)
  - Overwork and/or underwork

- Technology and/or business machine improvements

- DON'T: just say "we will improve" these things; be specific regarding HOW you will improve (be prepared to present a plan to executives/administrators regarding what you will need to implement changes)

CAUTION: "EXPECTED ACHIEVEMENT LEVELS"

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THE ISSUE/POSSIBLE PROBLEM WITH EXPECTED ACHIEVEMENT LEVELS

- Why is it done?
  - To set expectations for acceptable performance levels for each outcome

- Why Not?
  - If expectations are not set in a very systematic and realistic way (i.e., both high enough and not too high), then programs can be misled regarding their performance.
    - Setting criteria too low gives false impression that all is well; setting criteria too high gives false impression that there is serious trouble.
  - *Even if* criteria are set in a systematic and realistic way, the very idea of "criteria" works against the underlying purpose of formative assessment: to continuously improve the program's SLO performance.
    - If criteria are reached, then staff no longer try to improve performance
    - Even if 100% achievement, then think about setting higher expectations.
    - Why not have an expected achievement level like this: "Performance will improve compared to the prior year."

What should CSU Pueblo do regarding setting criteria?

- Realize that in a practical sense many/most reviewers will expect to see these criteria, SO

- At least make sure that you are engaging staff in a systematic and realistic way to set them, AND

- Revisit these criteria on a regular basis.

- *At all costs, avoid saying "no improvement(s) necessary" unless ALL your students are performing at the highest possible level! At that point, move on to a new SLO!*

THANK YOU! AND, ANY ADDITIONAL QUESTIONS?

Gerry Dizinno, Ph.D.

Gerry.Dizinno@utsa.edu