

HOW TO ASK QUESTIONS THAT PROMPT CRITICAL THINKING

Overview:

This document offers up a simple framework one might use to design effective questions that shall enable learners to understand and develop their own autonomous critical thinking.

Audience: Faculty, Tutors, Demonstrators, those that support learning and students.

The following table presents the hierarchical taxonomy of Bloom's Cognitive Processes, beginning with ones' knowledge base and culminating in their ability to synthesise or design a new iteration. It is proposed that one may use this as a framework to develop question constructs that will elicit a deeper level of (cognitive) engagement, by careful design and consideration of the varying levels one may create questions (and activities) that will enable a learner to respond accordingly to develop and encourage their own ability to be critical thinkers.

Prompt:

In designing questions constructs; Firstly avoid questions that have an easy one-dimensional answer; Secondly plan your questions in advance; Finally, structure the questions so that you may guide a student by providing them with the appropriate prompt to attain the appropriate/desired "higher order thinking".

BLOOM'S REVISED TAXANOMY OF COGNITIVE PROCESSES

<p>Creation/Synthesis: The ability to put facts together into a coherent whole, or, creatively achieve a new understanding by linking facts together.</p> <p>Suggested Verbs: design, organise, formulate, propose, combine, integrate, modify, rearrange, substitute, plan, create, invent, 'what if?', compose, prepare, rewrite.</p>
<p>Evaluation: The ability to make judgements using criteria and standards.</p> <p>Suggested Verbs: judge, support, conclude, compare, summarise, evaluate, appraise, assess, decide, rank, grade, recommend, convince.</p>
<p>Analysis: The ability to determine internal relationships.</p> <p>Suggested Verbs: distinguish, analyse, calculate, test, inspect.</p>
<p>Application: The ability to apply what is learned to a new situation.</p> <p>Suggested Verbs: apply, use, demonstrate, illustrate, practice.</p>
<p>Comprehension: The ability to interpret information in one's own words.</p> <p>Suggested Verbs: describe, explain, discuss, recognise.</p>
<p>Knowledge: The ability to recall facts, opinions and concepts.</p> <p>Suggested Verbs: define, list, name, recall, record.</p>

From: Anderson et al (2001)

Anderson et al (2001) *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Longman, London.