

Learning Outcomes



Bloom's Psychomotor Domain

| Category | Example and Key Words |
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| Perception: The ability to use sensory cues to guide motor activity. This ranges from sensory stimulation, through cue selection, to translation. | Examples: Detects non-verbal communication cues. Estimate where a ball will land after it is thrown and then moving to the correct location to catch the ball. Adjusts heat of stove to correct temperature by smell and taste of food. Adjusts the height of the forks on a forklift by comparing where the forks are in relation to the pallet. Key Words: chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects. |
| Set: Readiness to act. It includes mental, physical, and emotional sets. These three sets are dispositions that predetermine a person's response to different situations (sometimes called mindsets). | Examples: Knows and acts upon a sequence of steps in a manufacturing process. Recognize one's abilities and limitations. Shows desire to learn a new process (motivation). NOTE: This subdivision of Psychomotor is closely related with the "Responding to phenomena" subdivision of the Affective domain. Key Words: begins, displays, explains, moves, proceeds, reacts, shows, states, volunteers. |
| Guided Response: The early stages in learning a complex skill that includes imitation and trial and error. Adequacy of performance is achieved by practicing. | Examples: Performs a mathematical equation as demonstrated. Follows instructions to build a model. Responds to hand-signals of instructor while learning to operate a forklift. Key Words: copies, traces, follows, react, reproduce, responds |
| Mechanism: This is the intermediate stage in learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency. | Examples: Use a personal computer. Repair a leaking faucet. Drive a car. Key Words: assembles, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes sketches. |

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| <p>Complex Overt Response: The skilful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, accurate, and highly coordinated performance, requiring a minimum of energy. This category includes performing without hesitation, and automatic performance. For example, players are often utter sounds of satisfaction or expletives as soon as they hit a tennis ball or throw a football, because they can tell by the feel of the act what the result will produce.</p> | <p>Examples: Manoeuvres a car into a tight parallel parking spot. Operates a computer quickly and accurately. Displays competence while playing piano.</p> <p>Key Words: assembles, builds, calibrates, constructs, dismantles, displays, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes sketches.</p> <p>NOTE: The Key Words are the same as Mechanism, with adverbs or adjectives that indicate that the performance is quicker, better, more accurate, etc.</p> |
| <p>Adaptation: Skills are well developed and the individual can modify movement patterns to fit special requirements.</p> | <p>Examples: Responds effectively to unexpected experiences. Modifies instruction to meet the needs of the learners. Perform a task with a machine that it was not originally intended to do (machine is not damaged and there is no danger in performing the new task).</p> <p>Key Words: adapts, alters, changes, rearranges, reorganizes, revises, varies.</p> |
| <p>Origination: Creating new movement patterns to fit a particular situation or specific problem. Learning outcomes emphasize creativity based upon highly developed skills.</p> | <p>Examples: Constructs a new theory. Develops a new and comprehensive training programming. Creates a new gymnastic routine.</p> <p>Key Words: arranges, builds, combines, composes, constructs, creates, designs, initiate, makes, originates.</p> |

Source: <http://www.nwlink.com/~donclark/hdr/bloom.html>

Simpson E. J. (1972). *The Classification of Educational Objectives in the Psychomotor Domain*. Washington, DC: Gryphon House.

Dave, R. H. (1975). *Developing and Writing Behavioural Objectives*. (R J Armstrong, ed.) Educational Innovators Press.

Harrow, A. (1972). *A taxonomy of psychomotor domain – a guide for developing behavioural objectives*. New York: David McKay.

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Other Psychomotor Domains

As mentioned earlier, the committee did not produce a compilation for the psychomotor domain model, but others have. The one discussed above is by Simpson (1972). There are two other popular versions:

Dave (1975):

- **Imitation:** Observing and patterning behaviour after someone else. Performance may be of low quality. Example: Copying a work of art.
- **Manipulation:** Being able to perform certain actions by following instructions and practicing. Example: Creating work on one's own, after taking lessons, or reading about it.
- **Precision:** Refining, becoming more exact. Few errors are apparent. Example: Working and reworking something, so it will be "just right."
- **Articulation:** Coordinating a series of actions, achieving harmony and internal consistency. Example: Producing a video that involves music, drama, color, sound, etc.
- **Naturalization:** Having high level performance become natural, without needing to think much about it. Examples: Michael Jordan playing basketball, Nancy Lopez hitting a golf ball, etc.

Harrow (1972)

- Involuntary movement – reaction
- Fundamental movements - basic movements
- Perception - response to stimuli
- Physical abilities - stamina that must be developed for further development
- Skilled movements - advanced learned movements
- No discursive communication - effective body language

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