

# UNT

# HEALTH<sup>TM</sup> SCIENCE CENTER



## Introduction to Assessment

**Office of Strategy &  
Measurement**

# Assessment Learning Objectives

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- At the end of this session, participants should be able to:
  - Describe the purpose and importance of assessment
  - Distinguish the differences between student learning goals and program goals
  - Create goals, performance measures and targets for their respective program areas

# Assessment Defined

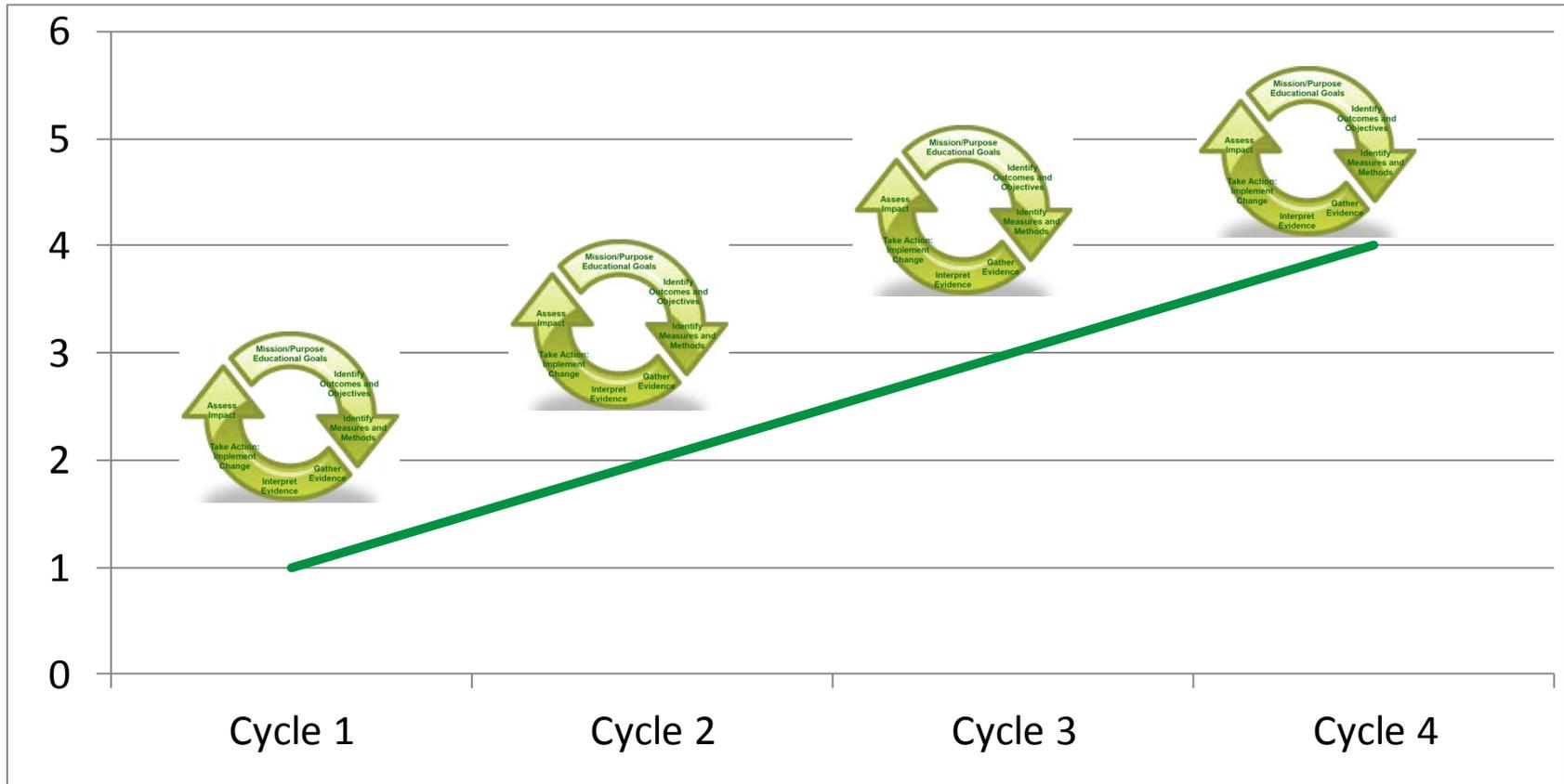
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Assessment is a systematic process of establishing goals, performance measures and targets and gathering and interpreting findings to discover whether a program is meeting established goals and then using that information to develop actions and tactical initiatives for program improvements.

# Assessment Cycle



# Assessment is an Iterative Process



# Why Conduct Assessment?

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- Internal Considerations
  - Measure progress toward long-term (strategic) goals
  - Measure short-term (tactical) objectives or targets at the program level
- External Considerations
  - Meet the demands of accreditors and other external regulators for documentation of outcomes

# Assessment Questions

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- Efficiency
  - Are you doing things right?
  - Process
  
- Effectiveness
  - Are you doing the right things?
  - Outcomes

# SACSCOC Requirements

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- Core Requirement 2.5—Institutional effectiveness
- Comprehensive Standard 3.3.1—Institutional effectiveness (program assessment—continuous improvement)
- Federal Requirement 4.1—Student achievement

# Comprehensive Standard 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 each of the following areas: **(Institutional Effectiveness)**
  - CS 3.3.1.1—educational programs, to include student learning outcomes
  - CS 3.3.1.2—administrative support services
  - CS 3.3.1.2—academic and student support services
  - CS 3.1.1.4—research within its mission, if appropriate
  - CS 3.1.1.5—community/public service within its mission, if appropriate

# Expectations for Compliance

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- Processes in place
- Processes are being used
  - Data collected
  - Actions taken
- Records available
- Multiple cycles

# Goals

- A **Goal** *describes a desired result related to your mission that supports institutional goals and strategies*
- A goal statement defines what you expect to happen because of your activities



# Define Desired Outcomes

- Student learning outcome
  - Specific type of program or course outcome that describes the intended learning outcomes that students must meet on the way to attaining a particular degree or completing a course
  - Things we want students to know, think or do when they complete a course or program
  - Example: Students will demonstrate competent use of critical thinking skills
- Program/operational outcome
  - Type of outcome that addresses program, operational or procedural tasks, such as completion rates, efficiency or satisfaction
  - Example: Students will successfully complete the program (e.g., completion rates)

# Student Learning Goal

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- A **Student Learning Goal** is a statement regarding knowledge, skills, and abilities students should gain or enhance because of their engagement in an academic program or other structured learning experience
- Student Learning Goals are the most important goals for an academic program

# Program Goals

- A **Program Goal** is a statement of what your program will accomplish in support of institutional goals and strategies
- **Process goals** concern the accomplishments of your unit's functions, such as:
  - level or volume of activity
  - efficiency with which you conduct the processes
  - compliance with external standards or regulations
- **Goal statements** describe how those you serve are affected or how they rate their satisfaction with your unit's processes or services

# Measuring Outcomes

- Should provide an objective means of quantifying the outcomes, quality, efficiency or productivity of programs
  - Should indicate how you will measure each of your outcomes
  - Should indicate when you will measure each outcome
- Example: Critical thinking is assessed in a final “assignment” by applying a rubric to assess the student’s ability to (1) analyze and evaluate sources, (2) synthesize information to support an argument, and (3) reach appropriate conclusions

# Performance Measures

- A Performance Measure identifies evidence and methods you will use to determine whether you are achieving expected results
- Performance Measures need be quantitative and show performance compared to criteria for success in relation to expected outcomes/objectives

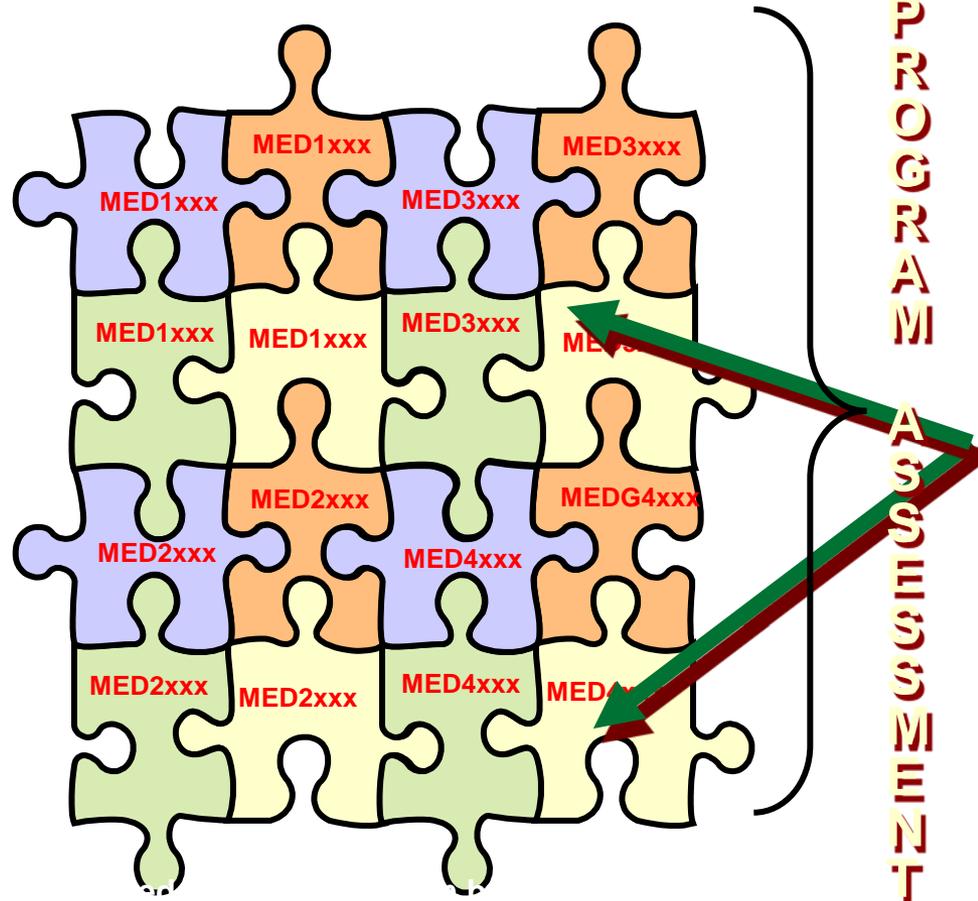


# Assessment Methods

- Student learning
  - **Direct measures** evaluate the competence of students
    - Exam subscores, rated portfolios, employer ratings
  - **Indirect measures** evaluate the perceived learning
    - Student perception, self-assessment
- Curriculum
  - Methods used to check alignment of curriculum with outcomes
    - Curriculum mapping

# Student Learning Outcomes Assessment

## Courses in the Curriculum



## Learning Outcomes

- Oral communication
- Written communication
- Teamwork skills
- Clinical skills
- Ethics
- Discipline knowledge
- Professional skills
- Performance skills

# Assessment Methods

- Performance-based related to outcomes (not overall grades)
  - Locally-developed exams
  - Standardized exams with sub-scores
  - Rubrics
  - Comprehensive exams
  - Thesis/dissertation
  - Clinical activities
  - Internships
- National surveys
- Locally-developed surveys

# Assessment Matrix: Link the “Method” with the “Outcomes”

Outcomes	Graduating Student Survey	Capstone Course (exam, rubric)	Portfolio (rubric)	Focus Group
Satisfaction with advising	<b>Direct</b>			<b>Indirect</b>
Skills and knowledge	<b>Indirect</b>	<b>Direct</b>	<b>Direct</b>	<b>Indirect</b>
Communication skills		<b>Direct</b>	<b>Direct</b>	<b>Indirect</b>

# You Might Need a Rubric If...

- You are getting carpal tunnel syndrome from writing the same comments on almost every student paper
- Students often complain they can't read the notes you labored so long to produce
- After grading, you are worried that the last ones graded may have been graded differently than the first ones.
- You give a long narrative description of the assignment in the syllabus, but students continue to ask about your expectations
- You work with colleagues designing a common assignment for program courses but wonder if your grading scales are different

[See Stevens, D.D. and Levi, A.J., *Introduction to Rubrics*, Stylus Publishing, 2005]

# What Is a Rubric?

- Scoring tool that lays out specific expectations for an assignment
  - Papers, speeches, problem solutions, portfolios, clinical cases, etc.
  - Detailed description of performance standards
- Used to get consistent scores across all students
- Allows students to be aware of expectations for performance and consequently improve performance
  - Provide students with rubric at time of assignment

# Advantages of a Rubric

- Create objectivity and consistency
- Clarify criteria in specific terms
- Show how work will be evaluated and expectations
- Promote student awareness
- Provide benchmarks

# Types of Rubrics

- Holistic
  - Single score based on overall impression of work
  - Quick score
  - No detailed information
- Analytic
  - Specific feedback along several dimensions
  - Scoring more consistent across students and graders
  - More time consuming to score

# Holistic vs. Analytic Rubrics

- Holistic rubric

<b>Proficient-</b> 3 points	The student's project has a hypothesis, a procedure, collected data, and analyzed results. The project is thorough and the findings are in agreement with the data collected. There may be minor inaccuracies that do not affect the quality of the project.
<b>Adequate-</b> 2 points	The student's project may have a hypothesis, a procedure, collected data, and analyzed results. The project is not as thorough as it could be; there are a few overlooked areas. The project has a few inaccuracies that affect the quality of the project.
<b>Limited-</b> 1 point	The student's project may have a hypothesis, a procedure, collected data, and analyzed results. The project has several inaccuracies that affect the quality of the project.

- Analytic rubric

Criteria	4 points	3 points	2 points	1 point
<b>Has a plan for Investigation</b>	The plan is thorough	The plan is lacking a few details	The plan is missing major details	The plan is incomplete and limited
<b>Use of Materials</b>	Manages all materials responsibly	Uses the materials responsibly most of the time	Mishandles some of the materials	Does not use materials properly
<b>Collects the Data</b>	Thorough collection	Some of the data	Major portions of the data are missing	The data collection consists of a few points

# Essential Parts of a Rubric

- Task description (the assignment) or clear reference to where it can be found
  - Include descriptive title
- Scale
  - Levels of achievement (qualitative/quantitative)
  - Generally no more than five levels of performance
- Dimensions of the assignment (criteria)
  - Breakdown of the skills/knowledge involved in the assignment
  - Generally no more than seven dimensions
- Description of what constitutes each level of performance (standards)

# Types of Scales

- Needs improvement ... Satisfactory ..Good ... Exemplary
- Beginning ... Developing ... Accomplished ... Exemplary
- Needs work ... Good ... Excellent
- Novice ... Apprentice ... Proficient ... Distinguished
- Milestones: Knows ... Knows how ... Shows how ... Does
- Numeric scale over some range (e.g., 1 to 5)

# Steps in Developing a Rubric

- Define the assignment (topic, process, and product students are expected to produce)
- Determine and define key dimensions (criteria) of interest
- Decide on type of rubric
- Develop scoring scale
  - Define number of levels
  - Analytic scoring scale should be consistent across all key dimensions
- Establish detailed standards of performance for each dimension
  - Think of how you would describe low, middle, and high
  - Avoid comparative language

# Report Writing Rubric

Standards

Outcomes/ Criteria

Attribute	6	5	4	3	2	1	Points Earned	Comments
<b>Ideas</b>	The topic, focus, and supporting details make the report truly memorable. A great variety of sources is used.	The report is informative with a clear focus. Supporting details come from many sources.	The report is informative with a clear focus and supporting details, but a greater variety of sources is needed.	The focus of the report needs to be clearer. More supporting details are needed, and more types of sources should be used.	The topic needs to be narrowed or expanded. The report needs to show the research that was done.	A new topic needs to be selected, and research needs to be done.		
<b>Organization</b>	The organization makes the report very informative and makes sources easy to find.	The beginning is interesting. The middle supports the focus. The ending works well. Text citations are correct and match the works-cited page.	The report is divided into a beginning, a middle, and an ending. Some text citations are used. A works-cited page is included, and most entries are correctly formatted.	The beginning or ending is weak. The middle needs a paragraph for each main point. More citations should be used, and their form should be correct. The works-cited page needs to correctly list all sources cited in the report.	The beginning, middle, and ending all run together. Text citations and a works-cited page are needed.	The report should be reorganized.		
<b>Voice</b>	The voice sounds confident, knowledgeable, and enthusiastic. Quotations from other sources demonstrate strong understanding.	The voice sounds knowledgeable and confident, and sources are quoted appropriately.	The voice sounds well-informed most of the time. The report uses too many or too few quotations from other sources.	The voice sometimes sounds unsure. Some quotations from other sources are inappropriate or awkward.	The voice sounds unsure and needs to quote other sources.	The voice cannot be heard.		
<b>Word Choice</b>	The word choice makes the report very clear, informative, and enjoyable to read.	Specific nouns and action verbs make the report clear and informative. Unfamiliar terms are defined.	Some nouns and verbs could be more specific. Unfamiliar terms are defined.	Too many general words are used. Specific nouns and verbs are needed. Some words need to be defined.	General or missing words make this report hard to understand.	Many more specific words are needed.		
<b>Sentence Fluency</b>	The sentences flow smoothly and are enjoyable to read.	The sentences read smoothly. A variety of sentences is used.	Most of the sentences read smoothly, but more variety is needed.	Many short, choppy sentences need to be combined to make a better variety of sentences.	Many sentences are choppy or incomplete and need to be rewritten.	Most sentences need to be rewritten.		
<b>Conventions</b>	Punctuation and grammar are correct. Spelling is correct.	The report has a few minor errors in punctuation, spelling, or grammar.	The report has several errors in punctuation, spelling, or grammar.	Some errors are confusing.	Many errors make the report confusing and hard to read.	Help is needed to make corrections.		

Comments

<b>Total Points</b>	0
<b>Possible Points</b>	36
<b>Grade</b>	<b>0.00%</b>

# Report Writing Rubric

Attribute	6	5	4
<b>Ideas</b>	The topic, focus, and supporting details make the report truly memorable. A great variety of sources is used.	The report is informative with a clear focus. Supporting details come from many sources.	The report is informative with a clear focus and supporting details, but a greater variety of sources is needed.
<b>Organization</b>	The organization makes the report very informative and makes sources easy to find.	The beginning is interesting. The middle supports the focus. The ending works well. Text citations are correct and match the works-cited page.	The report is divided into a beginning, a middle, and an ending. Some text citations are used. A works-cited page is included, and most entries are correctly formatted.
<b>Voice</b>	The voice sounds confident, knowledgeable, and enthusiastic. Quotations from other sources demonstrate strong understanding.	The voice sounds knowledgeable and confident, and sources are quoted appropriately.	The voice sounds well-informed most of the time. The report uses too many or too few quotations from other sources.

# Example Rubric Results

	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	Student 7	Student 8	Student 9	Student 10
<b>Ideas</b>	6	2	3	6	3	5	1	5	6	3
<b>Organization</b>	5	6	5	5	5	5	2	3	5	2
<b>Voice</b>	5	5	4	6	4	5	5	6	6	5
<b>Word Choice</b>	6	4	4	6	3	5	3	4	6	2
<b>Sentence Fluency</b>	3	2	2	3	2	2	1	2	4	2
<b>Conventions</b>	5	4	3	6	6	5	3	4	4	5

# Portfolios

- Collection of student work for the purpose of demonstrating learning or showcasing best work
- Types
  - Growth—show student progress or growth over time
  - Presentation—show student's best work or final accomplishments
  - Evaluation—record student's achievement for grading or placement purposes
- Typically assessed using a rubric

# Portfolio Pros and Cons

- Strengths of portfolios
  - Promotes student engagement
  - Documents change in performance over time
  - Assess student's work holistically
  - Student opportunity for reflection and evaluation of own work
  - Peer review possible
  - Flexible options that promote individualization
- Weaknesses of portfolios
  - More time required for planning and coordinating
  - Students may require more guidance from instructor
  - Inappropriate for measuring student's factual knowledge

# Resource Links

- Rubrics
  - <http://ctl.utexas.edu/assets/Evaluation--Assessment/Using-Rubrics-to-Grade-Student-Performance-10-15-07.pdf>
  - <http://ctl.utexas.edu/>
- Portfolios
  - <http://www.utexas.edu/academic/ctl/assessment/iar/students/plan/method/portfolios.php>

# Other Resources

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- Internet Resources for Higher Education Outcomes Assessment
  - <http://www2.acs.ncsu.edu/upa/assmt/resource.htm>
- UCF Operational Excellence and Assessment Support Office
  - <http://www.assessment.ucf.edu/>

# Targets

- Targets represent the desired level of success on a given measure for an outcome/objective
  - Exact target level [e.g., 85% of oral presentations rated by a panel of reviewers will be scored at or above the “Acceptable” level]
  - A benchmark based on internal or external standards [e.g., the average turnaround time for a transcript request]



# Targets

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- Consider TWO targets:
  - Minimum performance level target
  - Desired (stretch) performance level targets

# Results

- Results are the findings of your assessments; they give evidence of achievement versus a target level for each measure you use
- For Student Learning Goals, results detail how students performed on the measure
- For Program Goals, results usually describe performance of the program itself on the measure



# Action Plans

- An **Action Plan** is an organized activity you undertake to help your program more effectively achieve its intended outcomes/objectives in support of institutional strategies
- Based on results compared to the desired target performance level for a goal, you should develop an Action Plan to address any shortcomings or to attain higher levels of achievement



# Additional Information

(on OSM website)

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- Indicators of Learning
- Assessment Indicators for Administrative and Service Departments
- Writing Program, Process, and Performance Goals

# Questions?

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- Contact:  
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