## Appendix

## ++ Chapter 40

## What Critical Thinking Means to Me: The Views of Teachers

## Abstract

The following passages were written by teachers from Greensboro School District following a workshop on critical thinking.

Critical thinking is a process through which one solves problems and makes decisions. It is a process that can be improved through practice, though never perfected. It involves self-discipline and structure. Sometimes it can make your head hurt, but sometimes it comes naturally. I believe, for critical thinking to be its most successful, it must be intertwined with creative thinking.

Kathryn Haines Grade 5

Thinking critically gives me an organized way of questioning what I hear and read in a manner that goes beyond the surface or literal thought. It assists me in structuring my own thoughts such that I gain greater insight into how I feel and appreciation for the thoughts of others, even those with which I disagree. It further enables me to be less judgmental in a negative way and to be more willing to take risks.

Patricia Wiseman Grade 3

Critical thinking is being able and willing to examine all sides of an issue or topic, having first clarified it; supporting or refuting it with either facts or reasoned judgment; and in this light, exploring the consequences or effects of any decision or action it is possible to take.

Kim V. DeVaney Facilitator, WATTS

All of us think, but critical thinking has to do with becoming more aware of how we think and finding ways to facilitate clear, reasoned, logical, and better-informed thinking. Only when our thoughts are backed with reason and logic, and are based on a process of careful examination of ideas and evidence, do they become critical and lead us in the direction of finding what is true. In order to do this, it seems of major importance to maintain an openminded willingness to look at other points of view. In addition, we can utilize various skills which will enable us to become more proficient at thinking for ourselves.

Nancy Johnson Kindergarten

Critical thinking is necessary to a happy and full life. It provides me the opportunity to analyze and evaluate my thoughts, beliefs, ideas, reasons, and feelings as well as those of other individuals. Utilizing this process, it helps me to understand and respect others as total persons. It helps me in instructing my students and in my personal life. Critical thinking extends beyond the classroom setting and has proven to be valid in life other than the school world.

Veronica Richmond Grade 6

Critical thinking is the ability to analyze and evaluate feelings and ideas in an independent, fairminded, rational manner. If action is needed on these feelings or ideas, this evaluation motivates meaningfully positive and useful actions. Applying critical thinking to everyday situations and classroom situations is much like Christian growth. If we habitually evaluate our feelings and ideas based on reasonable criteria, we will become less likely to be easily offended and more likely to promote a positive approach as a solution to a problem. Critical thinking, like Christian growth, promotes confidence, creativity, and personal growth.

Carolyn Tarpley Middle School Reading

Critical thinking is a blend of many things, of which I shall discuss three: independent thinking; clear thinking; and organized Socratic questioning.

As for the first characteristic mentioned above, a critical thinker is an independent thinker. He doesn't just accept something as true or believe it because he was taught it as a child. He analyzes it, breaking it down into its elements; he checks on the author of the information and delves into his or her background; he questions the material and evaluates it; and then he makes up his own mind about its validity. In other words, he thinks independently.

A second criterion of critical thinking is clarity. If a person is not a clear thinker, he can't be a critical thinker. I can't say that I agree or disagree with you if I can't understand you. A critical thinker has to get very particular, because people are inclined to throw words around. For example, they misuse the word 'selfish'. A person might say: "You're selfish, but I'm motivated!" A selfish person is one who systematically ignores the rights of others and pursues his own desires. An unselfish one is a person who systematically considers the rights of others while he pursues his own desires. Thus, clarity is important. We have to be clear about the meanings of words.

The most important aspect of critical thinking is its spirit of Socratic questioning. However, it is important to have the questioning organized in one's mind and to know in general the underlying goals of the discussion. If you want students to retain the content of your lesson, you must organize it and help them to see that ideas are connected. Some ideas are derived from basic ideas. We need to help students to organize their thinking around basic ideas and to question. To be a good questioner, you must be a wonderer — wonder

aloud about meaning and truth. For example, "I wonder what Jack means." "I wonder what this word means?" "I wonder if anyone can think of an example?" "Does this make sense?" "I wonder how true that is?" "Can anyone think of an experience when that was true?" The critical thinker must have the ability to probe deeply, to get down to basic ideas, to get beneath the mere appearance of things. We need to get into the very spirit, the "wonderment" of the situation being discussed. The students need to feel, "My teacher really wonders; and really wants to know what we think." We should wonder aloud. A good way to stimulate thinking is to use a variety of types of questions. We can ask questions to get the students to elaborate, to explain, to give reasons, to cite evidence, to identify their points of view, to focus on central ideas, and to raise problems. Socratic questioning is certainly vital to critical thinking.

Thus, critical thinking is a blend of many characteristics, especially independent thinking, clear thinking, and Socratic questioning. We all need to strive to be better critical thinkers.

Holly Touchstone Middle School Language Arts

Critical thinking is wondering about that which is not obvious, questioning in a precise manner to find the essence of truth, and evaluating with an open mind. As a middle school teacher, critical thinking is a way to find out where my stdents are coming from (a way of being with-it). Because of this "with-itness", produced by bringing critical thinking into the classroom, student motivation will be produced. This motivation fed by fostering critical thinking will produce a more productive thinker in society. Thus, for me, critical thinking is a spirit I can infuse into society by teaching my students to wonder, question, and evaluate in search of truth while keeping an open mind.

Malinda McCuiston Middle School Language Arts, Reading

Critical thinking means thinking clearly about issues, problems, or ideas, and questioning or emphasizing those that are important to the "thinker". As a teacher, I hope to develop Socratic questioning so that my students will feel comfortable discussing why they believe their thoughts to be valid. I hope that they will develop language skills to communicate with others and that they will be open to ideas and beliefs of others.

Jessie Smith Grade 1

The spirit of critical thinking is a concept that truly excites me. I feel the strategies of critical thinking, implemented appropriately in my classroom, can enable me to become a more effective teacher. By combining this thinking process with my sometimes overused emotions and intuitive power, I can critically examine issues in my classroom as well as in my personal life. I feel it is of grave importance for us as educators to provide a variety of opportunities for our students to think critically by drawing conclusions, clarifying

ideas, evaluating assumptions, drawing inferences, and giving reasons and examples to support ideas. Also, Socratic dialogue is an effective means of enabling the students to discover ideas, contradictions, implications, etc., instead of being told answers and ideas by the teacher. Critical thinking is an excellent tool for the teacher to help the students learn *how* to think rather than just *what* to think. Hopefully critical thinking will help me be a more effective teacher as well as excite my students.

Beth Sands Middle School Language Arts

Critical thinking is what education should be. It is the way I wish I had been taught. Although I left school with a wealth of facts, I had never learned how to connect them or to use them. I loved learning but thought that being learned meant amassing data. No one ever taught me how to contrast and compare, analyze, and dissect. I believed that all teachers knew everything, all printed material was true and authority was always right. It took me years to undo the habits of "good behavior" in school. I want to save my students the wasted time, the frustration, the doubts that I encountered during and after my school years. And teaching and using critical thinking is the way to do that.

Nancy Poueymirou High School Language Arts

For me, critical thinking is a combination of learning and applying a database of learning to evaluate and inter-relate concepts from diverse academic disciplines. Critical thinking is understanding that knowledge, wisdom, and education are not divided into math, science, English, etc. It is the fairness of tolerance combined with a strong sense of ethics and morals. It is the fun of feeling your mind expand as you accomplish intellectual challenges that attain your own standards. It is the zest of life.

Joan Simons High School Biology

Both as teacher and individual, I find critical thinking skills essential elements of a full and enjoyable life. With the ability to think critically, one can both appreciate and cope with all aspects of life and learning. When dealing with problems, from the most mundane to the most complex, the ability to think critically eliminates confusion, dispels irrational emotion, and enables one to arrive at an appropriate conclusion. At the same time, as we ponder the beauty and creativity of our environment, we are free to "wonder" and enjoy the complexity around us, rather than be perplexed or intimidated by it, because we have the mental capability to understand it. To live is to be ever curious, ever learning, ever investigating. Critical thinking enables us to do this more fully and pleasurably.

Mary Lou Holoman High School Language Arts A critical thinker never loses the joy of learning, never experiences the sadness of not caring or not wondering about the world. The essence of the truly educated person is that of being able to question, inquire, doubt, conclude, innovate. And beyond that, to spread that enthusiasm to those around him, obscuring the lines that divide teacher and student, enabling them to travel together, each learning from the other.

Jane Davis-Seaver Grade 3

Critical thinking is a means of focusing energy to learn. The learning may be academic (proscribed by an institutional curriculum or self-directed) or non-academic (determined by emotional need). It provides a systematic organization for gathering information, analyzing that information, and evaluating it to reach reasonable, acceptable conclusions for yourself.

Blair Stetson Elementary Academically Gifted

Critical thinking is the ability to reason in a clear and unbiased way. It is necessary to consider concepts or problems from another's point of view and under varying circumstances in order to make reasoned judgments. Awareness of one's own reasoning processes enables one to become a more fairminded and objective thinker.

Karen Marks Elementary Academically Gifted

Critical thinking is questioning, analyzing, and making thoughtful judgments about questions, ideas, issues, or concepts. It refines thoughts to more specific or definite meanings. The critical thinker must be an active listener who does not simply accept what he or she hears or reads at face value without questioning, but looks for deeper meaning. Critical thinking also involves evaluating the ideas explored or problems addressed and better prepares a student to be able to think about the world around him or her.

Becky Hampton Grade 6

Critical thinking has given me a broader means of evaluating my daily lesson plans. It has helped me better understand the thinking principles of each student I teach. It has also enabled me to practice strategies in lesson planning and to become a more effective classroom teacher.

Pearl Norris Booker Grade 2

Critical thinking provides me the opportunity to broaden the thinking process of my students. It can be used to have the students reason and think about different ideas of a problem or a given situation.

Portia Staton Grade 3

Critical thinking is a process that takes all the ideas, questions, and problems that we are faced with each day and enables us to come up with solutions. It is the process by which we are able to search for evidence that supports already-existing answers, or better yet, to come up with new solutions to problems. Through critical thinking, one begins to realize that many times there is more than one solution whereupon decisions can be made. To me, critical thinking has helped and will continue to help me understand myself and the world around me.

> Debbie Wall Grade 4

Critical thinking is a skill that involves the expansion of thoughts and the art of questioning. This skill must be developed over a period of time. It is a way of organizing your thoughts in a logical sequence. Knowledge is gained through this process.

Carolyn Smith Grade 5

Critical thinking is questioning, analyzing, and evaluating oral or written ideas. A critical thinker is disciplined, self-directed, and rational in problem solving. Reaching conclusions of your own rather than accepting everything as it is presented, is internalizing critical thinking.

Denise Clark Grade 2

To think critically, one must analyze and probe concepts or ideas through reasoning. It makes one an active reasoner, not a passive accepter of ideas (or facts). It turns one into a doer, an evaluater, or re-evaluater. Critical thinking occurs everywhere, is applicable everywhere, and while it can be tedious, need not be, because as one thinks critically, new ideas are formed, conclusions are drawn, new knowledge is acquired.

Janell Prester Grade 3

Critical thinking means to think through and analyze a concept or idea. You are able to back up your reasoning and think through an idea in a manner which allows an over-all focus. If a person is a critical thinker, a yes-no answer is too brief. An answer to a problem or idea must have an explanation and reasoning backing it.

Donna Phillips Grade 4

Critical thinking is a tool that teachers can use to offer a new dimension of education to their students: that of thinking about, questioning, and exploring the concepts in the curriculum. When critical thinking is an integral part of the teaching-learning process, children learn to apply thinking skills throughout the curriculum as well as in their daily lives. Socratic dialogue fosters critical thinking and motivates the teacher and learner to share and analyze experiences and knowledge. Critical thinking involves the child in

the learning process and makes education more meaningful to the individual, thus facilitating learning.

Andrea Allen Grade 1

The most important part of critical thinking, to me, is discovery. We discover a deeper level of thinking. We discover the reasons for ideas instead of just accepting ideas. We are motivated by action, interaction, and involvement. We discover we have the ability to expand our thoughts to include all aspects and perspectives of our beliefs.

Mandy Ryan Grade 5

Critical thinking, to me, is the process of analyzing new and old information to arrive at solutions. It's the process of learning to question information that you may have taken for granted. It's being independent. Critical thinking is letting people think for themselves and make judgments for themselves.

Leigh Ledet Grade 4

Critical thinking is the process of taking the knowledge you have gained through past experience or education and re-evaluating conclusions on a certain situation or problem. Because students must evaluate the reasons for their beliefs, they become actively involved in learning through the teacher's use of Socratic questioning. Allowing students to clarify their reasons through the writing process further stimulates the students to become critical thinkers. The ultimate goal for students in using critical thinking is to become active thinkers for themselves.

Robin Thompson Middle School Language Arts

Critical thinking, to me, is to be open-ended in my thoughts. It is like opening a door which leads to many other doors through which ideas may evolve, move about, change, and come to rest. It is like a breath of freshness in which one can gain new insight over long-established opinions. It stimulates and generates endless new possibilities.

Eutha M. Godfrey Grades 2–3

Critical thinking is thinking that demonstrates an extension of an idea or concern beyond the obvious. A critical thinker's values are significant to his learning.

Frances Jackson Grade 2

To me, critical thinking means independence. It gives me a tool which lets me explore my own mind extending beyond basic recall to a higher level of reasoning. I then feel more in touch with myself and my own inner feelings. This results in my becoming a better decision-maker.

Jean Edwards Grade 5

Critical thinking is the process of working your mind through different channels. It is the process of thinking logically. Critical thinking is analyzing your thoughts through questions. It is the process of seeing that your ideas and concepts may not be the same as another's. It is opening your mind to those who have different views and looking at their views.

Cathy L. Smith Grade 3

Critical thinking is to question in-depth at every possible angle or point of view, to look at someone else's point of view without making hasty judgments. Critical thinking is to logically and fairly re-orient your own personal point of view, if necessary. To think critically, you are self-directed in your thinking process, as well as disciplined.

Mary Duke Grade 1

Critical thinking is the vehicle by which I encourage students to become active participants in the learning process. I allow more time for and become more aware of the need for students to express ideas verbally and in written form to clarify ideas in their own minds. I recognize the importance of developing skills for analyzing and evaluating. Ultimately, once students become comfortable using critical thinking skills, they assume greater responsibility for their learning.

Dora McGill Grade 6

Critical thinking is clear, precise thinking. I believe that all human actions and expressions involve in some way, thinking. For example, I believe that feelings, emotions, and intuitions are much the results of earlier thought (reactions to stimuli). I think that this, in one way, explains the variations of emotional responses in some people to similar stimuli. Thus, I believe that critical thinking not only has the potential to clarify new and former conscious thoughts but also to affect/change likely (future) emotive and intuitive reactions/responses.

More concrete and less theoretical outcomes of critical thinking may be more relevant to me as an educator. Better questioning skills on the part of the students and the teacher is an obvious outcome. There seem to be several positive outcomes of better questioning: more opportunity for in-depth understanding of content, a natural (built-in) process for assessing the effectiveness of lessons, and more opportunity for student participation, self-assessment, and direction are three apparent outcomes. There are, of course, many other outcomes of developing better questioning skills, and from the other skills of critical thinking.

I simply believe that critical thinking improves the overall integrity of the individual and the collective group, class, school, community, etc.

Richard Tuck High School Art I perceive critical thinking in teaching as a tool for my learning. As I attempt to develop the critical thinker, I will become more aware of the students' thoughts, values, and needs. I must learn from what students offer, and develop acceptance and sensitivity to the individual. The knowledge I gain from the student will determine what I utilize as strategies or principles of critical thinking.

Loretta Jennings Grade 1

Critical thinking is the ability to look at a problem or issue with a spirit of openmindedness and to take that problem and analyze or evaluate it based on the facts or good, "educated" hypotheses. Critical thinking is being flexible enough to suspend one's bias towards an issue in order to study all sides to formulate an opinion or evaluation.

Mark Moore Grade 4

Critical thinking to me involves mental conversations and dialogues with myself. I try first to establish the facts. Then I try to search for criteria to examine my "facts". The next question is whether or not there are distortions and irrelevancies. I have to examine whether I have a personal bias which has led me to select only certain facts and leave others out.

I then try to mentally list facts and arguments on both sides of a question and, finally, draw logical questions and conclusions.

Barbara Neller Middle School Social Studies

Critical thinking is a systematic, logical approach to life in which an individual, using this method, truly learns and understands a concept rather than imitates or mimics. Knowledge and intellectual growth are achieved by a variety of strategies which include examining a variety of viewpoints, making assumptions based on viable evidence and forming well thought out conclusions.

Jane S. Thorne High School Math

Critical thinking allows students to become active participants in their learning. Socratic dialogue stimulates communication between teacher and students, thus creating an atmosphere where everyone is encouraged to become risk-takers. A teacher needs to become a model of critical thinking for the students. Through this interaction, content can be analyzed, synthesized, and evaluated with thinking.

Carol Thanos Grade 6

Critical thinking is the complex process of exploring an issue, concept, term, or experience which requires verbal as well as non-verbal involvement from the participant. It involves listing ideas related to the subject, so that

the person involved can objectively examine the relationship of the ideas thought of. It demands that the person involved in the process investigates the issue, concept, or process from varied vantage points, in order that intuitions, assumptions, and conclusions are presented with reasoned opinions or experienced evidences. Critical thinking is a task that involves the participant's in-depth assessment of his or her body of knowledge, experience, and emotions on the subject in question.

Ariel Collins High School Language Arts

Critical thinking is thinking that is clear, fairminded, and directed. It is not sloppy or self-serving thinking, but deep and probing thought aimed at finding the truth. It is skillful thinking aimed at genuine understanding, not superficial head-shaking. It is the tool used by and descriptive of an educated person whose mantra would be "veritas".

Helen Cook Middle School Science

Critical thinking is a process of questioning and seeking truth and clarity. It is a continual endeavor as one is constantly exposed to new knowledge which must be reconciled with prior conclusions. As one's body of knowledge grows, it is all the more important to be able to critically consider and determine what is truth.

Critical thinking demands certain prerequisites: openmindedness, willingness to withhold snap judgments, commitment to exploring new ideas. The development of such qualities empowers me to participate in the various facets of critical thinking, e.g., clarifying ideas, engaging in Socratic discussions. These skills are not nearly so difficult as achieving the mindset which must precede them. Only a commitment to question and persevere and honestly pursue truth will supply the impetus necessary to delve beneath the surface of issues and concepts. Yet this predisposition is difficult to achieve, because it necessitates taking risks, making mistakes, being wrong, and being corrected — activities very threatening to our safe ego-boundaries.

Only in transcending these ego-boundaries does growth occur and genuine learning transpire. Critical thinking is comprised of a sense of wonderment, daring, and determination. It is undergirded by a value for truth and personal growth. It is the continual learning process of the individual.

Deborah Norton High School Social Studies

The definition of critical thinking that I now hold is one that explains some things that I have felt for some time. I am convinced that everything that I know, that is a part of my education, I have figured or found out for myself. I have had close to twenty years of formal, didactic education, but I could tell you very little about anything that was presented to me in lecture

through all those classes, except perhaps some trivia. In college, I did my real learning through the writing that I did, either from research or from contemplation. I have felt that this was true, but a lot of my own teaching has continued to be didactic and students have learned to be very accepting and non-questioning and to expect to be told what the right answer is, what someone else has decided the right answer is. I hope that I can change that now. I now feel that it is imperative that my students learn to be critical thinkers, and I hope that I can model that belief and, through all my activities in class, lead them in that direction. We all need to be openminded, to realize that there are often many sides to a problem, many points of view, and that there are strategies and techniques for analyzing, making decisions, and making learning our own. I want to be, and I want my students to be, questioning, openminded, fairminded, synthesizing individuals — in other words, critical thinkers.

Liza Burton High School Language Arts