SUPPLEMENTARY MATERIALS
Included in this packet are materials touching on themes I will address during my session. I will not go through these sequentially, nor will I address all of them. They are there simply for reference purposes.

- CRITICAL THINKING AS HUNTING ASSUMPTIONS

- CRITICAL THINKING PROCESS
  8. Misunderstandings  9. What is Critical Thinking?

- CRITICAL THINKING METHODS
  15. Scenario Analysis  - Going Back

- CRITICAL THINKING IN CONVERSATION
22. Critical Conversation Protocol  Conversation Stages


CLASSROOM RESEARCH

31. Classroom Research Techniques  32. Muddiest Point
33. Learning Audit  34. 1 minute paper  35. Why CIQ’s?
36. Critical Incident Questionnaire

ASSESSMENT

37. Assessing Critical Thinking  38. Critical Practice Audit

39. Bibliographies

Stephen Brookfield
Mail # MOH 217, School of Education, University of St. Thomas, 1000 LaSalle Avenue, Minneapolis, MN 55403-2009
TEL 651 962 4982 FAX 651 962 4169
E-mail: sdbrookfield@stthomas.edu

Home page: www.stephenbrookfield.com

Copyright permission granted for participants to use any of these materials with due acknowledgment
CRITICAL THINKING PROCESS

IDENTIFY ASSUMPTIONS

CHECK ACCURACY AND VALIDITY

TAKE ALTERNATIVE PERSPECTIVES

TAKE INFORMED ACTIONS
TYPES OF ASSUMPTIONS

PARADIGMATIC
(FRAMING)
(STRUCTURING)

PRESCRIPTIVE
(WHAT SHOULD HAPPEN)

CAUSAL
(WHAT DOES HAPPEN)

LEARNING CRITICAL THINKING
IMPOSTORSHIP

CULTURAL SUICIDE

LOST INNOCENCE

INCREMENTAL FLUCTUATION (ROADRUNNING)

COMMUNITY
LENSES ON PRACTICE

AUTobiography as Learners/PrActitioners

Clients
Students
Patients

Colleagues' Perceptions

Theory
CRITICAL TRADITIONS
IDEOLOGY CRITIQUE
(Marx, Frankfurt School)
  Critical = analysis of
  hegemony & oppression

PSYCHOANALYSIS / PSYCHOTHERAPY
(Freud, Jung Rogers, Gould)
  Critical = analysis of
  inhibitions / distortions of
  childhood in adult life

ANALYTIC PHILOSOPHY
(Ayer, Wittgenstein, Searle)
  Critical = argument analysis
  & language games

PRAGMATIST CONSTRUCTIVISM
(Pierce, Dewey, Vygotsky)
  Critical = understanding how
  experience is constructed
C H A L L E N G E S

Gendered Knowing: 
The Doubting Game

Eurocentric Rationality

Modernist Illusion

Exclusionary Language

Classroom Critical Thought = 
Transformative Action ??

Radical Pessimism & the Death of the 
Transformative Impulse
BENEFITS

Informed Actions

Models Critical Thinking

Re-energizes Practice
MISUNDERSTANDINGS

NEGATIVE

FREEZES YOU

CLEAR OUTCOME

SAME AS

PROBLEM SOLVING

CHANGE

(THROWING OUT PAST)
What is Critical Thinking?

Life is a series of decisions, some small, some much larger. Whom we date or choose as friends, the work or career we pursue, which political candidates we support, what we choose to eat, where we live, what consumer goods we buy, whom we marry and how we raise children – all these decisions are based on assumptions. We assume our friends will be trustworthy and won’t talk about us behind our backs. We assume our career choices will be personally fulfilling or financially remunerative. We assume politicians we vote for have our, or the community’s, best interests at heart. We assume that the foods we choose to eat are healthy for us, and so on.

These assumptions are sometimes correct. At other times, however, the assumptions we base our decisions on have never been examined. Sometimes we hold these assumptions because people we respect (friends, parents, teachers, religious leaders) have told us they are right. At other times we have picked these assumptions up as we travel through life but can’t say exactly where they’ve come from. To make good decisions in life we need to be sure that these assumptions are accurate and valid – that they fit the situations and decisions we are facing.

Critical thinking describes the process we use to uncover and check our assumptions. First we need to find out what our assumptions are. We may know some of these already (these we call explicit assumptions) but others we are unaware of (implicit assumptions). To uncover these implicit assumptions it is often helpful to involve other people (friends, family, work colleagues) who help us see ourselves and our actions from unfamiliar perspectives. Sometimes reading books, watching videos or having new experiences such as traveling to other cultures, going to college or being an intern help us become aware of our assumptions. Once we know what our assumptions are we enter the second phase of critical thinking, that of research. We try to check out our assumptions to make sure they are accurate and valid. To do this we also need to consult a wide range of sources – talking to people with experience in the situations in which we find ourselves, reading relevant literature, searching trusted web sites, consulting experts and so on. The third and final phase of critical thinking puts the first two stages into practice by applying our analysis to our decisions. Decisions based on critical thinking are more likely to be ones we feel confident about and to have the effects we want them to have.

So, in summary, critical thinking involves three inter-related phases:-

1. Discovering the assumptions that guide our decisions, actions and choices
2. Checking the accuracy of these assumptions by exploring as many different perspectives, viewpoints and sources as possible
3. Taking informed decisions that are based on these researched assumptions

(Informated decisions are based on evidence we can trust, can be explained to others and have a good chance of achieving the effects we want)
BUILDING THE CASE

Research Culture

Allied Cases

Real Life Sites

Hypothetical Projections

Former Resisters

Simulations

Modeling

Monitoring

Conversional Obsession
GUIDELINES

MODELING

BUILDING A CASE

PEERS AS REFLECTIVE MIRRORS

SPECIFIC EXPERIENCES

INCREMENTAL MOVEMENT CLOSER
EXERCISES

SCENARIO ANALYSIS

CRISIS DECISION SIMULATIONS

HEROES & VILLAINS

CRITICAL INCIDENTS
(CONVERSATIONS ON CLINICAL PRACTICE)

GOOD PRACTICES AUDIT
(COLLABORATIVE ANALYSIS OF EXPERIENCE)
DESCRIPTIONS OF EXERCISES

Scenario Analysis – learners imagine themselves in the position of the chief actor in a fictional scenario. They try to uncover the implicit and explicit assumptions the actor is operating under, to assess how these assumptions might be checked, and to come up with plausible alternative interpretations of the scenario.

Crisis Decision Simulations – in small groups learners discuss how to resolve a crisis in a short time (e.g. The nuclear bubble). In debriefing assumptions underlying the decision are examined and inferential ladders uncovered.

Heroes/ Heroines & Villains/ Villainesses – learners choose a work colleagues they particularly admire (despise) and identify an example of that person’s behavior that encapsulates what’s so admirable/despicable about him or her. Their choice reveals many of their own assumptions.

Critical Conversation – a focused conversation in which one person’s experience (storyteller) is examined sympathetically but critically by colleagues (detectives). An umpire watches for judgmental comment.

Good Practices Audit – an exercise involving at least a couple of days. Workers identify problems that impede them and then work collaboratively to examine their own best & worst experiences as practitioners and learners, and the experiences of their colleagues, in a structured and critical way. The intent is to propose responses and possible resolutions to the problems initially identified.
PERSONAL REFLECTION EXERCISE

1. Please spend five minutes trying to complete as many of the following sentences as you can. Just say or write the first thing that comes into your head. If you're stuck on any of them then just move on to the next one. The exercise works best when you have at least 3 or 4 sentences completed.

   What I'm most proud about in my work is my ability to ............

   I know I've done good work when ......

   What I would most like my colleagues to say about me when I'm out of the room is ..... 

   The colleagues I admire most are those who are able to ........

   The mistake I've made that I've learned the most from was when ........

   If I could give one piece of survival advice to someone starting a job like mine it would be ......

2. Now form a pair with someone at your table. Both of you will take turns in focusing attention on what each of you has written. This is how it works.

   Person (A) spends a minute or so speaking their responses to the sentences above. No interruptions are allowed while she/he is speaking.
   Person (B) listens carefully and then tell person (A) what she thinks person (A)'s assumptions are. These are the assumptions that she thinks person (A) has about the characteristics of a good practitioner and what good professional behavior looks like. If she wants, Person (B) can ask (A) why she came up with the assumptions she did. The assumptions the listener gives can tell someone a great deal about the assumptions she holds about good practice.
   Spend about 10 minutes on this part of the conversation

3. Now reverse the roles. Spend about 10 minutes with person (B) speaking their responses to the sentences above. Person (A) will listen carefully and then tell person (B) what she thinks person (B)'s assumptions are.
   These are the assumptions that she thinks person (B) has about the characteristics of a good practitioner and what good professional behavior looks like.

   TOTAL EXERCISE TIME : 30 MINUTES
Autobiographical Analysis

Choose an example from your own life of a critically thinking episode. This could be a time when you questioned some of the assumptions underlying your habitual ways of thinking and acting in some sphere of your life. It could also be a time when you were prompted to explore some alternatives to your usual ways of thinking and acting. Perhaps this episode made you aware of the flow or misuse of power in your life, or alerted you to practices and ideas you embraced that actually were harming you and supporting the power others held over you (hegemony).

1. Make some mental or written notes on your own about what happened during this episode, paying particular attention to the questions below. Spend about 15 minutes doing this. Not all the questions may apply in your case.

**Triggers:** what circumstances or situations triggered your critical thinking?

**Resources:** as you worked your way through the episode, what resources (human and material) did you find to be most useful to you?

**Process:** what were the emotional highs of this process? what barriers and hindrances did you encounter during the episode? How did you work through them?

**Consequences:** what happened as a result of the episode? Did you change permanently some aspect of the situation, or yourself? Did things stay more or less the same, other than your awareness being raised? Did you wish it had never happened? Was it worthwhile? Did you gain any self-knowledge as a result?

**Implications:** from your autobiographical experiences of critical thinking, what would you recommend to teachers of critical reflection as advice on how they might encourage this process? If you were asked to set up a critical thinking program for your colleagues, or students, how would your autobiographical experiences affect what you planned?

2. Form a group with 4 or 5 other people and compare your responses. You can either take turns briefly telling your own complete story, or take each of the headings above in turn and compare how each of you responded to it. Each person should spend no more than 5 minutes on her story. Spend about 30 minutes doing this.

3. Write on newsprint all the responses that emerged from your conversation under each of the headings above. What kinds of triggers did your group identify? What resources did they find useful? And so on. Spend about 15 minutes on this.

**Time for Exercise: 1 hour**
SCENARIO ANALYSIS

"GOING BACK"

Karen, a wife and mother of two young children in her thirties, is considering going back to work. She has watched as her husband Jack, a busy professor, has taken on more and more work outside of his college to help provide his family a decent quality of life in the city. She sees how tired he is and hears his complaints of how he never has enough time with his family, how he's being pulled in so many different directions, and how he wished things would just slow down.

To ease the situation, Karen has interviewed for, and been offered, a full time job with a company in the suburbs. She intends to put the children into day care and commute back and forth each day to her work. She reckons that with the money her job brings into the home Jack will be able to give up many of his commitments outside of the college. This will give him more time with his family and reduce the pressures and tensions he feels. Overall, the family will be happier - their economic situation will be the same but the burden of producing income will be shared more fairly and Jack will be able to spend more time at home.

1. What assumptions - explicit and implicit - do you think Karen is operating under in this situation? List as many as you can.

2. Of the assumptions you've listed, which ones could Karen check by simple research and inquiry? How could she do this?

3. Give an alternate interpretation of this scenario. A version of what's happening that is consistent with the events described but that you think Karen would disagree with.
GOING BACK: ASSUMPTIONS & ALTERNATIVE SCENARIOS

ASSUMPTIONS
1. Jack's workaholism is due to externally imposed financial pressures (causal)
2. With more money coming in Jack will work less (causal)
3. Karen can take on these responsibilities without jeopardizing her relationships with Jack and the children (causal)
4. Family happiness is linked to Jack's state of mind (paradigmatic/causal)
5. Wives have a duty to help out husbands (prescriptive)
6. Jack is speaking the truth & voicing a genuine complaint (paradigmatic)
7. This economic situation has one response
8. Day care will benefit the children's emotional health (causal)

CHECKING
1. Do a life history analysis of Jack's behavior, particularly before he was in demand. Did he spend more time at home, take things easier ?
2. Try the job on a part-time or temporary basis. Or just drive out to the job location for a week to see how it feels.
3. Ask Jack to talk about his complaints
4. Do an economic audit of family finances. Is Karen working the only response ? Could things be budgeted differently ?
5. Speak to other couples in the same situation who made the change Karen is contemplating - experiential pioneers - and ask them what happened to them.
6. Hire a Private Detective to follow Jack

INTERPRETATIONS
1. Karen wants to take on the role of independent worker outside the family. For some reason she is unwilling to confront Jack, or herself, with her wishes. Jack's situation is a convenient rationalization of her desires.
2. Jack's workaholism is due to his personality. If Karen works Jack will not slow down. They will have less time together and the time they do spend together will be time when they're both tired.
3. Jack is having an affair.

Assumptions of Power
1. The problem is Karen's to solve (by her getting a job). Her taking a job will reduce familial tension, decrease the pressure Jack feels and will therefore help the situation
2. It's Karen's responsibility to find and fund day care and to find good paying work

Assumptions of Hegemony
1. Money is the cause of the family's stress
2. Money is the solution to the family's problems
3. The only way for this situation to be resolved is for Karen to find a job
4. Karen's job will provide more money, and therefore more family happiness

Why hegemonic? - it's accepted as 'common sense', it works against our interests, it serves the interests of others (producers of goods we consume).
CHECKING ASSUMPTIONS

TALK TO THE SOURCE

EXPERIENTIAL PIONEERS

LIFE HISTORY ANALYSIS

AUDIT / CBA

EXPERTS

PILOT TEST
SURVIVAL ADVICE MEMO

1. Compiling the Memo (Pre-workshop activity)

Imagine that it's the last day in your current job. Your replacement is coming in tomorrow to begin work but you will already have left the building. You want to help your replacement avoid as much as possible some of the pain and stress you endured as you learned your practice. So, you decide to write a memo to your successor outlining your best survival advice. This memo contains your best take on (i) what you really need to know to survive in this job, (ii) what you really need to be able to do to stay afloat, (iii) what you know now that you really wish someone had told as you began your work in this position, and (iv) things you must make sure you avoid thinking, doing or assuming. Write the memo as honestly as you can to this imaginary successor.

Now, choose what you think is the most important piece of advice you offered to your successor. How do you know your advice is good advice? Write down the most convincing evidence you can think of in support of what you're telling your successor she should or should not do or think. What has happened in your own experience to make you believe your advice to be well grounded? What's the best example of your advice working well in action that you can come up with from reflecting on your own experience?

2. Discussion

Form a group with four other people. Each of you take 5 minutes to report what your memo contains. Then, as a group, spend 15 minutes trying to categorise the different kinds of advice that were offered - was the advice about emotional survival (how to avoid getting burned out, sucked in etc.), about political survival (how to do good creative work without being sabotaged by departmental politics), about instrumental survival (how to accomplish the specific tasks associated with the job), or anything else?

Then, as a group, spend 15 minutes analysing the evidence you all cited as the grounds for your advice. Was this evidence hearsay, observed actions, tested, someone else's opinion, or anything else?

We will reconvene as a large group to debrief.

Total Small group Exercise Time: 55 minutes
**Survival Advice Memo: Debriefing**

Form a group with four other people. Hand round copies of your memos to each other and spend 10 -15 minutes reading these quietly.

As a group, spend 15 minutes trying to categorise the different kinds of advice that were offered - was the advice about emotional survival (how to avoid getting burned out, sucked in etc.), about political survival (how to do good creative work without being sabotaged by departmental politics), about instrumental survival (how to accomplish the specific tasks associated with the job), or anything else? You don't have to use my categorizations - feel free to come up with your own.

Then, as a group, spend 15 minutes analysing the evidence you all cited as the grounds for your advice. Was this evidence hearsay, observed actions, tested, someone else's opinion, or anything else?

Please put your group's observations about the kinds of advice that were offered, and about the kinds of evidence cited for these, on a piece of newsprint. You will need to decide which of you is going to be the reporter to give a brief summary of your newsheet responses to the whole class.

We will reconvene as a large group to debrief.

**Total Debriefing Time: 40-45 minutes**
CRITICAL DEBATE INSTRUCTIONS

Find a contentious issue on which opinion is divided amongst participants. Frame the issue as a debate motion.

Propose the motion to participants. By a show of hands ask people either to volunteer to work on a team that is preparing arguments to support the motion or to volunteer to work on a team that is preparing arguments to oppose the motion.

Announce that all those who have prepared to work on the team to draft arguments to support the motion will now comprise the team to draft arguments to oppose the motion. Similarly, all those who have prepared to work on the team to draft arguments to oppose the motion will now comprise the team to draft arguments to support the motion.

Conduct the debate. Each team chooses one person to present their arguments. After initial presentations the teams reconvene to draft rebuttal arguments and choose one person to present these.

Debrief the debate. Discuss with participants their experience of this exercise. Focus on how it felt to argue against positions you were committed to. What new ways of thinking about the issue were opened up? Did participants come to new understandings? Did they change their positions on this issue at all?

Ask participants to write a follow up reflection paper on the debate. Here's the instructions ...

1. What assumptions about the issue that you hold were clarified or confirmed for you by the debate?

2. Which of your assumptions surprised you during the debate? In other words, were you made aware of assumptions you hold that you didn't know you had?

3. How could you check out these new assumptions? What sources of evidence would you consult?

4. What new perspectives on the issue suggested themselves to you?

5. In what ways, if any, were your existing assumptions challenged or changed by the debate?
IDEOLOGY CRITIQUE

Ideology critique is a term associated with thinkers from the Frankfurt School of Critical Social Theory such as Habermas (1984, 1987), Adorno (1973), Horkheimer (1947), Marcuse (1964) and Fromm (1941). It describes the process by which we learn to recognize how uncritically accepted and unjust dominant ideologies are embedded in everyday situations and practices. Ideologies are sets of values, beliefs, myths, explanations and justifications that appear self-evidently true and morally desirable. Because of their apparent obviousness they are hard to identify and even harder to challenge. Ideologies are manifest themselves in language, social habits and cultural forms. They legitimize certain political structures and educational practices so that these come to be accepted as representing the normal order of things. When we do ideology critique we try to penetrate the givens of everyday reality to reveal the inequities and oppression that lurk beneath.

Because of their pervasiveness and persuasiveness, ideologies are hard to penetrate. However, by turning logic on its head, looking at situations sideways and making imaginative leaps, we realize that things are the way they are for a reason. What strikes us as the normal order of life becomes revealed as a constructed reality that serves to protect the interests of the powerful. If normality is constructed it occurs to us that it can be dismantled and remade by human effort.

David Tripp (1993) has done some useful work on how ideology critique can be modeled by teachers as a form of critical analysis. He suggests that teachers use critical incidents in their lives as the focus of the process. After choosing an incident in their practice that typifies their normal way of working, Tripp proposes that teachers analyse it through the following four activities:

(a) Describe the incident and attribute meaning and significance to it in terms of the accepted, dominant view

(b) Examine that view for internal inconsistencies, paradoxes and contradictions, and for what is being omitted from the view - its "structured silences and absences"

(c) Look for reasons to explain why the dominant view ignored the anomalies you found, try to decide who benefits from the dominant view and who is most disadvantaged by it

(d) Imagine a new, alternative structure or process which is more rational and socially just than that represented by the majority view (p. 181)

To show how ideology critique might be done I have applied Tripp's framework to the analysis of an incident that is common to many teachers of adults concerned with
developing critical thinking - that of giving students an assignment to do a critical analysis of a text.

Ideology Critique Incident: Assigning Students to Write a Critical Analysis of a Text

(a) My Intended Meaning
I want to develop students' skills of critical analysis so that they can make independent intellectual judgments

(b) Contradictions and Omissions
The concept of critical analysis springs from a Eurocentric Enlightenment tradition that values rationality. This tradition ignores important ways of knowing that are embedded in other cultures. It also downplays the importance of intuitive learning. The feminist emphasis on affirmative and connected modes of knowing is not allowed for. I have also overlain my understanding of the word 'critical' with a left of center ideology drawn from the Frankfurt School of critical theory. The criteria of what is to be judged a properly critical analysis emanates from me, the teacher. The assignment as constructed seems to preclude the possibility of students already being critical. The assignment could easily be interpreted by the students as a game of 'guess the teacher's ideology'.

(c) Who Benefits and is Harmed by the Dominant View
Teachers who see themselves as 'critical' intellectuals are best served. Worst served are students who are not familiar with traditions of analytic philosophy or Frankfurt School critical theory, students who have a grounding in alternative intellectual traditions, and students who are uninformed about the teacher's biases.

(d) Imagine an Alternative Structure
What counts as 'critical' is publicly discussed according to alternate frameworks of analysis. Students generate what they see as 'critical' criteria. Students are encouraged to question the relevance of the assignment and to propose alternatives that seem more connected and significant. Students regularly evaluate the usefulness of assignments, discuss these with the teacher, and place these evaluations on the public record. On the basis of these comments the group continually reinvents its procedures.
MODELING CRITICAL THINKING & CRITICAL REFLECTION

TALKING OUT LOUD

C. I. Q.
(Performance Instruction Meetings)

TALKING PRACTICE
- taking the lead

JOURNALING
& public airing

INSTRUCTION
assumption analysis / devil's advocacy
A CRITICAL APPROACH TO MEETINGS

Use the CIQ to evaluate each meeting

Begin with AOB

Assumptions Inventories

What's the decision we've just made?

What's the chief evidence that we base a decision on?

What's the most important assumption influencing the decision?

What results/ consequences is the decision supposed to effect?

Structured Devil's Advocacy
DOING A CRITICAL LITERATURE REVIEW

DEFINING CRITIQUE: THREE INTERPRETATIONS

As I use the term critique I draw strongly on the social and political criticism endemic to the tradition of ideology critique. For me, the first sense in which I use the term 'critical' is to undertake a power analysis of the object of study. In this first sense, being critical as an adult educator involves me in investigating how certain practices, systems and policies reproduce within adult education the unquestioned power relationships and economic and cultural inequities that exist outside the adult educational situation. This is where the concern with race, class and gender comes from. A critique of an adult educational practice or institution involves unearthing the hegemonic assumptions, submerged power inequities and anti-democratic forces that exist within.

The second sense of critique involves adult educators in examining their own ideas and actions for the ways in which they perpetuate inequities and the ways in which they are discriminatory and anti-democratic. Focusing on the unacknowledged prejudices, bigotries and contradictions in one's own thinking and practice is difficult, even wrenching. Part of this difficulty resides in our inability to step outside ourselves and see our practice through others' eyes. To do this it is crucial that we involve others in our community of practice as critical mirrors who reflect back to us images and interpretations of our practice that are unfamiliar and unsettling.

There is a more proactive third sense in which the term critique is used. This third sense of critique involves adult educators looking to possibilities of remaking their own, and others', practice to be more democratic, anti-racist, anti-sexist, and socially just. In Freire's words, we practice a "pedagogy of hope" in that we assume that things can be changed for the better. Even in apparently closed systems there are often small spaces in which dominant ideas and unfair practices can be contested. Sometimes all we can do is focus on how the damage inflicted by a program, policy or practice can be kept to a minimum. At other times we have the chance to develop new structures that seem more democratic or to create spaces in which open, critical conversation can take place.

Defining Critical Reading

A critical literature review begins with a critical reading of texts. For me, very briefly, a critical reading of texts happens when readers:-
(1) Make explicit the assumptions authors hold about what constitutes legitimate knowledge and how such knowledge comes to be known.

(2) Take alternative perspectives on the knowledge being offered so that this knowledge comes to be seen as culturally constructed.

(3) Undertake positive and negative appraisal of the grounds for, and expression of, this knowledge.

(4) Analyse commonly held adult educational ideas for the extent to which they oppose democratic values.

Misunderstandings of Critical Reading

1. That it's Negative
Critical reading is a process of positive as well as negative appraisal. If we are reading critically we will almost certainly find that our appraisals are multi-layered, even contradictory. But central to all critical reading is the acknowledgment of what we find to be well grounded, accurate and meritorious in a piece of scholarly writing.

2. That it Always Leads to Relativism
When we have given a piece of literature a careful critical appraisal we have a sense of its strengths and weaknesses. The intellectual convictions we derive from this appraisal are informed by this same even handed sense of what is strongest and weakest about our convictions, and about why, on balance, we hold these even as we recognize their shortcomings. The point at which the best critical readers operate is a point of informed commitment. Informed commitment means being able to give a rationale and to cite evidence for our ideas, while at the same time always being open to re-examining and re-thinking these in the light of further experience.

3. That it's Only for the Philosophically Astute
Critical reading is not restricted to those who pursue majors in logic. I prefer to think of it as a survival skill within the competence of all adults, irrespective of their formally defined educational level. The critical thinking process informs how many of us negotiate and survive what we see as transforming episodes in our adult lives.

4. That it's the Preserve of Politically Correct Left-Wingers
The point about critical reading, properly encouraged, is that critical questions are asked of all ideologies, disciplines and theories. So, a critical social science turns a skeptical eye on all claims to universal validity. For a teacher to mandate in advance - either explicitly or implicitly - that only one ideological interpretation or outcome is permitted in a discussion or assignment is to contradict a fundamental tenet of critical thinking. That tenet holds that all involved - including teachers - must always be open to re-examining the assumptions informing their ideological commitments.
5. **That it's wholly cognitive**
In critical reading we pay attention to our emotions as well as intellect. In particular, we investigate our emotional responses to the material we encounter. We can try to understand why it is that we become enthused or appalled, perplexed or engaged, by a piece of literature. As we read work that challenges some of our most deeply held assumptions, we are likely to experience strong feelings of anger and resentment against the writer or her ideas, feelings that are grounded in the sense of threat that this work holds for us. It is important that we know this in advance of our reading and try to understand that our emotional reactions are the inevitable accompaniment of any kind of intellectual inquiry that is really challenging.

**EPISTEMOLOGICAL QUESTIONS**

1. Are the ideas presented by writers already predetermined by the intellectual paradigm in which they work?

2. To what extent are the central insights of a piece of literature - whether these are framed as research findings, theoretical propositions or philosophical injunctions - grounded in documented empirical evidence?

3. To What Extent Does the Writing Seem Culturally Skewed?

4. To What Extent are Descriptive and Prescriptive Fused in an Irresponsible and Inaccurate Way?

**EXPERIENTIAL QUESTIONS**

1. How Do the Metaphors for Teaching Used in a Piece of Educational Literature Compare to the Metaphors You Use to Describe Your Own Experience of Practice?

2. What Experiential Omissions Are There In A Piece of Literature That, To You, Seem Important?

3. To What Extent Does A Piece of Literature Acknowledge and Address Ethical Issues in Teaching?

4. What Connections and Discrepancies Do You Note Between a Piece of Academic Literature and Your Own Experiences as an Adult Learner and Adult Educator?

**COMMUNICATIVE QUESTIONS**

1. Whose Voices Are Heard In A Piece Of Academic Writing?
2. To What Extent Does The Literature Use A Form Of Specialized Language That Is Unjustifiably Distanced From The Colloquial Language Of Adult Learners And Adult Educators?

3. To What Extent Does Literature Show A Connectedness To Practice?

POLITICAL QUESTIONS

1. Whose Interests Are Served By The Publication of a Text?

2. To What Extent Are Models of Practice Reified?

3. To What Extent Do Texts Present Practice As An Individual Act?

1. What Contribution Does the Writing Make To The Understanding And Realization Of Democratic Processes?
CRITICAL CONVERSATION PROTOCOL

PURPOSE OF THE EXERCISE
A critical conversation is a focused conversation in which someone is helped:-

1. To come to an awareness of the assumptions she is operating under – particularly those having to do with power relationships and hegemonic practices & ideas
2. To investigate whether these assumptions are well grounded
3. To look at her practice from different viewpoints
4. To think about the implications of the conversation for the future

ROLES PARTICIPANTS PLAY

In a process of structured critical conversation I suggest that people think of playing one of three possible roles - storyteller, detective or umpire.

The storyteller is the person who is willing to make herself the focus of critical conversation by first describing some part of her practice or life experience.

The detectives are those in the group who help her come to a more fully informed understanding of the assumptions and actions that frame her practice or experience.

The umpire is the group member who has agreed to monitor conversation with a view to pointing out when people are talking to each other in a judgmental way.

All participants in the group play all three of these roles at different times. The idea is that the behaviors associated with each role gradually become habitual.

HOW THE EXERCISE WORKS

1. The Storyteller Tells the Tale (10 MINUTES)

The conversation opens with the person who is the storyteller describing as concretely and specifically as possible an incident from her practice or life that for some reason is lodged in her memory. This incident may be one that is recalled because it was particularly fulfilling or because it was particularly frustrating. Most probably it is an incident that leaves the teller somewhat puzzled by its layers and complexities. The storyteller describes the incident in her own words and without any questions or
interruptions. Her colleagues, who are in the role of detectives, attend to her remarks
very carefully. They are listeners with a purpose.

The detectives are trying to identify the explicit and implicit assumptions about practice
that they hear in the storyteller's tale. Some of these will be general assumptions about
what good practice looks like, some will be about how a good professional should
behave, and some will be about how to behave in the specific situation described. The
detectives are listening particularly for assumptions that pertain to how the storyteller
conceives of power dynamics, or assumptions that are hegemonic (i.e. that seem
admirable & useful to the storyteller but that actually work against her best interests &
support an inequitable situation).

The detectives are also asked to imagine themselves inside the heads of the other
characters in the story and to try to see the events through their eyes. If possible, the
detectives make mental or written notes about plausible alternative interpretations of the
story that fit the facts as they hear them, but that would come as a surprise to the
storyteller.

2. The Detectives Ask Questions About the Event (10 MINUTES)

After the storyteller has finished speaking, the detectives are allowed to break their
silence to ask her any questions they have about the events she has just described. The
detectives are searching for any information that will help them uncover the assumptions
they think the storyteller holds. They are also looking for details not provided in the first
telling of the story that will help them re-live the events described through the eyes of the
other participants involved, thereby helping them to understand these events from the
different participants' perspectives.

One ground rule they must observe is that of requesting information, not giving
judgment. Their questions are asked only for the purpose of clarifying the details of what
happened. They must refrain from giving their opinions or suggestions, no matter how
helpful they feel these might be. Detectives should ask only 1 question at a time. They
should not give advice on how the storyteller should have acted. Keep laughter to a
minimum, you don’t know how it’s received.

As the storyteller hears the detectives' questions she tries to answer them as fully and
honestly as possible. She also has the opportunity to ask the detectives why they asked
the particular questions they put to her. The umpire points out to the detectives any
examples of judgmental questions that they ask, particularly those in which they imply
that they have seen a better way to respond to the situation than the way that's been
described. Examples of such questions would be those beginning "Did you really believe
that ...?", "Didn't you think to ...?", or "Do you mean to tell us that ...?"
The umpire brings the detectives' attention to the ways in which their tone of voice and body language, as well as their words, risk driving the storyteller into a defensive bunker.

3. The Detectives' Report the Assumptions they Hear in the Storyteller's Descriptions (10 MINUTES)

When the incident has been fully described, and all the detectives' questions have been answered, the conversation moves to the assumption hunting phase. Here the detectives tell the storyteller, on the basis of her story and her response to their questions, what assumptions they think she holds.

This is done as non-judgmentally as possible, as a reporting back exercise. The detectives seek only to state clearly what they think the storyteller's assumptions are, not to judge whether they are right or wrong. They are asked to state these assumptions tentatively, descriptively and non-judgmentally, using phrases like "it seems as if ...", "I wonder if one assumption you might be holding is that ....?", or "Is it possible that you assumed that ...?" They state only one assumption at a time, do not give advice, and watch out for laughter.

The umpire intervenes to point out to detectives when she thinks they are reporting assumptions with a judgmental overlay.

4. The Detectives Give Alternative Interpretations of the Events Described (10 MINUTES)

The detectives now give alternative versions of the events that have been described, based on their attempts to re-live the story through the eyes of the other participants involved. These alternative interpretations must be plausible in that they are consistent with the facts as they have been described by the storyteller. When appropriate, detectives should point out how power or hegemony plays itself out in the different interpretations they are giving.

The umpire points out those moments when a psychoanalytic second guessing is taking place. This happens when the detectives start to preface their interpretations with remarks like "you know, what you were really doing", or "what was really going on".

The detectives are to give these interpretations as descriptions, not judgments. They are describing how others involved in the events might have viewed them, not saying whether or not these perceptions are accurate. They should not give any advice here.

As the storyteller hears these alternative interpretations she is asked to let the detectives have the floor so that they can state their case as fully as possible. After they have
described how the situation might look through the eyes of other participants, the storyteller is then allowed to give any additional information that would cast doubt on these interpretations. She is also allowed to ask the detectives to elaborate on any confusing aspects of why they are making the interpretations they are. At no time is she expected to agree with the detectives.

5. **Participants Do An Experiential Audit (10 MINUTES)**

Finally, the storyteller and detectives state what they have learned, what insights they have realized, and what their reflection means for their future actions. Now the detectives can give whatever advice they wish.

The umpire gives an overall summary of the ability of participants to be respectful listeners and talkers, and also gives her perspective on the story.

At each iteration of this exercise the roles change. As each new story is told each person assumes a different role so that all play each of the roles at least once.

Although this is a heavily structured an artificial exercise, the intent is for these dispositions to become so internalized that the ground rules and structure outlined above become unnecessary.
CONVERSATION STAGES

STORYTELLER TELLS STORY

COLLEAGUES' ASK QUESTIONS

COLLEAGUES REPORT ASSUMPTIONS

COLLEAGUES GIVE ALTERNATIVE INTERPRETATIONS

ACTION/INSIGHTS LEARNING
Circular Response Discussions

The circular response exercise is a way to democratize discussion participation, to promote continuity and to give people some experience of the effort required in respectful listening. In this process participants sit in a circle so that everyone can see each other, and each person in turn takes up to a minute to talk about an issue or question that the group has agreed to discuss.

Speakers are not free, however, to say anything they want. They must incorporate into their remarks some reference to the preceding speaker's message and then use this as a springboard for their own comments. This doesn’t have to be an agreement – it can be an expression of dissent from the previous opinion. The important thing is that the previous person’s comments are the prompt for whatever is being said in circular response. What speakers articulate depends on listening well to the preceding speaker as much as on generating new or unspoken ideas. Participants are also asked if at all possible to point out anything the previous speaker said that was particularly interesting, resonating or important. The optimal size for this exercise is 6-8 participants. Here's the instructions:

Choose a theme that the group wishes to discuss, form into a circle and ask for a volunteer to start the discussion. This person speaks up to a minute or so about the theme chosen. After the minute is up, the first discussant yields the floor and the person sitting to the discussant's left speaks for a minute or so. The second discussant must show in her contribution how what she is saying springs from, or is in response to, the comments of the first discussant. After a minute or so, the second discussant stops speaking, and the person to her left becomes the third discussant, and thus the discussion moves all the way around the circle. To sum up:

1. no one may be interrupted while speaking;
2. no one may speak out of turn in the circle;
3. each person is allowed only a minute or so to speak;
4. each person, in all comments, must strive to show how his or her remarks spring from, or respond to, the comments of the previous discussant.
5. each person should try to show appreciation for something the previous speaker raised

After each discussant has had a turn to speak, the floor is opened for general conversation, and the previous ground rules are no longer in force.
The Circle of Voices

Participants form into a circle of about 5. They are allowed up to three minutes silent time to organize their thoughts. During this time they think about what they want to say on the topic once the circle of voices begins. After this silent period the discussion opens with each person having a period of uninterrupted air time. During the time each person is speaking no one else is allowed to interrupt.

People can take their turns to speak by going round the circle in order or volunteering at random. Although the latter arrangement sounds the most relaxed and informal the opposite is often the case. The order of the circle removes from participants the stress of having to decide whether or not they will try and jump in after another student has finished speaking. Not having to decide this is one less thing to worry about. An important benefit of using the circle of voices at the start of a discussion is that it prevents the development early on of a pecking order of contributors. Introverted, shy members, those whose experience has taught them to mistrust academe, or those who view discussion as another thinly veiled opportunity for teachers to oppress or offend, will often stay silent at the beginning of a course. The longer this silence endures, the harder it is for these individuals to speak out. By way of contrast, in the circle of voices everyone's voice is heard at least once at the start of the session.

After the circle of voices has been completed, and everyone has had the chance to say their piece, then the discussion opens out into a more free flowing format. As this happens a second ground rule comes into effect. Participants are only allowed to talk about another person's ideas that have already been shared in the circle of voices. A person cannot jump into the conversation by expanding on his own ideas, he can only talk about his reactions to what someone else has said. The only exception to this ground rule is if someone else asks him directly to expand on his ideas. This simple ground rule prevents the tendency toward 'grandstanding' that sometimes afflicts a few articulate, confident individuals.

To recap the ground rules:-

1. Begin by going round the circle with each person contributing & no interruptions allowed

2. After this, move into open discussion, but remember your contributions can only be about, or refer back to, something one of the other group members said in the opening circle.
Generating Discussion Ground Rules

1. Think of the best group discussions you've ever been involved in. What things happened that made these conversations so satisfying? Make a few notes on this by yourself.

2. Think of the worst group discussions you've ever been involved in. What things happened that made these conversations so unsatisfactory? Make a few notes on this by yourself.

3. Now form a group with 3 other people. Take turns in talking about what made discussion groups work so well for you. Listen for common themes, shared experiences and features of conversation that a majority of you would like to see in the course.

4. Take turns in talking about what made discussion group work so awful for you. Listen for common themes, shared experiences and features of group conversation that a majority of you would like to see avoided in this course.

5. For each of the characteristics of good discussion you agree on, try and suggest three things a group could do to ensure that these characteristics were present. Be as specific and concrete as you can. For example, if you feel good conversation is developmental, with later themes building on and referring back to earlier ones, then you could propose a rule that every new comment made by a participant is prefaced with an explanation as to how it relates to an earlier comment.

6. For each of the characteristics of bad discussion you agree on, try and suggest three things a group could do to ensure that these characteristics were avoided. Be as specific and concrete as you can. For example, if you feel that bad conversation happens when one person's voice dominates then you could propose a rule whereby once someone has spoken they are not allowed to make a second comment until at least three other people have spoken (unless another group member explicitly invites the participant to say something else).

7. Try and finish this exercise by drafting a charter for discussion that comprises the specific ground rules you agree on. We will make each group's rules public and see if we can develop a charter for discussion to guide us in the coming weeks.

----------------------------------
Creating Discussion Ground Rules through Video Vignettes
Instructions to Students

You're going to see two 5 minute excerpts of different discussions. Please watch for the kinds of comments, contributions and actions that you think are good, and bad, discussion behaviors. Note these down by yourself. Don't discuss your reactions with others at this stage. You might find it helpful to watch the video with the following questions in mind.

(i) In your view which participants made the best, most helpful or most useful contributions to the discussion? Why were these contributions so worthwhile?

(ii) In your view which participants made the worst, least helpful or least useful contributions to the discussion? Why were these contributions so irrelevant or unproductive?

(iii) What changes would you introduce to improve either of these discussions?

Now, compare your responses with the reactions of others in your group. Look particularly for areas of agreement. Based on these, could you suggest any guidelines that would ensure that helpful discussion behaviors are encouraged? When we reconvene we will see if your notes can help us decide on the discussion guidelines we want to follow in this course.

--------------------------------

Making Ground Rules Specific

Our role as teachers in these exercises is not to suggest images of how we think good discussants behave. That's the business of group members. However, when it comes to translating these images into specific rules of conduct we have found that students do need some help. If the class agrees that good discussions involve lots of people talking then we'll work with them to suggest ways to make this more likely to happen. We'll suggest some specific possibilities such as putting a time limit on individual contributions or regularly calling for a circle of voices where each person in turn is given the floor. "I want people to listen carefully to what I'm saying" can be accomplished by suggesting a weekly circular response discussion period in which students take turns to listen carefully, paraphrase and then respond to each others' contributions).
CONVERSATIONAL MOVES

Paste the conversational moves listed below on 3x5 cards and randomly distribute them among participants before a pre-arranged discussion session. Ask students to practice their move during the discussion that follows. When the discussion is over distribute the entire list of moves so people can see the wide variety of ways that questioning, listening and responding can be practiced. Point out to students that virtually all the moves listed are designed to strengthen connections among group members and to reinforce the notion that discussion is truly a collaborative process. Ask participants to recap how they tried to make the moves they were allocated.

Ask a question or make a comment that shows you are interested in what another person says

Ask a question or make a comment that encourages another person to elaborate on something they have already said

Make a comment that underscores the link between two people's contributions - make this link explicit in your comment

Use body language (in only a slightly exaggerated way) to show interest in what different speakers are saying

Make a comment indicating that you found another person's ideas interesting or useful. Be specific as to why this was the case

Contribute something that builds on, or springs from, what someone else has said. Be explicit about the way you are building on the other person's thoughts

Make a comment that at least partly paraphrases a point someone has already made

Make an summary observation that takes into account several people's contributions & that touches on a recurring theme in the discussion

Ask a cause and effect question - for example, "can you explain why you think it's true that if these things are in place such and such a thing will occur?"

When you think it's appropriate, ask the group for a moment's silence to slow the pace of conversation and give you, and others, time to think

Find a way to express appreciation for the enlightenment you have gained from the discussion. Try to be specific about what it was that helped you understand something

Disagree with someone in a respectful and constructive way
CONVERSATIONAL ROLES
Practice in playing different conversational roles helps create opportunities for the more tentative students to speak, thereby building their confidence. Any roles assigned must be alternated so that everyone takes their turn.

Problem, Dilemma, or Theme Poser
This participant has the task of introducing the topic of conversation. She draws on her own ideas and experiences as a way of helping others into conversation about the theme.

Reflective Analyst
This member keeps a record of the conversation's development. Every 20 minutes or so, she gives a summary of shared concerns, issues skirted, and emerging themes.

Scrounger
The scrounger listens for helpful resources, suggestions, and tips that participants have voiced as they discuss how to work through a problem or situation. She keeps a record of these ideas that is read out before the session ends.

Devil's Advocate
This person listens carefully for any emerging consensus. When she hears this she formulates and expresses a contrary view. This keeps group-think in check and helps participants explore a range of alternative interpretations.

Detective
The detective listens carefully for unacknowledged, unchecked and unchallenged biases that seem to be emerging in the conversation. As she hears these she brings them to the group's attention. She assumes particular responsibility for alerting group members to concerns of race, class and gender. She listens for cultural blindness, gender insensitivity, and comments that ignore variables of power and class.

Theme Spotter
This participant identifies themes that arise during the discussion that are left unexplored and that might form a focus for the next session.

Umpire
This person listens for judgmental comments that sound offensive, insulting and demeaning, and that contradict ground rules for discussion generated by group members.

Textual Focuser
Whenever assertions are made that seem unconnected to the text being discussed, this person asks the speaker to let the group know where in the text the point being made occurs.
SNOWBALLING

One way to illustrate how discussions can be developmental and increasingly inclusive is to use a process called "snowballing" or "pyramiding".

Students begin this activity by responding to questions or issues as individuals. They then create progressively larger dialogic groups by doubling the size of these every few minutes until by the end of the activity everyone is reconvened in the large group. At each stage as students move from pairs to quartets, quartets to octets they recap the chief point of difference, or the chief question that emerged, in their previous round of conversation.

Here's the instructions students follow:

*We are going to try something a little different today. It's called "snowballing" and it gives you a chance to think and talk about issues in a variety of different configurations. Please begin with some private, solitary reflection in which you gather your thoughts about the questions at the bottom of this sheet. Jot down some notes if you wish.*

*After about 1 minute of solitary thought join with one other person to continue the dialogue. After about five minutes you and your partner should join another pair to form a group of four. As the two pairs merge, each pair should recap the chief difference that emerged, or a question they raised, in their conversation.*

*The quartets will continue the discussion for another 10 minutes and then they will merge with other quartets to create octets - groups of 8. As the two quartets merge, each quartet should recap the chief difference that emerged, or a question they raised, in their conversation.*

*The discussion proceeds for 20 minutes this time and continues in 20 minute intervals until the whole class is brought together at the end of the session.*

This exercise gets a lot of people talking to one another, while retaining much of the value of small groups. It also contributes a festive quality to the class. People mill about excitedly and greet each other warmly as they meet in new configurations. On the other hand, snowballing can sometimes have a frenetic, disjointed feel.
NEWSPRINT DIALOGUES

Small groups summarize their conversations on large sheets of newsprint or chalkboards. Individual members of the class are then free to wander about the room reading all the responses & adding comments.

Here's the instructions:

In this activity, you will be working in small groups most of the time. I have prepared some questions for you to consider in these groups, but don't follow them too slavishly. Use them as a jumping off point for ideas you find especially worth exploring. You will have 30 minutes in your groups to discuss these questions and to write your answers to these on the newsprint provided.

You should appoint someone to be recorder but don't start writing immediately. Take some time to let your responses emerge from the discussion. Covering all the questions is not important, but you should begin to jot some ideas down on the newsprint provided within 15 or 20 minutes of starting.

When the 30 minutes is up, post your newsprint sheets around the classroom and tour the answers recorded by other groups. Look especially for common themes that stand out on the sheets and for possible contradictions that arise within or between groups' responses. If possible, write your responses to others' comments on the same sheet of newsprint containing the point you're addressing. Finally, note any questions that were raised for you during the discussion on the separate sheets of newsprint specially provided for this. We will bring the activity to a close with a short debriefing in the large group.

Attractions of this activity are that it takes people out of groups for a while and lets them act as relatively autonomous free agents. It also reminds people that dialogue can work as a written as well as spoken exchange. On the other hand, it is frequently difficult in the limited space and time allotted for students to explain fully the meaning of the words and phrases on the newsprint. Still, is an interesting alternative way to keep the conversation going.
ROTATING STATIONS

Another way to avoid the usual format of reporting back through a series of summaries is to locate each small group at a station where they are given 5 or 10 minutes to discuss a provocative issue and record their ideas on newsprint or a chalkboard. When this time is up the groups move to new positions in the classroom where they continue their discussion. But now the comments written on the newsprint or chalkboard by the preceding group at the station add a new voice to the mix. Rotations continue every 10 minutes until each group has been at all of the positions and has had a chance to consider all of the other groups' comments. Here's the instructions:

We're going to do another small group activity, but this time you won't be staying in one place for long. Each of you should join a group of about five participants at one of the stations that have been established around the classroom. Together you will have the responsibility of answering some questions by making comments on the newsprint directly in front of your group. You will have 10 minutes to do this. When the 10 minutes is up move with your group to a new station where you will continue your conversation by responding to the comments left behind by the group that has just vacated that station. Record the main points of your discussion at this station and then, after another 10 minutes, rotate to the next station, where you now have the comments of two other groups to consider.

Again take 10 minutes to respond, and then move when the 10 minutes are up. When every group has occupied each station, leaving remarks behind at all of them, break out of your groups and read all of the newsprint comments. Add questions, comments, or criticisms to these news sheets wherever you are inspired to do so. Remember that each station will include comments from all groups, making orderliness a challenge. Write as small and as legibly as you can, please!

Rotating stations encourages students to examine critically ideas that originate outside their group. The safety and intimacy of small groups is retained, yet the diversity of viewpoints experienced in whole class discussion is incorporated. Momentum and excitement tend to grow as groups rotate from one station to another. People feel they have heard from, and responded to, many voices in the classroom in a way that is less threatening than in large group exchanges. On the debit side, the 10 minute period for each rotation is not particularly conducive to deep discussion.
CLASSROOM RESEARCH TECHNIQUES

C. I. Q.

MUDDIEST POINT

ONE MINUTE PAPER

AFTER CLASS GROUP / CLASS ADVISORY PANEL

VIDEO

PEER OBSERVATION

TEAM TEACHING

LEARNING AUDIT
"THE MUDDIEST POINT"

WHAT WAS ..... 

THE MOST CONFUSING IDEA 

THE MOST POORLY EXPLAINED IDEA 

THE MOST POORLY DEMONSTRATED PROCESS 

THE LEAST CLEAR IDEA OR TECHNIQUE
LEARNING AUDIT

WHAT CAN YOU DO NOW THAT YOU COULDN'T DO THIS TIME LAST WEEK?

WHAT DO YOU KNOW NOW THAT YOU DIDN'T KNOW THIS TIME LAST WEEK?

WHAT COULD YOU TEACH SOMEONE TO KNOW OR DO THAT YOU COULDN'T TEACH THEM THIS TIME LAST WEEK?
ONE MINUTE PAPER

WHAT WAS ....

THE MOST IMPORTANT IDEA / INSIGHT

THE QUESTION THAT MOST NEEDS ADDRESSING
WHY C.I.Q.'s?

PROBLEMS Warned

Grounds Actions

Student reflectivity

Builds trust

Diverse methods

Critical thinking
The Classroom Critical Incident Questionnaire

Please take about five minutes to respond to each of the questions below about this week's class(es). Don't put your name on the form - your responses are anonymous. When you have finished writing, put one copy of the form on the table by the door and keep the other copy for yourself. At the start of next week's class I will be sharing the group's responses with all of you. Thanks for taking the time to do this. What you write will help me make the class more responsive to your concerns.

At what moment in class this week did you feel most engaged with what was happening?

At what moment in class this week did you feel most distanced from what was happening?

What action that anyone (teacher or student) took in class this week did you find most affirming or helpful?

What action that anyone (teacher or student) took in class this week did you find most puzzling or confusing?

What about the class this week surprised you the most? (This could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you).
ASSESSING CRITICAL THINKING & REFLECTION

SCENARIO ANALYSES
CLINICAL SIMULATIONS
CRITICAL DEBATE
(Pre/Post-Test)

CRITICAL PRACTICE AUDIT

CRITICAL PORTFOLIOS
Assumptions Perspectives
Sources Checked

STANDARDIZED TESTS
Watson-Glaser Ennis-Weir
Cornell New Jersey

OBSERVATION

INTERVIEWS JOURNALS
CRITICAL PRACTICE AUDIT

Please complete this audit on a weekly basis. It's purpose is to help you understand more about your own practice - in particular, to help you understand the assumptions that undergird how you analyze situations, make decisions and take actions.

Please think back over the past 7 days. As you review your clinical practice, think about the critical incidents that have happened during that time. A critical incident is an event that can be called to mind easily and quickly because it is remembered so vividly. Usually critical events are considered as significant by us because they are unexpected, they take us by surprise. Sometimes they are wonderful highs, sometimes demoralizing lows. Often they're a mix of both.

Please choose the top two or three critical incidents in your clinical practice over the last 7 days. For each incident, please do the following:

1. Write a brief description of the incident. This should include details of what happened, who was involved, where and when it took place, and what it was that made the incident 'critical' for you.

2. List the assumptions you have as a clinical practitioner that were confirmed by this incident. What was it about what happened that led you to think the assumptions you uncovered were accurate and valid?

3. List the assumptions you have as a clinical practitioner that were challenged by this incident. What was it about what happened that led you to think the assumptions you uncovered might be inaccurate or invalid?

4. How did you try to check the accuracy of your assumptions that were challenged? If you weren't able to check these at the time, how could you check them in the future? What sources of evidence could you consult?

5. What different perspectives could be taken on the incident? As you think about it through the eyes of the other people involved, are there different ways the situation could be seen, or your behavior interpreted?

6. In retrospect, are there different responses you might have made to the incident? If so, what would these responses be, and why would you make them?
BIBLIOGRAPHY: CRITICAL THINKING


DISCUSSION / CONVERSATION / DIALOGIC TEACHING


CLASSROOM RESEARCH TECHNIQUES


**LEARNING STYLES**


Critical Thinking Toolkit. A list of nine practical, everyday strategies for students to help them develop into critical thinkers, including: identify a problem a day, keep an intellectual journal, deal with your ego, and recognize group influences on your life. An excellent resource. Why We Need Critical Thinkers Now. Today, when we are almost drowning in information, we face serious global crises, and we need discerning citizens, it is even more urgent that we train students in these habits of critical thinking. Download Citation on ResearchGate | Developing Critical Thinkers | SUPPLEMENTARY MATERIALS Included in this packet are materials touching on themes I will address during my session. I will not go through these sequentially, nor will I address all of them. They are there simply for reference purposes. For critical thinkers, ideas are accepted not because they are acceptable to others, but because they are found to be congruent with the reality in which they exist (Brookfield 1987). 4. Purposes of Critical Thinking 5. Lenses on Assumptions 6. Traditions. 7. Challenges. 8. Misunderstandings. 9. When Is it Appropriate? 10. How Is It Learned? 11. What is Critical Thinking? Developing critical thinkers tentative agenda for the two days. Because I want this to be a flexible workshop, responsive to the dynamics and diversity within the group, I am not proposing a detailed timetable. Instead, I will lay out the themes that, provisionally, I am planning to address at each segment of the two days.