

Goals and Objectives – What’s the Difference Anyways?

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Disclaimer

- Presenters are **NOT** experts in this subject area
- We are interested in:
 - sharing what we have learned regarding goals and objectives writing
 - facilitating discussion

Goals and Objectives

After completing this webinar, participants will be able to:

- Describe the difference between traditional and outcome based learning
- Differentiate between an outcome, a goal and an objective
- Explain the importance of using educational taxonomies to organize learning objectives
- Compose outcome based objectives
- Recognize the importance of having evaluation forms that reflect stated objectives

Traditional vs Outcome Based Teaching

Traditional Teaching Methods

Traditionally teachers asked: What topics or content do I teach? What teaching methods do I use? How do I assess to see if the students have taken on board what I have taught them?

Outcome Based Teaching Methods

Outcome based teachers ask: What do I intend my students to be able to do after my teaching that they couldn't do before, and to what standard? How do I supply learning activities that will help them achieve those outcomes? How do I assess them to see how well they have achieved them?

- J Biggs and C Tang

2006 vs 2010 Standards

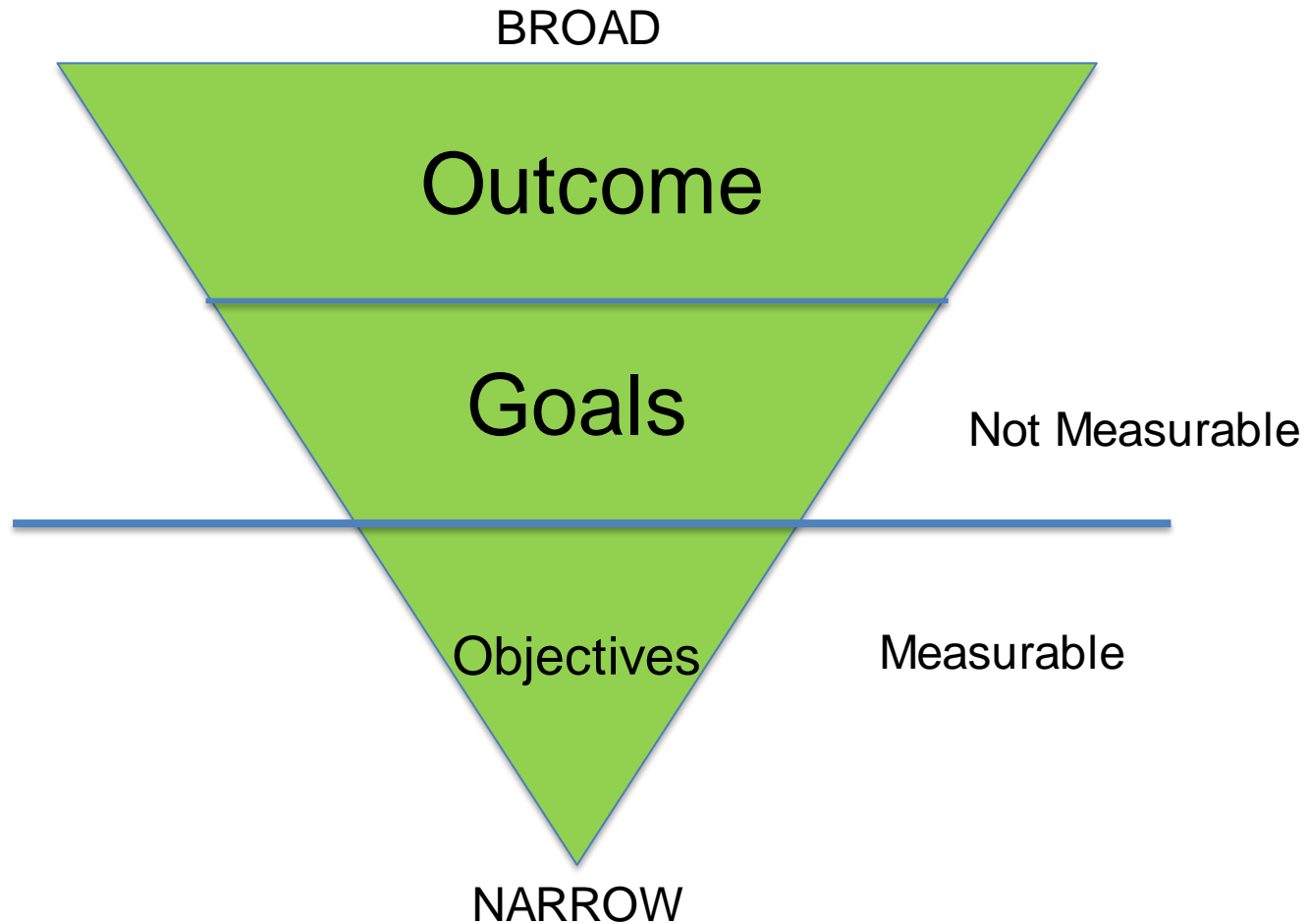
- Curriculum based
 - What must be taught
 - Focus on process, procedures
 - One best way
 - “exposure”
- Competency based
 - Desired end performance
 - Focus on results, outcomes
 - Many possible ways
 - “immersion”

Z. Austin. Gap Analysis Toolkit: Proceedings of the 5th CHPRB Workshop Supporting the Accreditation Standards 2010. CSHP PPC 2009.

Models of Training

- **Traditional residency programs:**
 - Checklists
 - Completed tasks
 - Finish one rotation, move on to the next
- **Outcome based residency programs:**
 - Demonstrate a skill at a designated level of performance
 - Continuum of development

Outcome Based Measures



Outcomes

Outcomes: Statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course or program.

- reflect broad conceptual knowledge and adaptive skills
- reflect essential knowledge, skills or attitudes
- focus on *results* of the learning experiences
- reflect the desired end of the learning experience, not the means or the process
- represent the *minimum* performances that must be achieved to successfully complete a course or program
- answer the question, "What should my resident be able to do and to what standard at the end of the program?"

CPRB Residency Program Outcomes

Educational outcomes of a pharmacy practice residency include minimally:

- Providing evidence-based direct patient care as a member of interprofessional teams
- Managing and improving the medication-use process
- Exercising leadership
- Exhibiting skill in managing one's own practice of pharmacy
- Providing medication and practice-related education
- Demonstrating project management skills

Accreditation Standards © 2010 Canadian Pharmacy Residency Board

Consider what additional educational outcomes are important for your resident

Defining Outcomes for Residency Graduates

- What do you picture when you envision this person?
- What types of patients are they able to manage effectively?
- What types of drug-therapy problems can they confidently identify, prevent and resolve?
- How should their care plans look?
- How often do they consult with their colleagues?
- How do they interact with their peers?
- How do they interact with the other members of the team?
With patients?

Goals

Goal: A statement that describes in broad terms what the learner will gain from instruction

Example

Students will gain an appreciation of the role of the dietician in the health care system

Objectives

Objective:

A statement in *specific* and *measurable* terms that describes what the learner will be able to DO as a result of engaging in the learning activity

- A performance you want them to exhibit before you consider them competent
- Describes the end RESULT, rather than the PROCESS

Example:

Resident will describe 3 characteristics that make the dietician distinctive from other specialties in the health system (paraphrase in own words)

Goals vs. Objectives

Goals	Objectives
Goals are broad	Objectives are narrow
Goals are general intentions	Objectives are precise
Goals are intangible	Objectives are tangible
Goals are abstract	Objectives are concrete
Goals are generally difficult to measure	Objectives are measurable

Tools for Objective Writing

- Taxonomies of Learning
 - Verb selection
- Domains of knowledge
 - Identifies the object of the verb
- Techniques for putting it all together
 - SMART
 - ABCD

Taxonomies of Learning

- Taxonomies are classification systems used to define and distinguish different levels of human cognition
 - SOLO taxonomy (1982)
 - Bloom's taxonomy (1956)

Polling Question

Question:

Are you familiar with Bloom's or SOLO's taxonomies and how they apply to writing effective learning objectives?

Answers:

1. I'm familiar with Bloom's taxonomy
2. I'm familiar with SOLO's taxonomy
3. I'm familiar with both but haven't used either
4. I'm not familiar with either taxonomy

Why Taxonomies of Learning?

- Better Learning
- Increased motivation
- Better performance on assignments and tests
- Focused and strategic teaching
- Strategic Assessment

SOLO Taxonomy

Structure of Observed Learning Outcomes

A means of classifying learning outcomes in terms of their complexity, enabling us to assess students' work in terms of its *quality* not of how many bits of this and of that they got right

SOLO Taxonomy

The FIVE stages of the SOLO Taxonomy:

- **Pre- Structural:** here students are simply acquiring bits of unconnected information, which have no organization and make no sense. Student misses the point.
 - eg. I'm not sure about.....
- **Unistructrual:** Simple and obvious connections are made, but their significance is not grasped.
 - eg. I have *one* relevant idea about....
- **Multistructural:** A number of connections made, but the meta-connections between them are missed, as is their significance for the whole.
 - eg. I have several ideas about....

SOLO Taxonomy

- **Relational:** The student is now able to appreciate the significant parts in relation to the whole
 - eg. I have several ideas about.... I can link them to the big picture...
- **Extended Abstract:** The student is making connections not only within the given subject area, but also beyond it, and to generalize and transfer the principles and ideas underlying the specific instance
 - eg. I have several ideas about... I can link them to the big picture... I can look at these ideas in a new and different way...

SOLO Taxonomy

- Supports students to reflect on their own thinking
- Helps teachers thoughtfully shape learning intentions and learning experiences
- Makes it easy to identify and use effective success criteria
- Provides feedback with regards to learning outcomes
- It helps students to reflect meaningfully on what the next steps of their learning are

Bloom's Taxonomy

- There are six levels of learning according to Dr. Benjamin Bloom
- The levels build on one another
- Level one is the lowest level of thinking
- Level six is the highest level of thinking

Three Domains of Knowledge

- Once you have determined the appropriate verb to use in your learning objective, you must identify the object of that verb
 - Cognitive (concepts, **knowledge**)
 - Performative (**Skills** and abilities)
 - Affective (values, **attitudes**)

Polling Question #2

Question:

What technique do you use when writing your learning objectives?

Answers:

1. SMART technique
2. ABCD technique
3. I have not consciously considered a consistent technique
4. I have not been involved in writing learning objectives

How Do You Design SMART Learning Objectives?

S	specific, significant (Who? What?). Should specify what you want to achieve
M	measurable, meaningful, methodical (How?). Should be able to measure whether you are meeting the objectives or not
A	achievable, appropriate, action-oriented, attainable Are the objective set achievable and attainable?
R	realistic, relevant, results-oriented, rewarding, reviewed Can you realistically achieve the objectives with the resources you have?
T	timely, time-bound, trackable (When?) When do you want to achieve the set objectives

Peter Drucker

The ABCD Method of Writing Learning

A	<u>A</u> udience	Who
B	<u>B</u> ehaviour	What the learner is expected to do (should be observable)
C	<u>C</u> ondition	Conditions under which the performance is to occur
D	<u>D</u> egree	The criteria of acceptable performance (ie. speed, accuracy)

General Rules:

- Only ONE action verb
- Identify SINGLE accomplishments
- Focus on STUDENTS, not faculty or curriculum

Polling Question #3

Question

Is the learning objective “The pharmacy resident shall attend patient care rounds during the medicine rotation” well written?

Answers:

1. Yes
2. No

Verbs to AVOID

“POOR” Verbs	“BETTER” Verbs
To KNOW	To COMPARE/CONTRAST, To DEMONSTRATE
To UNDERSTAND/COMPREHEND	To EXPLAIN
To APPRECIATE	To DISTINGUISH, To DIFFERENTIATE
To JUSTIFY	To APPRAISE/CRITIQUE
To OBSERVE	To INTERPRET
To BE FAMILIAR WITH	To DISCUSS, To EVALUATE

Sinister 16

- Verbs that are passive, internal or otherwise unobservable

Understand	Conscious of
Have knowledge of	Grasp
Comprehend	Know
Aware of	Perceive
Appreciate	See
Accept	Value
Get	Learn
Be familiar with	Apprehend

Tying it all Together

Desired Outcome:

- Beat the opposing team

Goal:

- Player will demonstrate solid defense during the game
- Player will demonstrate solid offense during the game

Objectives:

- Player will hold opponents to 20 or fewer points per quarter
- Player will shoot 70% or better from the free throw line for the duration of the game
- Player will not commit any personal fouls during the game

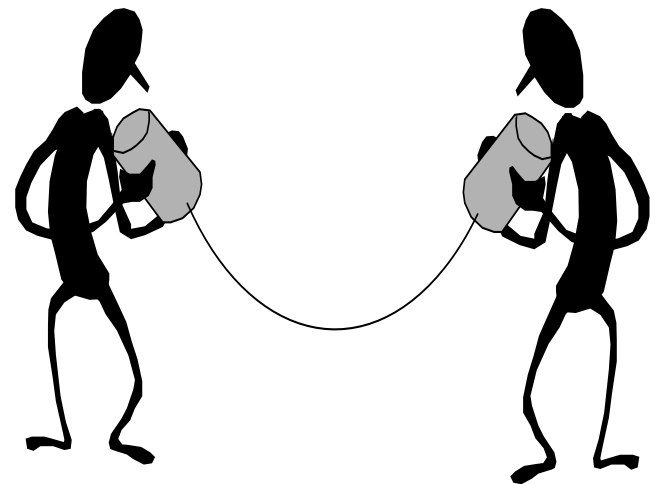
Write Your Own Goals and Objectives

Overall Residency Outcome:

The resident will be an effective communicator

Goals:

Learning Objectives:



Outcome: The Resident Will Be an Effective Communicator

Goals:

- The resident will deliver a presentation during the rotation
- Resident will actively participate in medicine rounds
- The resident will effectively communicate with both patients and healthcare team members

Outcome: The Resident Will Be an Effective Communicator

Learning Objectives:

- By the third week of the respirology rotation, the resident will prepare and deliver a case presentation to pharmacists, that accurately reports a patient case with a focus on medication management
- The resident will discuss drug therapy problems using the body systems approach with the appropriate health care provider on a daily basis during rounds
- The resident will accurately document in the chart, all care plans on patients under his/her care using the “DAP” format after each intervention
- The resident will demonstrate proper inhaler technique to all patients newly prescribed inhalers prior to hospital discharge (between Monday to Friday 8am - 4 pm)

Linking Learning Objectives to Evaluation

- What will the assessment tool I use (verbal examination, essays, project, presentation, etc) tell me about their level of competence on the targeted learning objectives?
- How will my assessment of their work help guide students' practice and improve the quality of their work?
- How do I ensure the assessment actually evaluates the stated objectives?

Performance Rubric

- A rubric is a scoring tool that explicitly represents the performance expectations for an assignment or rotation
- Grading rubrics are valuable to students. A rubric can help preceptors communicate to students the specific requirements and acceptable performance standards of a rotation
- A scoring rubric can also provide a basis for self-evaluation and reflection for residents

Evaluation Form (Rubric):

NEEDS REMEDIATION	DEVELOPING BUT WEAK	DEVELOPING	DEVELOPED	WELL DEVELOPED	NOT OBSERVED
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3. COMMUNICATION SKILLS – Map to Goal >>>>>

<p>Verbal Communication with: Patients and Caregivers Other Pharmacists Interprofessional Team</p> <p>Oral Presentation Interviewing Skills</p>	<input type="checkbox"/> Often incomplete, difficult to follow and/or hard to understand and/or inappropriate for the specific audience.	<input type="checkbox"/> Sometimes incomplete, superficial, rambling and not always understandable or inappropriate for the specific audience.	<input type="checkbox"/> Usually complete, adequately organized, usually understandable and appropriate for the specific audience at the designated level of performance*.	<input type="checkbox"/> In most cases appropriately, comprehensively and effectively focussed, organized and delivered; consistently understandable and clearly expressed and appropriate for the specific audience.	<input type="checkbox"/> Always focused, coherently organized, clearly and succinctly expressed and always understandable and appropriate for the specific audience.	<input type="checkbox"/>
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Justify your rating with concrete examples.

<p>Written Communication:</p> <p>Reports and Documentation</p>	<input type="checkbox"/> Often not completely accurate, incomplete, disorganized and/or confusing; not clearly expressed.	<input type="checkbox"/> Sometimes inaccurate, incomplete, disorganized and/or confusing; not consistently presented in a clear, understandable way.	<input type="checkbox"/> Usually accurate, complete, adequately organized, and presented in a clear, understandable way at the designated level of performance*.	<input type="checkbox"/> In most cases, accurate, comprehensive, well developed, organized, and consistently presented in a clear, understandable way.	<input type="checkbox"/> Consistently accurate, comprehensive, coherently organized; excellent command of expression.	<input type="checkbox"/>
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Evaluation

- Justify your rating using concrete examples
 - Very important part of the assessment process
 - Early stages!
 - Residents are being coached to include specific examples on their self-assessments
 - Requires encouragement, coaching to avoid simple, catch all statements vs meaningful examples

Poor Examples	Better Examples
Susan works well with Doctors on the team	Susan demonstrated effective communication in rounds when she provided a complete review of empiric treatment strategies for meningitis using the IDSA guidelines. This led to Dr. Jones changing the therapy for her patient
	Area of improvement: Susan did not document the care plan using DAP format in a timely manner

In Summary

- Begin with the end in mind
 - Start with broad overarching learning outcomes and narrow down to goals
 - Objectives should be specific and measurable
- Pick a taxonomy of learning and remain consistent throughout the curriculum from evaluation forms down to learning objectives
- Use techniques such as SMART and ABCD to ensure your learning objectives are specific and complete
- Assessment methods (presentations, discussions etc) assess whether learning objectives have been achieved, not whether goals or outcomes have been achieved
- Evaluation forms assess progress towards attainment of outcomes and need to link back to rotation goals and objectives

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