PGT202E
BASIC EDUCATIONAL MEASUREMENT & EVALUATION

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QUESTION

a. In subject of your choice, develop ne multiple choice item for the following Bloom Taxonomy

i.   Comprehension

ii.   Application

iii. Analysis

b. Discuss the following levels of Krathwohl taxonomy. Provide Examples

i.   Responding

ii.   Valuing

iii. Organizing

COMPREHENSION
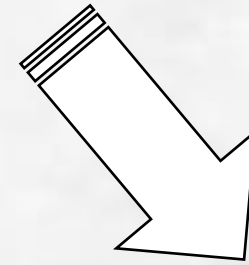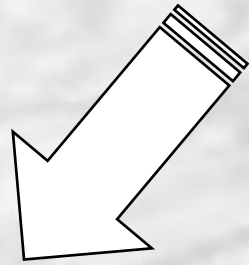
Understand
**meaning
translation,
interpolation**
of instruction and problems

State a problem
in one's own word

✓ When testing comprehension, the questions you write will need to be tailored to allow the candidate to demonstrate they are able to take meaning from the material they have studied rather than simply recalling information without having any further understanding of its meaning. (Bloom and Krathwohl, 1956.)

✓ Multi-choice reading comprehension requires complex reasoning procedure. Given passage and question, a correct answer need to be selected from a set of candidate answers.

Keywords When Using Comprehension Level

Comprehends,
converts, explains,
extends, predicts,rewrites
summarizes, translates

Examples of Questions for the Comprehension Category

Which of the statement correctly explains the process of photosynthesis?
a. A process use by a photographers to develop film in the dark room
b. A process use by plants to convert nutrients from soil into heat energy
c. A process use by plants and organism to convert light energy into chemical energy
d. A process on how plants get water

APPLICATION

- Application refers to the "use of abstraction in particular and concrete situation".

- At this level the teacher begin to use abstraction to describe particular ideas or situation. Example what would be probable influence of a change in temperature on a chemical such as hydrochloric acid.

- Leaners to use information that they already have gained, in order to solve a problem. This involves implementation of prior knowledge and skills. Learning is practically practiced by students.

- This allows learners to use knowledge, skills or techniques in new situation through application.

Keywords When Using Application Level

Applies, Changes,
Computer, Construct,
Demonstrate, Discover,
Manipulate,
Modifies, Operates,
Predicts,Prepare

Examples of Questions for the Application Category

Which of the following methods is correct for separating a mixture of water and alcohol?
a. Filtration
b. Distillation
c. Electrolysis
d. Evaporation

ANALYSIS

- The analysis level is where students use their own judgement to begin analysing knowledge they have learned.
- At this point, they begin to understanding the underlying structure to knowledge and also are able to distinguish between fact and opinion
- Analysis is the fourth level of the Bloom's Taxonomy
- Item analysis allows us to observe the characteristic of a particular item
- Valuable for increasing instructors skills in test construction
- Indentifiying specific areas of course content which need greater emphasis or clarity.

Keywords When Using Analysis Level

Analyze, catagorize, classify, compare, contrast, discover, dissect, divide, examine, inspect, simplify, survey, test for, distinguish, list distintion, theme, function, motive, conclusion

Elements analysis	• Requires the students to determine the elements. • Students also need to find evidence to support existing elements
Relationship analysis	• To make the evidence and the hypothesis
Principle analysis	• Students need to identify the principle of an organization • Used to produce something by analyzing goals, views and stances

Examples of Questions for the Analysis Category

Based on the table statement below, which one is the wrong match about the senses, organs and stimulation?

	Senses	Organs	Stimulation
a.	Sight	Eyesight	Detects light
b.	Taste	Ears	Detects chemicals
c.	Touch	Skin	Detects the touch
d.	Hearing	Ear	Detects sound

Krathwohl's Taxonomy

- The affective domain (Krathwohl, 1973) include the manner in which we deal with things emotionally such as feelings, values, appreciation, motivation, and attitudes.

- The five major categories are listed from the simplest behaviour to the most complex.

- The five major categories includes receiving, responding, valuing, organizing and characterization.

RESPONDING

- Refers to active participation on of the student
- Learning outcomes in this area may emphasize acceptance in responding (reads assignned materials), willingness to respond (voluntarily reads beyond assignment), or satisfaction in responding (reads for pleasure or enjoyment
- Example: Students completing assignments and homeworks.
- Example: Students question new ideas, concepts and models in order to fully understand them

VALUING

- Valuing is made by the student themselves.
- However, they are not ready to defend their evaluation.
- Example: Shows ability to solves problems informs management on matters that they feel strongly about

ORGANIZING

- Students rework stimulus to suit their idea and their value system.
- In other words, student are challenging their existing values that they hold.
- Example priorities time effectively to meet the needs of the organization family and self.

CONCLUSION

- Bloom Taxonomy is the main reference in making question at different level of our students. Thus it can help us to measure someone's cognitive level.

- Each Taxonomy's level has its own criteria in evaluating student's abilities.

- Besides cognitive wise, affective domains is also important as we deal with things emotionally such as feelings.