



Office for Professional Development
Indiana University-Purdue University Indianapolis

Bloom's Taxonomy "Revised"

Key Words, Model Questions, & Instructional Strategies

Bloom's Taxonomy (1956) has stood the test of time. Recently Anderson & Krathwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. This reference reflects those recommended changes.

I. REMEMBER (KNOWLEDGE)

(shallow processing: drawing out factual answers, testing recall and recognition)

| Verbs for Objectives | Model Questions | Instructional Strategies |
|----------------------|-----------------------|--------------------------|
| choose | Who? | Highlighting |
| describe | Where? | Rehearsal |
| define | Which One? | Memorizing |
| identify | What? | Mnemonics |
| label | How? | |
| list | What is the best one? | |
| locate | Why? | |
| match | How much? | |
| memorize | When? | |
| name | What does It mean? | |
| omit | | |
| recite | | |
| recognize | | |
| select | | |
| state | | |

II. UNDERSTAND (COMPREHENSION)

(translating, interpreting and extrapolating)

| Verbs for Objectives | Model Questions | Instructional Strategies |
|----------------------|----------------------------------|--|
| classify | State in your own words. | Key examples |
| defend | Which are facts? | Emphasize connections |
| demonstrate | What does this mean? | Elaborate concepts |
| distinguish | Is this the same as. . . ? | Summarize |
| explain | Give an example. | Paraphrase |
| express | Select the best definition. | STUDENTS explain |
| extend | Condense this paragraph. | STUDENTS state the rule |
| give example | What would happen if . . . ? | "Why does this example. . . ?" |
| illustrate | State in one word . . . | create visual representations |
| indicate | Explain what is happening. | (concept maps, outlines, flow |
| interrelate | What part doesn't fit? | charts organizers, analogies, |
| interpret | Explain what is meant. | pro/con grids) <u>PRO CON</u> |
| infer | What expectations are there? | <i>NOTE: The faculty member can</i> |
| judge | Read the graph (table). | <i>show them, but <u>they</u> have to do it.</i> |
| match | What are they saying? | Metaphors, rubrics, heuristics |
| paraphrase | This represents. . . | |
| represent | What seems to be . . . ? | |
| restate | Is it valid that . . . ? | |
| rewrite | What seems likely? | |
| select | Show in a graph, table. | |
| show | Which statements support . . . ? | |
| summarize | What restrictions would you add? | |
| tell | | |
| translate | | |

III. APPLY

(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

Verbs for Objectives

apply
choose
dramatize
explain
generalize
judge
organize
paint
prepare
produce
select
show
sketch
solve
use

Model Questions

Predict what would happen if
Choose the best statements that apply
Judge the effects
What would result
Tell what would happen
Tell how, when, where, why
Tell how much change there would be
Identify the results of

Instructional Strategies

Modeling
Cognitive apprenticeships
“Mindful” practice – NOT just a “routine” practice
Part and whole sequencing
Authentic situations
“Coached” practice
Case studies
Simulations
Algorithms

IV. ANALYZE (breaking down into parts, forms)

Verbs for Objectives

analyze
categorize
classify
compare
differentiate
distinguish
identify
infer
point out
select
subdivide
survey

Model Questions

What is the function of . . . ?
What's fact? Opinion?
What assumptions. . . ?
What statement is relevant?
What motive is there?
Related to, extraneous to, not applicable.
What conclusions?
What does the author believe?
What does the author assume?
Make a distinction.
State the point of view of . . .
What is the premise?
State the point of view of . . .
What ideas apply?
What ideas justify the conclusion?
What's the relationship between?
The least essential statements are
What's the main idea? Theme?
What inconsistencies, fallacies?
What literary form is used?
What persuasive technique?
Implicit in the statement is . . .

Instructional Strategies

Models of thinking
Challenging assumptions
Retrospective analysis
Reflection through journaling
Debates
Discussions and other collaborating learning activities
Decision-making situations

V. EVALUATE (according to some set of criteria, and state why)

| Verbs for Objectives | Model Questions | Instructional Strategies |
|---|--|---|
| appraise judge criticize defend compare | What fallacies, consistencies, inconsistencies appear? Which is more important, moral, better, logical, valid, appropriate? Find the errors. | Challenging assumptions Journaling Debates Discussions and other collaborating learning activities Decision-making situations |

VI. CREATE (SYNTHESIS)

(combining elements into a pattern not clearly there before)

| Verbs for Objectives | Model Questions | Instructional Strategies |
|--|---|--|
| choose combine compose construct create design develop do formulate hypothesize invent make make up originate organize plan produce role play tell | How would you test. . . ? Propose an alternative. Solve the following. How else would you . . . ? State a rule. | Modeling Challenging assumptions Reflection through journaling Debates Discussions and other collaborating learning activities Design Decision-making situations |

Web References:

- <http://www.coun.uvic.ca/learn/program/hndouts/bloom.html>
- <http://www.fwl.org/edtech/blooms.html>
- <http://apu.edu/~bmccarty/curricula/mse592/intro/tsld006.htm>
- <http://152.30.11.86/deer/Houghton/learner/think/bloomsTaxonomy.html>
- <http://amath.colorado.edu/appm/courses/7400/1996Spr/bloom.html>
- <http://www.stedwards.edu/cte/bloomtax.htm>
- <http://quarles.unbc.edu/lsc/bloom.html>
- <http://www.wested.org/tie/dlrn/blooms.html>
- <http://www.bena.com/ewinters/bloom.html>
- <http://weber.u.washington.edu/~krumme/guides/bloom.html>

References:

- Anderson, L. W. & Krathwohl, D. R. (2001). *A Taxonomy for learning, teaching, and assessing*.
Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals, by a committee of college and university examiners*. New York: Longmans.
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