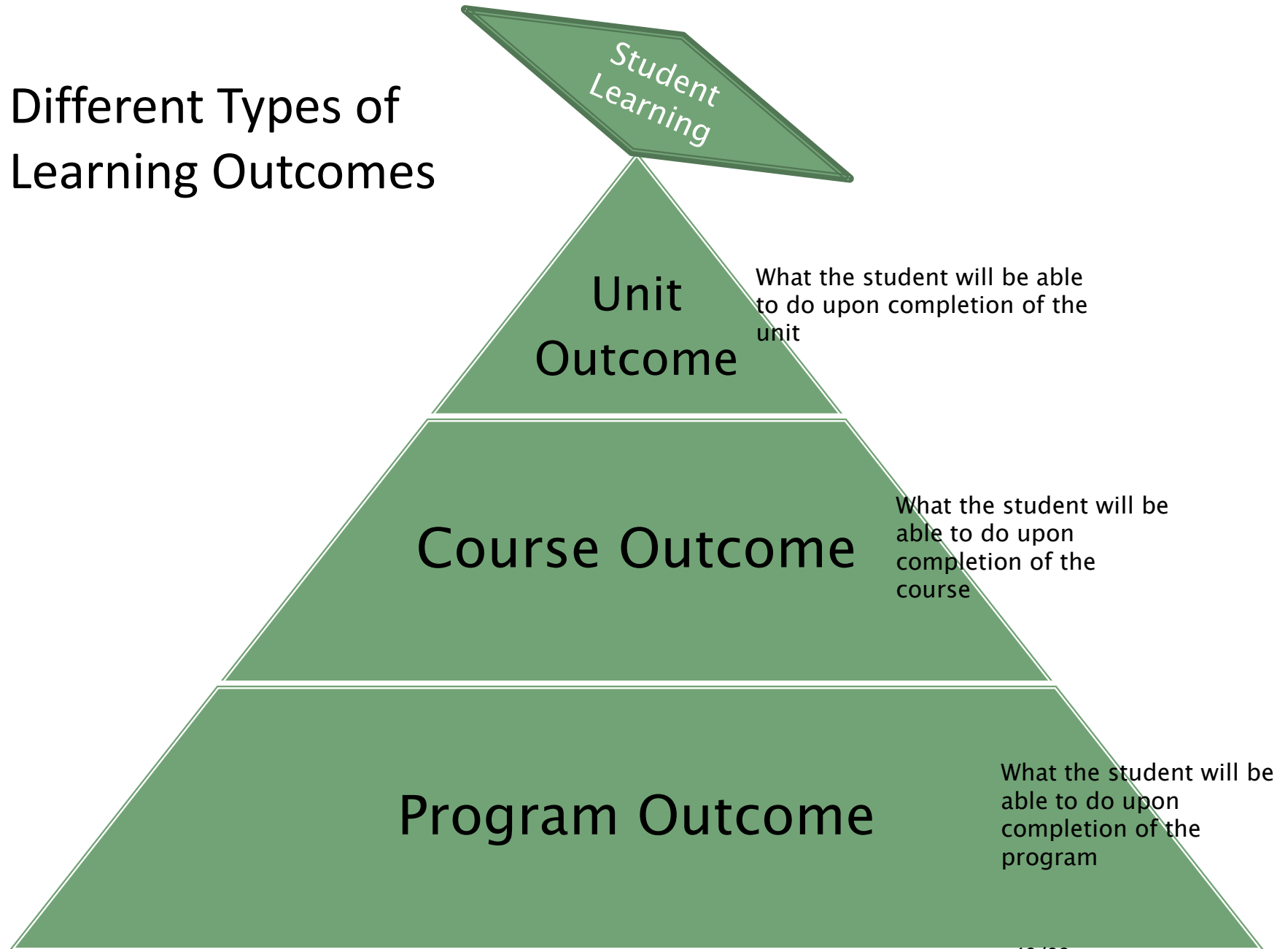


Writing a Measurable Program Learning Outcome

All Learning Outcomes Measure Student Learning...

whether in programs, courses, or units

Different Types of Learning Outcomes



Learning Outcomes

state what a student should
know and/or be able to do

...as a result of what he/she has
learned in a course, library
orientation, counseling session

Characteristics of a Measurable Learning Outcome

- ▶ Describes a Learning Result
- ▶ Specific
- ▶ Action-oriented
- ▶ Cognitively Appropriate
- ▶ Clearly Stated

Criteria for a Measurable Student Learning Outcome

Describes a Learning Result

A measurable learning outcome specifies what the student will be able to do, not what the teacher does

Specific

A measurable learning outcome addresses no more than one single result/trait

Action-oriented

The action verb ([Bloom's Taxonomy Thesaurus of Verbs](#)) specifies definite, assessable behaviors

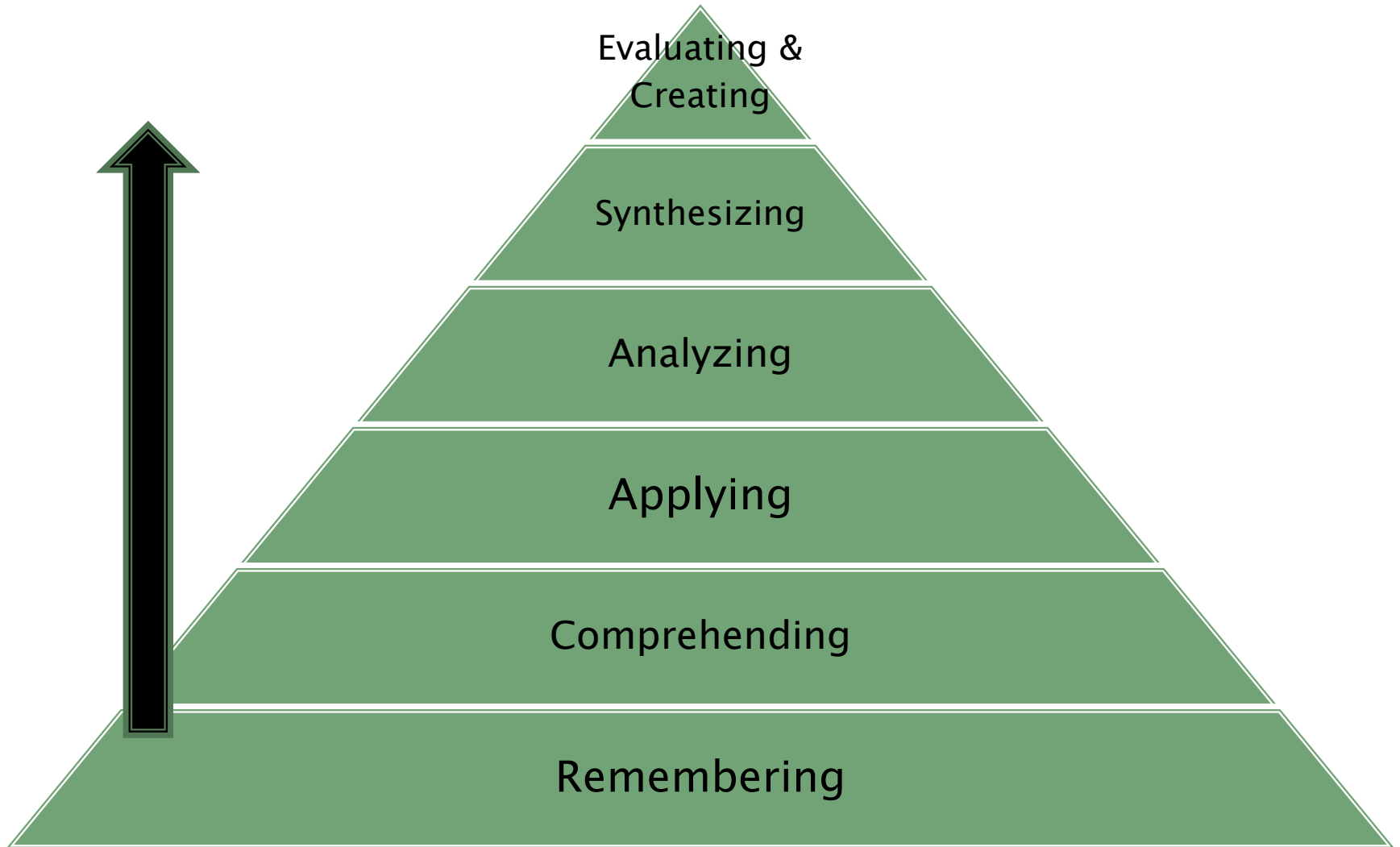
Cognitively Appropriate

The action verb ([Bloom's Taxonomy Thesaurus of Verbs](#)) identifies the desired cognitive level of student thinking

Clearly Stated

The meaning of the learning outcome is easily understood by students, administrators and faculty members

Cognitive Levels Build from Lower to Higher Levels



Learning Outcome Structure

Students will be able to
action verb + *what will be done*

Note: Learning Outcomes are a single sentence.

[Bloom's Taxonomy Thesaurus of Verbs](#)

The Logic of the Structure

▶ Action verb

- ▶ Reflects the cognitive level of the learning outcome
- Describes the depth of student learning

▶ *What will be done?*

- Describes the result/trait of what the student will be able to do
- Describes the breath of the learning

Learning Outcome Example

The student will be able to produce *a business plan*.

▶ Produce

- Depth of knowledge (PLO reflects the evaluate/create cognitive level)

▶ *Business Plan*

- Breadth of knowledge (PLO is limited to a specific type of plan)

More Examples

- ▶ The student will be able to design a *logical plan for the development of technical requirements*.
- ▶ The student will be able to implement a *patient care plan*.

Cognitive levels using Bloom's Taxonomy as expressed in the action verb

- ▶ The student will be able to design a *logical plan for the development of technical requirements*. (*Evaluating & Creating*)
- ▶ The student will be able to examine a *patient care plan*. (*Analyzing*)

Improve a Student Learning Outcome

Student LO:

Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected

BETTER: Students will be able to apply *factual information to a problem*. (Bloom's Cognitive Level: applying)

BETTER BECAUSE:

- ▶ Learner is directly mentioned
- ▶ Specific because it measures one result/trait
- ▶ Measurable because it has only one action-oriented verb

Improving a Student Learning Outcome

Rewrite the following Student Learning Outcome before moving on to the next slide.

Student LO:

Formulate and test hypotheses by performing laboratory simulation, or field experiments in at least two of the natural science disciplines (one of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty)

Possible Rewrite

BETTER: Students will be able to apply *factual information to a problem.*

BETTER BECAUSE:

- ▶ Learner is directly mentioned
- ▶ Specific because it measures one result/trait
- ▶ Easily understood
- ▶ Specific because it uses only one action verb

To further define the SLO in measurable terms, ask

What can my students do that will indicate they have the discrete skills that build to mastery of the learning outcome?

The answers to this question become the Performance Indicators for the SLO

- Performance indicators provide a more specific picture of student's ability.
- They define and clarify the level and quality of performance necessary to meet the requirements of the student learning outcome.

Example of Moving from SLO to Performance Indicators

▶ Student Learning Outcome

- The student will be able to plan a balanced diet.

▶ Performance Indicators

- The student will be able to describe what constitutes a balanced diet.
- The student will be able to examine the implication of a balanced diet to good health.

Adapted from the 2005 TLA presentation by

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