

Creating Purposeful Student Learning Outcomes

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Disclosures

- Financial:
 - Employed – University of Texas at Dallas
 - CAPCSD 2019 registration
- Non-financial:
 - Member: Clinical Education Resources, CAPCSD
 - Member: Board of Directors, ACAE
 - Chair Elect: Academic & Professional Standards Council

Participant Learning Outcomes

- Identify benefits of intentional student learning outcomes for a variety of purposes
- Construct purposeful outcomes
- Examine student outcome data at the course and/or program level

Outline

- Terminology/Concepts 101
- Reflecting on the
 - What
 - Why, and
 - Howof learner outcomes
- Examples

Judgment-Free Zone



What's Important?

- What do you want your students to accomplish having attended your program?

TELL ME WHAT YOU WANT, WHAT
YOU REALLY, REALLY WANT.....



What is a Student Learning Outcome?

Statements to specify what students:

- WILL KNOW
- BE ABLE TO DO

After completing an assignment course,
program, degree.....

Program/Institutional Outcomes: broad

Course Outcome: specific

Important Characteristics of SLO

- SLOs reflect goals for

– **Knowledge**

– **Skills**

– *Attitudes*

– *Values*

Important Characteristics of SLOs

- Specify actions/behaviors/outcomes:
 - Observable
 - Measureable
 - Demonstrable

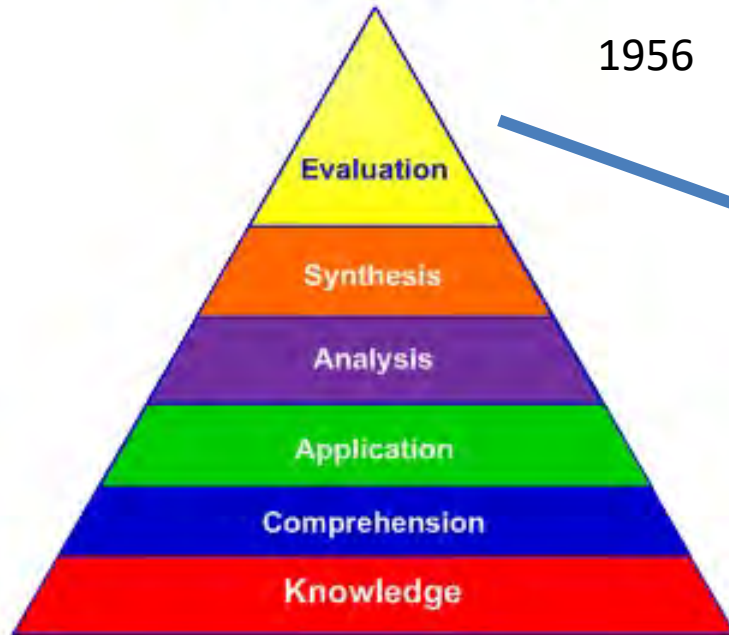
Avoid words that are unclear or reflect internalized concepts that can't be observed:

~~Appreciate; become aware of; know; learn; understand; demonstrate~~

Learning Domains

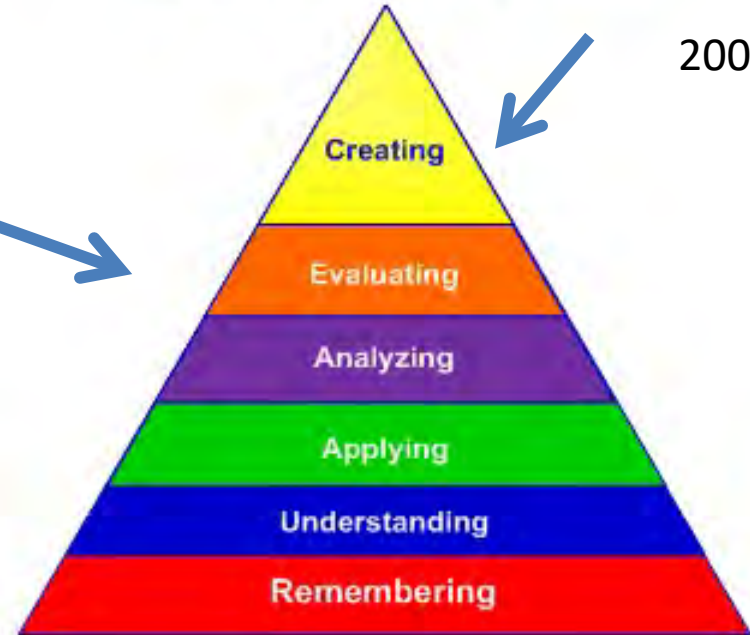
Blooms Taxonomy

1956



Blooms Taxonomy - Revised

2001



Update:

- the importance of “ING”;
- Repositioning of EVALUATION + adding CREATION
- Removal of KNOWLEDGE as separate entity: intersection with all cognitive domains

Anderson, L. W. and Krathwohl, D. R., et al (Eds..) (2001) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA (Pearson Education Group)

Bloom's Taxonomy Revised

6 – Cognitive Processes



4 Knowledge Dimensions	Remember ing	Understand ing	Applying	Analyzing	Evaluating	Creating
Factual						
Conceptual						
Procedural						
Metacog.						
	Recall Identify State Define	Explain Identify Classify Restate Organize	Calculate Apply to.. Interpret Complete Administer	Distinguish Differentiate Examine Compare Solve	Appraise Justify Rate Assess Critique Support	Compose Design Construct

Dimensions of Knowledge Across Cognitive Processes

Anderson, L. W. and Krathwohl, D. R., et al (Eds..) (2001) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA (Pearson Education Group)

- **Factual Knowledge:** pertinent to specific disciplines – the essential facts, terminology, details students must know prior to understand a discipline or solve a problem in it.

Identify the anatomical structures of the auditory and vestibular system (Remembering)

- **Conceptual Knowledge:** classifications, principles, generalizations, theories, models, or structures relative to a particular disciplinary area.

Differentiate the anatomy and physiology of the IHC and OHC (Analyzing)

Develop research questions and experimental designs that adheres to scientific methodology (Creating)

- **Procedural Knowledge:** knowledge that helps students DO something specific to a discipline or area of study; specific methodologies, finite skills, algorithms, techniques.

Summarize the domains of speech-language assessment tools (Remembering)

Implement standardized tests of expressive and reception language with regard to age. (Applying)

- **Metacognitive Knowledge:** awareness of one's own cognition and particular cognitive processes, important for reflection about how to solve problems or tasks to include contextual and conditional knowledge and knowledge of self.

Self-rate clinical performance (Evaluating)

<https://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised/>

Important Characteristics of SLO

- SLOs reflect goals for

- **Knowledge**

- **Skills**

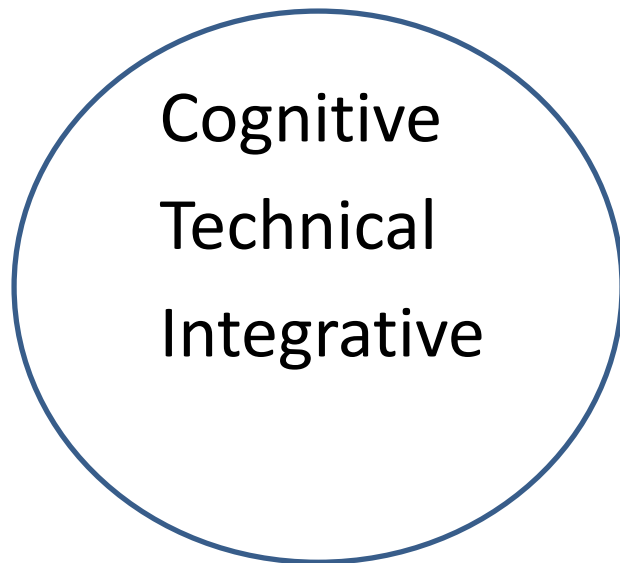
- *Attitudes*

- *Values*

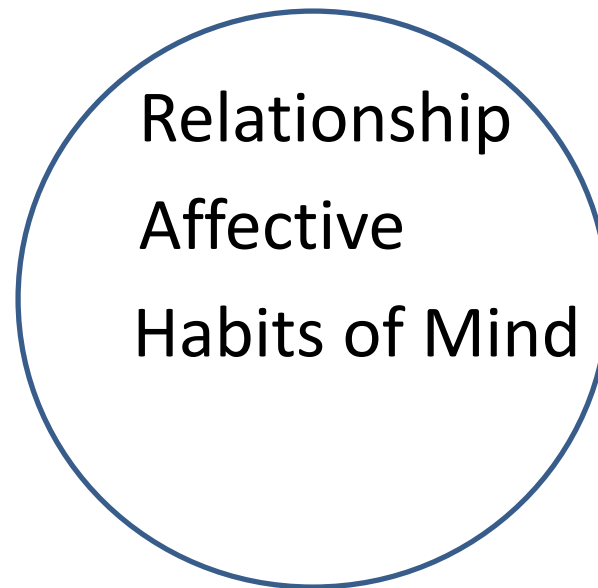
Learning Outcomes-> Professional Competence

Epstein RM, Hundert EM. Defining and assessing professional competence. JAMA. 2002;287(2):226-235.

Dimensions of Professional Competence



Knowledge & Skills



Attitudes & Values

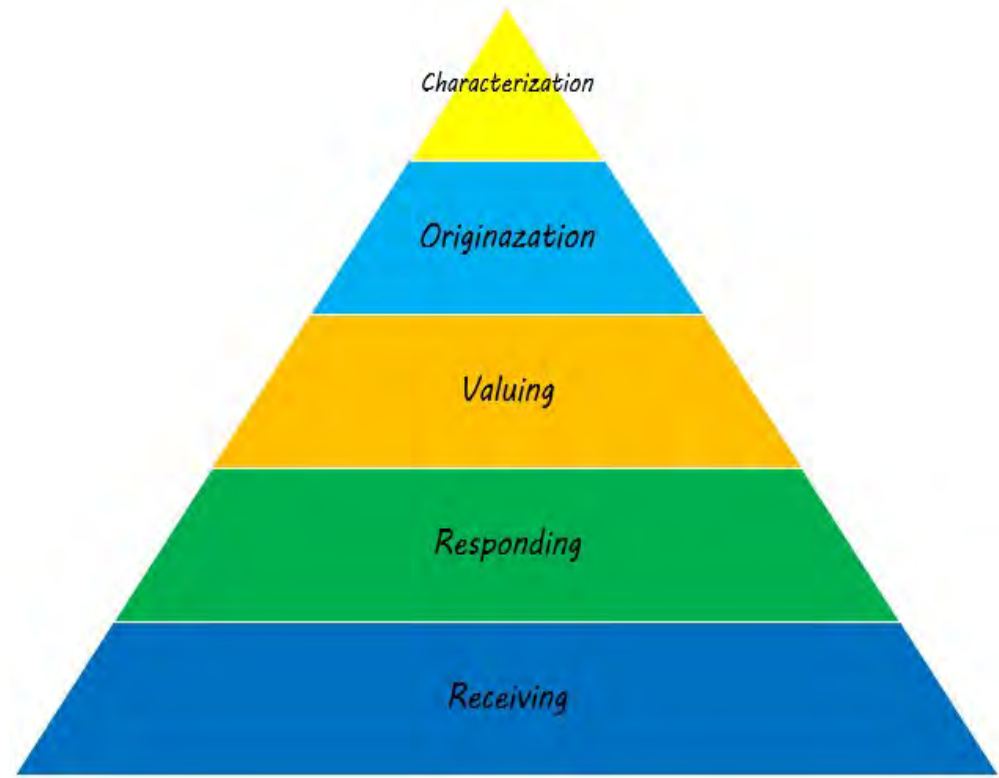
Tell me what you want....

Knowledge and Skills

Attitudes and Values

Affect Domain:

- Affect Domain
 - Attitudes
 - Values



- Internalization..... The process of moving from awareness of an affect to point where it guides your behavior

<http://thepeakperformancecenter.com/educational-learning/learning/process/domains-of-learning/affective-domain/>

Affective Outcomes

- Important in health care delivery & education
 - CARING ATTITUDES
 - Reflective activities
 - Problem-based learning
 - Role model opportunities
 - Communication
 - Community outreach/service learning
 - Leadership education/expectations

Writing/Revising Learning Outcomes

Template for writing learning outcomes:

As a result of students participating in _____,
they will be able to _____.

Learning Outcomes Checklist:

- | | |
|--|-----|
| 1. Does the outcome support the program objectives? | Y N |
| 2. Does the outcome describe what the program intends students to know (cognitive), think (affective, attitudinal), or do (perform)? | Y N |
| 3. Is the outcome important/worthwhile? | Y N |
| 4. Is the outcome: | |
| a. Detailed and specific? | Y N |
| b. Measurable/identifiable? | Y N |
| c. A result of learning? | Y N |
| 5. Do you have or can you create an activity to enable students to learn the desired outcome? | Y N |
| 6. Can the outcome be used to make decisions on how to improve the program? | Y N |

What's the purpose?

- Achieve **project/assignment** objectives
- Achieve **course** objectives
- Achieve **program** objectives
- Understand how to **facilitate student learning**
- **Purposeful feedback to program**

- **Dot the *i***

Getting down to brass tacks



Old

- Evaluate and manage auditory and vestibular disorders
- Critique auditory research
- Identify cultural correlates of communication with patients from diverse cultural/linguistic backgrounds
- Describe professional codes of ethics, laws, regulations.....relevant to profession and practice of audiology

Issues.....

- Objectives and focus on technical and basic aspects of the program
- Lower hierarchy dominated
- Did not provide substantive information or roadmap for growth
- What's important but not measured?

Start at the Top

University Mission

*Provide the state of Texas and the **nation** excellent, innovative **education** and **research**. The University is committed to graduating **well-rounded** citizens whose education has prepared them for **rewarding lives and productive careers** in a constantly changing world; to **continually improving educational and research programs** in the arts and sciences, engineering and management; and to assisting the commercialization of intellectual capital generated by students, staff and faculty.*

UT Dallas Callier Mission

*To transform the lives of those with communication disorders by providing **outstanding, leading-edge clinical services, conducting meaningful and innovative basic and applied research** into new treatments and technologies, and training the next generation of **caring clinical providers.***

Program Mission

- *...guide Audiology students in attaining the **essential knowledge and skills for entry to the practice of audiology**; provide a breadth and depth of **classroom, research and practical experiences consonant with each student's developing interests and career goals**; and supports student preparation through **innovate and collaborative clinical services**, on campus and in the **global community**. The AUD program graduates well-rounded professionals prepared for productive careers in a constantly changing field.*

Strategic Plan

1. Comprehensive, relevant and innovative approach to clinical and academic education
2. Increase the footprint of the AuD program within the university, local, national, and international communities
3. Enhance distinction in research
4. Recruit the highest quality students, clinical and research faculty
5. Promote overall quality of life for AuD students and graduates

Mapping what's important

- Scope of education: academic and practical
- Personal and professional growth
- Culture of caring
- Local and global
- Research

Good SLOs

- Comprehensive
- Serve as a roadmap to program priorities
- Realistic representation of what students gain from program
- Data well connected to stated outcomes
- Clear how data determines if SLO achieved
- Increasing complexity in learning with degree progression

Start with easy....

- Scope of education: academic and practical
- Personal and professional growth
- Culture of caring
- Local and global
- Research

Scope of Practice

- Students will **apply** knowledge of hearing and related sciences to the **evaluation** of normal and abnormal anatomy and physiology of the auditory and vestibular systems and related structures with regard to physical, physiologic and psychosocial effects of changes and disorders throughout the life span.
- **Outcome Data:** Clinical competency procedures and growth for basic and advanced skills per cohort; Performance Assessment of Skills; Competency Checks; Grand Rounds; Case-based comprehensive examinations; Externship Readiness; Exit and Post-Graduate Surveys
- **Progress:** Vestibular assessment; AEP2— increase 30 % over 2 years; Habits of effective patient practitioner interactions

Scope of Practice

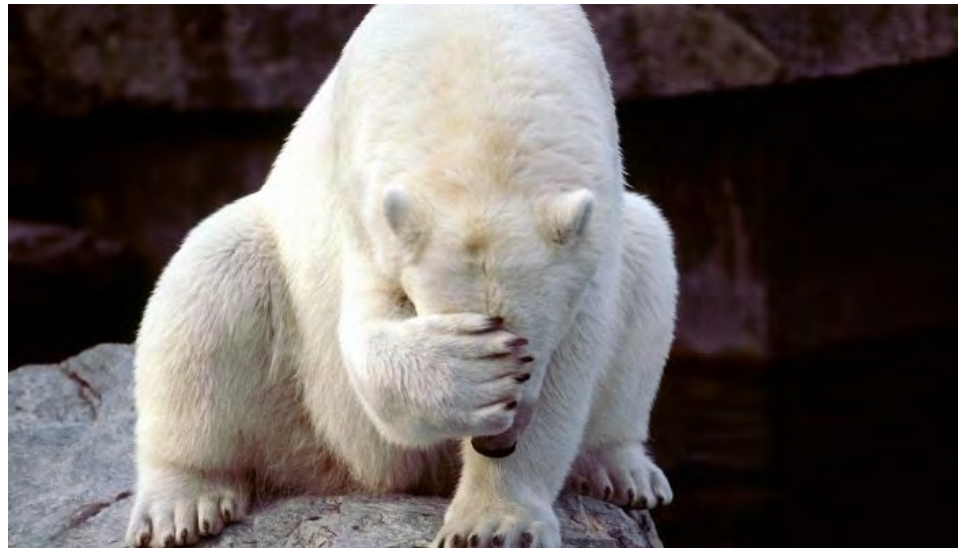
- Students will **apply** knowledge of hearing, behavioral and related sciences to the **treatment** of normal and abnormal anatomy and physiology of the auditory and vestibular systems and related structures with regard to physical, physiologic and psychosocial effects of changes and disorders throughout the life span.
- **Outcome Data**: Clinical competency growth for basic and advanced skills per cohort; Performance Assessment of Skills (PAS); Competency Checks; Case-based comprehensive examinations; Grand Rounds; Externship Readiness; Exit and Post-Graduate Surveys
- **Progress**: QA checks for probe-mic measures; Ear-Canal Management Clinic; access increased over 2 years

Research

- Students will **evaluate** and **critique** research literature in audiology and **implement** a mentored-research project, and report findings in a professional forum
- Students will be prepared to enter a research-doctoral program.
- **Outcome Data:** Completed/rated research projects; peer-reviewed presentations; IJA peer review; Journal Group leadership; NIH training certificates; Exit and Graduate Surveys; 5 –10 % of students seek PhD
- **Progress:** 80 % of Y3 projects presented at state/national meetings

Affect SLOs....

- The Pornography test??????



Affect: Attitudes & Values

- Students will **apply** knowledge of professional code of ethics in clinical practice;
- Students will implement practical guidelines reflecting technical, legal, and financial aspects of daily practice in audiology.
- **Outcome Data:** 3rd year case-based assessment; Coding/Reimbursement via TYPHON clinical tracking system: successful annual HIPAA training; practice-management project in 3rd year Professional Issues; Clinical competency ratings; EXIT/Post-Grad surveys

Affect: Attitudes & Values

- Students will promote **patient, community, and global health and well-being** by participating in professional, **leadership and outreach activities and collaborating with professionals within and across disciplines at local, state, and international levels** in preparation for professional responsibilities and opportunities following graduation.
- **Outcome Data:** Participation rates roles in community outreach/Humanitarian efforts; Peer-mentorship and leadership roles in Camp CHAT, SIARC, Humanitarian, Student Academy of Audiology, # of students participating in inter-professional grants/programs; track diversity of patients across students; competency rating in professionalism, use of culturally sensitive measures; EXIT/Post-graduate surveys to track professional and leadership activities post graduation
- **Progress:** Prevalence of leadership and professional service 5 years post graduation: more than 5 x rate of general membership

What's next....

- Students will maintain a healthy school-life balance, identify stressors that reflect barriers to success and utilize appropriate resources and for stress-management
- Students will engage in financial management throughout their graduate program to sustain reasonable debt.
- **Outcome Data: Utilization of resources; debt-to-salary ratios; Post-graduate surveys**

Conclusions

- Student learning outcomes must be specific and measurable
- Student learning outcomes must be useful and meaningful measures important to the growth of program;
- Evidence produced by outcome measures must enable improvement in student learning and course/program/university
- Align learning outcomes with program goals, program curriculum, and university mission
- Student learning and education priorities include fostering belief and value systems

Questions.... Comments.....



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