

# Learning Taxonomy Levels for Developing Competencies & Learning Outcomes (for the Cognitive and Affective Domains) Reference Guide

December 5, 2013

| Cognitive Domain (evidence of change in knowledge, e.g. facilities for facts and figures, conceptual frameworks, and/or metacognition) |   |   |  |   |   |  |
|--|---|---|--|---|---|--|
| Bloom's Taxonomy Levels (revised) Anderson & Krathwohl   | Level 1: Remember   | Level 2: Understand   | Level 3: Apply   | Level 4: Analyze  | Level 5: Evaluate   | Level 6: Create  |
| Description of Levels  | Recall information  | Explain ideas or concepts   | Use information  | Break into parts to explore and understand relationships  | Justify decisions   | Generate new ideas   |
| Action Verbs*  | Define, describe, identify, label, locate, match, memorize, name, recite, recognize, select, state, write   | Arrange, associate, clarify, conclude, determine consequences, discuss, draw conclusions, explain, express, generalize, infer, interpret, predict, respond to, restate, translate summarize | Apply, classify, chart, compute, deliver, demonstrate, dramatize, employ, generalize, illustrate, implement, manipulate, order, operate, practice, prepare, produce, sketch, tabulate, transcribe, use, utilize                            | Analyze, appraise, arrange, calculate, categorize, compare, contrast, correlate, differentiate, distinguish, examine, experiment, inspect, inventory, outline, solve, test, verify              | Appraise, assess, choose, compare, confirm, criticize, critique, diagnosis, evaluate, judge, measure, prioritize, prove, rank, rate, recommend, research, revise, select, weigh, validate | Adapt, arrange, build, combine, compose, construct, create, derive, develop, design, draft, formulate, generate, integrate, manage, organize, plan, prepare, propose, reorder, structure, shape, synthesize, transform |
| Instructional Strategies   | Lectures, audio/visuals, examples, analogies, discussions, multi-media activities   | Didactic questions, discussion, review, automated audience response systems, multi-media activities, computer based tutorials, asynchronous online forums                                   | Exercises, drills & practice, demonstrations, projects, sketches, role play, simulations, cooperative learning activities, field observations, audio/visuals, multi-media activities, computer based tutorials, asynchronous online forums | Exercises, case studies, critical incidents, essays, journal critiques, panel discussions, mapping, audio/visuals, multi-media activities, computer based tutorials, asynchronous online forums | Case studies, projects, simulations, panel discussions, comparison activities, audio/visuals, multi-media activities, computer based tutorials, asynchronous online forums                | Formation of a hypotheses, case studies, problem solving activities, development plans, simulations, audio/visuals, multi-media activities, computer based tutorials, asynchronous online forums                       |
| Evaluation Methods   | Pre/post tests, standardized assessments, critiques, reports, presentations, essays, case studies, simulation performances, actual performance, interviews, portfolios, debates, blogs, theses, self-reports, reflection papers, self-evaluations |   |  |   |   |  |

Materials adapted from:

Anderson, L. W. and David R. Krathwohl, D. R., et al (2001) A taxonomy for learning, teaching, and assessing: A revision of bloom's taxonomy of educational objectives. Allyn & Bacon. Boston, MA (Pearson Education Group)

Caffarella, R.(2002). Planning programs for adult learners: A practical guide for educators, trainers, and staff developers. San Francisco,CA: Jossey-Bass Publishing.

Suskie, L. (2009). Assessing student learning: A common sense guide (2nd ed). San Francisco, CA: Jossey-Bass Publishing

# Learning Taxonomy Levels for Developing Competencies & Learning Outcomes (for the Cognitive and Affective Domains) Reference Guide

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*\* the listed verbs represent a few of the more prominent examples from a very wide range of possible action verbs*

| Affective Domain (evidence of change in attitudes, e.g. motivational dispositions, perceptions, values, and/or opinions) |  |  |   |   |  |
|--|--|--|---|---|--|
| <b>Bloom's Taxonomy Levels (revised) Anderson &amp; Krathwohl</b>  | Level 1:<br>Receive  | Level 2:<br>Respond  | Level 3:<br>Value   | Level 4:<br>Organize  | Level 5:<br>Characterize<br>by Value   |
| <b>Description of Levels</b>   | Be open to experience and willing to hear  | React and actively participate   | Attach value and express personal opinions  | Bring together and resolve internal conflicts   | Adopt belief systems and philosophies  |
| <b>Action Verbs*</b>   | Acknowledge, ask, attend, be open to, concentrate, do, discuss, follow, read, take part  | Agree, ask, cite, clarify, communicate, cooperate, contribute, cite, describe, discuss, identify, react, report, respond, select | Accept, adopt, approve, argue, contribute, encourage, evaluate, initiate, justify, maintain, monitor, support, confront, criticize, debate, persuade, propose, refute | Adapt, adhere, alter, arrange, categorize, classify, compare, design, explain, formulate, modify, organize rate, revise, synthesize, test | Act, advocate, characterize, conform, devote, defend, disclose, discriminate, display, exemplify, incorporate, justify, maintain, promote, uphold, use |
| <b>Instructional Strategies</b>  | Lectures, symposia, discussions, computer based tutorials, asynchronous online forums  | Lectures, panel discussions, small group activities, didactic questions, scenarios, role playing                                 | Lectures, panel discussions, small group activities, didactic questions, scenarios, role playing  | Lectures, panel discussions, small group activities, didactic questions, scenarios, role playing  | Lectures, panel discussions, small group activities, didactic questions, scenarios, role playing   |
| <b>Evaluation Methods</b>  | Reflective papers, persuasive papers, journal writing, focus groups, self-report, portfolios, debates, minute papers, pre/post self-assessment, closed ended tests |  |   |   |  |

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