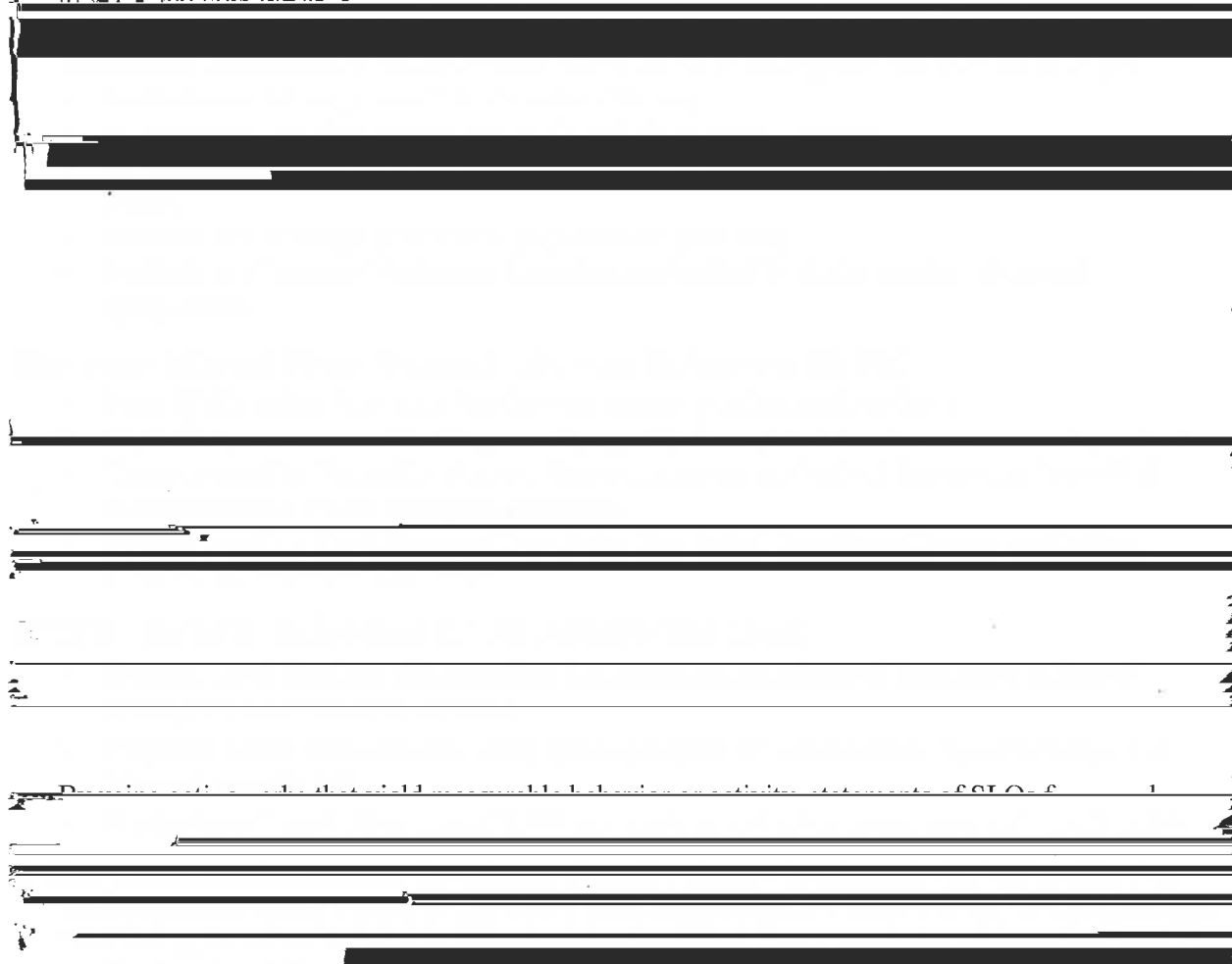


Guidelines for Writing Student Learning Outcomes (SLOs)

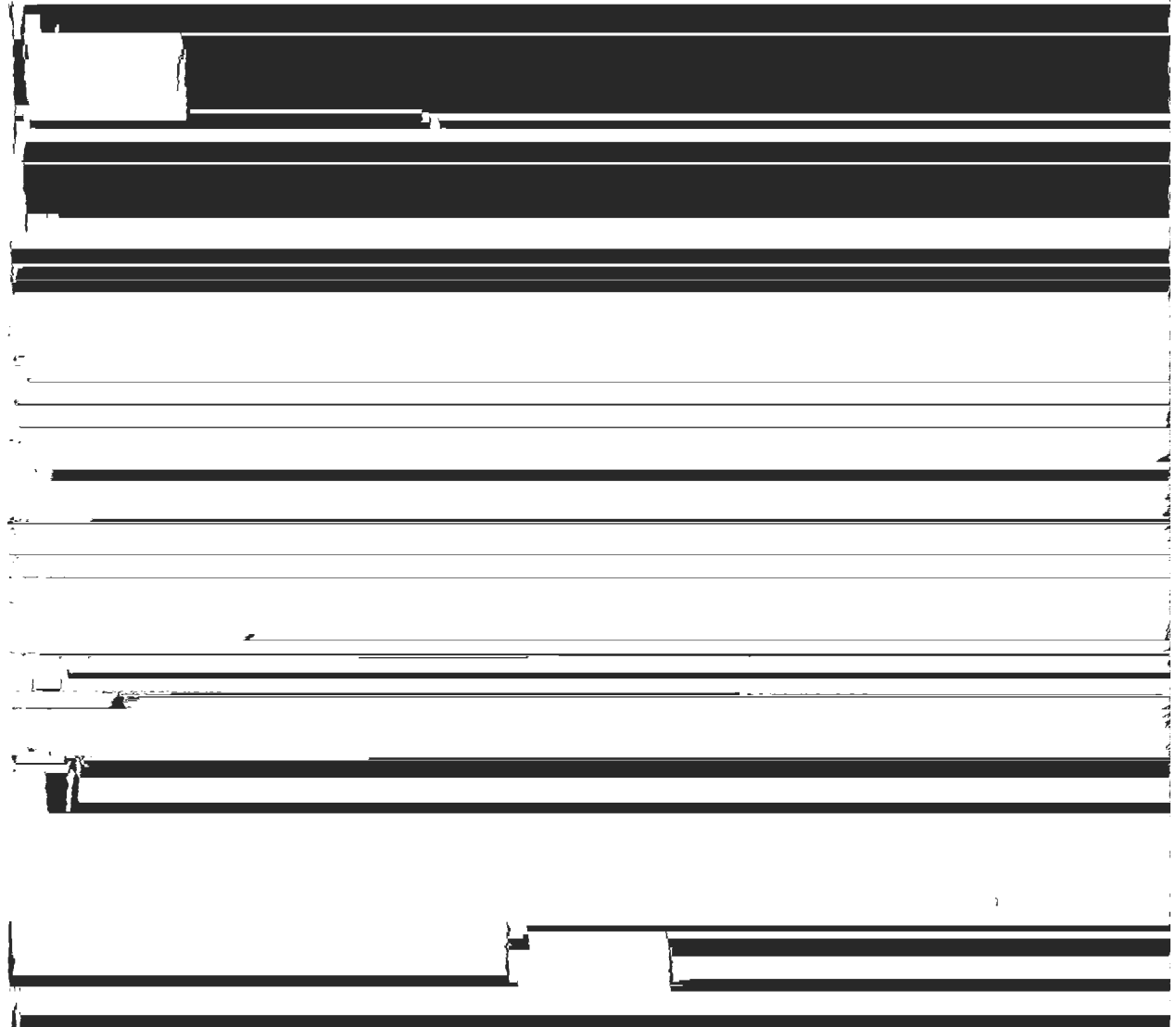
Some Basic Principles about Assessment and SLOs

- “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; memory 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
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		