Guidelines for Writing Student Learning Outcomes (SLOs)
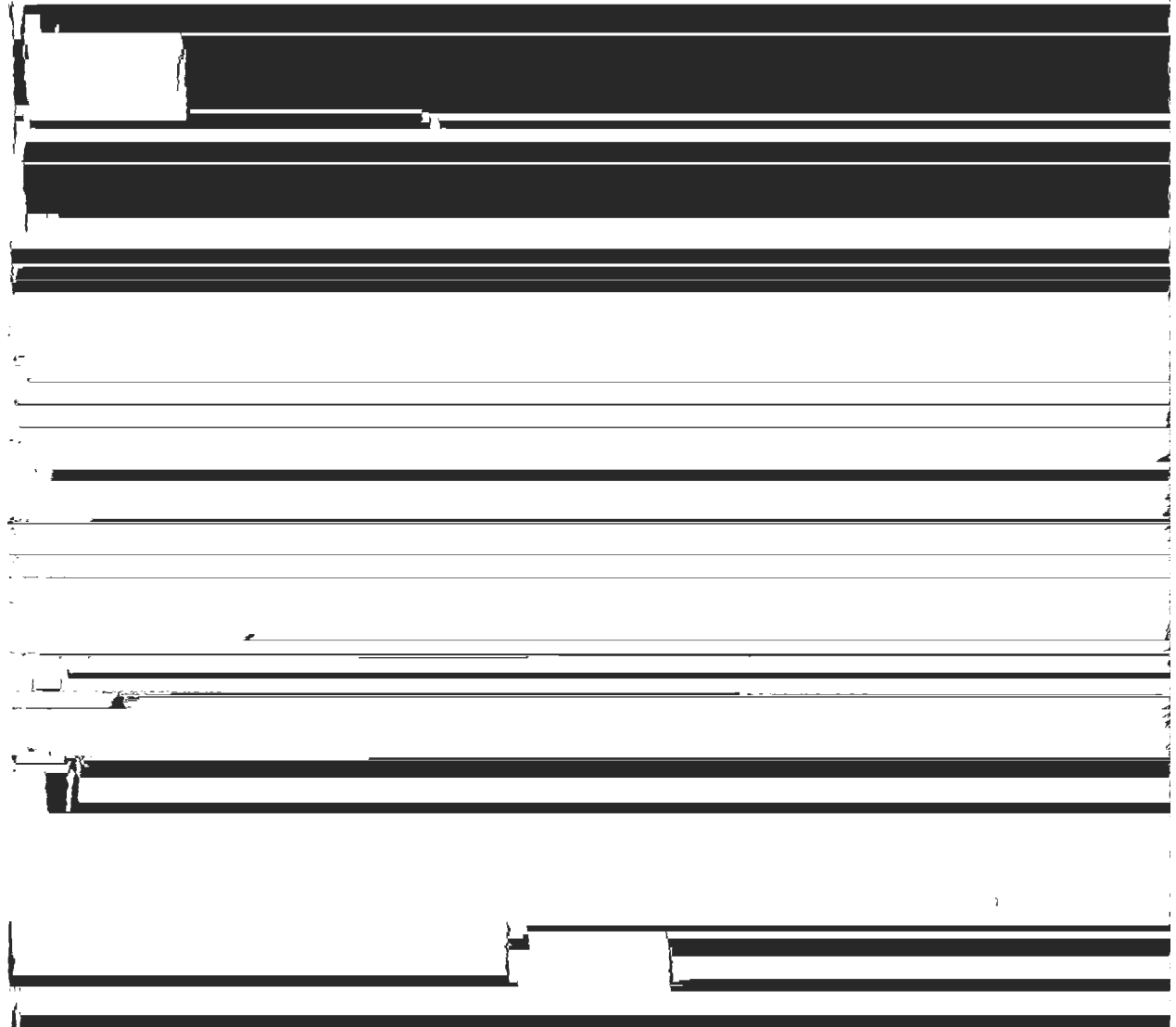
Some Basic Principles about Assessment and SLOs

- "The purpose of assessment is to produce feedback to the department, school/college, or administrative unit on the performance of its curriculum, learning process, and/or services, thereby allowing each unit to improve its programs. It is not an evaluation of individual students or of individual faculty or staff" (UW-Madison).

- Well-written learning outcomes clarify the knowledge, skills and attitudes that faculty want students to learn and how the assessment should be conducted or what kind of data you will need to collect

Goals vs. Outcomes

- **Goals:** general statements about knowledge, skills, attitudes, and values expected in graduates.
  - When identifying learning goals, start with the mission of the organization (college, department

Helpful Verbs for Describing What Students Will Know, Understand, and Do

Use these verb sets to help you write your outcomes. Here we've used the recognizable verbs from Bloom's Taxonomy.[2]

1. **What will my students know?**
   - observe and recall information; knowledge of dates, events, places; knowledge of major ideas; mastery of subject matter

     - Question Cues: *list, define, tell, describe, identify, show, label, collect, tabulate, quote, name, who, when, where,* etc.

2. **What will my students comprehend/understand?**
   - understand information; grasp meaning; translate knowledge into new context; interpret facts, compare, contrast; order, group, infer causes; predict consequences
     - *Question* Cues: *summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend*

3. **What will my students be able to do?**
   - **Application:** use information; use methods, concepts, theories in new situations; solve problems using required skills or knowledge
     - Question Cues: *apply, demonstrate, calculate, complete, illustrate, show, solve, examine*

ASSESSMENT USE OF BLOOM'S TAXONOMY

Bloom's Taxonomy is a well-known description of levels of learning. A taxonomy such as this one may be a useful guide when defining or examining learning objectives for assessment. It is also useful for content analysis of such things as the seemingly simple Minute Paper.

LEVEL	SOME COGNITIVE BEHAVIORS
Evaluation	**Appraisal of own or someone else's Analysis or Synthesis** Exam question at this level: Evaluate another physical therapist's program to strengthen the rotator cuff.
Synthesis	**Assembly of Application** Exam question at this level: Design a physical therapy program to strengthen each component of the rotator cuff.
Analysis	**Disassembly of Application** Exam question at this level: How does the throwing motion stress each component, in turn, of the rotator cuff?
Application	**Use of Understanding** Exam question at this level: Why does throwing a curve ball cause rotator cuff injury?
Understanding	**Management of Knowledge** Exam question at this level: How does the rotator cuff help you to raise your arm?
Knowledge	**Memorization of facts, language, concepts, principles, theories** Exam Question at this level: Name the muscles of the rotator cuff.

Some relevant and useful verbs for assessments at each level appear in the table below. [-after Harding]

Knowledge	Understanding	Application	Analysis	Synthesis	Evaluation	
define	arrange	apply	analyze	arrange	appraise	
identify	classify	compute	calculate	assemble	assess	
indicate	comprehend	construct	categorize	collect	choose	
know	describe	demonstrate	compare	compose	compare	
label	discuss	dramatize	contrast	construct	contrast	
list	explain	employ	criticize	create	decide	
memorize	express	give examples	debate	design	estimate	
name	identify	illustrate	determine	formulate	evaluate	
recall	locate	interpret	diagram	integrate	predict	exa
underline	restate	schedule	experiment	produce	score	
	review	shop	inspect	propose	select	
	suggest	sketch	inventory	set up	value	
	summarize	translate	question	synthesize	weigh	
	tell	use	relate			
	translate		solve			
			test			