Writing Learning Outcomes

Connecting Content Goals, Desired Student Learning Outcomes, and Assessment

Workshop's Learning Outcomes

Attendees will:

- Summarize the role of learning outcomes in instruction, in order to illustrate an understanding of assessment's importance.
  - Why we are writing learning outcomes
  - The role of learning outcomes in assessment
  - Why it is important to assess student learning

Workshop's Learning Outcomes

Attendees will:

- Recognize the levels of Bloom's Taxonomy, in order to select verbs that map to instruction objectives.
  - Levels of behavioral outcomes
  - Cognitive domain
  - Levels of Bloom's Taxonomy
  - Bloom's group activity

Workshop's Learning Outcomes

Attendees will:

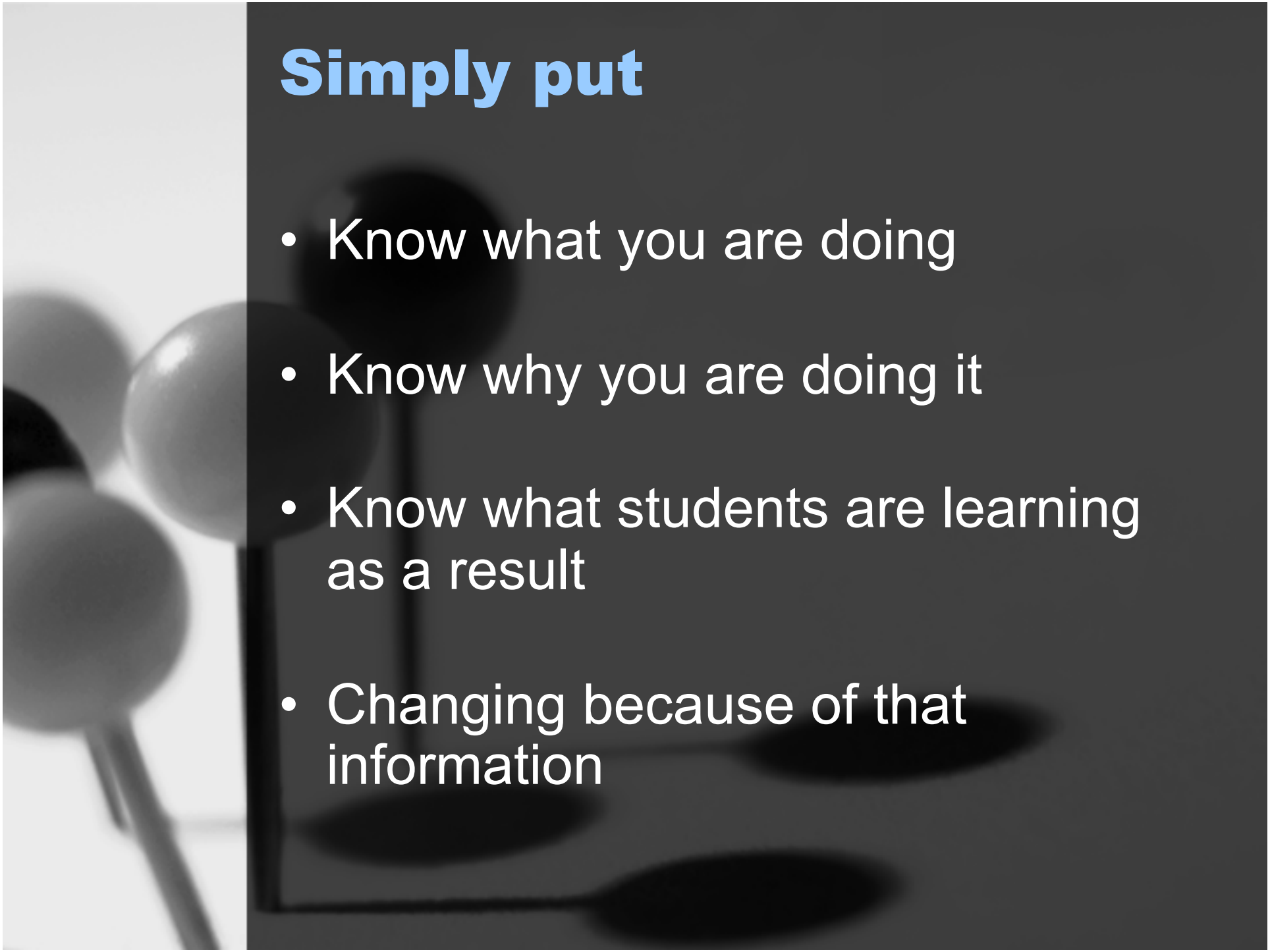
- Construct learning outcomes from learning objectives, in order to develop assessable learning outcomes for courses.
  - Learning outcomes formula
  - Characteristics of good learning outcomes
  - Example learning outcomes

What are learning outcomes?

- Formal statements that articulate:
  - **What** students are able to do after instruction
  - **Why** students need to do this
- Objectives vs. Outcomes
- Process/Fluid

Why assess?

- It builds evidence for accountability, accreditation, but especially for the improvement of student learning.
  - Show evidence of how well our students learn.
  - Use evidence for continuous improvement.



Simply put

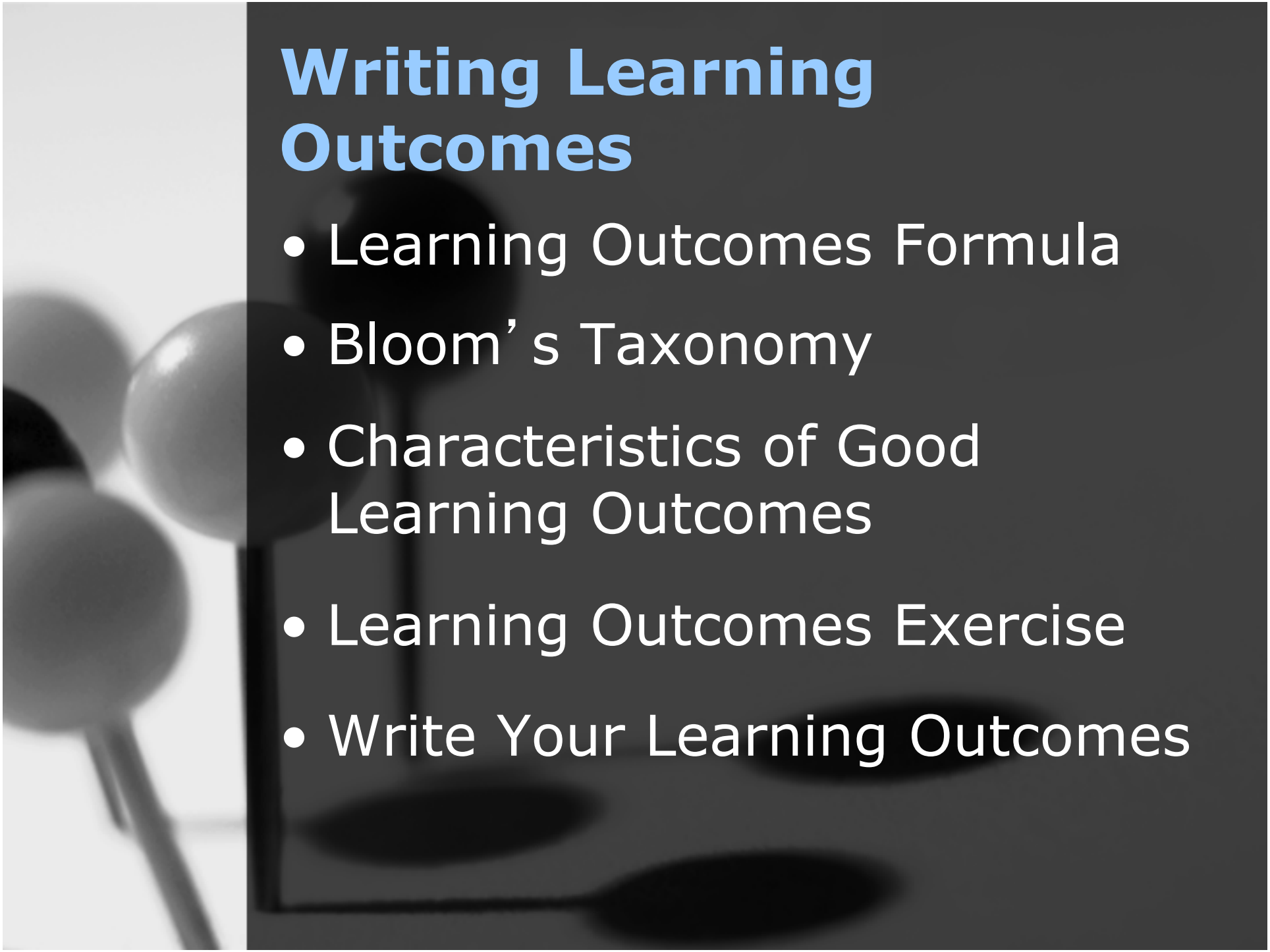
- Know what you are doing
- Know why you are doing it
- Know what students are learning as a result
- Changing because of that information

Shifting from

- Teaching to learning
- Teaching effectiveness to learning results
- Private affair to community acknowledgement

Some benefits of learning outcomes

- select content
- develop of instructional strategy
- develop and select instructional materials
- construct tests and other instruments for assessing and evaluating
- improve you as a teacher, and our overall program



Writing Learning Outcomes

- Learning Outcomes Formula
- Bloom's Taxonomy
- Characteristics of Good Learning Outcomes
- Learning Outcomes Exercise
- Write Your Learning Outcomes

Theory Into Practice

5 Questions for Instructional Design

1. What do you want the student to be able to do? (Outcome)
2. What does the student need to know in order to do this well? (Curriculum)
3. What activity will facilitate the learning? (Pedagogy)
4. How will the student demonstrate the learning? (Assessment)
5. How will I know the student has done this well? (Criteria)

1. What do you want the student to be able to do?

This question asks you to develop the outcome.

For Example:

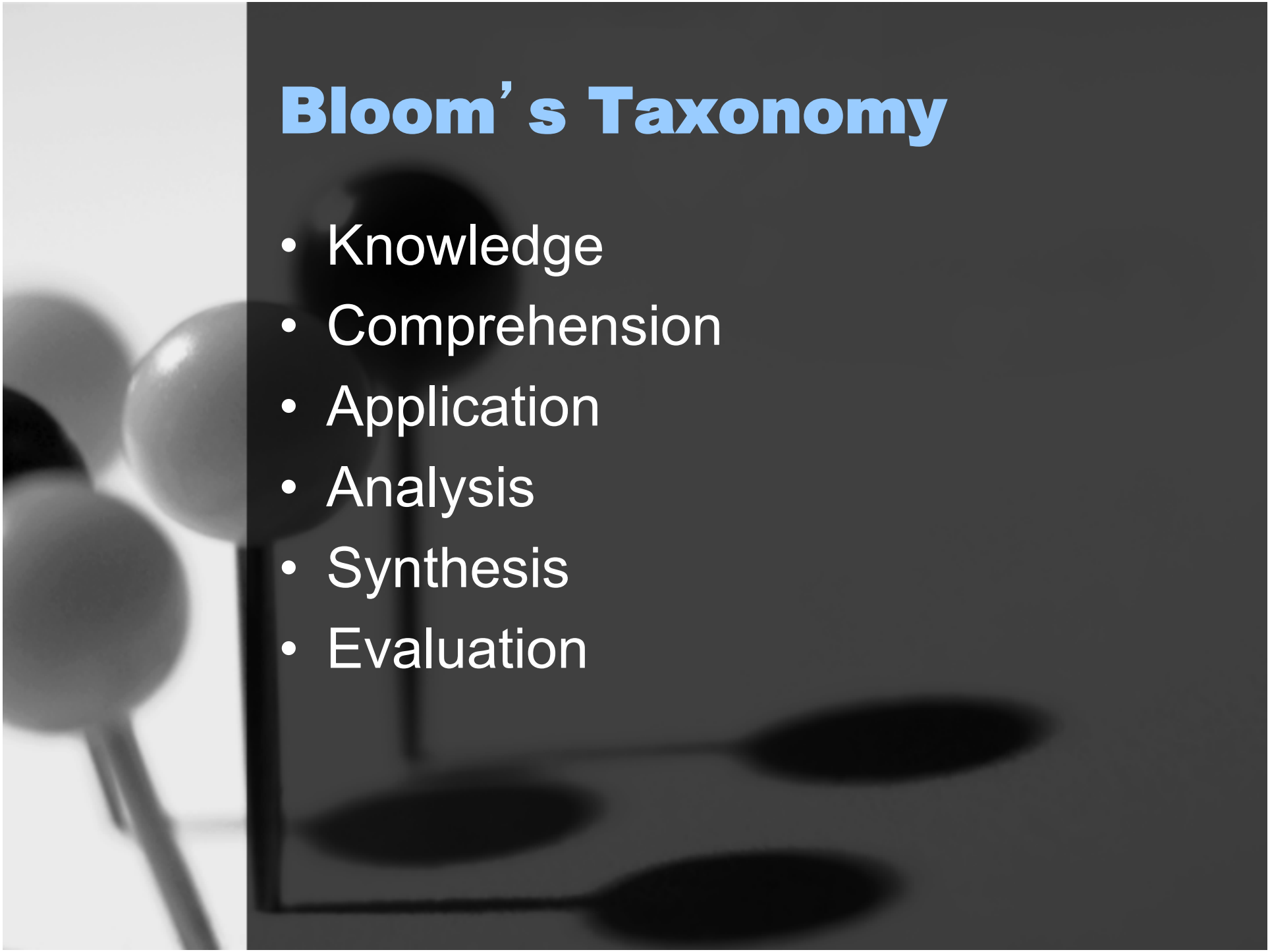
Student identifies, consults and evaluates reference books appropriate to the topic in order to locate background information and statistics.

Importance of Verbs

- Behavioral Outcomes
  - Affective Domain
  - Psychomotor Domain
  - Cognitive Domain
    - Bloom's Taxonomy

Cognitive Domain

- Involves knowledge and the development of intellectual skills
- Bloom's Taxonomy
  - Hierarchy of objectives according to cognitive complexity
  - Higher-level objectives include, and are dependant on lower level cognitive skills



Bloom's Taxonomy

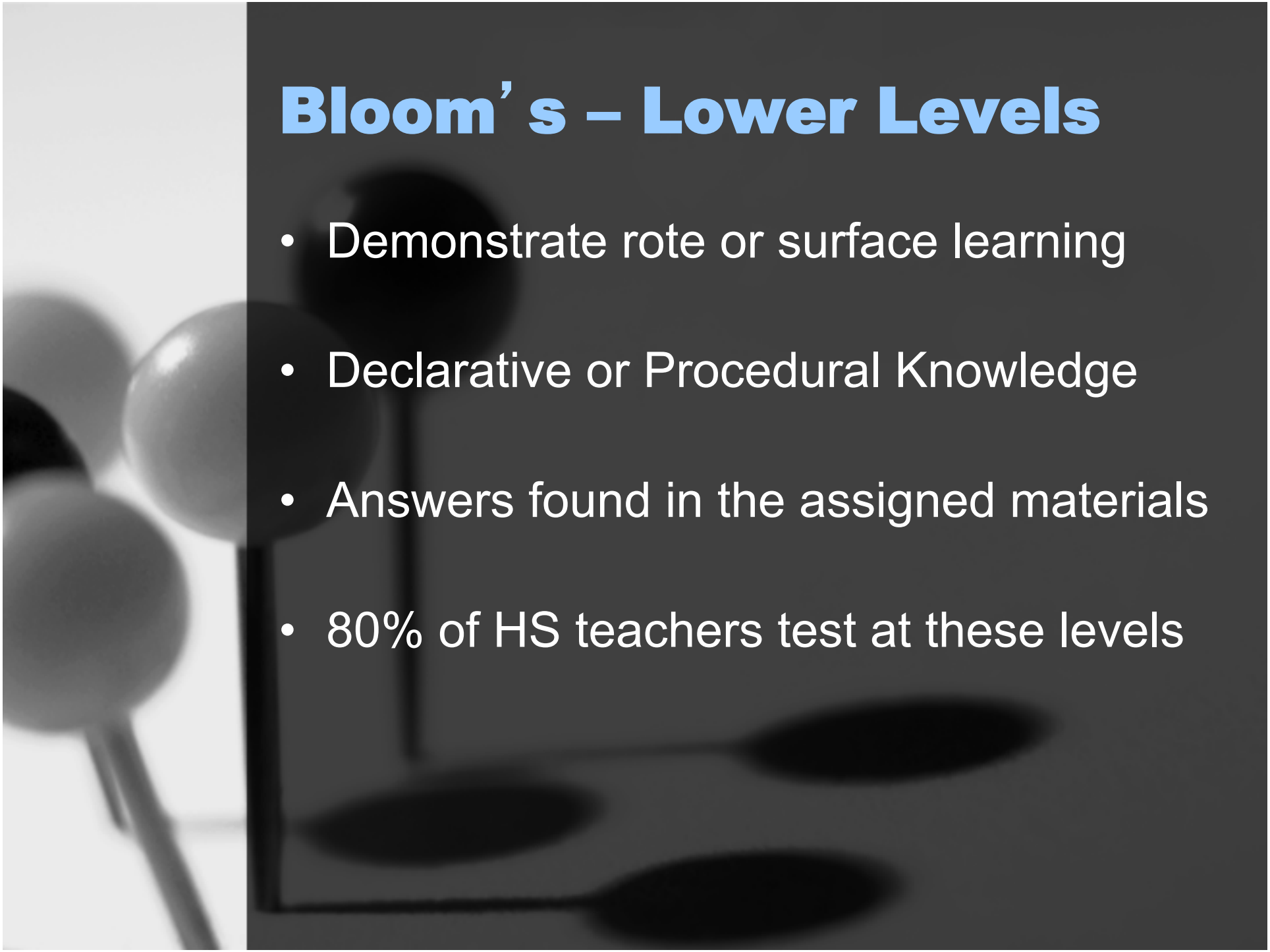
- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Bloom's – Lower Levels

- **Knowledge**
  - Recalling previously learned information such as facts, terminology, rules, etc.
  - Answers may be memorized or closely paraphrased from assigned material.
  - Define, list, name, recall

Bloom's – Lower Levels

- **Comprehension**
  - Ability to comprehend the meaning of material.
  - Answers must be in the student's own words while still using terminology appropriate to the course material.
  - Explain, summarize, distinguish between, restate



Bloom's – Lower Levels

- Demonstrate rote or surface learning
- Declarative or Procedural Knowledge
- Answers found in the assigned materials
- 80% of HS teachers test at these levels

Bloom's – Higher Levels

- **Application**
  - Requires recognizing, identifying, or applying a concept or principle in a new situation or solving a new problem.
  - May require identifying or generating examples not found in assigned materials.
  - Demonstrate, arrange, relate, adapt

Bloom's – Higher Levels

- **Analysis**
  - Ability to break material down into its component parts and to understand its underlying structure
  - May require students to compare and contrast or explain how an example illustrates a given concept or principle.
  - Require students to identify logical errors or to differentiate among facts, opinions, assumptions, hypotheses and conclusions
  - Expected to draw relationships between ideas
  - Differentiate, estimate, infer, diagram

Bloom's – Higher Levels

- **Synthesis**
  - Opposite of Analysis
  - Ability to combine parts to form a new whole; to synthesize a variety of elements into an original and significant whole.
  - Produce something unique or original
  - Solve some unfamiliar problem in a unique way
  - Combine, create, formulate, construct

Bloom's – Higher Levels

- **Evaluation**
  - Ability to **evaluate** a total situation, to **judge** the value of material for a certain purpose, combining elements of all the other categories and also value judgments based on defined, fixed criteria.
  - The most important part of the answer is the justification and rationale for the conclusion
  - Judge, critique, justify, discriminate

Bloom's – Higher Levels

- Meaningful or deep learning
- Go beyond textual material in that they must be inferred or extrapolated from the material in the assigned material.
- Students' creativity, originality and critical thinking is required at higher levels
- More authentic than lower levels
  - Thinking at this level is more likely to represent types of performances required in the real world

1. What do you want the student to be able to do?

This question asks you to develop the outcome.

For Example:

Student identifies, consults and evaluates reference books appropriate to the topic in order to locate background information and statistics.

Learning Outcomes Formula Review

Verb

Or

Action Phrase

+

"In Order To"

Why?

=

Great Learning Outcomes

OR

What students need to know?

"Student identifies, consults and evaluates reference books appropriate to the topic"

"In Order To"

Why do they need to know this?

"locate background information and statistics."

Characteristics of Good Learning Outcomes

- Measurable/Assessable
- Clear to the student & instructor
- Integrated, developmental, transferable
- Use discipline-specific competencies/ standards as a basis not an end
- Similar scope and scale
- “In order to” gets to the uniqueness and real world application of the learning
- Use a variety of Bloom’s Taxonomy levels

Example 1

- Bad Outcome
  - Students will name the three types of rock in order to differentiate among the three.

Example 1

- Good Learning Outcome
  - Students will compare and contrast the characteristics of the three types of rocks in order to differentiate among the three.

Example 2

- Bad Learning Outcome
  - Discover that UT Arlington offers a welcoming and helpful environment which can fulfill their educational, cultural and social needs in order to recognize the university's role in lifelong learning.

Example 3

- Bad Outcome
  - Use Illiad and Texshare in order to access materials not available at UT Arlington Library.

Example 3

- Good Outcome
  - Utilize retrieval services in order to obtain materials not owned by UT Arlington Library.

Last Example…I Promise

- Bad Outcome
  - Students will construct bibliographies and in-text references using discipline appropriate styles in order to contribute to academic discourse in their discipline.

Last Example…I Promise

- Good Outcome
  - Construct bibliographies and in-text references using discipline appropriate styles in order to correctly attribute others' work and ideas.

Review: Theory Into Practice

5 Questions for Instructional Design

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