

Revised Bloom's Taxonomy

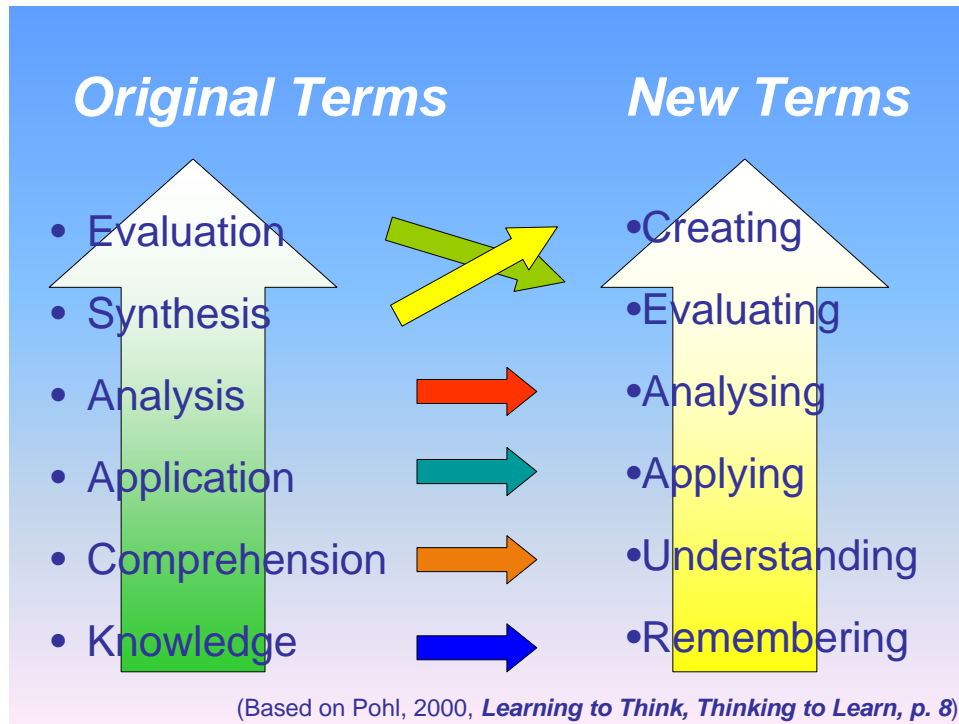
Revised Bloom's Taxonomy (RBT) employs the use of 25 verbs that create collegial understanding of student behavior and learning outcome.

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Bloom's Revised Taxonomy

- Taxonomy of Cognitive Objectives
- 1950s- developed by Benjamin Bloom
- Means of expressing qualitatively different kinds of thinking
- Been adapted for classroom use as a planning tool
- Continues to be one of the most universally applied models
- Provides a way to organise thinking skills into six levels, from the most basic to the more complex levels of thinking
- 1990s- Lorin Anderson (former student of Bloom) revisited the taxonomy
- As a result, a number of changes were made

(Pohl, 2000, *Learning to Think, Thinking to Learn*, pp. 7-8)

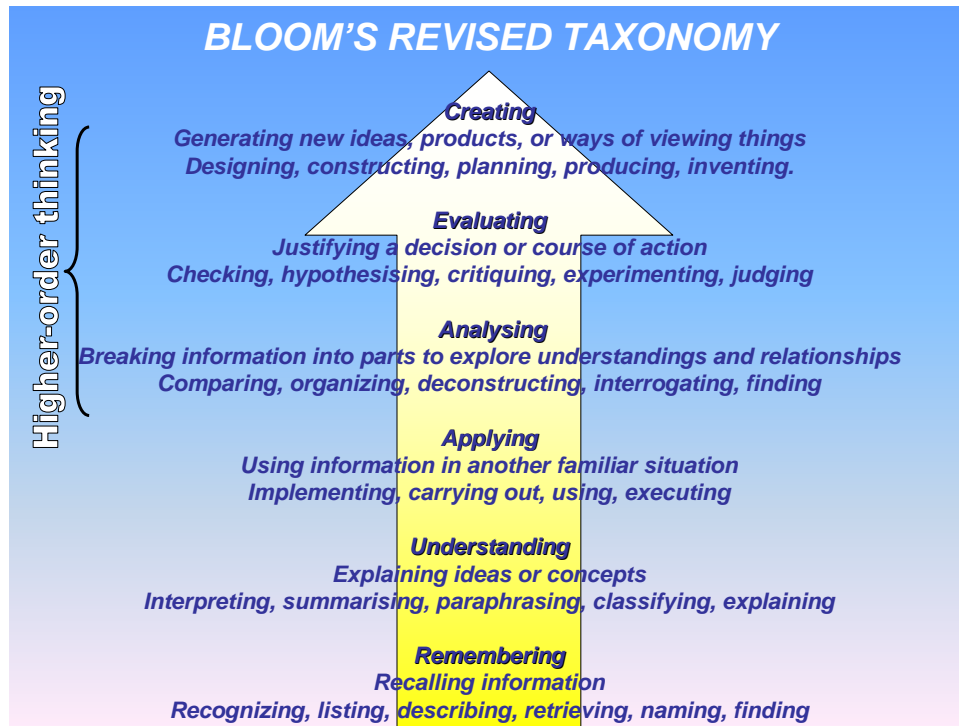


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Change in Terms

- The names of six major categories were changed from *noun* to *verb* forms.
- As the taxonomy reflects different forms of thinking and thinking is an *active* process verbs were used rather than nouns.
- The subcategories of the six major categories were also replaced by verbs and some subcategories were reorganised.
- The knowledge category was renamed. Knowledge is an outcome or product of thinking not a form of thinking *per se*. Consequently, the word knowledge was inappropriate to describe a category of thinking and was replaced with the word *remembering* instead.
- Comprehension and synthesis were retitled to *understanding* and *creating* respectively, in order to better reflect the nature of the thinking defined in each category.

<http://rite.ed.qut.edu.au/oz-teachernet/training/bloom.html>



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The Cognitive Dimension Process

Level 1 - C1

Categories & Cognitive Processes	Alternative Names	Definition
Remember		Retrieve knowledge from long-term memory
Recognizing	Identifying	Locating knowledge in long-term memory that is consistent with presented material
Recalling	Retrieving	Retrieving relevant knowledge from long-term memory

Level 2 – C2

Categories & Cognitive Processes	Alternative Names	Definition
Understand		Construct meaning from instructional messages, including oral, written, and graphic communication
Interpreting	Clarifying Paraphrasing Representing Translating	Changing from one form of representation to another
Exemplifying	Illustrating Instantiating	Finding a specific example or illustration of a concept or principle
Classifying	Categorizing Subsuming	Determining that something belongs to a category
Summarizing	Abstracting Generalizing	Abstracting a general theme or major point(s)
Inferring	Concluding Extrapolating Interpolating Predicting	Drawing a logical conclusion from presented information
Comparing	Contrasting Mapping Matching	Detecting correspondences between two ideas, objects, and the like
Explaining	Constructing models	Constructing a cause and effect model of a system

Anderson, Lorin W. & Krathwohl, David R. (2001). *A Taxonomy for Learning, Teaching and Assessing: a Revision of Bloom's Taxonomy*. New York. Longman Publishing.

Level 3 – C3

Categories & Cognitive Processes	Alternative Names	Definition
Apply		Applying a procedure to a familiar task
Executing	Carrying out	Applying a procedure to a familiar task
Implementing	Using	Applying a procedure to an unfamiliar task
Analyze		Break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose
Differentiating	Discriminating Distinguishing Focusing Selecting	Distinguishing relevant from irrelevant parts or important from unimportant parts of presented material
Organizing	Finding coherence Integrating Outlining Parsing Structuring	Determining how elements fit or function within a structure
Attributing	Deconstructing	Determine a point of view, bias, values, or intent underlying presented material
Evaluate		Make judgments based on criteria and standards
Checking	Coordinating Detecting Monitoring Testing	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented
Critiquing	Judging	Detecting inconsistencies between a product and external criteria; determining whether a product has external consistency; detecting the appropriateness of a procedure for a given problem

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Categories & Cognitive Processes	Alternative Names	Definition
Create		Put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure
Generating	Hypothesizing	Coming up with alternative hypotheses based on criteria
Planning	Designing	Devising a procedure for accomplishing some task
Producing	Constructing	Inventing a product

The Knowledge Dimension

Dimension	Definition
Factual Knowledge	The basic elements students must know to be acquainted with a discipline or solve problems in it
Conceptual Knowledge	The interrelationships among the basic elements within a larger structure that enable them to function together
Procedural Knowledge	How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods
Metacognitive Knowledge	Knowledge of cognition in general as well as awareness and knowledge of one's own cognition

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Potential Activities and Products

Remembering: Potential Activities and Products

- Make a list of the main events of the story.
- Make a time line of events.
- Make a facts chart.
- Write a list of any pieces of information you can remember.
- What animals were in the story?
- Make a chart showing...
- Make an acrostic.
- Recite a poem.

Understanding: Potential Activities and Products

- Cut out, or draw pictures to show a particular event.
- Illustrate what you think the main idea may have been.
- Make a cartoon strip showing the sequence of events.
- Write and perform a play based on the story.
- Retell the story in your own words.
- Write a summary report of the event
- Prepare a flow chart to illustrate the sequence of events.
- Make a coloring book.
- Cut out, or draw pictures to show a particular event. Illustrate what you think the main idea was.
- Make a cartoon strip showing the sequence of events.
- Write and perform a play based on the story.
- Retell the story in your own words.
- Write a summary report of the event
- Prepare a flow chart to illustrate the sequence of events.
- Cut out, or draw pictures to show a particular event. Illustrate what you think the main idea was.
- Make a cartoon strip showing the sequence of events.
- Write and perform a play based on the story.

Applying: Potential Activities and Products

- Construct a model to demonstrate how it works
- Make a diorama to illustrate an event
- Make a scrapbook about the areas of study.
- Make a papier-mache map / clay model to include relevant information about an event.
- Take a collection of photographs to demonstrate a particular point.
- Make up a puzzle or a game about the topic.
- Write a textbook about this topic for others.
- Dress a doll in national costume.
- Make a clay model.
- Paint a mural using the same materials.
- Design a marketing strategy for your product using a known strategy as a model.

Analyzing: Potential Activities and Products

- Design a questionnaire to gather information.
- Write a commercial to sell a new product
- Make a flow chart to show the critical stages.
- Construct a graph to illustrate selected information.
- Make a family tree showing relationships.
- Devise a play about the study area.
- Write a biography of a person studied.
- Prepare a report about the area of study.
- Conduct an investigation to produce information to support a view.
- Review a work of art in terms of form, color and texture.

Evaluating: Potential Activities and Products

- Prepare a list of criteria to judge...
- Conduct a debate about an issue of special interest.
- Make a booklet about five rules you see as important. Convince others.
- Form a panel to discuss views.
- Write a letter to. ..advising on changes needed.
- Write a half-yearly report.
- Prepare a case to present your view about...

Creating: Potential Activities and Products

- Invent a machine to do a specific task.
- Design a building to house your study.
- Create a new product. Give it a name and plan a marketing campaign.
- Write about your feelings in relation to...
- Write a TV show play, puppet show, role play, song **or** pantomime about..
- Design a record, book or magazine cover for...
- Sell an idea
- Devise a way to...
- Make up a new language and use it in an example.

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Assessment

Questions for Remembering

- What happened after...?
- How many...?
- What is...?
- Who was it that...?
- Can you name ...?
- Find the meaning of...
- Describe what happened after...
- Who spoke to...?
- Which is true or false...?

(Pohl, *Learning to Think, Thinking to Learn*, p. 12)

Questions for Understanding

- Can you write in your own words?
- How would you explain...?
- Can you write a brief outline...?
- What do you think could have happened next...?
- Who do you think...?
- What was the main idea...?
- Can you clarify...?
- Can you illustrate...?
- Does everyone act in the way that does?

(Pohl, *Learning to Think, Thinking to Learn*, p. 12)

Questions for Applying

- Do you know of another instance where...?
- Can you group by characteristics such as...?
- Which factors would you change if...?
- What questions would you ask of...?
- From the information given, can you develop a set of instructions about...?

(Pohl, *Learning to Think, Thinking to Learn*, p. 13)

Question for Analysing

- Which events could not have happened?
- If. ..happened, what might the ending have been?
- How is...similar to...?
- What do you see as other possible outcomes?
- Why did...changes occur?
- Can you explain what must have happened when...?
- What are some of the problems of...?
- Can you distinguish between...?
- What were some of the motives behind..?
- What was the turning point?
- What was the problem with...?

(Pohl, *Learning to Think, Thinking to Learn*, p. 13)

Questions for Evaluating

- Is there a better solution to...?
- Judge the value of... What do you think about...?
- Can you defend your position about...?
- Do you think...is a good or bad thing?
- How would you have handled...?
- What changes to.. would you recommend?
- Do you believe...? How would you feel if. ...?
- How effective are. ...?
- What are the consequences..?
- What influence will....have on our lives?
- What are the pros and cons of....?
- Why isof value?
- What are the alternatives?
- Who will gain & who will loose?

(Pohl, *Learning to Think, Thinking to Learn*, p. 14)

Questions for Creating

- Can you design a...to...?
- Can you see a possible solution to...?
- If you had access to all resources, how would you deal with...?
- Why don't you devise your own way to...?
- What would happen if ...?
- How many ways can you...?
- Can you create new and unusual uses for...?
- Can you develop a proposal which would...?

(Pohl, *Learning to Think, Thinking to Learn*, p. 14)

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