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Session 8

C-EDUC5 (3 units) ASSESSMENT in Learning 1

Fall Semester 2023



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C-EDUC5 ASSESSMENT in Learning 1

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Elements and Types of Test of Cognitive Learning

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P H I L I P P I N E S



Looking back...

Deriving
Learning
Competencies
for Assessment

Immediate Outcome

our vision of what
the students can do
after teaching in
school

Deferred Outcome

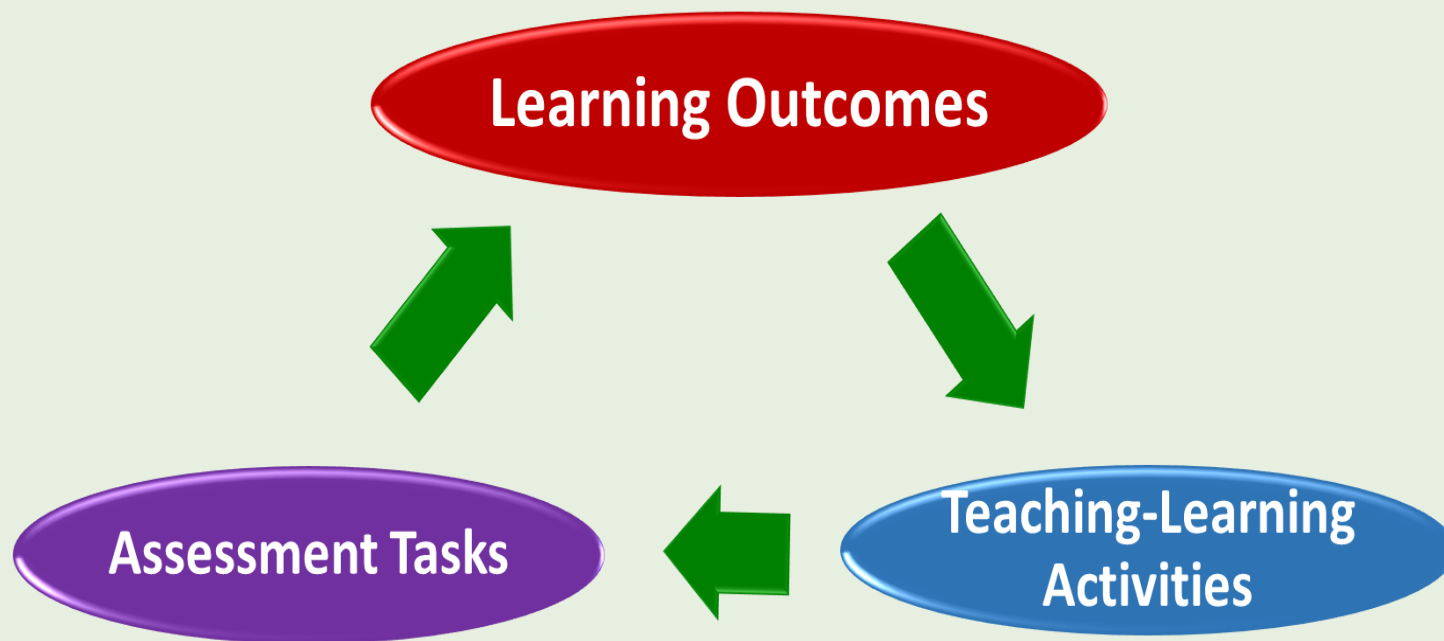
our vision of what
the students can be
after graduation
from school



**Looking
back...**

**Deriving
Learning
Competencies
for Assessment**

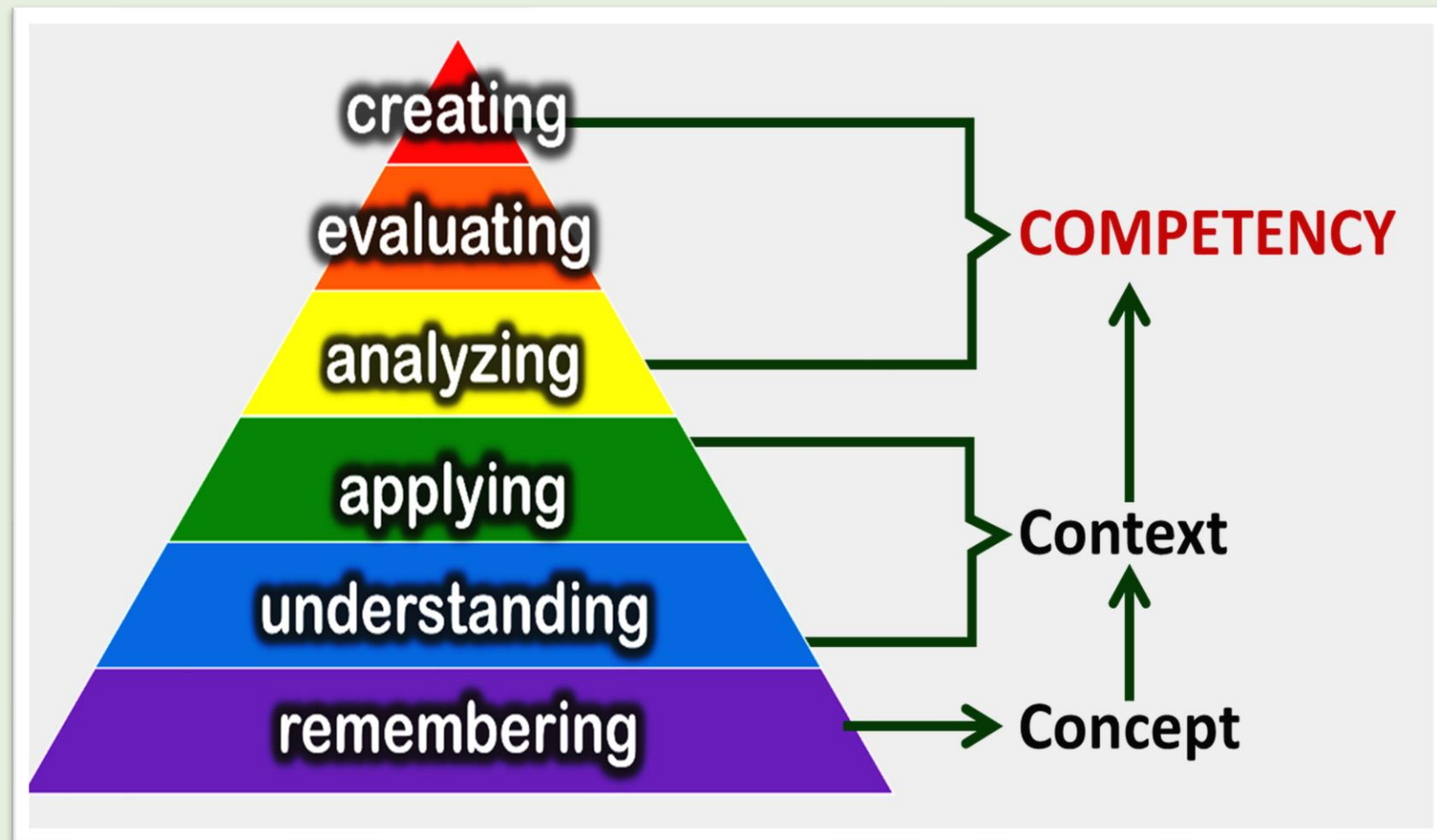
The CONSTRUCTIVE ALIGNMENT FRAMEWORK





Looking back...

Deriving
Learning
Competencies
for Assessment

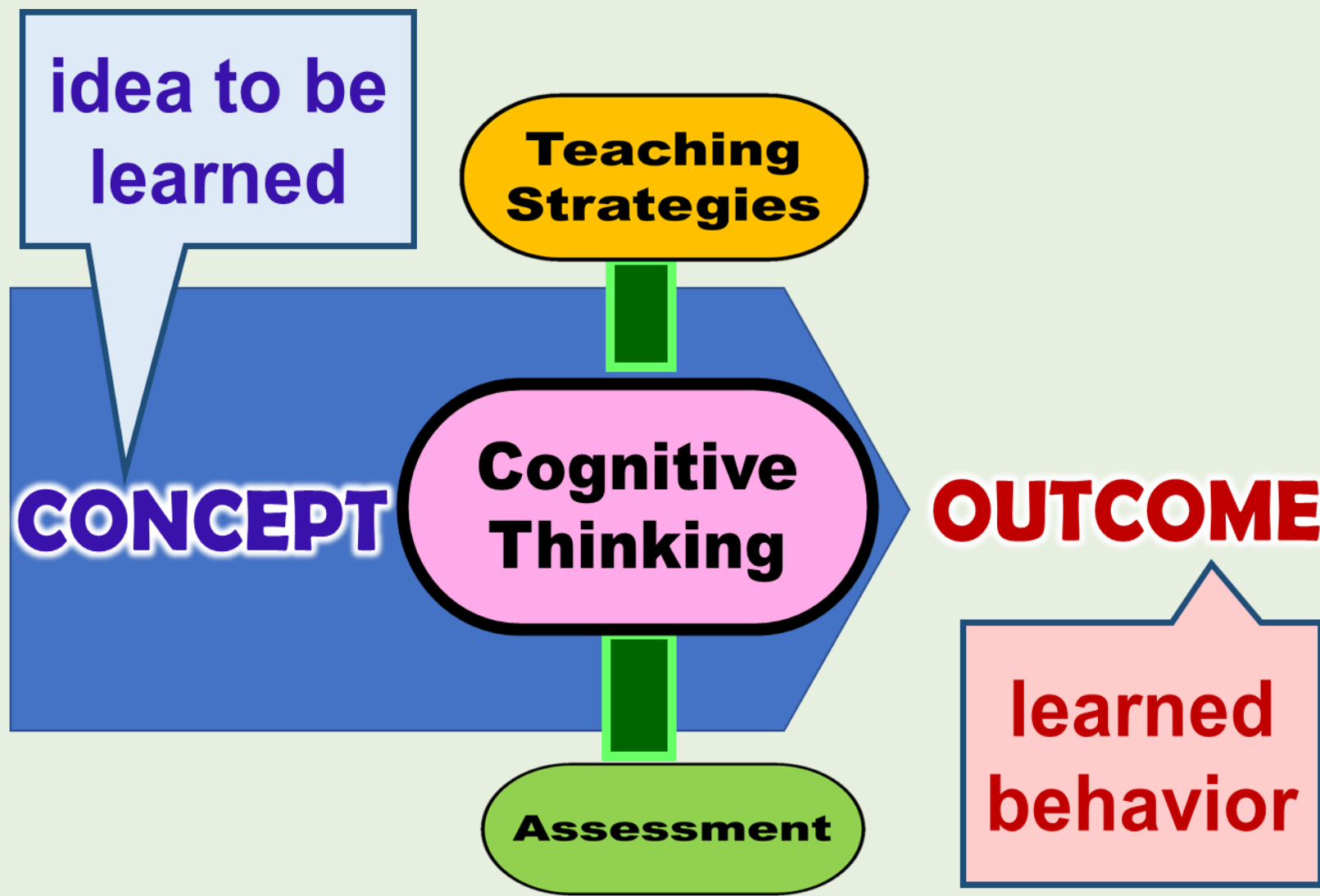


*Theoretical Framework of the
Assessment of Learning Competencies*



Looking back...

Deriving
Learning
Competencies
for Assessment





Looking back...

Deriving
Learning
Competencies
for Assessment

SMART Learning Outcomes

Specific

Observable and clearly stated

Measurable

Can be quantified or scored

Attainable

Can be done by students

Realistic

Practical and safe to perform

Time-bound

Can be finished at a given time



Looking back...

Deriving Learning Competencies for Assessment

Example Topic: Layers of the Earth

1. **RE:** The 3 layers of the earth are the crust, mantle, and the core.
2. **UN:** The crust is the outermost layer of the earth that is just above the mantle.
3. **AP:** We can find mountains, plains, seas, and oceans in the crust.
4. **AN:** Earthquakes happen in the crust because of the pressure and movements of the mantle underneath it.
5. **EV:** Volcanic eruptions are significant in the formation of the crust because the rock materials coming from the mantle add up to the outer layer after drying.



**Looking
back...**

**SESSION 7
CONCLUSION**

Based on Bloom's taxonomy, systematic learning is geared toward learning concepts, contexts, and competencies. Therefore, the bases of instruction and assessment are the learning competencies stated in SMART learning objectives.



**Springboard
question to
ponder**

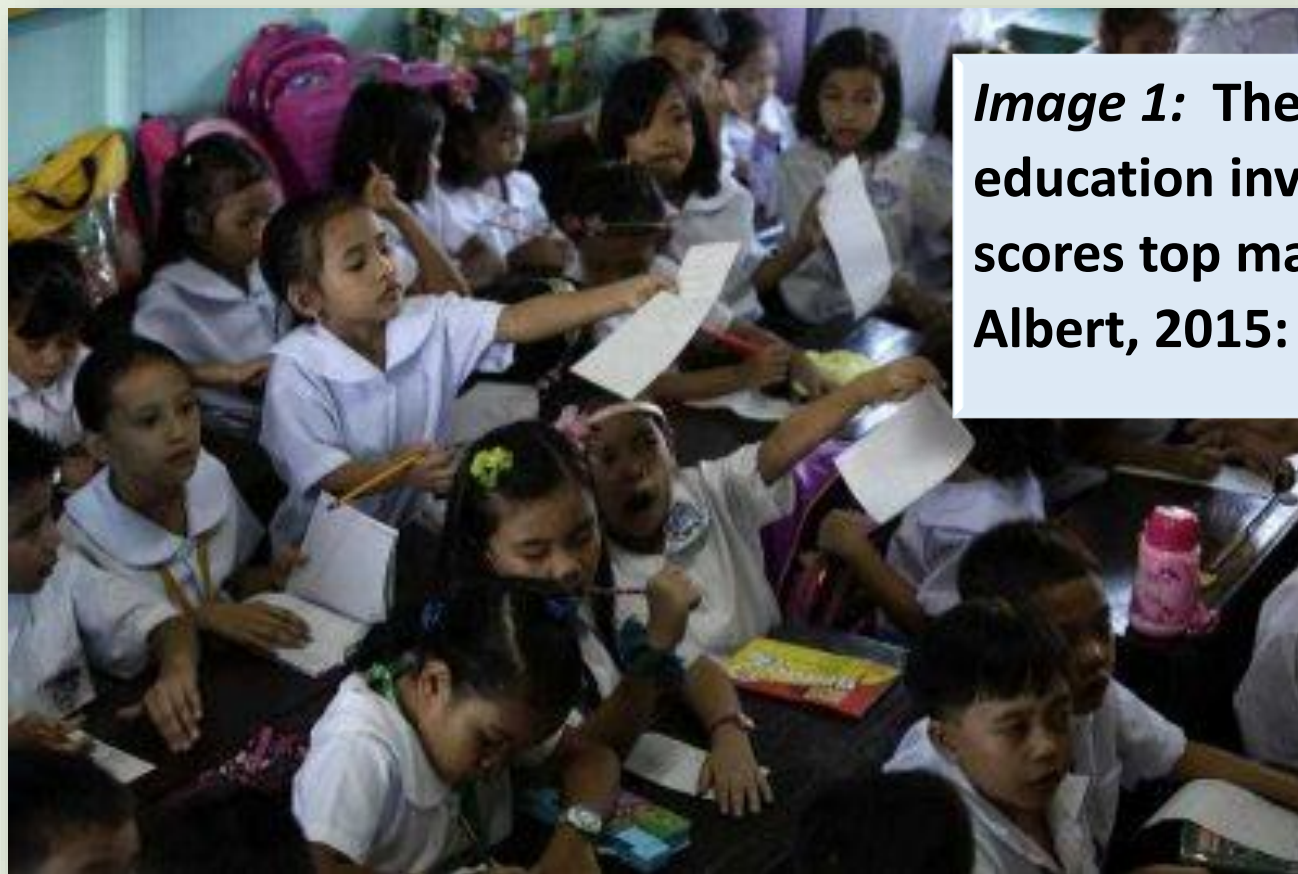


Image 1: The Philippines' education investment scores top marks (Source: Albert, 2015: Online)

How could we know that we are using the right assessment tool?



Session 8

Elements and Types of Test of Cognitive Learning

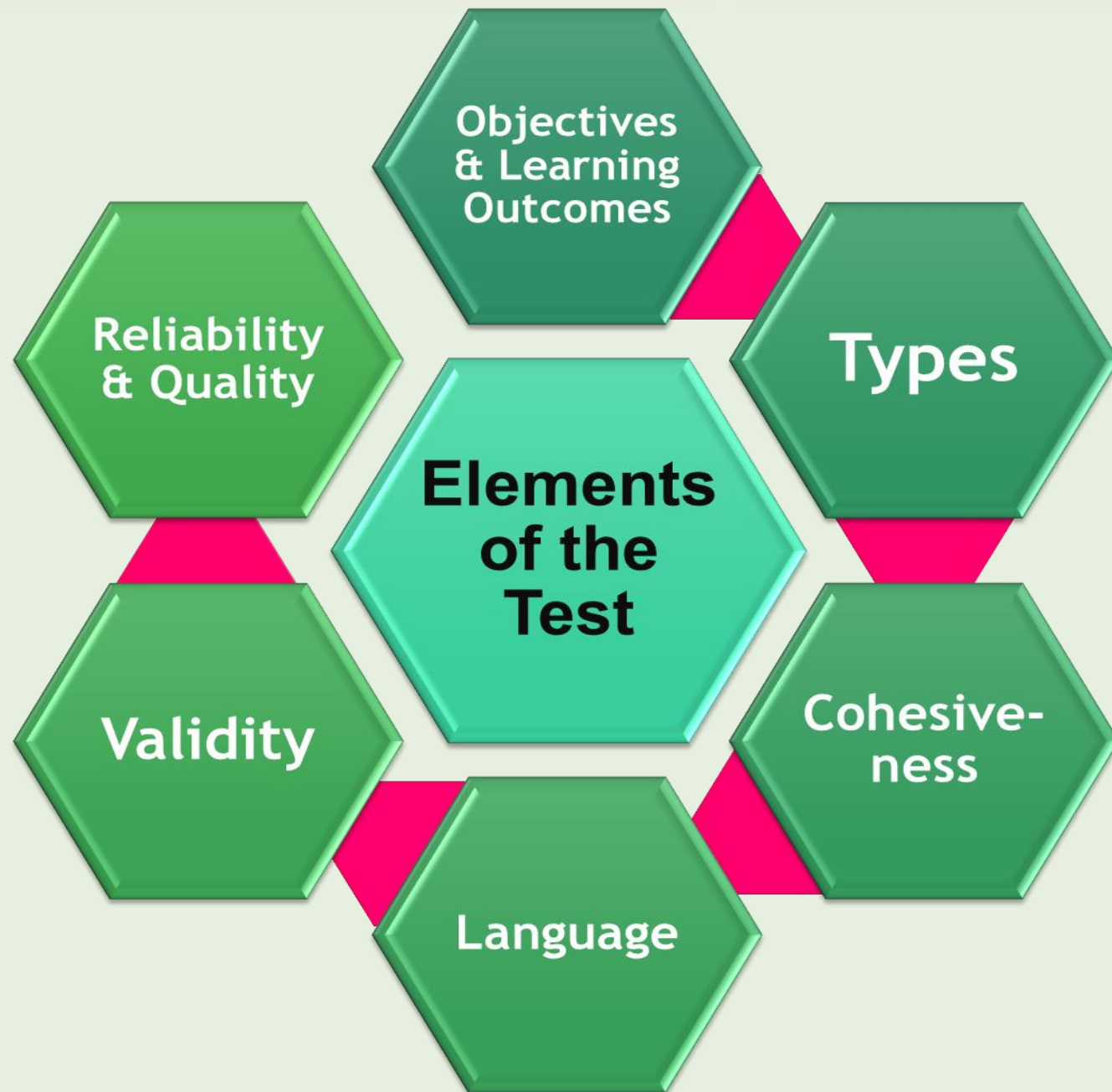
OBJECTIVES

1. Identify and describe the elements of a good test of learning; and,
2. Characterize the various types of objective tests and their purposes.



Topic 1

The Elements of a Good Test





Topic 1

The Elements of a Good Test

Objectives and Learning Outcomes

- The *SMART* action word determines the type of test or mechanics
- The topic or subject matter determines the content and context of the test item



Topic 1

The Elements of a Good Test

Type of Test

- The cognitive skill being measured determines the type of test as well as the mechanics.



Topic 1

The Elements of a Good Test

Cohesiveness

- **Mechanics and directions jive with the learning outcomes**
- **Quality-assured test items based on standards and policies**



Topic 1

The Elements of a Good Test

Language

- Test items are stated according to how instruction was carried out
- Based on the levels of understanding of the average students



Topic 1

The Elements of a Good Test

Validity

- The test tool is able to consistently and accurately measure its intended construct.



Reliability

- Ability of the test to draw the same results across the related tests
- Results in a test items are consistent with the similar test items.

Topic 1

The Elements of a Good Test



Topic 2

Types of Objective Tests

Think about this.

**The type of test to be used
can make or break the
learning achievement of
the students.**



Topic 2

Types of Tests

Objective Tests

- Assessment outcomes can be directly evaluated against learning outcomes
- **Assessor has no bias over results**

Types of Test

- **Assessment outcomes are evaluated against learning outcomes via rubrics**
- **Assessor may influence the results**

Subjective Tests



Topic 2
Types of
Objective
Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Versatile
- Covers all cognitive skills logically
- Invites analytical and critical thinking
- Tests decision-making skills of students



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- **Definite**
- **Tests the recall power of students of certain terminologies**
- **Can be done by simple completion**



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

Disadvantages:

Mostly measures rote memory

Cannot measure complex learning outcomes

May reduce test validity



Topic 2

How to construct IDENTIFICATION Test Items

State the test items with only one possible correct answer.

Avoid using descriptions for several possible answers.

Paraphrase the test items from the content.

If it's fill-in-the-blank type, assign a blank for every context.

Avoid giving irrelevant clues.



Topic 2
Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Highly analytical
- Checks how students compare characteristics
- Tests simple critical thinking skills



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

Disadvantages:

Laborious

Risk of frustration with too many potential matches

Users spend a lot of time on tests



Topic 2

How to construct MATCHING Test Items

Specify the steps to be taken.

Don't make the columns too different from one another.

Reusing of the answers may be allowed.

If feasible, alphabetize, number, and/or date the list of responses.

Include more possible answers than question stems.



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Invites judging scenarios
- Can enfold almost all subject matters
- Allows students to make decisions on dilemmas



Topic 2
Types of
Objective
Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

Disadvantages:

Less trustworthy

**May not invite
analytical and
critical thinking**

Prone to guessing



Topic 2

How to
construct
DICHOTOMOUS
Test Items

**Craft premises by
paraphrasing the source
content.**

**Don't use negation or double
negation.**

**Assign unbalanced numbers
of truths and lies.**



Topic 2
Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Relatively easy to prepare
- Measures skills in grouping and deductive reasoning



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

Disadvantages:

Construction often leads to a simple-recall test.

Weak type of summative test



Topic 2

How to construct ENUMERATION Test Items

Specify clearly the main category as basis for answering.

For higher thinking, ask students to deduce rather than simply identify.

Avoid using categories directly lifted from the provided content with pre-determined components.



Topic 2
Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Analytical
- Evaluative based on criteria
- Examines students' ability to judge relationships



Topic 2
Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

Disadvantages:

Items may not parallel the choices

Limited kind of lesson to be assessed



Topic 2

How to construct KEYLIST Test Items

Determine the multiple criteria or categories

The categories should be parallel to each other to constitute a scale

Code the list of criteria (e.g., letters, numbers, basic shapes)

When constructing the test stem, begin by indicating the expected code

Design the item to comply with the correct choice.



Topic 2

Types of Objective Tests

Multiple-choice

Identification

Matching type

Dichotomous

Enumeration

Keylist test

Cloze test

- Logically challenging
- A vocabulary mastery test
- Test of analytical-critical skills when supplying the most appropriate word in the sentence



Topic 2

Types of Objective Tests

Multiple-choice
Identification
Matching type
Dichotomous
Enumeration
Keylist test
Cloze test

Disadvantages:

It can be challenging to assess whether or not a particular word is appropriate for the content being discussed. Therefore, it takes a considerable amount of time to validate.



Topic 2

How to construct CLOZE Test Items

Write the paragraph you want your students to narrate or interpret based on the content.

Determine the terms or essential words your students need to remember, understand, and use in the paragraph.

Replace the chosen words with blanks, but you need to place clues or hints that indicate the number of letters of the word.



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Elements and Types of Test of Cognitive Learning

CONCLUSIONS

1. The test instrument is grounded on the statements of learning outcomes or objectives. The test type, mechanics, and language are cohesive with the learning objectives, which will also determine the instrument's validity and reliability.
2. The objective type of testing is preferred to be used when the teacher needs to assess the cognitive skills expected to be learned by the students by giving absolute responses.



Session 8

Elements and Types of Test of Cognitive Learning

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