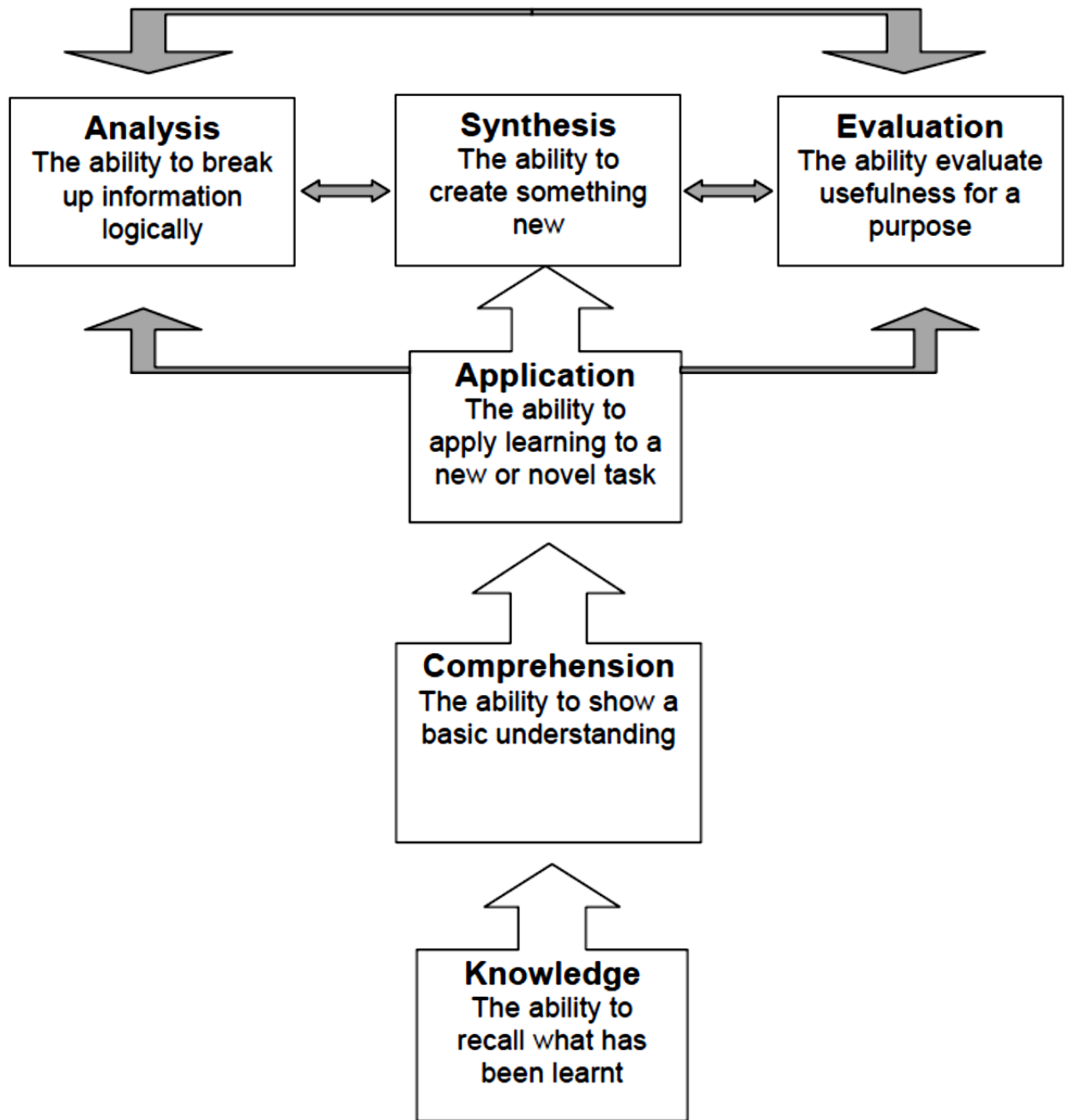


### Interrelationships Between Bloom's Cognitive Levels



Hall, C. & Johnson, A. (1994) Module A5: Planning a Test or Examination. In B. Imrie & C. Hall, Assessment of Student Performance. Wellington, New Zealand: University Teaching Development Centre, Victoria University of Wellington.

**Cognitive Domain**  
(Bloom)

<b>Level</b>	<b>Definition</b>	<b>Sample Verbs</b>
<b>Knowledge</b>	Recall and remember information.	defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states, memorizes, tells, repeats, reproduces
<b>Comprehension</b>	Understand the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words. Establish relationships between dates, principles, generalizations or values	comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates, shows relationship of, characterizes, associates, differentiates, classifies, compares distinguishes
<b>Application</b>	Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the workplace. Facilitate transfer of knowledge to new or unique situations.	applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, solves, uses, systematizes, experiments, practices, exercises, utilizes, organizes
<b>Analysis</b>	Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.	analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates, investigates, discovers, determines, observes, examines
<b>Synthesis</b>	Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure. Originality and creativity.	categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes, synthesizes, imagines, conceives, concludes, invents theorizes, constructs, creates
<b>Evaluation</b>	Make judgments about the value of ideas or materials.	appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports, calculates, estimates, consults, judges, criticizes, measures, decides, discusses, values, decides, accepts/rejects

**Affective Domain**  
(Bloom)

<b>Level</b>	<b>Definition</b>	<b>Sample Verbs</b>
<b>Receiving phenomena</b>	Awareness, willingness to hear, selected attention.	asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.
<b>Responding to phenomena</b>	Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).	answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.
<b>Valuing</b>	The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment.	completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.
<b>Organization</b>	Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system. The emphasis is on comparing, relating, and synthesizing values.	adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.
<b>Internalizing values</b>	Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner.	acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.

## Psychomotor Domain

Level	Definition	Sample Verbs
<b>Imitation</b>	Includes repeating an act that has been demonstrated or explained, and it includes trial and error until an appropriate response is achieved.	begin, assemble, attempt, carry out, copy, calibrate, construct, dissect, duplicate, follow, mimic, move, practice, proceed, repeat, reproduce, respond, organize, sketch, start
<b>Manipulation</b>	Includes repeating an act that has been demonstrated or explained, and it includes trial and error until an appropriate response is achieved.	(similar to imitation), acquire, assemble, complete, conduct, do, execute, improve, maintain, make, manipulate, operate, pace, perform, produce, progress, use
<b>Precision</b>	Response is complex and performed without hesitation.	achieve, accomplish, advance, exceed, excel, master, reach, refine, succeed, surpass, transcend
<b>Articulation</b>	Skills are so well developed that the individual can modify movement patterns to fit special requirements or to meet a problem situation.	adapt, alter, change, excel, rearrange, reorganize, revise, surpass
<b>Naturalization</b>	Response is automatic. One acts "without thinking."	arrange, combine, compose, construct, create, design, refine, originate, transcend

## Cognitive Domain

### Learning Outcomes Related to Knowledge

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Student remembers or recognizes information or specifics as communicated with little personal assimilation.	Student grasps the meaning behind the information and interprets, translates, or comprehends the information.	Student uses information to relate and apply it to a new situation with minimal instructor input.	Student discriminates, organizes, and scrutinizes assumptions in an attempt to identify evidence for a conclusion.	Student creatively applies knowledge and analysis to integrate concepts or construct an overall theory.	Student judges or evaluates information based upon standards and criteria, values and opinions.
Cite Label List Enumerate Identify Imitate Match Name Quote Recall Reproduce State Write	Convert Define Describe Discuss Estimate Explain Generalize Identify Illustrate Locate Paraphrase Restate Summarize	Apply Chart Compute Demonstrate Determine Dramatize Establish Make Manipulate Prepare Project Solve Use	Analyze Compare Contrast Correlate Diagram Dissect Differentiate Distinguish Infer Investigate Limit Outline Separate	Assemble Create Construct Design Develop Formulate Generate Hypothesize Initiate Invent Modify Reframe Synthesize	Access Appraise Conclude Critique Decide Defend Diagnose Evaluate Judge Justify Rank Recommend Support

Basic  
Knowledge  
Level

More Sophisticated  
Higher Level Thinking  
Critical Thinking

## Affective Domain

### Learning Outcomes Related to Attitudes, Behaviors, and Values

<b>Receiving</b>	<b>Responding</b>	<b>Valuing</b>	<b>Organizing</b>	<b>Characterizing</b>
Students become aware of an attitude, behavior, or value.	Students exhibit a reaction or change as a result of exposure to an attitude, behavior, or value.	Students recognize value and display this through involvement or commitment.	Students determine a new value or behavior as important or a priority.	Students integrate consistent behavior as a naturalized value in spite of discomfort or cost. The value is recognized as a part of the person's character.
Accept Attend Describe Explain Locate Observe Realize Receive Recognize	Behave Comply Cooperate Discuss Examine Follow Model Present Respond Show Studies	Accept Adapt Balance Choose Differentiate Defend Influence Prefer Recognize Seek Value	Adapt Adjust Alter Change Customize Develop Improve Manipulate Modify Practice Revise	Authenticate Characterize Defend Display Embody Habituate Internalize Produce Represent Validate Verify

Elementary Values and Behaviors  
Inherited Value System  
Egocentric View

More Highly Developed Attitudes  
Well Thought-out Value System  
Higher Level Abilities to Identify and  
Articulate Others' Values

## Psychomotor Domain

### Learning Outcomes Related to Skills

<b>Observe</b>	<b>Model</b>	<b>Recognize Standards</b>	<b>Correct</b>	<b>Apply</b>	<b>Coach</b>
Students translate sensory input into physical tasks or activities.	Students are able to replicate a fundamental skill or task.	Students recognize standards or criteria important to perform a skill or task correctly.	Students use standards to evaluate their own performances and make corrections.	Students apply this skill to real life situations.	Students are able to instruct or train others to perform this skill in other situations.
Hear Identify Observe See Smell Taste Touch Watch  *Usually no outcomes or objectives written at this level.	Attempt Copy Follow Imitate Mimic Model Reenact Repeat Reproduce Show Try	Check Detect Discriminate Differentiate Distinguish Notice Perceive Recognize Select	Adapt Adjust Alter Change Correct Customize Develop Improve Manipulate Modify Practice Revise	Build Compose Construct Create Design Originate Produce	Demonstrate Exhibit Illustrate Instruct Teach Train

Basic Knowledge  
 Basic Skills  
 Level

More Sophisticated Skills  
 Higher Level Abilities  
 Critical Understanding of Performance