



Defining learning objectives, training methods, and training design



FORMULATING LEARNING OUTCOMES

- Objectives and Learning outcomes – do they mean the same?
- Taxonomies – Bloom's Taxonomy and Krathwohl's Taxonomy.
- Bloom's Taxonomy focuses primarily on cognitive skills like knowledge recall and problem-solving.
- Krathwohl's Taxonomy of the Affective Domain categorises the learning outcomes that involve emotions, feelings, attitudes, values, and other subjective aspects of human experience.



Krathwohl's Taxonomy of Educational Objectives



Receiving is being aware of or sensitive to the existence of certain ideas, material, or phenomena and being willing to tolerate them. Examples include: to differentiate, to accept, to listen (for), to respond to.

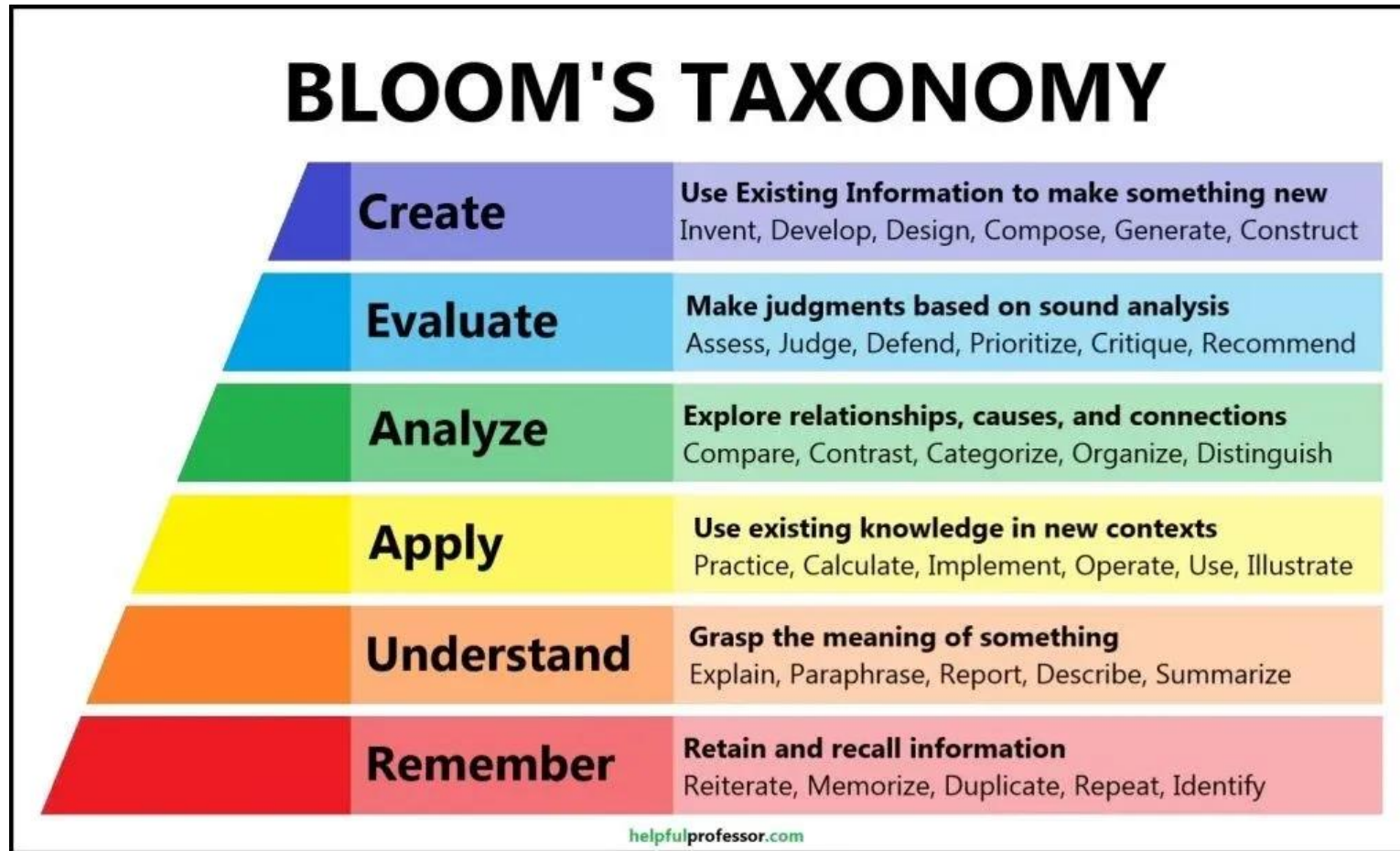
Responding is committed in some small measure to the ideas, materials, or phenomena involved by actively responding to them. Examples are: to comply with, to follow, to commend, to volunteer, to spend leisure time in, to acclaim.







Valuing is willing to be perceived by others as valuing certain ideas, materials, or phenomena. Examples include: to increase measured proficiency in, to relinquish, to subsidize, to support, to debate.

Organization is to relate the value to those already held and bring it into a harmonious and internally consistent philosophy. Examples are: to discuss, to theorize, to formulate, to balance, to examine.

Characterization by value or value set is to act consistently in accordance with the values he or she has internalized. Examples include: to revise, to require, to be rated high in the value, to avoid, to resist, to manage, to resolve.

Bloom's Taxonomy of Educational Objectives



BLOOM'S TAXONOMY DIGITAL PLANNING VERBS					
<p>REMEMBERING</p>  <ul style="list-style-type: none"> Copying Defining Finding Locating Quoting Listening Googling Repeating Retrieving Outlining Highlighting Memorizing Networking Searching Identifying Selecting Tabulating Duplicating Matching Bookmarking Bullet-pointing 	<p>UNDERSTANDING</p>  <ul style="list-style-type: none"> Annotating Tweeting Associating Tagging Summarizing Relating Categorizing Paraphrasing Predicting Comparing Contrasting Commenting Journaling Interpreting Grouping Inferring Estimating Extending Gathering Exemplifying Expressing 	<p>APPLYING</p>  <ul style="list-style-type: none"> Acting out Articulate Reenact Loading Choosing Determining Displaying Judging Executing Examining Implementing Sketching Experimenting Hacking Interviewing Painting Preparing Playing Integrating Presenting Charting 	<p>ANALYZING</p>  <ul style="list-style-type: none"> Calculating Categorizing Breaking Down Correlating Deconstructing Linking Mashing Mind-Mapping Organizing Appraising Advertising Dividing Deducing Distinguishing Illustrating Questioning Structuring Integrating Attributing Estimating Explaining 	<p>EVALUATING</p>  <ul style="list-style-type: none"> Arguing Validating Testing Scoring Assessing Criticizing Commenting Debating Defending Detecting Experimenting Grading Hypothesizing Measuring Moderating Posting Predicting Rating Reflecting Reviewing Editorializing 	<p>CREATING</p>  <ul style="list-style-type: none"> Blogging Building Animating Adapting Collaborating Composing Directing Devising Podcasting Wiki Building Writing Filming Programming Simulating Role Playing Solving Mixing Facilitating Managing Negotiating Leading



Formulating learning outcomes

- A learning outcome is a concise description of what students will learn and how that learning will be assessed.
- Clearly articulated learning outcomes can make designing a course, assessing student learning progress, and facilitating learning activities easier and more effective.





Writing learning outcomes

- Can be made easier by using the ABCD approach.
- This strategy identifies four key elements of an effective learning outcome:
 - Audience
 - Behavior
 - Condition
 - Degree



Elements of a learning outcome

Audience

Define who will achieve the outcome. Commonly used phrases include “By the end of this course, *students* will be able to...” or “Upon completion of this activity, *workshop participants* will be able to...”

Behavior

Use action verbs to describe observable behavior that demonstrates mastery of the goal or objective. Select a different action verb depending on the skill, knowledge, or domain of the behavior.



Elements of a learning outcome

Condition

Under which conditions is the behavior to be performed? These are conditions:

- Equipment or tools, such as using a laboratory device or a specified software application.
- Situation or environment, such as in a clinical setting, or during a performance.
- Materials or format, such as written text, a slide presentation, or using specified materials.



Elements of a learning outcome

Degree

Degree states the standard or criterion for acceptable performance.

The degree should be related to real-world expectations: what standard should the learner meet to be judged proficient?



Objective

Participants will collaboratively create clear, measurable **Intended Learning Outcomes (ILOs)** for a topic e.g. ante and post-mortem inspection.