

LEARNING OBJECTIVES AND BLOOM'S TAXONOMY

Why is it Needed

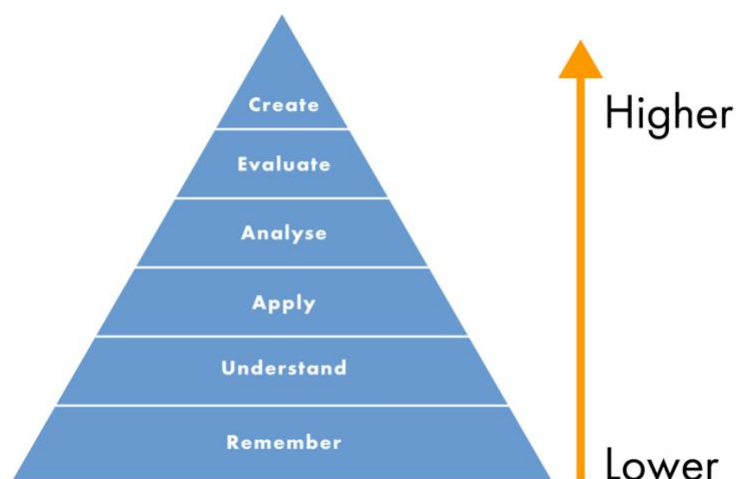
Bloom's Taxonomy is a powerful tool to help develop learning objectives. It is used by educators, trainers and facilitators to encourage higher-order thinking from their participants by building up from lower-level cognitive skills through a range of different learning experiences. This can be particularly relevant for Scouting especially when designing training, personal development or other learning opportunities.

What is it

Originally, the six levels of Bloom's Taxonomy were:

- Knowledge – remembering, being able to recall – list, define (lower level thinking skills).
- Comprehension – understands, can restate, describe, provide an example, summarise.
- Application – apply, calculate, solve, operate, demonstrate – theoretical to practical.
- Analysis – makes sense of how things are connected, analyse, compare and contrast.
- Synthesis – design, invent, create, compose, rewrite, rearrange, plan; and
- Evaluation – rate, critique, make judgements, appraise (Higher level thinking skills).

With new evidence, more refined models have become available and are widely used. These revised models more clearly show the bottom-up approach from lower-level thinking development to higher-order thinking skills and development.



Revised Blooms' Taxonomy Model



For example, each level allows educators, trainers and facilitators to develop learning opportunities with appropriately set objectives that start with lower-level thinking, learning experiences and progressively developing experiences towards higher-level thinking skills.

How is it used

Objectives for learning can be grouped into three major domains: cognitive, affective, and psychomotor. These 3 domains link closely with the behaviours and attributes of the Taxonomy:

- Cognitive: to know, remember.
- Affective: to feel or individual attributes.
- Psychomotor: to do, undertaking practical tasks, hands-on activity.

We know that for our Scout Programme to be balanced in its planning and delivery, it needs to have a blend of these domains, and we describe what we are going to do with 'action words' or verbs to appropriate objectives that cross all levels of developmental learning.

There are a number of 'Verb Tables' that help to identify which ACTION VERBS align with each level in Bloom's Taxonomy. A link to the table follows at the end of this content.

What is useful to note is that some of these verbs on the table are associated with multiple Bloom's Taxonomy levels. These 'multi-level' verbs are actions that could apply to different activities. For example, you have a learning objective that states, 'explain the difference between the Clove Hitch and the Reef Knot'. This would relate to an "Understanding" level objective. However, if you wanted the adult participant to explain why you use a Clove Hitch on a square lashing and not a Reef Knot, this would be an "Analysing" level verb linked to "Applying", as the thinking would involve "Analysis" and also "Application".

To make it easier when looking at 'action words' (verbs) for stating learning objectives, keep in mind that it is the action, skill or activity you will use that is using that doing word or verb. So, if the aim is to 'build a pioneering tower' (action, skill, activity, consolidating the knots, lashings and pioneering skills) then the learning objective would be: at the end of the session, adult participants will be able to design and build a pioneering tower. Bloom's level is 'Create', and two of the verbs or action words associated with this level are design and build.

Three things to note when writing objectives

- The skill or behaviour to be performed and demonstrated.
- The conditions under which the adults will perform the skill and demonstrate knowledge.
- The criteria used to measure performance.

Example



Putting all this thinking together, using the topic - 'Tower Building'.

The aim is '*Adult participants will build a pioneering tower to a height of 3 metres*'. How they will do that is expressed in these OBJECTIVES using appropriate 'action words' (verbs)

- a) Discuss with team and design tower
- b) Choose poles and ropes and other materials
- c) Agree on tasks and construct the tower
- d) Inspect for safety, measure height to ensure 3 metres
- e) Test tower for the intended purpose

These action words are from a Bloom's Taxonomy table and linked to the 3 major domains, cognitive, affective and psychomotor:

Bloom's Taxonomy can also be used for assessment. For this to occur, there is a need to be clear on what the adults/participants should have learned from the learning experiences presented. Simple questions can test memory and providing an activity where there is a need to solve a problem can identify applications practically. Asking the adult/participant to create a song as part of a patrol activity can check analysis, and asking them to critique another group's activity can assist evaluation.

Effective Learning Objectives have:

- At least one measurable verb in the objective.
- If using two measurable verbs like explain and apply, make sure the adult can 'explain' and 'apply' through an appropriate activity that can measure both verbs.
- Ensure that verbs in the objective are the right ones for the activity or task.
- All learning objectives must be measurable, clear and concise.

Avoid using verbs in objectives that cannot be quantified or measured, that includes words like understand, appreciate, learn, and enjoy.

Understanding something of Bloom's Taxonomy and how it can assist in the writing of learning objectives is not rocket science. Working with verbs that clearly can be used to measure learning competence makes the task of the educator/trainer/facilitator much easier and more educationally relevant when planning the learning experience, assessing the learners and watching them develop as they experiment and navigate around the Taxonomy.

Visit also:

[Adult Training](#)

[Bloom's Taxonomy Explanatory Video](#)

[Learning Objectives Easygenerator](#)

Bloom's Taxonomy Action Verbs (Revised*)

Definitions	Remembering	Understanding	Applying	Analysing	Evaluating	Creating
Bloom's Definition	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
Verbs	Choose Define Find How Label List Match Name Omit Recall Relate Select Show Spell Tell What When Where Which Who Why	Classify Compare Contrast Demonstrate Explain Extend Illustrate Infer Interpret Outline Relate Rephrase Show Summarize Translate	Apply Build Choose Construct Develop Experiment with Identify Interview Make use of Model Organize Plan Select Solve Utilize	Analyse Assume Categorize Classify Compare Conclusion Contrast Discover Dissect Distinguish Divide Examine Function Inference Inspect List Motive Relationships Simplify Survey Take part in Test for Theme	Agree Appraise Assess Award Choose Compare Conclude Criteria Criticize Decide Deduct Defend Determine Disprove Estimate Evaluate Explain Importance Influence Interpret Judge Justify Mark Measure Opinion Perceive Prioritize Prove Rate Recommend Rule on Select Support Value	Adapt Build Change Choose Combine Compile Compose Construct Create Delete Design Develop Discuss Elaborate Estimate Formulate Happen Imagine Improve Invent Make up Maximize Minimize Modify Original Originate Plan Predict Propose Solution Solve Suppose Test Theory

* Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing Abridged Edition. Boston, MA: Allyn and Bacon.