Critical thinking and creative thinking are explored. Critical thinking is the process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, or evaluating information. It includes affective strategies such as thinking independently and developing intellectual perseverance. Certain teaching behaviors can encourage critical thinking, just as others can inhibit it. Students who are introduced to critical thinking skills build skills on a continuum and begin to acknowledge the opposition and variety of beliefs. Eventually students take a stand and defend their positions with intelligent arguments as they take responsibility for their thoughts and actions. Creative thinkers have a strong commitment to a personal aesthetic and a powerful drive toward wrestling order from chaos. They have the mental faculties of adaptive flexibility, fluency of association, originality, and the ability to integrate complexity. Overall, critical thinking is identified with judging ideas and creative thinking with producing ideas. Students and teachers who use these modes can enjoy better learning, understanding, and processing of ideas. (Contains 5 references.) (SLD)
A Mini-Workshop in Critical and Creative Thinking
by
Dr. Judy R. Downs, University of Tampa
International Conference on Critical Thinking, August 1, 1993
Sonoma State University, California
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Critical thinking is "the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (Paul 1990).

Critical thinking includes affective strategies such as thinking independently and developing intellectual perseverance. Macro-abilities of cognitive strategies are composed of but not limited to refining generalizations, analyzing and evaluating arguments, and making interdisciplinary connections. Some of the cognitive micro-skills are comparing and contrasting ideals with actual practice, noting significant similarities and differences, and exploring implications and consequences (Paul 1990).

Three kinds of thinkers are unskilled, selfish (weak sense), and fairminded (strong sense). The unskilled thinker has a shallow internal dialogue, is a poor problem-solver, and sees the world in terms of dualism. The weak sense thinker uses thinking skills to attack, criticize, and propagandize. The fairminded, strong sense thinker is intellectually fair, gives a sympathetic accounting of the other sides of issues, and believes in intellectual reciprocity.
In the classroom, certain teaching behaviors encourage critical thinking such as emphasizing depth over coverage, using Socratic questioning, including all participants, and using a variety of assignments and activities to evaluate students' abilities. Teaching behaviors that discourage critical thinking are lecturing every class, treating students as tape recorders, and using only questions and traditional testing with preconceived answers to evaluate students.

When students are introduced to critical thinking skills in their intellectual development they build thinking skills on a continuum. Students arrive at school seeing the world in polar opposites of good/bad and believe there is one right way and certain absolutes. They also believe knowledge is the province of authorities, and the student's role is to learn these truths (Perry 1968).

As students build thinking skills, they begin to acknowledge the opposition and a variety of beliefs. They accept multiple points of view but see every point of view or assertion as valid and are unable to provide evidence or to support opinions. Over time, as they evaluate and analyze data, they become relativists, systematically evaluating the validity of ideas but resisting making decisions and overwhelmed by diversity. Finally, students take a stand and defend it with intelligent argument, form commitments, and take responsibility for their thoughts and actions (Perry 1968).
Similarly, creative thinkers are distinguished by certain, distinct psychological traits. Creative thinkers have a strong commitment to a personal aesthetic and a powerful drive toward wresting order out of chaos; excel in exploring all the options for solving a problem; have mental mobility and a desire to find new approaches to problems; demonstrate a willingness to take risks and accept failure as a part of the creative process; seek criticism and feedback from colleagues and test ideas in the marketplace; and are involved in enterprise for its own sake, not for external rewards (Perkins 1989).

Creative thinkers have the mental faculties of "adaptive flexibility, fluency of association, originality, the ability to integrate complexity, and a sensitivity to problems" (Barron 1989). Creativity has been taught by combining thinking ability with pattern recognition and creation, dreamwork, reverie, automatic writing and painting, and visual and auditory pattern recognition.

Overall, critical thinking is identified with judging ideas and creative thinking with producing ideas (Ruggiero 1968). Students and teachers who use these thinking modes effectively enjoy better learning, understanding, and processing of ideas.
References


