

The Art of Supervising Students

Learning Objectives
Taxonomy of Cognitive, Affective and Psychomotor Domains
 (Classification of Action Verbs)

1. Learning Objectives in the Cognitive Domain – *Knowledge* (Bloom, 1969)

Cognitive domain	Action or behavioural verbs
Knowledge (Emphasis on recall)	Choose from a list, define, delineate, label, list, match, name, outline, recall, record, relate, repeat, specify, state, underline
Comprehension (Emphasis on grasping meaning; confirming learning)	Associate, classify, compare, consider, cover, describe, differentiate, discuss, distinguish, explain, give examples, locate, paraphrase, relate, restate, rewrite, summarize, translate
Application (Emphasis on proper use of standards)	Act, apply, bind, calculate, change, choose, classify, demonstrate, handle, illustrate, interpret, locate, modify, organize, predict, prepare, present, resolve, show, solve, use
Analysis (Emphasis on separating the whole into parts and relating those parts)	Analyze, assemble, categorize, classify, combine, compare, contrast, deduct, detect, determine, diagram, differentiate, discriminate, divide, draw, identify, illustrate, organize, separate, structure, subdivide
Synthesis (Emphasis on combining elements into a new entity; amalgamating)	Categorize, combine, compose, create, design, diagram, discuss, document, explain, formulate, imagine, modify, plan, produce, recommend, relate, say, state, summarize, tell, write
Evaluation (Emphasis on judging, assigning value, assessing results)	Appraise, argue, compare, conclude, contrast, critique, decide, discriminate, evaluate, interpret, justify, measure, recommend, standardize, suggest, summarize, validate

2. Learning Objectives in the Affective Domain – *Attitudes* (Krathwohl, Bloom & Masia)

Represents moods, convictions, awareness and desires; may be difficult to express in terms of observable behaviours; not always clear.

Affective domain (and attitudes)	Action or behavioural verbs
Receiving (Informed, paying attention to an idea or process; aware of an event)	Choose, define, describe, designate, formulate, gather, give, identify, isolate, list, listen, match, monitor, name, reproduce, request, separate, share, support
Responding (Reacting to verbal or nonverbal information)	Approve, choose, comply, conform, cover, discuss, distinguish, entrust, explain, foresee, generalize, give examples or opinion, greet, help, offer, paraphrase, recite, reply, rewrite, say, summarize, write
Valuing (Preference for a particular value; attaching importance to)	Associate with, choose, complete, contend, deny, describe, differentiate, do, encourage, explain, follow, form, give opinion, help, initiate, justify, propose, read, renounce, share, specify
Organization (Conceptualizing a new value; building a value system)	Adhere, change, combine, compare, complete, defend, discuss, explain, formulate, generalize, identify, integrate, modify, organize, prepare, rank, request, tell
Characterization (Completed process of interiorization; outlook on life)	Accomplish, act, avoid, check, discriminate, influence, modify, practise, propose, qualify, request, resist, resolve, review, revise, seek agreement, serve, show, synthesize

3. Learning Objectives in the Psychomotor Domain – *Skills*

Includes reflex and voluntary movements; also refers to skills in the cognitive domain.

Psychomotor categories (skills)	Action or behavioural verbs
Movements without objects or tools (e.g. act, action, travel, skill, movement)	Agitate, balance, bend, climb, correct, crawl, curve, eat, follow, grab, grasp (clutch), jump, knock, launch, lean on, leap, lift, press, pull, push, reach, roll, run, shake, sit down, skip, slide, stand up, stir, stretch, strike, swim, tap, tear off, throw, tilt the head, twist, walk
Movements with objects or tools (e.g. act, action, travel, skill, movement)	Assemble, attach, attach, brush, build, calibrate, carve, catch, churn, clean, colour, construct, copy, count, cover, crush, cut, draw, exhibit, fold, glaze, glue, handle stick, hold, launch, manipulate, mix, mould, nail, paint, perforate, pin, polish, pour, prick, print, saw, scratch, smoothe, throw, trace, weigh, wipe, wrap, write

Another classification of the psychomotor domain (Harrow, 1997):

- Observation – watches someone performing an action
- Imitation – practises while following the rules
- Practise – repeats an action out of habit
- Adaptation – improves an action or skill

Another classification of the psychomotor domain:

- Imitation (repeats actions)
- Manipulation (follows instructions)
- Precision (reproduces accurately)
- Articulation (harmony and action sequencing)
- Naturalization (automatisms, interiorization)

The following verbs should be avoided because they are too vague and subject to **several interpretations**: achieve potential, appreciate, believe, benefit from, develop, enjoy, grasp the meaning of, grow, increase sensitivity, interiorize, know, learn, understand.