

Elements of Bloom's Taxonomy

I. KNOWLEDGE

Emphasis of Stage:

Recognition and recall ability to remember facts in a form close to the way they were first presented; recalling restating, and remembering learned information

Classification of Objectives in the Cognitive Domain:

Know: terms (vocabulary), facts, methods and procedures, basic concepts, principles

Verbs to Use:

List, tell, define, identify, label, locate, recognize, describe, match, name, outline, select, reproduce, state, choose, what, recall, who, find, when, recite, memorize, know, write, read, group, where, record

⇒ Given a list/picture of various plants, students will be able to name each plant.

Developing Questions

When, what, where, was

⇒ What are the names of the states that border Indiana?

Assessment of Stage:

Observations, pretests, objectives, problem tests, using reports, application of knowledge, summary of principles, essays, analysis sheets, demonstrations.

II. COMPREHENSION

Emphasis of Stage:

Grasp the meaning and intent of information, the ability to tell or translate in your own words; grasping meaning of information by interpreting and translating meanings

Classification of Objectives in the Cognitive Domain:

Understand: interpret, translate, estimate, justify

Verbs to Use:

Explain, illustrate, describe, summarize, interpret, expand, convert, measure, defend, extent, infer, paraphrase, predict, rewrite, associate, show, outline, define, transform, draw, change, simplify, reorganize, group, retell

⇒ Given a list/pictures of plants, students will be able to identify those that are flowering plants.

Developing Questions:

Compare, what does it mean, tell in your own words

⇒ What is the impact of the dry season on northern Africa?

Assessment of Stage:

Explanations, games, essays, simulations, debates

III. APPLICATION

Emphasis of Stage:

Use of information, ability to apply learning to new situations and real life circumstances; making use of information in a context different from the one in which it was learned

Classification of Objectives in the Cognitive Domain:

Use what has been learned

Verbs to Use:

Demonstrate, apply, use, construct, find solutions, collect information, perform, solve, choose appropriate procedures, change, compute, modify, operate, prepare, produce, classify, employ, experiment, interview, model, modify, predict, prove, utilize
⇒ Given a list/picture of plants, students will be able to demonstrate categorization of these by genotype.

Developing Questions:

How can you use it, where does it lead you, how does it apply?

⇒ With the gardening materials provided to you, how would you go about growing a healthy garden?

Assessment of Stage:

Problem solving, incomplete, stories, role playing, essay tests

IV. ANALYSIS

Emphasis of Stage:

Reasoning, ability to break down information into component parts and to detect relationships of one part to another and to the whole, recognize organizational principles; breaking learned information into component parts

Classification of Objectives in the Cognitive Domain:

Perceive and can pick out the most important points in material presented; recognize unstated assumptions, recognize state assumptions, recognize logical fallacies in learning

Verbs to Use:

Analyze, break down, classify, compare, conclude, contrast, debate, diagram, differentiate, discover, discriminate, distinguish, divide, examine, generalize, infer, inspect, relate, select, separate, simplify, sort, subdivide, survey, take apart, transform
⇒ Given a variety of living plants, students will be able to compare factors contributing to hardiness and survival in growing zones 5 and 6.

Developing Questions:

How, why, what are the causes, how would you start? List all the problems

⇒ List all the problems that arose out of Romona's misunderstanding with her teacher.

How could these have been prevented?

Assessment of Stage: Oral debates, problem tests, report, open-ended stories

V. SYNTHESIS

Emphasis of Stage:

Originality and creativity, ability to assemble separate parts to form new whole; creating new information and ideas using previous learnings

Classification of Objectives in the Cognitive Domain:

Combine concepts to create an original or new idea

Verbs to Use:

Blend, build, combine, compose, construct, create, design, devise, develop, form, formulate, imagine, invent, modify, organize, rearrange, revise, rewrite, suppose
⇒Students will be able to formulate and design an ecologically balanced garden.

Developing Questions:

Suppose, how many ways are possible, think of all the different ways, what would happen if?

⇒What would have happened if a Native American group had discovered Europe?

Assessment of Stage:

Projects, reports

VI. EVALUATION

Emphasis of Stage:

Criteria or standards for evaluation and judgement, ability to make judgements based upon criteria or standards

Classification of Objectives in the Cognitive Domain:

Judge and evaluate ideas, information procedures, and solutions

Verbs to Use:

Appraise, assess, award, compare, conclude, criticize, decide, defend, determine, develop criteria, evaluate, grade, justify, measure, rank, rate, recommend, select, support
⇒Students will be able to estimate the growth pattern of given plants based upon information provided to them related to weather conditions in various locales in the US.

Developing Questions:

Which is good, what is the solution, will it work? Decide which....

⇒The student council needs to decide what to do about the overcrowding of the cafeteria during the two lunch periods. What advice or solutions would you like them to consider?

Assessment of Stage:

Judgements, rating scales, debates

Excerpts from: Kovalik, S. (1986). Integrated thematic instruction. Village of Oak Creek, AZ: Susan Kovalik and Associates.