

Abstract

The deepest roots of the critical thinking movement are traceable to the teaching practice and vision of Socrates. By a probing method of questioning, Socrates discovered that many of the authorities of his day could not justify on rational grounds their confident claims to knowledge. Confused meaning, inadequate evidence, or self-contradictory beliefs were often lurking underneath smooth but largely empty rhetoric.

Thinking critically begins with an attitude of being to consider in a thoughtful, perceptive manner the problems and subjects of one's life. In thinking about infusing critical thinking into schooling. It is as important to consider emphasize, model and encourage this attitude - the critical thinking dispositions- as well as the skills in classroom instruction. The educational system itself is often an obstacle in fostering environments conducive to critical thinking.

Introduction

We live in a rapidly changing and unpredictable society in a rapidly changing and unpredictable world. To survive economically we need the kind of generalized thinking skills that cannot become obsolete with the ever-changing demand for new specialties and the obsolescence of old ones. To survive politically and personally we need the kind of generalized thinking skills that enable us to penetrate the complex nature of the information, misinformation and disinformation around us. We need to be able to think perceptively and critically about issues both within our own personal lives and -more problematically- in the larger world beyond.

An implicit purpose of the schools is to prepare students to meet the challenges of their world. We hope to prepare students to meet these challenges, to live productive and satisfying lives and to participate in a democratic society. A genuine commitment to schooling based on the value of critical-analytic thought at the heart of everyday life and decision requires a profound transformation of emphasis in schools of today and tomorrow.

This commitment requires a transformation from what Hilda Taba has called a stress on isolated bits of information which burden the student's memory with an "unorganized, perishable and obsolescent assemblage of facts," to an emphasis on what Matthew Lipman calls "communities of inquiry" classrooms committed to the process of intellectual inquiry and rational thought.

What is meant by critical thinking? As a working definition, Robert Ennis defines it as "reasonable and reflective thinking that is focused on deciding what to believe and do. Robert Glaser says that it involves three principle elements:

1. An **Attitude** of being deposited to consider in a thoughtful, perceptive manner the problems and subjects that come within one's range of experiences.
2. **Knowledge** of the methods of logical inquiry and reasoning.
3. **Skill** in applying those methods.

Barry Byer describes it as assessing the authenticity, accuracy and worth of knowledge claims, beliefs or arguments. This means teaching children to "think for themselves" to develop critical habits of thought. It requires an integration of knowledge into a perspective of what we do with knowledge. Critical thinking, then, while often considered to be a central idea of the educational endeavor, has not fully taken root in the reality of the educational process.

Defining critical thinking can seem as challenging as defining love. The "critical spirit" is composed of attitudes (or dispositions) and skills, both of which are essential to the process. Simply mastering a set of discrete thinking skills (recognizing, assumptions or drawing conclusions, for example) does not a critical thinker make. This would be

critical thinking in the "weak sense" merely learning the micro-skills. Critical thinking in the "strong sense" occurs when both the skills and dispositions are integrated and intrinsic ultimately to the character of person.

It is knowing not only how, but when to question something and knowing what kinds of questions to ask. Critical spirit is an attitude toward inquiry, a knowledge of the methods of reasoning and inquiry, and skill in applying them. Combleth (1985) defines the critical thinking "is a dynamic process of questioning and reasoning of raising and pursuing questions about our own or others' claims and conclusions, definitions and evidence, beliefs and actions. "Further she rightly notes that critical thinking is not limited merely to the evaluation of statements or arguments, as some narrower views have it but it depends on the situation, it involves question raising, seeking information, reasoning, evaluating options, reflecting on one's thinking and raising and pursuing further questions. So we can say that critical thinking is a disciplined, structured, self-directed and independent thinking.

The concept of critical thinking used here, while not synonymous with creative thinking, emphasizes the use of imagination and the attitudes and skills that are common to both. There is a danger, however, in separating critical thinking from creative thinking, says Robert Swartz, coordinator of the University of Massachusetts at Boston's master's degree program in Critical and Creative Thinking. He says that in developing good thinking skills, students must also develop a sense of where these skills can be most appropriate and effectively used in dealing with problems and issues that call for clear thinking.

" We should stand back from these 'skills' approaches and look holistically at good thinking.....taking a broader perspective means that these lists (e.g., critical thinking, creative thinking, problem solving, decision making) should be viewed as complementing each other in situations where they are best used, the norm, not the exception is to use them in combinations, not in isolation."

Attitudes for Critical Thinking

An attitude is a mental posture, a disposition a natural tendency. D'Angelo 1971 identifies the following attitudes as necessary conditions for the development of critical thinking:

1. **Intellectual Curiosity** . Seeking answers to various kinds of questions and problems. Investigating the causes and explanations of events; asking why, how, who, what, when, where.
2. **Objectivity**. Using objective factors in the process of making decisions. Relying on empirical evidence and valid arguments, and not being influenced by emotive and subjective factors in reaching conclusions.
3. **Open-Mindedness**. A willingness to consider a wide variety of beliefs as possible being true. Making judgments without bias or prejudice.
4. **Flexibility**. To be willing to change one's beliefs or methods of inquiry. Avoiding steadfastness of belief, dogmatic attitude and rigidity. A realization that we do not know all the answers.
5. **Intellectual Skepticism**. Postponing the acceptance of a conclusion as being true until adequate evidence is presented.
6. **Intellectual Honesty**. The acceptance of statements being true when there is sufficient evidence, even though it negates some of our cherished beliefs. To avoid slanting certain facts to support a particular position.
7. **Being Systematic**. Following a line of reasoning consistently to a particular conclusion. Avoiding irrelevancies that stray from the issue being argued.
8. **Persistence**. To persist in seeking ways of resolving disputes. Supporting certain points of view without giving up the task of finding evidence and arguments.
9. **Decisiveness**. To reach certain conclusions when the evidence warrants it. To avoid unnecessarily drawn out arguments, snap judgments and delays in reaching decisions until all necessary information is obtained.

10. **Respect for Other Viewpoints.** A willingness to admit that you do not accept may be correct. Listening carefully to another point of view and responding accurately to what has been said.

The school should play a vital role of helping students develop accurate world views so that they may be able to assess information accurately and fairly, whether it be a history lesson or incident in their daily lives, thereby becoming more aware of and hopefully reducing the effects of bias, prejudice and self-deception in their thinking.

Conclusion:

1. The deepest roots of the critical thinking movement are traceable to the teaching practice and vision of Socrates.

2. Confused meaning, inadequate evidence, or self-contradictory beliefs were often lurking underneath smooth but largely empty rhetoric.

3. Thinking critically begins with an attitude of being disposed to consider in a thoughtful, perceptive manner the problems and subjects of one's life.

4. In thinking about infusing critical thinking into schooling. It is as important to consider, emphasize, model and encourage this attitude of critical thinking as well as the skills in classroom instruction.

5. The educational system itself is often an obstacle in fostering environments conducive to critical thinking.

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