

critical thinking manifestos

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Critical Thinking Manifesto for CCT 601: A dialogue

4/24/99 Alfie Alschuler

Dennis and Kate are principals at two different high schools in the same district. They are meeting to come up with a direction for the science curriculum in their district. The state has mandated that 'critical thinking' be a part of every science curriculum. The following is an excerpt of their conversation.

Dennis: Critical thinking emerges with engagement in serious and rigorous study. It does not need to be taught directly or even thought of directly. One does not teach a child to talk. The child learns through engaging in the world and with the people around him or her. Similarly, one does not need to be taught how to think. It is a result of serious involvement with the arts and sciences.

Kate: I am sorry Dennis, but your view is simply wrong. It is not supported by evidence or by common sense. An individual can become adept at a particular field of study and not be any better at thinking in general. In the words of the well known academic, Glaser, "There is little evidence that students acquire skill in critical thinking as a necessary byproduct of the study of any given subject." In order for students to become adept at thinking well and utilizing their thinking at appropriate times they should be taught certain things. Your own analogy is a perfect one. A child does not need to be taught how to speak, but a child certainly benefits from instruction when learning how to speak well and how to use that speech effectively.

Dennis: Well then, how can you assess if you are actually teaching someone to think critically? From my perspective, someone is thinking well if they are taking part in sound and productive work. It seems that you are telling me that this is not the case. A competent and respected scientist could be a poor critical thinker. This is preposterous. Since, you are quoting respected academics, so will I. Csikszentmihalyi, in his book Creativity, defines creativity by the product of the thinking. This is a sensible approach, and critical thinking should be looked at in the same way. He says, "New songs, new ideas, new machines are what creativity is about." (p. 8) Well, I say new theorems, correct mathematical proofs, and well documented reports are what critical thinking is about.

Kate: I do not agree with you or with Chick...whoever. Critical thinking is not specific to a

certain field or particular activities, but is reflected in many fields. Respected scientists can be good at what they do, without demonstrating many of the qualities of critical thinking. Certainly, they have to have some very specific abilities, which could be part of what critical thinking in general is. But this does not mean they are good at it all. An idiot savant can be a whiz at computing prime numbers, but this does not make them an excellent mathematician.

Dennis: What then is critical thinking? You reject my definition: the ability to produce sound work in a given profession. It seems that we may be talking about entirely different things, because I don't really know what you are talking about.

Kate: You are right. I should offer a definition of critical thinking. However, to do this is more complicated than it seems. As you know, scientists are still unsure of what light is exactly. However, they are familiar with many of its properties and make use of light in innumerable ways. Critical thinking is much the same. Even your own definition does not speak of the thinking itself, but of the products of that thinking. I can give you list of different qualities which constitute critical thinking. I can tell you what traits or tendencies a good critical thinker has. However, I do not think I can offer a clear definition of critical thinking that will provide much insight. I would bet, however, that even our own intuitive senses of what critical thinking is, are mostly the same. We would probably agree when someone demonstrated critical thought.

Dennis: You are claiming that one should and must teach critical thinking, but that you do not know what critical thinking is? The more you say, the less sense you make.

Kate: Perhaps you are right. It might be more clear to state my opinion this way. Critical thinking is not a single function or entity. Critical thinking is a combination of things. Therefore, to answer the question of what critical thinking is, I must tell you what the various components are. It is when these components are combined together that the amalgamation known as critical thinking emerges. Does that make more sense?

Dennis: Well, that makes more sense, but you have still not answered my question. What are the ingredients then, to this recipe of critical thinking? You must have something clear and concrete in order to be able to teach it, or perhaps you do not, which would only further my claim that one cannot teach critical thinking.

Kate: Certainly. Let me offer you some of the key 'ingredients' of critical thinking. Critical thinking requires empathy and the ability to listen, constant questioning and evaluation,

rigorous honesty, drive for deeper understanding, and courage. For a more detailed list of specific qualities you should look at Nickerson's chapter, "Why Teach Thinking?" or Ennis's taxonomy of critical thinking.

Dennis: Finally, some substance to your views and just as I suspected, they support my original assertion. Critical thinking develops when one takes part in serious study of the arts and sciences. The qualities you speak of are part of science and scientific study. They are also things that develop as one matures intellectually. These are not qualities which require instruction.

Kate: I don't entirely disagree with you. These qualities can be part of scientific study and for the most part they should be. However, they are not always, and one can practice science productively without possessing all of these qualities. I am not suggesting that one separate science from the concept of critical thinking. I am suggesting that one not assume the two are always found together. Science is a useful tool for teaching critical thinking and critical thinking is a useful tool for conducting science. I personally support the use of science to develop critical thinking. However, I do not believe that this will happen naturally or inevitably. I think that one must make a conscious and concerted effort to develop students critical thinking and science is a good modality in which to conduct this work.

Let us look at some of the qualities I mentioned more closely; courage for example. Intellectual courage is not a necessary by-product of conducting scientific research. However, it is a perfect place to practice it. If an instructor provides a supportive environment and challenges students to take novel approaches and explore areas in which little is known, a student will learn and develop courage. This student will also be much more likely to produce something useful or interesting, which is what your own definition of critical thinking is. On the other hand, a student could be discouraged from disagreeing or exploring unknown areas. This student will learn the science, but will be unlikely to develop intellectual courage.

Dennis: You speak of providing environments where a student will learn certain qualities. It sounds to me like you are simply using another word for development. That you are fooling yourself into thinking that you are actually teaching anything. These qualities develop through scientific practice, not instruction.

Kate: Again, you have a good point. However, what you say is not specific to critical thinking, but rather a statement about teaching and learning in general. As a teacher it is not possible to teach someone anything. The student learns things and you hope they are learning what you intended them to. A teacher provides a learning environment and learning experiences. The students engage in the experience, within the environment, and acquire what they will. This is the case for algebra, or art or critical thinking. It is not a teachers job to instruct, but rather to provide appropriate environments for the student to learn. If you want to call this development, then I will agree with you. However, development can be aided, hindered or halted, depending on the environment that the development takes place in.

Dennis: You are sounding a bit more reasonable now. However, you are still left with major difficulty. How do you know when you have been successful? How do you assess whether or not you are providing the right environments? At least with my original definition is clear when critical thinking is taking place. You are providing these learning experiences and hoping that students take advantage of them. Certainly, you must assess your own efforts with some rigor and exactitude.

Kate: That, Dennis, is an entirely different issue. One which is of course important and related to the importance of teaching critical thinking. So, let me answer you just briefly. As I mentioned earlier, critical thinking is generally recognized by others when it is employed. Through the work the students produce and the dialogues they engage in, it is possible to make assessments of the kind of thinking the students are doing. So an instructor can observe the thinking of the students indirectly. The instructor must interact and adjust to his or her students. The activities which seem to produce critical thinking and the environments which produce it are not the same for every individual or group. So constant adjustment is required. However, one can look for and attempt to foster the specific skills I mentioned which are ingredients to critical thinking. These are the specific qualities they should be conscious of in both evaluation and design.

Dennis: Well, I will save my objections to this rather unscientific approach for a later date. Good luck trying to convince the school board to let teachers adapt to each class and use different methods and activities from year to year. They will never allow such uncertainty and I wouldn't be comfortable with that in my school either.

Critical Thinking Manifesto

Joelle W. Barton

May 11, 1999

To think critically means to think well. Subjective cognitive processes as well as objective cognitive processes are utilized by an individual actively engaged in a critical thinking exercise.

In that all people are unique, all thinkers have unique thinking dispositions that need to be addressed in a learning environment. Good teachers are those that recognize that teaching thinking is as important as imparting knowledge. Incorporating higher order thinking in to lesson plans and encouraging a classroom atmosphere of curiosity and independent problem solving are indicative of teaching thinking. Teachers whose goals are to teach thinking are able to identify individual thinking dispositions and learning styles, and adapt their lessons so as to speak to as many dispositions as possible.

Thinking well is not an inherent trait to human beings, rather humans are prone to think poorly by remaining rigidly within a frame of reference. People tend to rely on biases associated with their frames of reference and are more likely to think an assertion reasonable if it fits within these frames of reference.

Since thinking is not possible without a thinker, and since all thinkers have an unavoidable framework through which all information is filtered and processed, there is no subject neutral cogitation. Good thinkers understand the challenge that is stepping away from one's framework in order to examine information in as neutral a way as possible. Using the methodological believing technique allows a thinker to figuratively step into another thinker's framework.

Participating in methodological believing involves utilizing empathy, listening, and creativity. Seemingly mutually exclusive to critical thought, these subjective processes enhance the critical thinking process by allowing flexible manipulation of others' thoughts so as to enrich one's own understanding and expand the possibilities in one's own framework.

Utilizing empathy in thinking means to be able to understand the framework from which information is being offered. A good listener can pick out non-verbal clues and subconscious messages that could add more body to the information being offered. Exercising creativity allows the thinker to make the connections between the objective facts, the references gleaned from empathic response, and the non-verbal clues. A good listener elicits productive, honest dialogue leading to an even larger understanding of a given framework.

A logical approach to problem solving is often indicated. However, a purely logical approach to thinking does not have as much potential to produce innovation, exact change, or solve the puzzle. Logic infused with empathy gives a thinker a larger field of information and therefore a larger potential of answers.

Critical Thinking Manifesto

Presented for faculty of
the Critical and Creative Thinking Department
and its students.

by

Kurt Bentley

May 11, 1999

Critical Thinking: Preparation for an ever-changing world.

Everyone's lives are constantly changing, evolving and moving forward, even if the individual is unwilling to acknowledge the change that occurs with each passing day. It is a fear of this complexity that causes many to adopt rigid parameters in which to think and live. Critical thinking removes the barriers of single mindedness. It offers the ability to live with complexity, rather than escaping from it. The tools of critical thinking bring understanding to another's perspective, and the willingness to accept it; the courage to challenge well-established beliefs and the skill to present an alternative view based on sound, good thinking. It is about making connections, finding insights and evolving our beliefs from the overt receipt of knowledge to the tacit undercurrent of thought behind every hypothesis.

Living the life of a critical and creative thinker does not allow one to slip into a self-defending, single-minded belief structure. It plays off the fertility of our natural inquisitiveness and encourages you to take risks, to challenge yourself to explore your thinking. And to a greater degree, it provides the framework for living with change. To me, this is one of the greatest attributes of critical thinking.

In short, critical thinking increases our understanding of the world through understanding the way in which things could be different. It's a shift in perspective which enhances our opportunity to actively explore new ways to consider and challenge ideas. And once through this process, clarity will emerge and critical feedback can operate in concert with the re-formation of beliefs.

How Can We Become Better Critical Thinkers?

This document is a synthesis that articulates my own views about **critical thinking**, as presented in this course. I will describe how **critical thinkers** behave, that is, *what skills and dispositions they might use to synthesize their experiences, and to expand their world view*, and describe some ways that each of us can improve our own critical thinking.

1. **Think to improve your life.** *A critical thinker will use knowledge and experiences to understand and guide their own lives, in accordance with the **needs** they must fulfill and the **goals** they set for themselves.* These needs and goals need not be mutually exclusive. For example, most people need to work to fulfill the basic human necessities. However, a goal of meaningful work that you excel at, enjoy, and which brings you to a financial level that allows you to pursue other interests that fulfill you, is much more desirable than any work at all, or work that makes you unhappy.
2. **Know Thyself.** *A critical thinker understands his/her **biases** and how he/she has developed them.*
 - A. These are his/her **assumptions** about the way the world works or his/her **values**. Whether voiced or unexpressed, they guide the choices that s/he makes in most situations.
 - B. Assumptions, or values and the opinions that they give rise to, when collected from a common context (area of life) can be called **frames of reference**, **conceptual frameworks**, or **perspectives**. These are based at least in part on the conditions in which an individual, or group of individuals, has developed. There are many possible frames of reference or ways of understanding common areas of life. Therefore, each person's frame of reference is unique to his/her background and experiences.
 - C. *To be a critical thinker means to be able to understand the origins of our own thinking, and particularly why we make some choices and not other feasible alternatives.* For example, a person's views about romantic love may be tied to the nature of the relationship of his/her parents, or the absence of such a relationship. The cultural values about romantic love and the raising of children that permeated the community in which he or she was raised will also play a role in the opinions and choices he/she makes. However, it is important to note that no person is completely reducible to his/her background, but such information may be helpful in understanding why an individual or group of individuals, voices the opinions they voice and makes the choices they make.
3. **Think Globally:** *A critical thinker cultivates all areas of life making connections through his/her frames of reference to synthesize a comprehensive vision of reality.*
 - A. Our frames of reference provide us with ways to see the world, to organize knowledge about the world, and to interpret experience in a broader context. All of a person's frames of reference together constitute his/her **worldview**. They also give rise to his/her biases.

- B. The worldview of any individual is comprehensive, because it is composed of a wide range of frames of reference, concerning all areas of life. Thus, it is important to note that the complex cultural, psychological, and biological forces that shape the development of each individual, make it unlikely that the frames of reference that make up a person's world view, will always be consistent. *A critical thinker will puzzle over such contradictions and attempt to understand them and perhaps where they undermine his/her conscious, overriding goals, render them consistent.*
3. **Be open-minded.** *A critical thinker is open-minded about new experiences, or able to experience ways of life that are outside the realm of his/her experiences. A critical thinker is open to people who may have different values. . Open-mindedness may expand a person's worldview.*
- A. Open-mindedness requires a general flexibility of mind perhaps even at the risk of compromising the core values that give an individual's life meaning.
- B. Critical thinkers are open-minded when they are able to consider points of view generated within frames of reference that are not theirs, and are even antithetical to their own values. They are able to use the tension between their own frames of reference and other frames of reference to synthesize new ways of thinking about problems.
- C. Furthermore, when considering these frames of reference, they are able to engage in the practice of **methodological believing**, and conduct thought experiments as if these frames of reference belong to them.
4. **Empathize:** A critical thinker is able to perceive other individuals, to see them through their personalities, and recognize their emotional states. *S/he is able to reflect upon his/her own experiences, and recalling specific feelings in various situations, in order to understand how another person feels in a given situation. S/he is able to use these empathetic thoughts/feelings to make another person feel at ease, to deescalate a potentially volatile situation, or to predict the reaction of another to his/her planned actions.*
5. **To developing your own thinking about a topic:**
- A. **Read about it, using a variety of sources.** Try to collect sources that write about the same topic, using different frames of reference. Different frames of reference will emphasize different aspects of the same topic.
- B. **Write about it, using different kinds of writing.**
1. **Free writing** about a topic allows you to expand your thoughts on a topic without worrying about how to structure them.
 2. **Keeping a journal** allows you to collect your thoughts on a topic or topics in a convenient place, for reflective reading and revision.
 3. **Write small articles** about topics that concern you. These will require that you structure your thinking, justify your thinking using other sources besides your own frame of reference (thoughts and experiences), and revise the writing for clarity, soundness, and relevance.

- C. **Converse about it with yourself and others.** *Eventually all reading and writing require dialogue with at least one other person.* **Feedback** from another frame of reference is necessary to clarify your thinking, and to find fresh insights, or to make new connections.
1. Thinking aloud is **dialogue with your self**. Verbal processors learn best by thinking aloud to help new information fit within their minds.
 2. **Converse casually.** Talking back and forth with another, or being listened will help us to further evaluate our thoughts.
 3. **Converse more formally** using conversational formats such as “focused conversations” which have specific objectives, and build the level of thinking by using different kinds of questions to direct the conversation.
 4. **Open Conversations** with people from other frames of reference can be an amazing source of fresh insight about your self, others and the world.

Jean Crimmins
May 9, 1999

A Manifesto of Critical Thinking

Critical thinking is a deliberate, pains-taking effort to seek the truth. It encompasses multiple domains of learning and requires effort and concentration. It is a process dependent upon energy, commitment and time. It does not happen by accident. It is a goal you formulate because you value the opportunity to truly examine the evidence and allow the facts to unfold.

Cognition and attitude, ability and dispositions, patience and determination, will reflect the magnitude of the critical thinking process undertaken at any given point in time. These characteristics will predict the degree of completeness realized, (how thoroughly the situation is examined and perceived from multiple perspectives). It is to be appreciated that the process may be different depending upon the issue, the commitment we make to the project and the demands of the day. We are in fact products of our environment. Critical thinking does not take place in a vacuum. We are influenced by the moment-to-moment preoccupation of our mind and our perception of the impact this issue has on our immediate lives.

Critical thinking is possible when we leave preconceived notions or hoped for conclusions aside and objectively examine the evidence honestly and completely. The questions we pose will shape the progress of our thinking and reflect the frame of reference we choose.

The problem cannot be solved from the same consciousness that created it. As each of us is shaped by our experiences, and every encounter has the potential to teach us, we do

not view strife with the vision encountered when the situation was initially experienced. The unique perspectives of time and distance change the way we perceive reality and respond to it. The situation may not have changed, but we have.

We are transformed as a result of our past and the perceptions we have formed. As we assimilate each learning experience we develop and change. To be all we can be requires commitment, effort and willingness to take risks. Acknowledging our potential for growth and how we have developed (as a result of what we have learned from the past), we can feel empowered to achieve something more profound (this time).

In thinking critically, it is important to step out of our own frame of reference and visualize the unique perspective of another. Methodological believing provides the opportunity to seek clarification as we truly listen to their world-view. Methodological believing incorporates the desire to listen without judgment and hear the expressed and implied needs inherent in the verbal exchange. It implies an ability to perceive the meaning behind silence. It acknowledges the powerful messages that can be transmitted using body language. It is a process of active listening demanding concentration and effort.

Empathetic listening is a powerful tool to assist us in this process of perceiving the situation from a different point of view. Patience and understanding are necessary for critical thinking to unfold in an unhurried manner, giving time for the facts to make themselves known, and not rushing to a conclusion before the process is complete.

Critical thinking is an analytical, outcome-based procedure, which has the power to yield insight and discovery. It can broaden our perspective and enrich our lives. It can

take us outside ourselves, acknowledging the perspective and opinions of another. This mind-expanding experience has the potential to change our life.

We create our future. Peace is not gained by altering our world. It is obtained by altering our perception of our world.

We need to discriminate between situations warranting our efforts to create change, from those situations in which our best response is simply acceptance. We need to resolve the tension within our mind and come to terms with the fact that in some situations it is futile to rebel. Sometimes the most successful strategy to employ is acceptance. The wisdom to know the difference and act accordingly is realized within the process of critical thinking.

Critical Thinking 601

Critical Thinking Manifesto

Roy Dobbelaar
May 4, 1999

My Critical Thinking Manifesto

Rationale:

In presenting this manifesto, my sole purpose is to facilitate my future efforts at effective critical thinking. If anyone else gleans helpful ideas from reading it, that is fine however, it should be noted that the ideas contained herein apply specifically to my particular world view...my unique ecological system of inter-connectivity with the universe...and therefor cannot be (should not be) applied by anyone else as a general rule of practice. It seems important for me, here, to stress my belief that each individual needs to (and in actuality does) create his/her own unique set of operating principles to inform the nature and conduct of their own critical thinking efforts. No two individuals can ever look at, or interact with, the very same world. No other individual, for example, can ever look at the world from the vantage point of my eyes. At times, others may approximate my particular point of reference...no one, however, will ever see my world through the lens of my combined assimilated experience.

With the above caveat, I present the following “metacognitive manifesto” more as an insight into how I choose to conduct my own thinking than as a proposal for others to follow.

Goals of Critical Thinking:

My overall goal for engaging in a critical thinking process is to facilitate a more meaningful *dialogue* between myself and my universe...especially (but not exclusively) with the other “beings” I may encounter.

Dialogue (as opposed to discussion or debate) is an open, empowering conversation about things that are important that: promotes listening and suspended judgment; tries to consider “whole pictures” (vs. “parts” of issues out

of context); focuses on connections (vs. distinctions); inquires into assumptions (vs. justifying or defending); seeks learning (vs. persuading or winning the upperhand); creates/builds shared meanings (vs. pushing acceptance of one meaning).

Objectives of Critical Thinking:

In order to realize the above goal, I must embrace and seek to enhance two main issues/objectives: first, the *disposition*...and second, the *inter- relational skills*...necessary to do so.

Disposition implies a willingness: to engage in effective dialogue around issues or ideas; to use self-exploration and empathy for others as tools to gaining greater awareness and understanding; to strive for openness and clarity rather than ambiguity and obfuscation; to desire the sharing of ideas over the winning of arguments.

Inter-relational skills are those that enhance: interpersonal communication; open-minded, honest, and thorough assessment/investigation; accurate/innovative research and design; ongoing evaluation; persistence and flexibility; devotion to the ultimate goal of *maintaining an ongoing dialogue with my universe*.

It should be noted that I consider critical thinking “in a vacuum,” (occurring solely within an individual...*and never communicated*) as useless, of no consequence, and therefor as non-existent. The ultimate consummation or validation of thought lies with it’s consequent communication (by word or deed) to others without which it has no value.

CRITICAL THINKING MANIFESTO

Empathy fosters critical thinking. It is an important emotion or affective disposition to cultivate since it develops emotional range, which is essential to multiple perspective-taking and genuine open-mindedness. Role taking is a good exercise to strengthen empathy. It discourages hasty and superficial problem examination.

Critical thinking requires tolerance for ambiguity, complexity, and deferred judgment, along with a capacity for focused inquiry, sustained investigation, and a drive for problem resolution and task completion.

It takes time and effort to think. It requires you to separate from comfortable and familiar beliefs and deliberately and systematically attempt to get at the truth. The following list consists of goals and reminders that I have set down for myself as a future grade school teacher.

*Try to relate one subject to another. Help students appreciate how science is related to history. Help students appreciate that there is a history of science. Ideas evolve.

*It is important to wonder. A teacher should model a sense of wonder at the incredible beauty, variety, and complexity of the world and its creatures. Curiosity, wonder and a desire to understand deeply are fundamental dispositions for successful thinking.

*Writing helps us to think more effectively and clearly.. As a teacher, I will encourage writing across the curriculum. There are different types of writing. Writing is hard work and takes practice. Writing in math class can be very helpful in understanding and appreciating how abstract numbers and equations can help us solve some of life's every day kind of problems. Writing is required in every subject.

*Try to cultivate a non-judgemental attitude toward the person(s) with a new idea or perspective. Consider what they say as a gift. Maintain a receptive attitude toward people and ideas - otherwise you may miss out on some wisdom or truth.

*When preparing a new lesson plan, brainstorm for questions that expand your

mind - set you wondering and seeing questions you hadn't before. Model this appreciation of good questions for students. Help students learn the value of good questions. By good questions, I mean thoughtful questions that get you to see things from a new perspective or allow you to see something (a connection or relationship or explanation...) that you hadn't before. Good questions can open the doors to more good questions or answer other questions. They can arouse interest and curiosity - invite participation and stimulate creativity.

*Model good listening habits. Really listen to learn from students. A listening disposition is necessary before learning can occur.

*Allow enough time for students to think. I will try to avoid spoon feeding answers to kids. I will wait long enough for all of the students to have had a chance to come up with a response to a question (every one could write a few thoughts or ideas down before I call on any one individually).

*Facilitate group learning. Two heads are better than one. Help students appreciate this truth.

*Take time to reflect on my day in the classroom. Keep a journal and commit to spending at least fifteen minutes at some point in the day to write about an insight or question or observation. Share concerns or ideas with co-workers. My experience has convinced me that this is crucial for effective teaching.

*Allow students an opportunity to verbalize and process their ideas and questions by giving them a forum. Journals, classroom discussions, individual conferences, group activities, and theater allow kids to exercise their thinking skills. Theater or role play sessions allow students to enact their own stories that encourage more stories and questions. This also provides children a meaningful audience for their ideas.

*Continue to wonder and ask questions about the world "outside" the classroom. Literature, film, theater, music, etc. This stimulates and energizes me to be the best teacher that I can be.

*Include students in on the "teacher/parent" conferences. Have students play an active role in their evaluations and goal setting sessions. Help students take responsibility for their own education so that they can be life long learners.

*Avoid extrinsic (positive and negative) motivators in the classroom. Make sure that the lessons I plan are worthwhile in and of themselves. Students are learning for the value they see in it - not for my praise or letter grade. I do not want to train them to stop thinking when school is out - or to only think about what they think I want them to think...

...on perceptual openness:

The creative person is "one on whom nothing is lost"

- Henry James

MANIFESTO

PEGGY FLOYD

CRITICAL THINKING 601

When I think of critical thinking metacognition automatically comes to mind. The ability to become aware of one's own thinking and being able to assess it however takes time. Critical thinking is not something that happens overnight, it needs to be nurtured in order for it to grow.

Critically thinking embraces many different notions. First and foremost among these is the willingness and ability to exercise thoughts and use one's mind actively. This willingness brings with it a sense of open-mindedness to the possibilities generated while one is engaged in thinking actively. Although there are many different things that go into becoming a critical thinker, some aspects of critical thinking are more salient for me than others.

One of these aspects is effective communication skills. If one has difficulty successfully communicating with others the impact can be seen in the progress of the interaction, there might be less exploration of ideas or alternatives and possibly less acceptance of differing points of view. Communication then becomes a key factor in critical thinking skills. Many different things can make someone an effective communicator, including verbal and non-verbal skills, understanding the ladder of inference, listening and frames of reference. Another important aspect of critical thinking is inquiry. This includes seeking out appropriate references as well as tolerance of others ideas.

First lets touch on the verbal communication aspect of critical thinking. Successful communicators know that all interactions must meet two needs, the personal needs of the people involved and the practical needs of the interaction at hand. Meeting only one type of need in any interaction is ineffective and will not yield the desired results. People need to feel that they are being listened to and understood while being involved in a meaningful way. People like to be treated with dignity and respect, as well as trusted, valued and supported. In doing these things with people their self-esteem is maintained and possibly enhanced. Without these personal needs being met people may become disinterested in the interaction and therefore are not as willing to assist in meeting the practical needs of the interaction. The subject matter being discussed and the decisions being made are the practical needs of the interaction; the people involved determine these. Techniques to meet the practical needs of the interaction are resolving differences and the sharing of information in order to gain commitment to an action. In order to meet the personal needs of the people involved encouragement should be given along with open communication to strengthen relationships so people feel you value them and what they have to say. This in turn builds support for the practical needs and encourages them to work with you to accomplish the interaction goals.

Another form of communication, which accounts for over eighty percent of contact among people, is non-verbal communication. I feel that non-verbal communication can be broken down into two parts, the ladder of inference and effective listening. The ladder of inference is relevant here because it pertains to what's happening inside the head while involved in interactions and the non-verbal cues that are sent out come from this process. For example, if I am speaking and the person whom I am addressing decides they are going to interrupt me, I might get the feeling they don't really care about what I am saying. This might then lead me to think that the person is very rude. If I choose to believe this then I could become hostile in my manner of speaking to this person by sending non-verbal cues like a furrowed brow. They in turn will interpret

and react to my non-verbal cues. What if the reason that the person was continuously interrupting me was because they were excited about the topic or would forget what they were going to say if they didn't get it out right then? Then I have interpreted their non-verbal cues inappropriately. It can go on like this as long as the interaction goes on and that is why it is important to consider the process of the ladder of inference. If I was to take the time to ask a simple question like why do you keep interrupting me, I might have been able to get to the bottom of what was bothering me without jumping to a conclusion. I once overheard someone say, "there is so much to say but your eyes keep interrupting me". This statement leads me to believe that our ability to correctly interpret these non-verbal cues affects our chance of becoming successful communicators.

An extension of non-verbal communication is listening. Listening can be broken down into three parts: internal and external noise, reflective and empathetic. To listen to someone is to hear that person and attend to what they are saying. In order to listen and hear someone else one must involve themselves completely in that person by observing their non-verbal behavior while they are engaged in speaking and subsequently interpreting it. Although the interpretation is not always correct, it is the effort that makes the difference. If you are unsure on the non-verbal cues they are sending, asking a forward question is one possible solution. If someone feels that they are being listened to they are more likely to share their thoughts, feeling and rationales. This could lead to alternative possibilities to the situation or topic.

Sometimes it is difficult to listen. If you are in a crowded restaurant or a busy bus station it might not be as easy to listen to the person who is speaking. Sometimes you are really busy and can't concentrate on what is being said to you. In both of these situations none of the people involved in the interaction will be able to get what they need out of it because both of the needs, practical and personal, are not being met. If this is the case it is o.k. to ask if it can be continued at another time so more attention can be given to the interaction. These internal and external noise factors cannot be helped. Critical thinking does not happen in a vacuum.

Listening reflectively involves taking the time to think something over carefully. It is an effective form of listening because it shows the person you took the time to think about the topic after it was presented to you. Sometimes a person will throw out a topic at you and one way to show them that you are listening is to get back to them with some well thought out opinions. Some of us don't have extra time to spend thinking about a topic after a discussion just to show that you were listening. For us there is a more immediate rendition of reflective listening, it is called paraphrasing. Paraphrasing what is being said shows that one is listening and understanding what the other person is saying. This encourages others to continue to explore their ideas, which can also bring about alternatives to decided conclusions.

Listening and responding with empathy can also have a positive effect on one's ability to communicate with others. Listening with empathy is to respond to the person in a sincere and forthright manner. And in doing so show that person that you understand their feelings, thoughts and rationales. If someone feels that they are being related to or understood they are more able to ask for others ideas and opinions. This happens because they person feels comfortable and less closed off by non-verbal cues of someone listening without empathy. You must put your own feelings aside for the time that you are

listening to another in order to listen with empathy. In order to become an effective communicator one must consider and master many different situations.

Another aspect of becoming a successful critical thinker in inquiry. Asking why leads to exposure to others' ideas and hence, alternatives unknown to you. Most people are not alike in all ways and therefore will have many differing points of view. If one is to become a critical thinker they should be able to utilize these differing frames of reference to explore alternatives. Ask for the opinions of those considered experts and those not considered being experts. Look up and research ideas to find alternatives. Try not to assume that you know the how's and why's of something with out fully examining other possibilities. Listen to others, not in order to change your already held beliefs, but to hear what they have to say. If you still don't agree, that's o.k. too, you don't have to put down their ideas because they're not the same as yours. Tolerance of others is vital to being able to see the other alternatives as valid observations and enhance your understanding of their frame of reference.

A friend of mine once said to me that everyone interprets the world through their own "stuff" and that everyone's "stuff" is different. At the time it was a comment in a larger conversation, but now whenever I think of that comment it helps me to see that everyone is different and has a valuable contribution to give if I only inquire to what it is. I think of this statement every time I am communicating with others. It helps me to be an effective communicator, explore their ideas, thoughts and rationales with them and gives me a sense of tolerance. I then walk away from the interaction knowing that I have done my best to see all the alternatives and to meet all the needs of the interaction. If you walk away from this manifesto with anything I hope it is a wider sense of what becoming a critical thinker is to me.

The Novice Sage Manifesto

Mary Frangie
CCT 601
Spring 1999

If there is one basic rule to critical thinking that I, as a novice, have learned it is
DON'T BE AFRAID!

*Great
organizing
ideas*

Don't be afraid to **ask questions** and test ideas, ponder and wonder. There are no wrong questions...but some questions are better than others. Pose questions that further thinking, give you a clear perspective, look for alternative ideas and open doors. Formulate questions that allow greater conversation and additional thinking and give reasons. Find ways to take another avenue when you think you've come to a dead end.

Don't be afraid to **have a voice** and use it! Listen to all the voices you have and give each of them a chance to be heard. Really hear what each voice has to offer you and the wisdom that comes from each. Give your voices the opportunity to listen to other voices and learn, explore and ask questions.

Don't be afraid to **consider other perspectives** and put yourself in some one else's shoes. Empathy with the world around you will create greater understanding for yourself. The more information you acquire the greater your knowledge base to forge ahead with new ideas and new thinking.

Don't be afraid to **be open** to the composite of ideas that surround you (if you look for them). Learning to really understand and empathize with other perspectives will give you a greater knowledge base from which to interpret your own world and formulate thoughts. Never rule anything out until you have sincerely thought it through and made decisions about it.

Don't be afraid to **utilize help** when you need it. Create a support system that is safe and encouraging. Share ideas in a non-judgmental, creative and nurturing environment. Go to the 'experts' when you get stuck.

Don't be afraid to **question the experts**. Ask yourself questions about the expert's paradigm or agenda, but don't become completely skeptical. Learn to balance what you doubt with what you believe or you will find yourself going nowhere fast.

Don't be afraid to **gain knowledge** through reading, investigating and experiencing. Be as broad as possible so as to have the advantage of knowledge of many sides.

Don't be afraid to **listen** to the stories being told everyday. Suspend your biases and judgments and listen to those speaking. Encourage those who are not speaking to do so. Facilitate them to find their own voices and to speak freely about their experiences and emotions. Their knowledge becomes your knowledge and all of our knowledge collectively is worth more than any of us singly.

Don't be afraid to **recognize your assumptions**. Know that every person comes from his or her own unique point of view and learn to be cognizant of yours. Allow yourself to confront and challenge your presuppositions in a constructive manner. We can never get away from having biases but confronting them creates a more conducive environment for critical thinking.

Don't be afraid to seek order through **strategic thinking**. Amidst all of this idea searching, open mindedness and novelty, create concrete ways to strategize, stay focused and clarify. Allow your self to have inner dialogues that reflect and evaluate.

Don't be afraid to **reconceptualize** what you know to be true. Relish the epiphanies that will come to you as you begin this process of critical thinking. Tie yourself to your beliefs but allow the changes that will come to enhance your understanding rather than abandon it completely. Then again, if it makes sense to, discard old ideas and adopt new ones.

Do all of this in an atmosphere of **reason and reflectiveness**. Learn basic principles of **logic and inference** and learn to apply them to daily life. State arguments that are **valid and sound** and make connections to give credibility. Understand the difference between **cause and correlation** and always remember that correlation does not equal causality.

Without a solid and broad **basis of knowledge** you will be hard pressed to think critically about your environment. Allow your anxieties to explore **truer meaning** and then work with that new meaning to subdue the **anxiety** and to move to a next level of **learning**.

Above all, approach life as an explorer looking to capture all the information possible about the well known, little known and unknown and keep an open mind to what you uncover!

*This is
powerful.
Are there any
themes you would
wish to add?*

Revised Critical Thinking Manifesto
by Tim Laux
for CCT 601, 5-11-99

Part I The journey

Part II Currents

Part I The journey

(Tom, Huck and Jim are floating in the Old Harbor of Boston on a raft.)

Tom: Land ho! There she be! UMass Boston. A fine sight, isn't she? Well, tonight is our first class of Critical Thinking. I wonder what will happen.

Jim: It should be **pretty deep**. I'm hoping for a review of formal and informal logic, causation, correlation, and more theory.

Tom: What! I've never heard of any of that stuff before. **I can't do this kind of thing.**

Huck: **I hear you**. I've done a little bit of those things. I took a logic class as an undergraduate, but after a while it seemed a little bit like Esperanto, an invented language. I could have come up with my own rules too, I think.

Jim: **That's ridiculous**. What's the problem, are you afraid of Truth?

Tom: Hey, ... let's try to **listen constructively** here, OK? I don't think you're really hearing..

Jim: What is this? Some **hippy love-in**? I'm not in graduate school to have any therapy sessions, I want to use my mind! Objective, rational searching for the Truth is my goal and intention.

Huck: Check out that sunset!

Tom: Nice.

Huck: The wind is being good to us today. So let's see here..(looking at syllabus) **critical thinking, two kinds of thinking and two kinds of writing.....**

Jim: I only know **one kind** of writing, you get the style manual, work on your grammar and write it up.

Tom: We'll see. **Writing is like rafting though**, you never know what you'll find until you shove off from shore.

Huck: Ain't that the truth.

Jim: Hmmmm.....the syllabus says something about **rethinking** equal opportunity, that could be good. I think we have to dive into the issues, real issues, in a rational way, looking at the strength of the arguments considering all sides, and writing about it.

Huck: But what about **working with others**? We can't learn so well alone. I think knowledge is constructed socially, you know?

Tom: Yeah, I do. Like on the raft, we all have to **work together** and use our varied experiences in order to have the best journey we can. It's a **group process** though and in this part of the Harbor, The Old Harbor more precisely, we are in a certain **context**. Our reality is different than if we were up on the Mystic River, for example. There's more current up there and more boats. We would really get rocked around by the others.

Huck: Right. Also, there's the yacht club up there and those guys always think they have a corner on the market of boating knowledge. Any time we stop to fish up there they are always telling us to go into, what do they call it, a "**supermarket**" or some such truck. I'll

have none of that! The best fish you get right from the river...as long as you get them upstream from the chemical plant...and the nuclear plant.....and the garbage dump.....

Jim: Why do you worry so much? You're so **emotional, Huck**. You too **Tom**.

Tom: Well, I can **empathize** with **Huck's** feelings here. I don't necessarily feel the same way, but if I listen to him, I feel I can learn a lot.

Huck: Hey, by the way, I heard a historian talk about **Kosovo** and he said.....

Tom: **One version** of the truth, and if you would have heard a talk at B.U. it would have been a bit different, I am sure of that.

Jim: Come on, **history is history**....a bunch of dates and events.

Huck: I beg to differ dear chap. Even history is not free from biases and selection of "facts." Right, many times **omission** of certain facts actually screams louder than what is actually there.

(.....Later, during a disagreement.....)

Huck: You're not **listening** to me **Jim**.

Jim: Shore I am, you said.....

Huck: Well, technically I did say that, but my point is that listening is more than just repeating back to me what I said.

Tom: I think I know where you are going with this, **Huck**. You are concerned about **listening in a way that is beneficial to the talker. The goals here could be "to encourage the talker to reflect on the meaning of events and ideas; express and work through feelings that are interfering with clearer thinking; construct new meanings; and make decisions."** (Weissglass, p. 356)

Huck: Exactly. It's a constructive process, **constructive listening**.

Jim: Constructive listening? Hey, listening is listening, do you hear me? What you guys are doing is not listening to my opinion about formal reasoning and the importance of logic and such. Don't you see that **I have some answers** which might be useful here?

Tom: You personally have some answers which you're going to tell us, is that it? Well, I hate to break it to you, **Jim**, but knowledge and ideas are **socially constructed and shared**. We use our language to **produce**, instead of reflect our social realities, I think.

Jim: Well, sometimes the professors has the answers and we need to listen to them.

Huck: Remember that **Lao Tsu** said after good leaders have done their job the people will say, "**We have done this ourselves.**"Of course these guys know a lot and they can create a lot with any given group of students. They know how the processes work and how to create experiences for the class.

Jim: Create experiences? Listening? Emotion? Is this Critical Thinking?

Tom: Don't forget logic and causation, **Jim**.

Jim: Don't forget?.....What do you mean?.....Ummm, of course I don't want to forget those! But tell me more about this listening stuff. Isn't there a danger to concentrating too much on listening? I have to say something, be forceful and do it, I can't listen all the time.

Huck: I hear you **Jim**. It sounds like you are concerned with not getting heard. With some effort we could work together to "**express and work through feelings that are interfering with clearer thinking; construct new meanings; and make decisions.**" like Weissglass said. Why don't we spend 15 minutes on that right now and then we can talk about your favorite topic for 15 minutes?

Jim: OK, it's a deal.

(30 minutes later.....)

Huck: I think that was interesting, we did some good communicating. **Jim,** I won't tell anyone about our conversation...In fact, I won't even mention it to you in the future.

Jim: Now that's confidentiality!

Tom: Yes sir. There are some **guidelines** with constructivist listening which should be followed, you know? Doesn't that sound like a **Focused Conversation**? Is that what we are having right now?

Huck: Well, a **focused conversation** uses questions at four levels: the objective, the reflective, the interpretive, and the decisional. This makes the acronym "**ORID.**" The end is **decisional**, so that shares something with constructivist listening.

Well, here is the shore, the **fog has lifted** and we can head off to class.

Wait, what are these papers underneath our bedrolls, C...I...Q? **Critical Incident Questionnaires**? Hmmm....

Booming voices from the sky in unison (and tension): ||Please remember to fill out the Critical Incident Questionnaires before leaving the raft!!

Tom: What? Well, the way I see it, the Critical Incident here is connecting what we learn in this class with **stopping the war in the Balkans and ending injustice at home.**

Jim: Oh, please! You can't win here, that's reality, boys!

Huck (stepping ashore and offering Jim a hand): **Come on, Jim, let's take a walk. I have a story I think you'll be interested in.**

Part II-Currents. Not that I am giving advice, but....

- Don't be intimidated by the words "Critical Thinking."
- Work with the tension....between ideas, people, expectations.
- We engage in constructing, not reproducing, knowledge. It is a social exercise.
- Connect with these ideas from your own experience and thinking and not from somewhere you think you should be.
- Carry the Ennis article in your back pocket and apply it often during your days.
- Critical thinking is an attitude which needs to be applied....do your clippings packet well.
- Use reflection to stimulate further action.
- Express Hope and Love, now get out of here!

Reference

Weissglass, Julian. Constructivist Listening for Empowerment and Change. The Educational Forum. Vol. 54, No. 4, Summer, 1990.

**Manifesto
Part 1**

**Judith C. Lemelman
May 11, 1999
Critical Thinking 601**

The setting is a beautifully renovated health and fitness center on the South Shore. Previously, the facility had housed an all tennis club. Now with the great thrust on health and working out, several of the tennis courts have been converted into fitness and aerobic studios. This has led to fewer tennis courts being available at prime times, and the emphasis of the club changing from a tennis mecca to a total fitness place. Obviously, most tennis players are displeased with the changes while the aerobic and fitness enthusiasts are delighted. The pay structure is yet another bone of contention. To rent a tennis court, one must pay extra, but the use of the fitness room is free as well as the ability to take an aerobics class. All of this has left the owner in quite a quandry. He is never sure how to “play up” the club when showing it to prospective members. On occasion he must greet and give tours to people who do not share similar interests in exercise. Now he must make tennis and aerobics seem appealing and equally important to the club.

Today the owner is giving tours to two such people, one an aerobics buff named Anna and the other, Tom, a tennis enthusiast. From the self-description they must fill out previously to the tour, the owner knows their interests and also that they are readily able to afford the club (in other words, he does not want to lose them). Being a bit of a “bravado” the owner enjoys diving into the suggestion box located in the front hall of the club. Usually he pulls out a criticism of the club and attempts to correct it on the spot. One of his favorites is the complaint about the temperature of the pool. Instantly, he gets on a house phone and orders for the temperature to go up or down, whatever the complaint might have been. Today, however the owner was not so lucky. The member writing in the complaint wanted to know why she was made to feel like a criminal everytime she forgot her membership card. The owner made a few attempts to explain the sophisticated security system in place at the club. When neither member looked convinced, he told them he would finish explaining the security terms at the end of the club tour.

The first instructor they meet at the club is the kick boxer specialist. He is somewhat timid to see the owner because his enrollment numbers for his kick boxing classes are low. To the two prospective members he readily describes his classes and his goals. He tells them that not only is kick boxing a self-defense technique, but also it is also a great work out. The owner is surprised by this information. He has been marketing this class as a

way to “fight back” and to feel secure in the world. ¹ Anna, the aerobics enthusiast wants to know which muscle groups will be worked. The instructor enthusiastically describes his program and all the health benefits that would be achieved. He admits that some people see it as a self-defense class, but that is only one aspect of kick boxing. Realizing Anna’s interest in aerobics, the instructor informs her that many of the moves and muscle groups used are the same.²

As the trio continue on their tour around the club, they overhear a somewhat heated discussion coming from the management office.

“I don’t get it. We have bent over backwards to be supportive of this local community and yet the people who live closest to the club have yet to join. The club has made the surrounding area look so attractive with all the new plants and shrubs. Why we even put in speed bumps to deter speeding and still the club could be sitting on the moon for all these people care.”

Another voice chimed in, “Maybe they didn’t want the speed bumps and were happy with the way the neighborhood looked before we improved it.”³

“I think the chandelier in the lobby might be sending the wrong message,” replied a third voice.

“What do you mean?”

“Well we would all agree that this is a working class neighborhood, right?”

“Well that’s obvious.”

“Well,” continued the third voice, “Maybe we are too upscale for them. I mean most people who join a health club are middle to upper class and with all the neighborhood improvements and the foo foo chandelier, maybe we are just not appealing to them.”⁴

“This lack of membership, sends out a really bad message for the club. We have got to get more locals to join.”

“I know,” suggested one, “let’s send out a questionnaire to ask the neighbors if they like to work out and if so what kind of exercise they enjoy.”

“I think an open house at the club would be a more friendly way to get the people to come in. Once they are here we could show them around and ask them about their exercise preferences.”⁵

“What do you think about putting a free one month membership card under the door of everyone who lives close by the club?”

¹ The owner does not display the ability to “distinguish between logically valid and invalid inferences.”

² The instructor “sees similarities and analogies that are not superficially apparent.”

³ “Suspends judgment in the absence of sufficient evidence to support a decision.”

⁴ “Interaction through cooperative problem solving, discussions or other joint thinking activities.”

⁵ “Recognizes that most real world problems have more than one possible solution.”

“That is a good idea, but it really does not get to the root of our problem. You are assuming that just because the people walk into the club, they’re going to love it and be able to afford to join. I feel, however, we need to understand their goals and needs. Maybe they want square dancing or in-line skating for their kids.”⁶

“And maybe they just can’t afford a health club.”

“Well, we will never know without communicating with them, so let’s decide on an approach.”

When the owner realized that the two prospective members were overhearing the conversation while he eaves dropped as well, he quickly moved them to the next stop on the tour, which happened to be the pool. Once there the owner introduced them to the aquatic director, Betty. “She’ll show you around while I take care of some business up at the front desk,” the owner informed. Betty quickly went to work showing Anna and Tom the two pools, the hot tub and the steamroom. As they walked past a bulletin board, Anna inquired about a notice she read called “Chubbie Tubbies”.

“That is our diet and weight loss program. Although to be perfectly honest no one has lost a single pound over the last two weeks,” reported Betty.

“What sort of eating plans are they on?” inquired Anna.

“Basically, anything they wished to try. I read over them all just to make sure they were all nutritiously sound,” answered Betty.

“They are probably all just cheating,” Tom piped in.

“I really don’t think so,” Betty continued, “and they would have no reason to lie to me. Some of the members have weddings and trips which they would really like to lose weight for and others have college reunions. No, I think their efforts are sincere. I just do not understand the lack of results.”⁷

“What exercise do they get? How often do they do it and for how long?” inquired Anna.

“Well most of them swim about three or four times a week for about an hour,” Betty replied.

“Do they do any group exercise such as tennis, aerobics or even kick boxing?” questioned Tom attempting to solve the weighty issue.

“No, most of the swimmers have poor knees or other stress fractures. Where swimming and water aerobics do not put pressure on the joints, most people have selected it for that reason or due to doctor’s orders.”

⁶ “Can represent differing viewpoints without distortion, exaggeration or caricaturization.”

⁷ “Asking and answering questions of clarification.” Ennis.

"I am sure you have heard of the study that links water exercise to fat increases," Tom mentioned.

"No, please explain what you are referring to," said Betty.

"If you take a whale for example, he has a lot of fat on his body to keep him warm and to help keep him bouyant. The same principle applies to humans. The more they are in the water and the longer they stay in the water, the more their body has a tendency to maintain fat. It is not saying that they are unfit it is just showing why they tend to hold on to fat instead of losing it even while dieting," Tom patiently explained.⁸

"Are you sure?" Betty questioned, "I have never heard of such a thing."⁹

"I can think of a way we could test out Tom's theory," Anna suggested.

"We could have three different groups of dieters. Basically, the diets would need to be somewhat similar at least in term of caloric consumption. Once that's astablished, three groups would be organized. The first group would consist of those who prefer only to swim. The second group woud be made up of those who swim a few times a week and also do some sort of group exercise, like aerobics. The last group would be those members who do aerobics or play tennis or some other group exercise, but never go swimming."¹⁰

"I would be willing to give it a try, but I might be experimenting myself right out of a job," replied Betty.¹¹

"I don't believe that to be the case, Betty," Tom said reassuringly. "Water exercises are still very good for especially with specific needs, as you pointed out already. They are just not the most effective way to manage weight."

"Yes, and when your boat is going down, it is hard to save yourself with a tennis racket," Anna giggled. No one laughed at Anna's attempt at humor.

As Anna and Tom head back to the lobby to track down the owner, Tom asks Anna if she is aware of the pool fees assuming there is a charge. "Oh no," she replied. "There are no added on pool charges. It is included in the monthly dues."

"That is outrageous, so they only extra charge is tennis? How can that be fair?" Tom questioned loudly, failing to display "impulse control"¹²

⁸ "sees similarities and analogies that are not superficially apparent."

⁹ "suspends judgment in the absence of sufficient evidence to support a decision."

¹⁰ "looks for unusual approaches to complex problems."

¹¹ "listens carefully to other people's ideas."

¹² Rethinking Reason Reason at page 55.

A pledge to integrate critical thinking in my personal and professional life
By Inés Maturana

From this day onwards I will:

1. **Use the tools of critical thinking to approach ideas, issues, and problems more rigorously.** I will carefully examine evidence presented to me. I will ask appropriate questions to clarify information. I will judge the credibility of the source and stop assuming that because it has an academic or scholarly presentation, it is true or correct. I will also apply the same rigor to my own writings, in particular as I prepare for my qualifying paper.
2. **Maintain that critical thinking is a purposeful activity whose objective is to make a decision about what to do or believe.** Being the practical person that I am, I cannot value any activity that does not have a particular purpose. Synthesizing the thinking of authors such as Ennis, Nickerson, and Elbow, I contend that critical thinking is a systematic, conscious, reflective activity that incorporates an organized process with the purpose of making a decision of what to believe or do.
3. **Recognize the boundaries of frames of reference and strive to look at things from new points of view.** I will acknowledge the constraints of my own frame of reference. I will declare the importance to make it explicit for myself and to understand that others are also constrained by their own frames of reference. I will use open-mindedness, constructivist listening, role taking, empathy, and belief to expand my thinking beyond those boundaries. I will remember the idea that “people will always have different perceptions of what has taken place between them”, and that that idea is essential to understanding diversity and multiculturalism. If people honor the different perspectives, they are more open to respect each other and to coexist.
4. **Suspend doubt, and believe.** Believing is a necessary condition to first understand and then make a decision to agree or disagree.
5. **Remember that critical thinking is an organic process.** Critical thinking is an organic process that integrates thought and feeling. I concur with Gallo who believes that “Thought and action are most meaningfully and comprehensively understood as having both cognitive and affective contributing factors and that these factors are as inseparable as the denotation and connotation of a spoken word.” (p. 45)
6. **Practice the many levels of listening appropriately.** I will consciously practice forms of listening that have not been part of my repertoire to date: active listening, argumentative listening and constructivist listening. In my work place, I will adopt the focused conversation model, which uses questions at four levels: objective, reflective, interpretive, and decisional.
7. **Enrich my writing with the language of thinking.** I will consciously revise my writing to include the language of thinking vocabulary. The language of thinking helps focus thoughts, present information more rigorously, and most importantly, the language itself aids thinking.
8. **Make meta cognition a mental workout.** I will make it a mental habit to think about my thinking, to reflect about the activities I do both at work and at school,, to gather learning experiences and to design new ways to approach a similar situation.
9. **I will be aware of the ladder of inference.** I will make a conscious effort to revisit my thinking process and gather additional information to check the inferences I am making.
10. **Use critical thinking to pursue alternative solutions to a problem.** I will look for the different angles problems and acknowledge that problems manifests themselves differently in diverse settings. Each setting brings new insights to the solution of the overall problem.

Jean E. Mills
May 6, 1999
Revised Manifesto

According to the American Heritage Dictionary, a manifesto is a public declaration of principles or intentions. Principle can mean a basic truth, law, assumption, ethical standard, or judgement. The goal of a manifesto should be of a moral and constructive nature.

Critical thinking is theory based on how ultimately truth or knowledge is perceived. Although I have been a life-long critic of traditional education, I value many of the tools that I have come by as a result of it. I believe that the more radical our feelings are, the more firmly they need to be grounded in disciplined thinking; thus conventional learning is not to be dismissed. Nor are the students to look to the instructor for the meaning or truth.

Critical and creative thinking are inextricably intertwined. There can not be one without the other. It is best described by Robert Ennis. He describes it as 'a practical reflexive activity that has reasonable belief or action as its goal. There are five key ideas here: practical, reflexive, reasonable, belief or action. They combine into the following working definition: Critical thinking is reasonable defluctive thinking that is focused on deciding what to believe or do. (p. 10).' It involves testing a hypothesis and solving a problem. Its goal strives to strengthen an individual's ability to engage in systematic thinking as well as making decisions about controversial issues.

Jean Mills
May 6, 1999

In the course of developing one's critical thinking skills, the learner initially looks to the instructor for guidance. The instructor refuses to take on the role of the expert and collaborative learning is encouraged. The student learns how to work in a group and work on open-ended tasks. It gives the students practice on working together rather than depending exclusively on the authority of the teacher. It encourages learners to construct knowledge as it is done in the real world. Collaboration, consultation, and teamwork is encouraged.

Critical Thinking Manifesto

Of

Terence S. Phalen

My experience with this class in critical thinking has provided me a great deal of insight to the value and difficulties in applying the skills and methodologies of critical thinking. I am much more aware now than before the class, of the importance and value of practicing the skills discussed and presented during the class experience. Although I have always thought of myself as very capable critical thinker, especially because I use some of these skills on a daily basis, I have learned other critical thinking skills that if applied correctly, can increase my overall effectiveness. This effectiveness can be applied in both my professional and personal life. In addition I will attempt to integrate what I have learned about critical thinking and what I have learned about myself to better myself and increase my effectiveness when working with other people.

The strongest plan that I can develop from the lessons of the class will be to exercise the lessons of observation, patience in listening and my awareness of my tendency to prematurely “climb” the ladder of inference. I realized early in the course that this would be probably the most meaningful and practical part of my learning experience. If I can successfully achieve this goal then I can focus on increasing my abilities in the area of true believing, focus discussions and frames of reference, all of which will help me to work with the public in general, my staff, and the students we service at the University.

Although not an original intent of the course, at least I don't believe so, the diversity and varying level of understanding of critical thinking skills of the class, also provided me an important reminder to identify a knowledge base when involved in a teaching and/or training situation. I must give credit to both the instructors for their patients and understanding with the difficulty some student had in first understanding the concepts of critical thinking.

I will also apply a very basic but sometimes forgotten critical thinking skill of questioning. The simple act of questioning, even if questioning the smallest part of an issue, topic or discussion, can lead to new perspectives and reinforcing ways of truly understanding the perspective of the issue or individual. I hope that it will make me better as a person when interacting with others and, provide myself the opportunity for a better understanding about a particular issue or topic. The outcome will be a stronger sense of confidence in my opinion or position on the given topic.

Most of all I hope that my experiences in the class serve as constant reminder that critical thinking is a skill that is not restricted to only those who are educated as I once thought. But instead, remember it as a skill to be utilized by all people, regardless of age, race, ethnicity, gender or sexual preference.

Manifesto
Janice Philpot
May 25, 1999

Throughout the entire semester I have been keeping a Running List of Components of Critical Thinking that I have discovered during the semester. I believe that these components are needed if a teacher is going to really create a critical thinking classroom.

Skills

- Interpretation and Re-Interpretation
- Clarity
- Judgements
- Listening
- Giving
- Willingness to participate
- Agreement
- Willingness to Teach Others
- Possessing A Broad Base of Knowledge

Dispositions

- Emotional perspective
- Moral development
- Ethics
- Deducing and Assessing deductions
- Inducing and Assessing Induction
- Identifying and Assessing causal claims
- Generalizations
- Dispositions of open-mindedness and interpersonal sensitivity
- Understanding Frames of References

These are the thinking skills and dispositions I think should be used to begin. I believe these can be cultivated in many ways. The first would be through dialogue and informed practice. Make sure the students understand what you are trying to do in terms of changing their language and thinking process. It will be important to the students and the teacher that everyone understands that the critical thinking process is a learning process and that learning is evolutionary.

- Use evidence skillfully and impartially

- Organize thoughts and articulate them concisely and coherently
- Distinguish between logically valid and invalid inferences
- Suspend judgement in the absence of sufficient evidence to support a decision.

- Seek a clear statement of the thesis or question
- Seek reasons
- Try to be well informed
- Use and mention credible sources
- Take into account the total situation
- Try to remain relevant to the main point
- Keep in mind the original and/or basic concern
- Be open-minded

- Focus on the issue
- Analyze the material
- Ask and answer questions of clarification and/or challenge

An awareness of metacognition and multiple perspectives would also play a role in this evolutionary process. In fact the development of these skills would aide in helping all those participating in the learning process to experience it fully. The themes above are “a work in progress.” I anticipate adding and modifying the list as I teach and grow with my students. I have begun by adopting my manifesto into my teaching style. I am designing all of my courses to incorporate experiences that will identify and engage the students in critical thinking and critical thinking activities. My first attempt at this is demonstrated in my Learning Experienced, please refer to it as a supportive reference.

Maggie Ryan
Critical Thinking Manifesto

Critical thinking is a reflection on ideas and thoughts that can later provoke action or decision making. It is looking at accepted beliefs and challenging them with sound logic and reasoning. Although it can prove to be helpful, often times critical thinking feels like a hindrance. Everything that I encounter in a day, whether at work or in my personal life is now analyzed. No longer am I able to accept things at face value. Critical thinking has provoked an uneasiness about learning and accepted ideas. Many fear this unwillingness and unknowingness. Prior to this class, perhaps I would feel the same way. However, not knowing and questioning is more acceptable to me. The unknowing is now a comforting feeling, realizing that I am engaged in a critically thinking process.

Everyday rituals like reading the newspaper have become somewhat a challenge to me. I have become enveloped in critical thinking mode and am finding it difficult to turn the switch off. I think about the journalist's frame of reference and try to understand where he or she are coming from, keep an open mind, suspend judgment before leaping into prejudices. Empathy has also provided me with a broader scope of people and their ideas. Open mindedness has proven to expand my ideas and enable me to take risks and appreciate when others do the same.

Critical thinking has even guided me into a more productive work process in my office setting. I can no longer accept "this is the way it has always been done". Critical thinking provoked me to go beyond this and put a plan into action about my challenges in work. I am creating a project that will be implemented into my corporate environment that will provoke other co-workers to use critical thinking.

The goal of this project is to create an open, comfortable setting and to find a better working process along the way. Associates will critically think about our communication patterns and how it effects the department as a whole. In order to see the "big picture" we will look at the "cogs in the wheel" sort-of-speak.

Metacognition has been another idea which has intrigued me this semester. I know it will continue to grow with me beyond this classroom. I am learning more about myself through this process of thinking about my thinking. I am not sure if I was conscious about metacognition before. Today however, it seems automatic in my head. Whenever I begin to think about how I am thinking, I become aware of it. It enables me to see patterns in my thought processes or even random ideas. As these skills mature, I aspire to develop into a critical thinking “spirit” about everything I encounter in the classroom, at work or even picking up the newspaper.

As I look back on our critical thinking journey, I can now envision a thread connecting all the themes we have touched upon. Metacognition, frame of reference, open mindedness, etc. are actually proverbs to improve my life when life is constantly changing. I will take this uncertainty, uneasiness, confidence with me as our semester of Critical Thinking draws to a close. I am excited at the prospect of actually extracting a tangible outcome for this class. The critical thinking learning project will prove to be an example of this. It is my hope that the ideas from our class discussion, readings and projects will form strong opinions and continual inquiry towards everything I encounter in the future.

Manifesto

Helena L. Santos

CRTH 601

Arthur Millman

Peter Taylor

May 11, 1999

A LETTER TO DANIEL

Dear Daniel,

All those times I steal away to my computer I am working on schoolwork. Something you don't quite understand yet because you still struggle so much to not have to do yours. Why would I be choosing to do homework if I don't have to, you wonder? Well, it is a complicated question, but basically it is because I enjoy it. Just as I hope that you will enjoy it more someday. I do it for myself, but a part of me hopes that it will benefit you also. I hope that if you see your mother working and learning in an on going manner, you will be influenced and have a model for the same. Your father and I have so many interests we hope you will share with us someday.

I realize you will have your own interests, of course. You are so strong-willed and so creative! Like this "machine" you worked on all day today. It wasn't quite what you wanted so now you say you can't sleep because you are thinking about how to build a new and improved one. I am so impressed with your creativity and tenacity (sometimes). You are so smart. I know all parents say that about their children, but you really are. Your vocabulary is better than mine! I am so proud of how well you express your thoughts and your feelings. Most importantly Daniel, you are kind. I truly hope that whatever happens in your life, you continue to care as much about people and the environment as you do right now. I realize that you will outgrow the rainforest wall painting and all the stuffed animals in your room, but the depth of understanding and concern can only grow. I hope that Dad and I can continue to nurture the critical and creative thinking that you already do so naturally.

It is for this reason that I write this letter. To give you a few words of advice, yes, but mostly to remind me of what I believe I should practice in order to assist you with your growth. By writing this letter to you, perhaps I can help myself. Although you may be tempted to do so, please don't take this as an attempt to tell you what to do. Take a few minutes to think, and then I invite you to tell me your thoughts. I look forward to hearing your thoughts and ideas. I want to know what you would add, what you believe I have done well, and where I have failed.... Well, remember to be kind.

This manifesto is more for me you see, because you will have grown up by the time this makes sense to you. These are simply my intentions that I share with you. My motives are sincere- to grow as a person first and then as a better mother. I hope by the time you read this you know my views. Not because I have imposed them on you, but because we have discussed them. I have listed a few tips and examples for you and me as critical thinkers, to discuss.

I will begin by telling you right off the bat that although I write this to you now, and although you are only seven, it will not be easy. I feel that I have two huge barriers: time

and discipline. You can be the judge of how well I do, but you see time is such a challenge. School and work seem to take so much time I sometimes feel as though I don't have any left for you and Dad. The focus is difficult because I am often too tired to think of anything else. The key is to make it a natural part of me. I need to practice the skills so as that they become second nature. I think I am already pretty good at some aspects of critical thinking, but of course I want to improve, and there is always more than one can do.

So here is my list: Read the items over and think about how much of this you do and whether you think I have missed the boat...

1. **Know yourself.**

Increase your self-awareness of the critical thinking skills that you are already using in your daily life. Most of us already think critically to some degree. What skills do you employ most often because they are stronger and more comfortable? Consider how this information might help you to strengthen other skills rather than ignore them. What can you do to strengthen those skills? The class I took taught us simple exercises that can be used to uncover the thoughts and skills that may be buried deep within you. For example, free writing and free speaking exercises take only a few minutes but are helpful to reach within to find true meaning. The most important part of this is to be honest with yourself. If you are not honest with yourself, you will not see the truth. You can not improve anything, if you are not honest with yourself.

2. **Listen carefully.**

Listen to your heart. Know yourself and listen to what you believe to be right. Listen also to others. Know that you will learn more by listening and understanding, then by trying to show how much you know. I always considered myself a very good listener, but now I have learned names for about a dozen different ways to listen. Each one a valid and important skill to practice. Listening can be the most caring and empathetic thing you can do for someone. By listening to another, you offer that person an opportunity to be heard!

3. **Be observant.**

Watch other people too. There is a way to listen and understand without speaking. You will learn a great deal about other people just by watching. Learn to read their facial expressions, and "hear" what they say with their body. Be observant of nature and the world around you. Nature teaches us so much, but we can not understand the message if we do not observe patiently.

4. **Express Yourself.**

It seems funny saying this to you. You are so expressive. You talk more than I care to listen to sometimes and you certainly can express feelings of joy as well as anger extremely well. You are also very expressive in other ways. You make things; you speak of yourself as an artist, like Tio Joey. Other times you are a scientist. Whatever role you take, you are always very busy creating something. You even keep a journal. I think it is wonderful, and I know you will benefit from all of these ways of self-expression. Express your thoughts and especially express your feelings. Allow for others to express theirs also through listening to them and giving true consideration to them, but expect the same. You are an important person also, and you deserve the same level of respect and empowerment that you give to others.

5. Practice!

Continue to practice and strengthen these skills. The thing you dislike the most (about schoolwork) will become the most important piece to improving who you are and what you do. If you can learn to transfer the discipline and attention you already have about the things you like, for example drawing and creating new “projects”, you will be fine. As you discover new aspects of critical thinking, practice using them in order to sharpen your skills. As you practice, you will uncover new strengths and awaken an interest in trying new things and listening to inner voices that you haven’t heard in along time or ever before.

6. Challenge yourself.

Seek out situations where critical thinking skills can be practiced, sharpened, and stretched. It is only through use that this can happen. The views of others and expectations of others will help you to expand into areas you have not considered or challenged yourself on. For example, if you are typically the one in most relationships who does a lot of listening, as threatening as it may be, you must place yourself in a situation where you give yourself a chance to be listened to. Constructivist listening is a good example of how this is important. You will hear things differently when they are spoken and you will organize your thoughts differently. This will facilitate your own growth as a person and a critical thinker.

7. Collaborate with others.

Work with others whenever possible. As an only child you are very used to being alone, but you seem to also get along so well with other children and grown-ups. Although it may seem easier and quicker to do things on your own, I have now come to realize how much stronger a project can become with the interaction of others. New ideas help your own to expand. Not only will the quality of your work improve, but also so will the quality of your critical thinking skills. It took me a long time to learn this because I was so much quieter as a child than you are now. I have always like being alone, and it has been difficult for me to break away from this pattern. I hope that by my working with you on your projects the way we do, you will learn how much better things can turn out. Of course there are those times when I can not understand what it is you are trying to do, and you get frustrated with me (or I with you), but most of time the collaboration works. Help me to understand you better.

8. Use critical thinking to improve the quality of your personal life.

Critical thinking skills do not belong in only one arena of one’s life. They should be a part of who you are whether at school, at work or at home. Many times it is easier to think of an organized approach to critical thinking in a school or work environment, i.e. the classroom, but by making this process a part of the complete person, you will strengthen relationships that you care most about. It is easier to take for granted those who are closest to us. We may forget to see things from the other person’s perspective because we believe we know that person so well. Ones child for example, will become a better person, and natural challenges may be avoided. Friends will become closer friends if you try to understand them deeply with empathy and caring.

9. Encourage and facilitate critical thinking in others.

If you can do this at home you can do this at work. Creating an environment where people are listened to, encouraged and supported for their ideas and contributions will make the work environment a better place. Encourage your colleagues and especially

those you supervise to use critical thinking by modeling the kinds of behavior you wish them to demonstrate. Facilitate the kinds of situations and help to create the kind of environment where this can happen.

10. Remember that no one is perfect.

You know how Avô has the license plate on his car that says, "Nobody is 'pufurct'"? Well, it is true. I have to tell you that Avô didn't always live by that motto. Now that he 79, he has learned. Let's learn from his experience together. He is a very wise man, and we do not need to make the same mistakes. We can spend more time learning what he can teach us. Have patience with mistakes you make and those that others make while practicing.

11. Care about your surroundings.

Employ critical thinking skills in the work environment in ways that are supportive of social and cultural change. I know you care about this. You often stop to pick up trash or turn off a faucet. Do you remember how much you cried when you learned about extinct animals on Kratt's Creatures? As you grow older, continue to think about new ways to make this world a better place.

12. Dig deeper.

Never take things at face value. Consider the alternatives and the sources of the information. Pursue deeper levels of knowledge, self-awareness and social change. Don't settle for the easy answer, and don't be afraid to question authority for better answers.

13. Take risks.

Use your head and remain safe of course, but do not be afraid to try new things and new ideas that you believe will influence the above.

14. Try to use critical thinking skills in all aspects of your life.

Lastly, I want to say that I hope you see how all this connected. Each item is interconnected. Each one is useless without the other. I also hope that you see connections to the way we live as a family, and the way that you have grown to be a man. It will hopefully mean that we have done well with our intentions.

Love,

Mom

Elin Schran
CCT 601
May 11, 1999

Critical Thinking Manifesto

There is a myriad of components to thinking critically. Attempting to write a list of the most important points is beyond me and I leave that to the experts like Ennis and Taylor. What I have compiled is a personally interesting list of those points which have the greatest meaning for me - either because they speak to the largest faults in my own critical process, or because the process involved in carrying them out has social value. All of the points that I list can be applied to any situation where careful thought is required. Beyond academia, they may prove helpful in personal relationships, business settings, or even in times of intrapersonal reflection.

1. First learn patience. You must be patient enough to seek out information, to hear what others offer, to keep looking for answers even after an adequate one has surfaced. Do not be in a rush to prove anything.
2. Avoid being emotionally invested in any particular outcome. If you are, you run the risk of forcing the information you gather to support your claims. Seek information not validation.
3. Be a detective and employ all the curiosity and detachment that good detectivehood requires. Observe, witness, report.
4. Open your mind. Use the creative thinking tools of breaking perceptual set and functional fixedness. Things probably are not as they initially seem. Consider absurd possibilities to get yourself out of a mental rut.

5. Try to let go of preconceived notions. Suspend your disbelief in order to see more clearly, not through a veil of prejudice. Seeing things from all sides gives a fuller picture than one or two angles can, so get into the mind of the 'opposition'.
6. Collect data from a wide range of sources – and then consider those sources carefully! What bias might they have and why? Try to expose hidden agendas.
7. Bounce ideas and insights off others. Hearing yourself when you tell other people your thoughts and findings may lead to new insights or uncover flaws in your reasoning.

As I mentioned above, this list is probably more valuable to me than to another person. Figure out your strengths and weaknesses and be sure to get what you really need.

Manifesto
by Elisabeth Shanley

How would I teach critical thinking? I previously thought that I would do this naturally, however, I've learned since that it takes a great deal of effort to effectively teach critical thinking skills. I am planning on teaching Middle school level Social studies so I have to consider what they will be able to grasp, so I am attracted to the more basic ideas. I would reach for the exercises that make students "think twice." Anything, that even for a second, makes you reconsider your current point of view is a worthwhile lesson. I would reach for the obscure accounts of history that question the common ground of knowledge. Never would I tell them "the truth." Instead I would ask them to tell me what the truth is.

The methods that I have learned that I would incorporate would include causal reasoning, methodological believing, focused conversation, and frames of reference. Causal reasoning would be great for teaching Social studies because historical issues always have more than one side and to help explain how decisions were made, I would explore the possible causes of the issues. Methodological believing would be a real test for my overly opinionated junior high hormone machines. It isn't easy for them to try to believe an argument that they are predisposed to disagree with. It would be interesting to see how hard they really try to understand the opposing viewpoint. Role-playing and props would be helpful with this type of exercise, to challenge them to present the point of view as convincing as possible. Focused conversation would be a great opener to any unit to size up the amount of previous knowledge they possess. It is easy to always want to teach a lesson the same way. I think a focused conversation would help to gear the lessons in a unit to better accommodate the students. Teaching frames of reference will most likely be a difficult subject for middle schoolers to grasp, but if at all possible, it would be beneficial. As they are preoccupied with their teen awkwardness, it is a good time to teach them about how their experience affects the decisions they make. It may help them become more open-minded to those not very like themselves.

My motive in teaching students to think critically would be mainly to have them learn to take an extra second to consider opposing views before dismissing them as most people do on a daily basis. If they can learn to look for the opposing view rather than always stand against it, to search for more facts when an issue appears to be one-sided, to not feel defensive if they choose to change their minds, then I will have done my job in teaching critical thinking skills.

Cynthia Than
Manifesto
CCT 601

On Questions

Nurture intellectual curiosity. Be curious about life. Never be afraid to ask questions. Discovery is the mission of life. Ask, listen, and question your own assumptions. The willingness to be curious about everything you encounter is a habit of mind that will serve you well.

On Learning

Nothing you learn is ever wasted; it is what you do not know that can hurt you. Never stop learning. Learn something that no one ever knew before. Learn from the ordinary experiences of everyday life. Abandon the urge to simplify everything, to look for formulas and easy answers, and begin to think in different dimensions. Be part of the solution. One thing you can learn in life is the depth of your own ignorance. Living is a continuous learning process. Understand that there are no boundaries or limitations.

On Creativity

Always dream, and follow your dreams and make the most out of every experience. Revere and respect creativity. Put yourself in someone else's shoes. If you are creative, understanding and compassion will come. Give the highest value to a particular, unique experience, and avoid abstractions

On Listening

Stop and carefully review what you see or hear instead of jumping to conclusions. Listen to other people and do not rush to answers. Listen to what other people say before answering them. Wait until the other person is finished before starting to formulate your reply. Understand the true point of what the other person has to say.

On Knowledge

Certainty is the enemy of true knowledge. Knowledge is a process, a journey toward, not an arrival. Seek better understanding, not certitude. We need humility to know that truth can be ephemeral, that this can be but one version of the truth.

On Working Together

Value teamwork. Seek out, listen to, and value the opinions of others, then make up your mind. Understand that there is a time to speak and a time to listen and both are important. You should discover your own truths through thoughtful evaluation of the ideas presented by others.

CRITICAL THINKING MANIFESTO

by
Judy Vieno

Is it possible to have a classroom culture of thinking in a grade such as first? I don't think its possible not to in a roomful of curious 7 year olds. My approach to education will now encompass the six dimensions of a culture of thinking. Below is a brief synopsis of my critical thinking about this.

1. A Language of Thinking

As a teacher, I can easily integrate a language of thinking into a first grade setting. It is a willing audience who are very eager to please me and show off their new found skills. Literature is a perfect way to introduce the concepts and vocabulary necessary to achieve higher level thinking with this age group. Words that describe and evoke critical thinking might be new in September, but can be routinely used effectively by June.

2. Thinking Dispositions

This would be a real challenge to instill into a class if the children came from a traditional kindergarten setting. Classroom patterns and thinking habits often are a traditional set response learned over the course of a year. Fostering good thinking dispositions and modeling them would be a long range goal . This would not be something one could master in a year, but certainly over time if the teacher is consistent. Feedback is a critical part of the process as well as organization. A major problem with this age group would be the many different developmental stages that they may be in.

3. Metacognition

Some children would not be able to reflect on their own thinking at this age. Others would find it easy to do, and I would use them as a model for the other students. Reflecting on one's own thinking is difficult, but it is necessary to do in-order to be a good thinker. I think creativity would be the catalyst for students to practice this skill.....What kind of cartoon would you be and why? A simple question but one that would evoke thinking about your self.

4. The Strategic Spirit

I think this would be the easiest to foster in my classroom, because I already have the enthusiasm and determination to provide the steps to cultivate the strategic spirit. I'm realizing as I write this that it would take a great amount of effort to provide all the steps necessary to cultivate a classroom of thinking. But I need to realize that I would be introducing these concepts at this grade level.

5. Higher Order Thinking

I routinely go beyond the subject matter to help children go to a higher level of thinking. This is just part of my teaching style and I do it without thinking. For example, I always ask inferential questions in order to improve this skill. Not all the students respond well, but the important thing is that they respond at all in the right area. Feedback is important for first graders to guide their thinking, and I will work to improve that area.

6. Transfer

I think children have a natural ability to transfer what they have learned from one context to another. This is almost a problem at times in first grade! When students are learning about math, they want to transfer the rules and knowledge over to other areas. During sentence writing this year, I had a student ask if they could write sentences that had an even number of words. We had just had a lesson on even numbers. Cultivated, this could be a powerful learning tool.

I realize as I write these critical thinking goals that they will be extremely hard to incorporate in to a classroom. However, the effort and work would be worth it. I need to remind myself that I would only be introducing the pathway for critical thinking. This is where the major problem begins. If I introduce this setting and work hard to change my classroom into a culture of thinking, my hope would be they would carry this information and skill onto the next grade. Unless the school had the philosophy of providing an environment of good thinking, the children could be in a classroom where this type of openness doesn't exist. The skills would exist, but without nurturing would fade and disappear. After all, I didn't have any introduction to this myself until this class. Administrators should give more consideration to the benefit that would come from incorporating critical thinking classes into the actual curriculum. The MCAS scores could only improve with a more detailed path for thinking to follow.

Angi Walsh
CCT 601
May 11, 1999

CRITICAL THINKING "MANIFESTO"

Critical thinking is dependent upon careful consideration of facts in order to deliver a planned outcome. Facts are derived from data collection, interpretation, experience, and cognitive abilities.

Critical thinking is a critique of these facts. Looking beyond the obvious information, we need to formulate new ideas, opinions, and empathy based on current actions and knowledge from past experience; then integrate with thoughts for future reference.

Critical thinking is risk taking and learning from others through problem solving, curiosity, self-reflection, and intuition.

Critical thinkers are versatile. They have the ability to think on their feet, and adapt to change following careful assessment, plan, and implementation of data collected.

Critical thinkers are good listeners who process information, and make deductions based on measurable outcomes. Through careful listening skills, the critical thinker is exhibiting an open-mind, with a resourceful communication style for synthesis and dissemination of information as needed.

Student-Centered Learning and Critical Thinking

The critical thinking we are discussing here is not the mechanics of logical argumentation. In contrast, it emphasizes imaginative creativity, personal commitment, self-inspection, or a sensitivity to contextual style of discourse and persuasion (Kerry S. Walters). It is difficult to understand what is critical thinking without a content or a problem in the real world. Critical thinking of both teachers and students is central or appropriate in whole student-centered learning process. Student-centered learning is not only to move the teacher's desk away, and rearrange the student desks. Student-centered discussion, constructivist listening, and roletaking also play important role here.

It is very useful to open a topic with a free writing or free talking. Teachers do not give directions, but encourage students think randomly, think from as many points of views as they can. Then, student-centered discussion adopts focused conversation methods which include at questions four different levels. For example, what happened? What is the data? At this objective level discussion remains in collecting facts and date. Then conversation should move to reflective level, question such as "how do you feel?" "what part of it makes you mad?" should be discussed. At interpretive level, discussions should focused on drawing out meanings, implications, and making connections. Finally, the discussion enters decisional level, students should make decisions, talk about what can they do about this issue? what would be the first step? etc.

During student-centered learning process, students not only get chance to talk, but also listen to the others. The methods used here include constructivist listening. Constructivist listening differs from other kind of listenings in that the listener does not paraphrase or interpret the talker's thoughts or feeling (Julian Weissglass). The goal of training students to listen in this way are showing caring, interest, and acceptance.

Role play is another part of student-centered learning process. It helps students foster their disposition to empathy. Through role taking, students can release themselves from their usual roles, switch to the other role. This helps students understand others, see things from the other point of view, and reduces ego-centered perception.

A successful student-centered learning also need a good facilitator. The teacher becomes the facilitator by providing text, modeling skills and guidelines, posing questions etc. Teachers do not jump to the conclusions. Instead, they paraphrase, extend and use students' ideas, and help students become conscious of their own thinking. At each stage, teachers should label these cognitive thinking behaviors, let students know which step they are in, and lead students step by step toward the decision-making by themselves.

The whole process of student-centered learning involves critical thinking. It challenges students to increase their awareness of their thinking processes and to develop and practice new patterns of abstract thinking.

References

1. Delores Gallo (1994) *Re-Thinking Reason* p.43
2. R. Brian Stanfield (1987) *The Art of Focused Conversation* P. 6-47
3. Student-Centered Discussions (from internet)

Critical Thinking: A Manifesto

By
Linda K. Weinstein

Critical thinking is inextricably linked to one's own time and place. Understanding our *placement* allows thinking beings to try to step outside the normal boundaries of historically-informed, societal thought.

How might this be done? Those who choose to think in fresh new directions will have to first understand that language, culture, class, religion, gender and race or ethnicity form the social and linguistic backdrop for thought. Rather than eschew this, or rail against the fates that dropped us in the wrong time or space, we should seek to steep ourselves in the wisdom and knowledge of our own cultures. We must, after all, have something of worth to think about. The subjects will be products of our civilization, but better that than nothing.

At the same time, we must keep an open-minded attitude about the *placement* of others. By others, I mean both those within and those outside our normal boundaries. For there is always something important to be learned from all others. Good thinking demands a kind of arrogance, that says, "I can learn whatever I need to know to get along in this world. And I'll learn it wherever I must." Good thinking also demands a depth of humility that says, "I don't know everything, but I'm willing to ask questions and go wherever I need to go in order to learn."

Critical thinking demands active curiosity, a thought process that is open to new ideas and theories. Just as physical travel may open one to new ways, so too does intellectual travel. Travel in both instances is meant to connote the type of open-minded exploration that is characterized by a spirit of adventure that is both playful and analytical. Although we can expand our thinking in new directions through solitary learning, the process of learning to think analytically picks up mass, weight, and speed when we are genuinely engaged with people in daily discourse. The emotions, levels of objectivity or subjectivity, the actions, reactions and other hurly burly of life experiences—our own and others—are all part of a growing knowledge base that expands our horizons.

For that reason, traditional cultures value the wisdom of their elders and recognize that through aging, the most respected will pick up critical knowledge that is beneficial to the success and continuation of the tribe. Of course, getting old does not automatically guarantee the getting of wisdom. One must spend one's time productively. As educators, we advocate lifelong learning, a modern phrase for the ancient practice of engaged critical thought that builds upon itself and is expressed through a process of continued thoughtful and effective action. We start the process by teaching our students to ask good questions. The best questions are those we answer together in humane and productive ways.

A Revised Critical Thinking Manifesto

I believe that critical thinking is both an attitude and a reasoning process. I see it as a dynamic endeavor which searches for clarity and truth. An open-minded kind of thinking which allows a person to open doors, walk through and listen to the feelings, opinions, and the perceptions of others. At this time the listener is best advised to withhold judgement, and assume the role of a believer in order to enhance his/her ability to better understand the other person's point of view. Creativity is an important component of critical thinking; especially after all of the data has been collected, sources examined for accuracy etc. toward the goal of generating possible solutions. I believe critical thinking is an acquired skill, and that practice is very essential to its refinement and development.

Critical thinking as applied to my nursing practice requires me to focus on the link between thinking and doing in sudden emergent situations such as a client crisis, as well as in repetitive activities ie. the administration of medications to my clients. The formulation of rationales are an important part of critical thinking as applied to nursing. Nursing rationales are derived from a knowledge base which includes information derived from nursing, sociology, anatomy and physiology, microbiology and other disciplines. These rationales, when used correctly, are used as a basis for the nurse's activities. The nurse is responsible for choosing the rationale which will best enhance the care and the safety of the clients entrusted to his/her care.

I plan to continue to refine my critical thinking skills, weave critical thinking skills into my course content and clinical activities, and share the critical thinking knowledge I have gained from the course with my colleagues and others.

Critical Thinking Manifesto First Draft

Lynn Willenbrock

April 27, 1999

Most of the time solutions to significant, complex problems do not come easily or simply. There indeed may never be a solution. But the search for one can be aided and abetted by critical thinking. For me critical thinking is the structure of problem solving. I like being a problem solver and I want to be a better one. This course on critical thinking has made me aware of several parts of the whole structure. These are the most important to me.

Foster and nurture my own thinking disposition and create opportunities for those around me in my everyday experience to develop a deeper critical thinking disposition. Make sure people I interact with know they have the potential to ask questions, that no question is a bad one.

The realization that truly good thinking takes time. The world puts so much pressure on time. We need to slow down and think. Then think again about our thinking.

Enjoy the power of waking up your inert store of knowledge. You've got it. Just practice when and where to use it. It's like keeping your mental energies on guard, ready to go into action.

Listening to others is very important. Each one of us has a special voice. This voice is particularly powerful as a joint brainstorming adventure. When ideas are generated constructive feedback only adds to the problem solving process.

Always think and plan with the idea in mind that you have to defend your conclusions. Look your at your conclusions and their antecedents from many perspectives.