

# New Teaching Institute

# Assessment



*The University Of*

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T A M P A

# What Is Assessment?

as·sess·ment (noun):

- The act of **making a judgment** about something:  
the act of assessing something

You are making a judgment about the student's

- Competence / ability in **performing** a skill
  - (Psychomotor Domain)
- **Understanding** / grasp of the concepts, content, and strategies
  - (Cognitive Domain)
- **Attitude** about the topic
  - (Affective Domain)

Your judgment about these performances,  
understandings, and attitudes are (should be)  
**based on evidence.**

There are four major ways to gather this evidence  
(assessment methodologies):

**3PT**

# 3PT

- **P**erformance
- **P**ortfolio
- **P**roject
- **T**est

There are also four types  
of tests:

- **P**retest
- **P**osttest
- **P**ractice Test
- **E**ntry-Behavior Tests

**3PE?**

All **tests** should be **Criterion Referenced** [against an objective/standard] Assessment  
(vs. Norm Referenced [against the average behavior])

There are **MANY** ways to assess in face-to-face, hybrid, and online environments, but they all share the core concept of gathering evidence from which to make an evaluative judgment.

Assessment design reflects more than just a need to measure.

Assessment design stems from:

- Our beliefs about how people learn (Learning Theories)
- What we want them to be able to do (objectives)
- How competent they need to be at doing it (Standards)

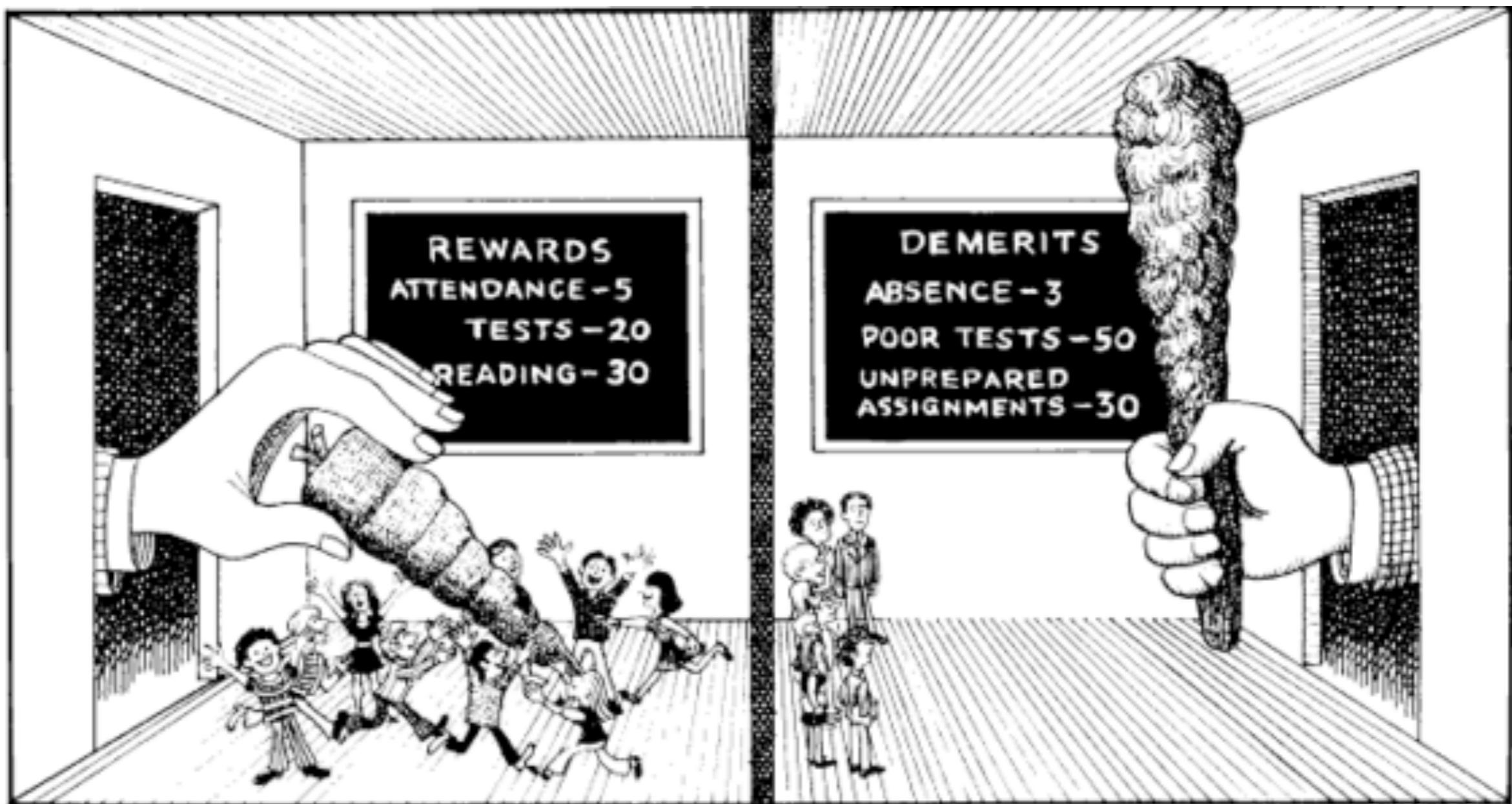
# How Do People Learn?

Different Theories of Learning emphasize different domains / elements in instruction and assessment.

# Behaviorism

“Behaviorism equates learning with changes in either the form or frequency of observable performance. Learning is accomplished when a proper response is demonstrated following the presentation of a specific environmental stimulus.”

- Performance emerges from experiences
- Environment is designed to promote certain experiences over others



# Behaviorist Instructional Design Emphasis

## **PERFORMANCE!**

- Mastery Learning / Task Analysis
- Observable, Measurable Objectives (performance)
  - e.g., perform, produce, list, execute, recite
- Learner Analysis for obtaining current performance and most effective reinforcers
- Sequencing of Instruction by Objectives
- Feedback for Reinforcement/Rewards



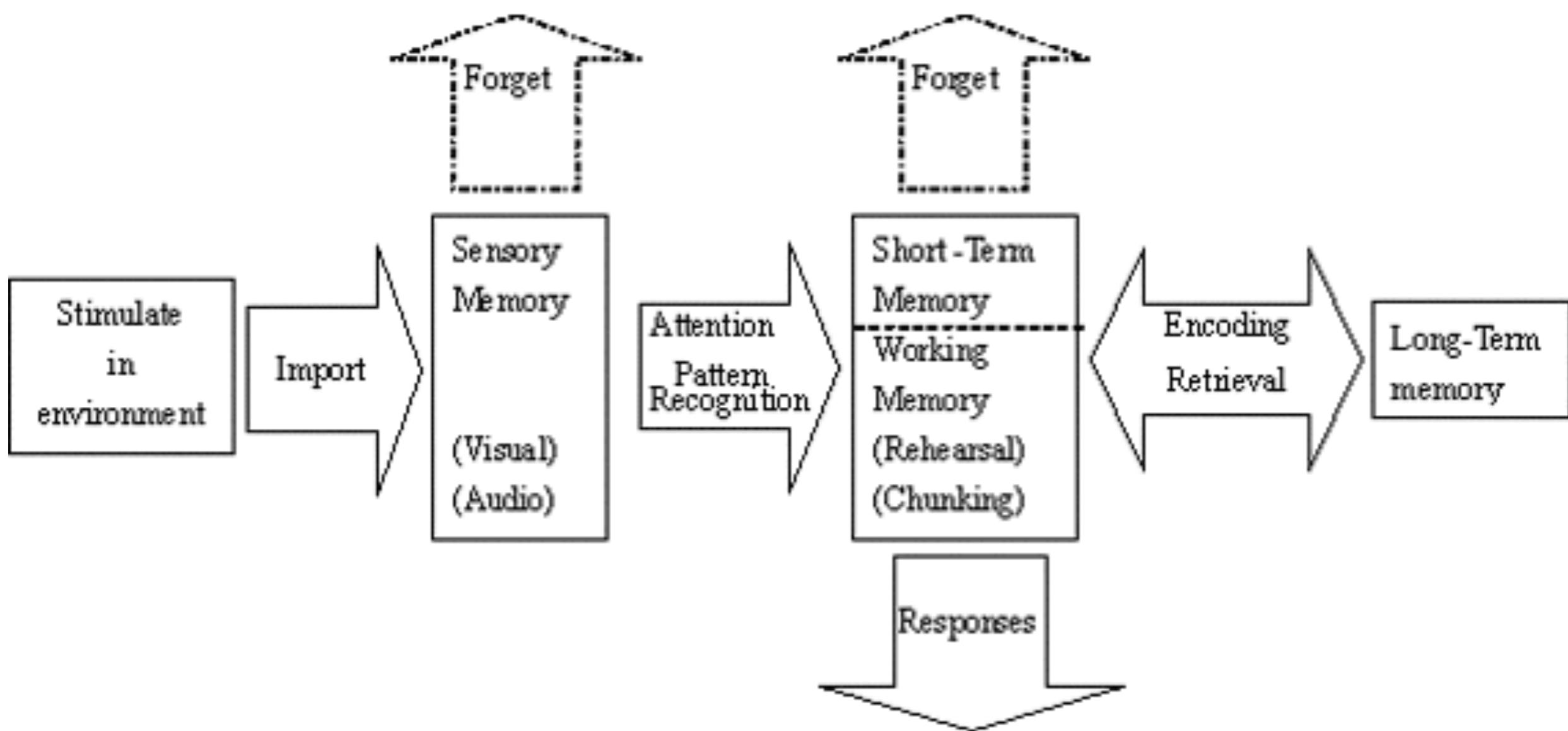
Performances and tests (entry behavior, practice, & post) are probably the most typical behaviorist assessments.

Repetition with feedback/practice unto mastery of task.  
Concerned with behavior, not understanding.

# Cognitivism

“Cognitive theories focus on the conceptualization of students’ learning processes [**information processing models**] and address the issues of how information is **received, organized, stored**, and **retrieved** by the mind.”

- Knowledge is mapped to be assimilated by the learner
- Knowledge transfer—Learner acquires knowledge



# Cognitivist Instructional Design Emphasis

## **UNDERSTANDING! (and performance!)**

- Active Learning
- Observable, Measurable Objectives (understanding & Performance)
  - e.g., explain, justify, argue for, rationalize, etc.
- Cognitive Load / Metacognition / Task Analysis for assimilation (Schema)
- Cognitive Strategies (outlining, summaries, synthesizers, advance organizers, etc.)
- Connection with previous material (recall, examples, analogies, etc).
- Reasoning / Problem-Solving / Critical Thinking

Tests (pre-, practice, & post) and performances are probably the most typical cognitive assessments.

Focus not only on the right behavior/answer, but also on understanding the mental processes behind the answer.

# Constructivism

- Learning is creating meaning from experience
  - Knowledge can't be “mapped” onto a learner
  - What we know of the world consists of our own interpretations of experiences
  - Meaning is CREATED rather than ACQUIRED

# Constructivist Instructional Design Emphasis

**ATTITUDINAL!!**

(And **UNDERSTANDING!**)  
(and performance!)

- Authentic Experiences,
- Facilitation, Mentorship, Guidance, Peer Work
- Content in Context,
- Constructing an Understanding through Experience & Validating this through Social Negotiation.



Portfolios and projects are probably the most typical constructivist assessments.

Focus on facilitating experiences, guiding students in  
**learning to be** vs. learning about, .

What Do I Want The  
Learners To be Able To Do?  
(Objectives)

# **Assessments are tied directly to objectives!**

This is why your objectives  
should be very specific!

# Domains of Learning

Objectives in different domains call for different types of assessments

Cognitive: Mental tasks

- Solve a problem, apply a rule, etc.

Affective: Attitudinal

- Display a positive outlook, identify yourself as a practitioner, etc.
  - Note: This domain can't be directly observed/assessed, & must be inferred from other performances.

Psychomotor: Physical Tasks

- Perform a task, move in a certain way, etc.

Assessing someone's golf swing is different than assessing their quality of writing.

<b>Domain</b>	<b>Sample Assessments</b>
Cognitive	Short-answer, matching, multiple choice, free recall, application of rules, reflective journal
Psychomotor	Demonstration / Performance, Observation, Rubric
Affective	Observation / Infer from behavior,

How Competent Do  
They Need To Be?

- What level of competence do the students need to achieve by the end of your course?
- What are the performances, attitudes, and ideas that they need to hold, and how well must they be able to apply them?
- What data do you need in order to make an effective judgment about the student's possession of these?

Insuring someone can safely operate a nuclear facility is different than insuring they are familiar with the key ideas of grammar.

(Although both can have a serious impact on quality of life!)

# Hybrid Strategies

- What types of assessment do you use in your face-to-face course, and how can that be used in an online or hybrid space?
- Can you think of anything that can't be assessed/can't be assessed online?
- What reservations do you have about the online/hybrid assessment structures available?

“In some cases, we learn more by looking for the answer to a question and not finding it than we do from learning the answer itself.”

–Lloyd Alexander

# Resources & References

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- Dick, Carey, & Carey (2009). The Systematic Design of Instruction (7th). Pearson: New Jersey
- How People Learn (2000) or Here
- Ertmer & Newby (2013). Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective