Tutorial C01: What is Critical Thinking and Why is it Important?

By: Jonathan Chan

C01.1 Introduction

Critical thinking is the ability to think clearly and rationally. It includes the ability to engage in reflective and independent thinking. Someone with critical thinking skills is able to do the following

Understand the logical connections between ideas
Identify, construct and evaluate arguments
Detect inconsistencies and common mistakes in reasoning
Solve problems systematically
Identify the relevance and importance of ideas
Reflect on the justification of one's own beliefs and values
Other definitions of critical thinking have been proposed. See bottom of this page for explanations of critical thinking from other sources. It can be seen that clarity and rationality constitute the common core across the different conceptions on critical thinking.

Critical thinking is not a matter of accumulating information. A person with a good memory and who knows a lot of facts is not necessarily good at critical thinking. A critical thinker is able to deduce consequences from what he knows, and he knows how to make use of information to solve problems, and to seek relevant sources of information to inform himself.

Critical thinking should not be confused with being argumentative or being critical of other people. Although critical thinking skills can be used in exposing fallacies and bad reasoning, critical thinking can also play an important role in cooperative reasoning and constructive tasks. Critical thinking can help us acquire knowledge, improve our theories, and strengthen arguments. We can use critical thinking to enhance work processes and improve social institutions.

Good critical thinking might be seen as the foundation of science and a liberal democratic society. Science requires the critical use of reason in experimentation and theory confirmation. The proper functioning of a liberal democracy requires citizens who can think critically about social issues to inform their judgments about proper governance and to overcome biases and prejudice.

C01.2 Why study critical thinking?

Critical thinking is a domain-general thinking skill. The ability to think clearly and rationally is important whatever we choose to do. If you work in education, research, finance, management or the legal profession, then critical thinking is obviously important. But critical thinking skills are not restricted to a particular subject area. Being able to think well and solve problems systematically is an asset for any career.
Critical thinking is very important in the new knowledge economy. The global knowledge economy is driven by information and technology. One has to be able to deal with

changes quickly and effectively. The new economy places increasing demands on flexible intellectual skills, and the ability to analyse information and integrate diverse sources of knowledge in solving problems. Good critical thinking promotes such thinking skills, and is very important in the fast-changing workplace.

Critical thinking enhances language and presentation skills. Thinking clearly and systematically can improve the way we express our ideas. In learning how to analyse the logical structure of texts, critical thinking also improves comprehension abilities.

Critical thinking promotes creativity. To come up with a creative solution to a problem involves not just having new ideas. It must also be the case that the new ideas being generated are useful and relevant to the task at hand. Critical thinking plays a crucial role in evaluating new ideas, selecting the best ones and modifying them if necessary.

Critical thinking is crucial for self-reflection. In order to live a meaningful life and to structure our lives accordingly, we need to justify and reflect on our values and decisions. Critical thinking provides the tools for this process of self-evaluation.

Although most people would agree that critical thinking is an important thinking skill, most people also do not know how to improve their own thinking. This is because critical thinking is a meta-thinking skill. It requires careful reflection on the good principles of reasoning and making a conscious effort to internalize them and apply them in daily life. This is notoriously hard to do and often requires a long period of training.

C01.3 Other definitions of critical thinking

The Watson-Glaser Critical Thinking Appraisal is a well-known psychological test of critical thinking ability. The authors of this test define critical thinking as :

... a composite of attitudes, knowledge and skills. This composite includes: (1) attitudes of inquiry that involve an ability to recognize the existence of problems and an acceptance of the general need for evidence in support of what is asserted to be true; (2) knowledge of the nature of valid inferences, abstractions, and generalizations in which the weight or accuracy of different kinds of evidence are logically determined; and (3) skills in employing and applying the above attitudes and knowledge.

The following excerpt comes from Dr. Peter A. Facione (1990) "Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction", a report for the American Philosophical Association.

"We understand critical thinking to be purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based. CT is essential as a tool of inquiry. As such, CT is a liberating force in education and a powerful resource in one's personal and civic life. While not synonymous with good thinking, CT is a pervasive and self-rectifying human phenomenon. The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fairminded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. Thus,

educating good critical thinkers means working toward this ideal. It combines developing CT skills with nurturing those dispositions which consistently yield useful insights and which are the basis of a rational and democratic society."

The last excerpt comes from a statement written by Michael Scriven and Richard Paul, National Council for Excellence in Critical Thinking, an organization promoting critical thinking in the US.

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness. It entails the examination of those structures or elements of thought implicit in all reasoning: purpose, problem, or question-at-issue, assumptions, concepts, empirical grounding; reasoning leading to conclusions, implications and consequences, objections from alternative viewpoints, and frame of reference.