

# : *Can decision support aid in critical thinking?*

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Critical thinking is discussed broadly in education circles. Teaching students to be "critical thinkers" is promoted as necessary, desirable and possible. Measuring critical thinking is however difficult and "experts" differ on how to encourage and teach critical thinking. There is no agreement on the meaning of critical thinking. Thinking is a human cognitive process. Critical seems to refer to evaluating alternatives. Some view critical thinking as a fact-based, rigorous decision making process.

Also, critical thinking can be characterized in terms of skills and abilities like analyze, explain, deduce, solve problems, synthesize, and understand. Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information gathered from, or generated by, observation, experience, research, reflection, reasoning, or communication. Critical thinking is a guide to belief and action in a situation. Critical thinking involves constructing and/or evaluating reasons to support beliefs and conclusions. Critical thinking also involves reflection — the examination and evaluation of our own and others' thoughts and ideas. Finally critical thinking is practical. Actions are more rational if they are based on conclusions that we believe are justified. Critical thinking is the careful, deliberate determination of whether we should accept, reject or suspend judgement about the truth of a claim or a recommendation to act in a certain way.

Decision process and problem solving support can potentially encourage and promote critical thinking by a user. Most traditional data and model-driven decision support emphasizes results rather than supporting a thinking and analysis process. DECision AID (Power, 1976) attempted to support the decision making process of an individual decision maker.

## References

Power, D.J. and G. L. Rose. An Evaluation of DECAID, a Decision Formulation Computer-Aided Learning Program. Proceedings of the American Institute for Decision Sciences, October 1977, pp. 118-119.

Power, D.J. and G. L. Rose. Improving Decision-Making Behavior Using the Hewlett Packard 2000/Access System. Proceedings of the American Institute for Decision Sciences, Nov. 1976, pp. 47-49.

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Power, D.J., "Designing and Developing a Computerized Decision Aid: A Case Study", posted at DSSResources.COM, <http://dssresources.com/papers/decisionaids.html>, version 2.0, April 14, 1998.

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